

**National Mission for Clean Ganga (NMCG)
Ministry of Water Resources, River
Development & Ganga Rejuvenation,
Govt. of India**

**The development of sewage treatment
plant and associated infrastructure
under Hybrid Annuity based PPP mode
at Varanasi in the State of Uttar Pradesh**

(LoA File Number: Rd-63014/1/2017/PPP/NMCG)

**Monthly Report
of
Project Engineer**

May - 2018



Executing Agency

**Uttar Pradesh Jal
Nigam,
Varanasi - 221 005**



Funding Agency

**National Mission for
Clean Ganga
MoWR, River
Development & Ganga
Rejuvenation,
New Delhi - 110002**

Mahindra
Consulting Engineers

Project Engineer

**Mahindra Consulting
Engineers Limited
Mahindra Towers, No.
17/18, Pattullous Road,
Chennai - 600 002,
Tamil Nadu, India**



Concessionaire

**Varanasi STP Project
Private Limited
6th Floor, Plot No. 19,
Film City, Sector 16 A,
Gautam Buddha Nagar,
Noida,
Uttar Pradesh - 201 301**

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MONTHLY PROGRESS REPORT

1.0. INTRODUCTION

The Gol, recognizing that long-term rejuvenation of the river Ganga will have significant social and economic benefits on the lives of the 500 million people living along its basin, has identified cleaning of the river Ganga as one of its priorities. For this purpose, in May 2015, the Gol approved the flagship Namami Gange programme for cleaning, rejuvenation, and protection of the river Ganga. In January 2016, the Gol approved a hybrid annuity model to implement STP projects under the Namami Gange programme on a PPP basis.

Subsequently, the MoWR issued the River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016 (Ganga 2016 Order) to constitute various authorities to assist the Gol in achieving its aim of effective abatement of pollution in the river Ganga. The Ganga 2016 Order applies to all states in the catchment of the river Ganga basin, including Uttar Pradesh. The Ganga 2016 Order revised the legal status of NMCG (which was initially constituted as a registered society under the Societies Registration Act, 1860) to an authority constituted under the Environment (Protection) Act, 1986 and designated NMCG as the nodal agency for the implementation of the Ganga 2016 Order.

Rapidly increasing population, rising standards of living and exponential growth of industrialisation and urbanisation have exposed water resources, in general, and rivers, in particular, to various forms of degradation. The mighty Ganga is no exception. The deterioration in the water quality impacts the people immediately. Ganga, in some stretches, particularly during lean seasons has become unfit even for bathing. The threat of global climate change, the effect of glacial melt on Ganga flow and the impacts of infrastructural projects in the upper reaches of the river, raise issues that need a comprehensive response.

In the Ganga basin approximately 12,000 million litres per day (MLD) sewage is generated, for which presently there is a treatment capacity of only around 4,000 MLD. Approximately 3000 MLD of sewage is discharged into the mainstream of the river Ganga from the Class I & II towns located along the banks, against which treatment capacity of about 1000 MLD has been created till date.

The Uttar Pradesh Jal Nigam (Jal Nigam) is a statutory body constituted under the Uttar Pradesh Water Supply and Sewerage Act, 1975, and has the power to develop, maintain and regulate water supply and sewerage works in Uttar Pradesh. With a view to implement the Namami Gange programme and the Ganga 2016 Order, the Jal Nigam, in association with the NMCG, has decided to undertake the development of an STP with a proposed capacity of 50 MLD along with other Facilities and Associated Infrastructure at Varanasi on a PPP basis, through a hybrid annuity model. While the Jal Nigam will be the principal executing agency and bidding authority for the Project, NMCG will be responsible for making payments to the Concessionaire.

The objectives that NMCG and the UP Jal Nigam wish to achieve through the Project is mentioned in **Figure 1**.

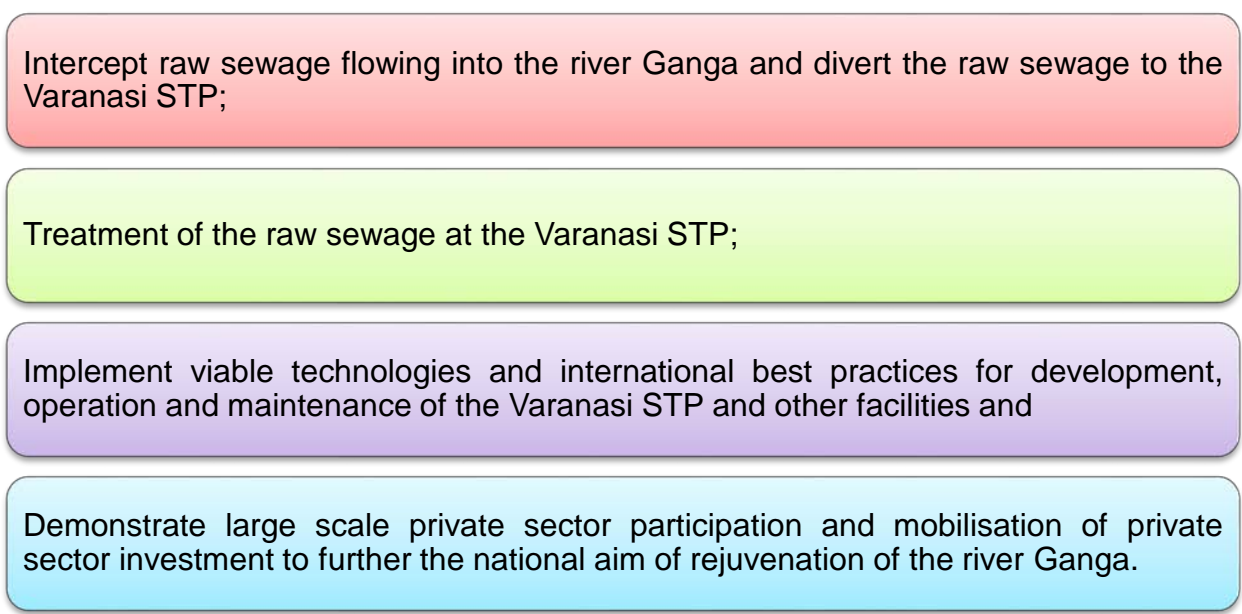


Figure 1: Objectives of NMCG and UP JAL NIGAM

Government of India, has approved the Namami Gange program as an integrated approach for effective abatement of pollution in river Ganga. As part of this and to ensure that no untreated domestic sewage flow into the river Ganga, various interventions are planned such as Interception & Diversion works and development & operation of Sewage Treatment Plants (STPs). Considering various development models in practice for the construction, operation and maintenance of Sewage Treatment Plants, Government of India has approved the Hybrid

Annuity based Public Private Partnership (PPP) mode as one of the options for the development & operation of STPs. Under this model, private investor/developer will design, build, finance, operate and transfer the asset (STP) to the Project Executing Agency/Jal Nigam/Jal Sansthan / Urban Local body at the end of the Concession Period (say 15 years). 40% of the Capital cost will be paid to the developer during construction of the STP. Balance 60% along with Operation & Maintenance (O&M) cost will be paid over the Concession Period on achievement of key performance indicators as per the contract. Entire cost of development and operation of the STPs will be 100% funded by the Government of India as central sector scheme. It is also envisaged to explore the possibility of recycle/ reuse of the treated waste water for non-potable purpose.

NMCG & UPJN appointed M/s. Mahindra Consulting Engineers Limited, Chennai as Project Engineer for this project through tendering process. Letter of Award is issued dated 5th January 2018 and agreement signed between the parties on 16th February 2018.

1.1. Project components

1.1.1. New construction units

- Inlet structure
- Grit chambers & Parshall flume
- SBR tanks
- Chlorine contact tank
- Overhead treated water tank
- Air blower room
- Belt filter press building
- Chlorination building
- Electrical building and control room
- Admin building, laboratory room
- Transformer yard, internal roads & drainage
- Treated water pump house
- Treated effluent disposal line
- Bund wall
- Staff quarters
- Approach road

1.1.2. Rehabilitation works

- Rehabilitation of Main Pumping Station (MPS)
- Construction of Weir
- Strengthening & Pipe protection of Rising main
- Construction of Control room
- Rerouting the raising main near Samne Ghat

1.2. Executing agency

- Uttar Pradesh Jal Nigam (UPJN)

1.3. Implementation agency

- Uttar Pradesh Jal Nigam (UPJN)

1.4. Consulting services

- **Project Engineer**
 - Mahindra Consulting Engineers Ltd, Chennai

1.5. Concessionaire

- Varanasi STP Project Private Limited

2.0. STATUS OF PROJECT

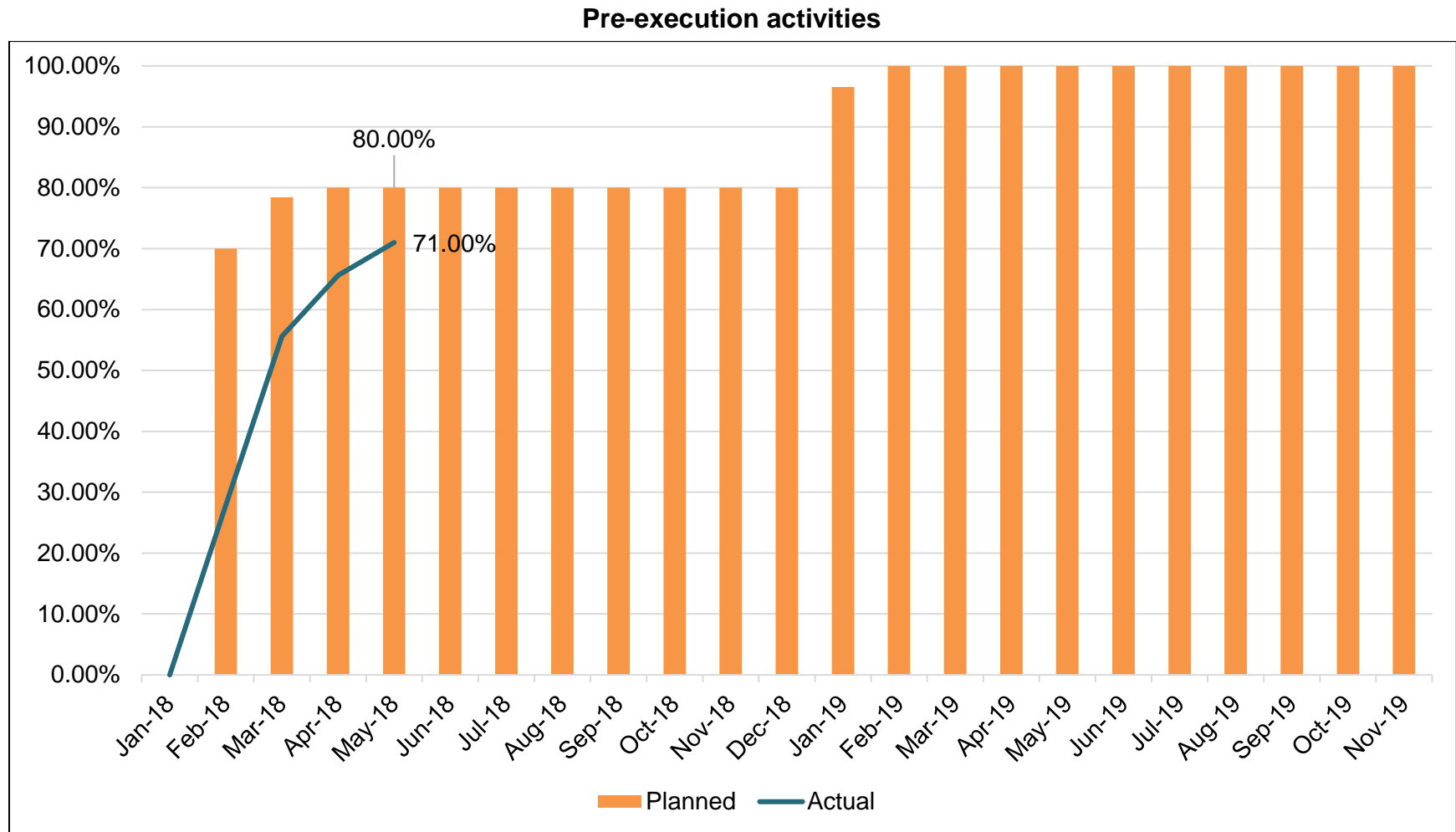
STATUS	:	CONSTRUCTION STAGE
Concessionaire Contract Agreement No.	:	SUBIN-DL80840374672746341531P
Name of the Concessionaire	:	Varanasi STP Project Pvt. Ltd.
Commencement date	:	19 th February 2018
Completion date (as per contract):	:	18 th November 2019

2.1. Physical status

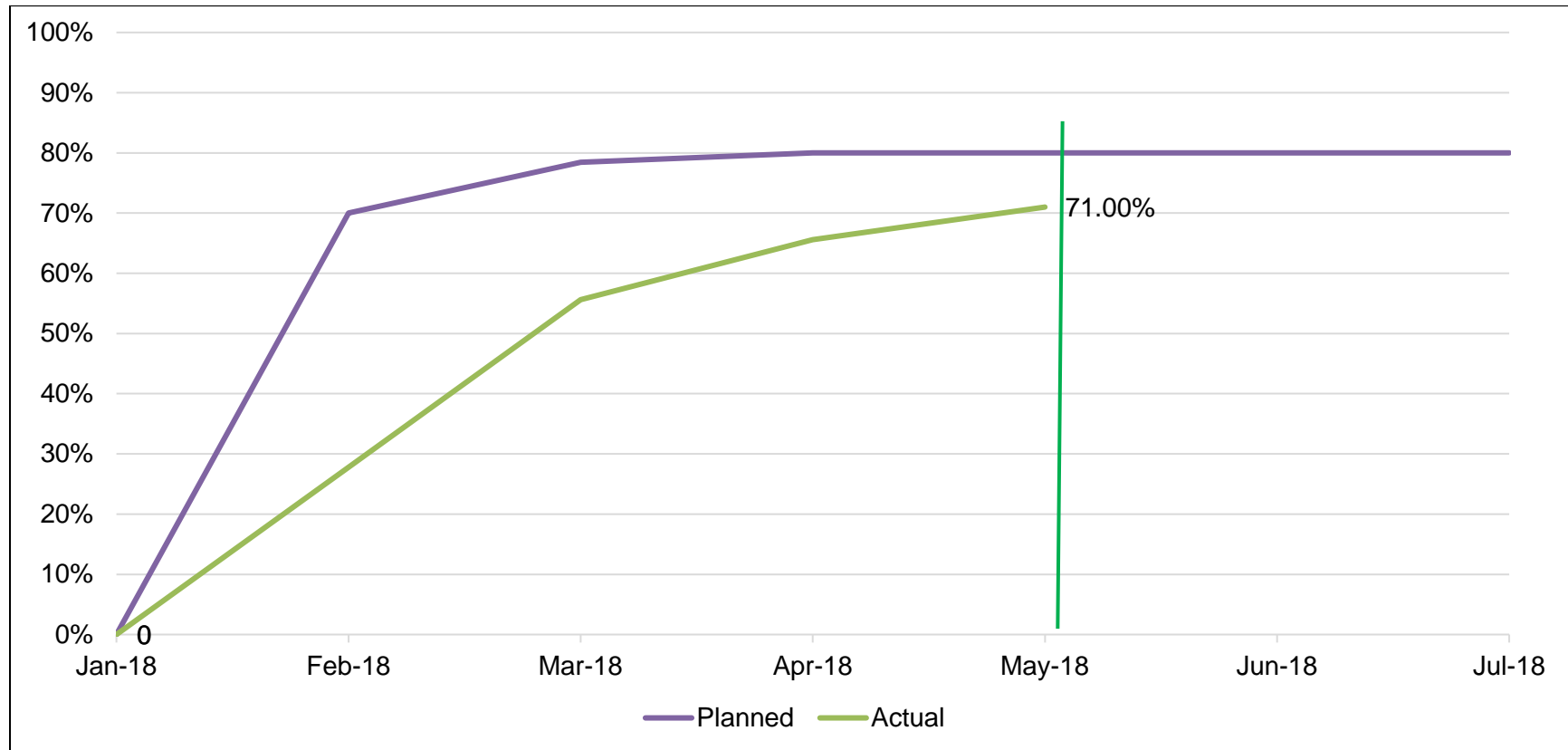
2.1.1. Pre-execution activities

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Pre - Execution Activities	11-Nov-17	11-Mar-18	80.00%	65.60%	5.40%	71.00%
Setting up of temporary site office	11-Nov-17	19-Feb-18	100%	50%	25%	75%
Removal of debris & Shrubs	11-Nov-17	19-Feb-18	100%	80%	10%	90%
Borewell construction	11-Nov-17	19-Feb-18	100%	100%		100%
Other temporary execution	20-Feb-18	11-Mar-18	100%	100%		100%
Topographical / Soil Investigation	11-Nov-17	20-Dec-17	100%	50%	10%	60%
Condition Precedent required to be satisfied by Concessionaire	12-Oct-17	19-Feb-18	100%	100%		100%
Condition Precedent required to be satisfied by Jal Nigam	12-Oct-17	19-Feb-18	100%	100%		100%
Condition Precedent required to be satisfied by NMCG	12-Oct-17	19-Feb-18	100%	100%		100%
Appointment of Design Consultant	12-Oct-17	9-Jan-18	100%	100%		100%
Submission & Approval of Sub Contracts from UPJN	1-Feb-18	30-Jun-18	79%	25%	45%	70%

2.1.2. Pre-execution activities - Physical progress graph



Pre-execution activities upto first milestone



2.1.3. Design detailed engineering

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
PHASE-I D&E (BEP)	11-Oct-17	8-Jan-18	100.00%	100.00%		100.00%
Basic engineering package	11-Oct-17	8-Jan-18	100%	100%		100%
Approval (BEP)	9-Jan-18	7-Feb-18	100%	100%		100%
Phase-II D&E (Civil, Mechanical, Electrical, Inst. Drawings)	9-Jan-18	15-May-18	100.00%	52.00%	12.60%	64.60%
Layouts	9-Jan-18	12-May-18	100%	50%		50%
Plant layout	9-Jan-18	8-Mar-18	100%	25%	55%	80%
Site layout	8-Mar-18	12-May-18	100%	25%	25%	50%
Bund wall	10-Jan-18	12-Jan-18	100%	100%		100%
Inlet chamber	20-Feb-18	5-Apr-18	100%		80%	80%
Automatic / manual screens	20-Feb-18	5-Apr-18	100%		80%	80%
Grit removal chamber	20-Feb-18	5-Apr-18	100%		80%	80%
Parshall flume (I, II) and SBR distribution chamber)	20-Feb-18	5-Apr-18	100%		80%	80%
SBR basins & SBR outlet chamber	20-Feb-18	5-Apr-18	100%	100%		100%
Chlorine contact tank & treated water collection tank	20-Feb-18	5-Apr-18	100%	100%		100%
Overhead portable tank incl. tube well	20-Feb-18	15-May-18	100%			

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Foundation drawings of pumps, belt filter press & air blowers	20-Feb-18	15-May-18	100%			
Miscellaneous drawings	20-Feb-18	15-May-18	100%		10%	10%
Structural drawings submissions & approvals	20-Feb-18	15-May-18	100.00%	25.00%	15.00%	40.00%
Bund wall	20-Feb-18	5-Apr-18	100%	100%		100%
Inlet chamber	2-Mar-18	30-Apr-18	100%			
Grit removal chamber	2-Mar-18	30-Apr-18	100%			
Parshall flume (I, II) and SBR distribution chamber	2-Mar-18	30-Apr-18	100%			
SBR basins & SBR outlet chamber	2-Mar-18	5-Apr-18	100%	60%	40%	100%
Chlorine contact tank & treated water collection tank	2-Mar-18	30-Apr-18	100%		50%	50%
Overhead portable tank incl. tube well	2-Mar-18	15-May-18	100%			
Foundation drawings of pumps, belt filter press & air blowers	2-Mar-18	15-May-18	100%			
Miscellaneous drawings	12-Mar-18	15-May-18	100%			
Mechanical & piping drawings submissions & approvals	11-Apr-18	25-May-18	100.00%		45.80%	45.80%
Inlet chamber	11-Apr-18	25-May-18	100%		80%	80%

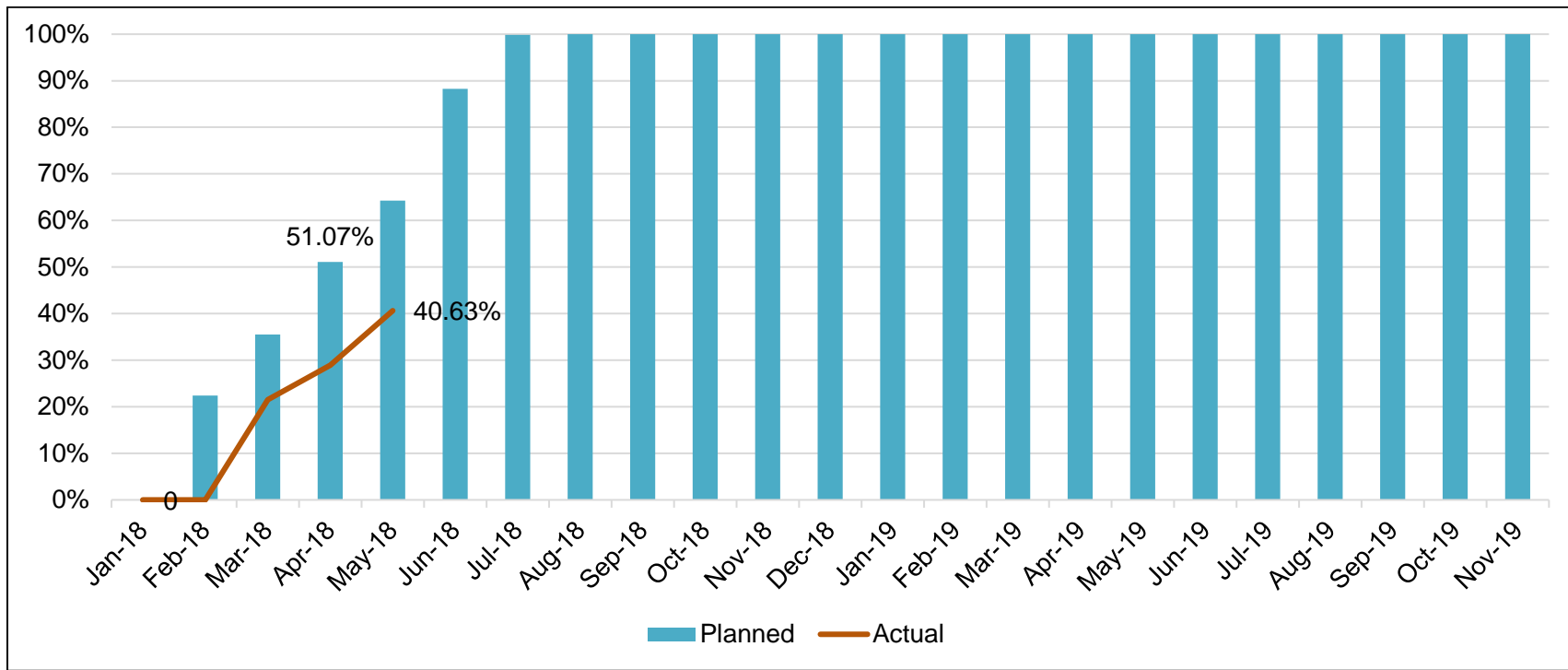
Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Automatic / manual screens	11-Apr-18	25-May-18	100%		80%	80%
Grit removal chamber	11-Apr-18	25-May-18	100%		80%	80%
Parshall flume (I, II) and SBR distribution chamber	11-Apr-18	25-May-18	100%		80%	80%
SBR basins & SBR outlet Chamber	11-Apr-18	25-May-18	100%		80%	80%
Chlorine contact tank & treated water collection tank	11-Apr-18	25-May-18	100%		10%	10%
Overhead portable tank incl. tube well	11-Apr-18	25-May-18	100%			
Foundation drawings of pumps, belt filter press& air blowers	11-Apr-18	25-May-18	100%			
Overall piping drawings	11-Apr-18	25-May-18	100%			
Electrical drawings submissions & approvals	11-Apr-18	14-Jul-18	25.0%		7.5%	7.5%
Electrical load list	11-Apr-18	25-May-18	100%		50%	50%
SLD	11-Apr-18	25-May-18	100%			
Cable layout plan	31-May-18	14-Jul-18				
Cable layout drawing	31-May-18	14-Jul-18				
Cable sizing calculations	31-May-18	14-Jul-18				
Earthing size calculations	31-May-18	14-Jul-18				
Cable schedule	31-May-18	14-Jul-18				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Earthing layout	31-May-18	14-Jul-18				
Plant lighting layout plan	31-May-18	14-Jul-18				
Miscellaneous documents & drawings	26-May-18	9-Jul-18	10.1%		3.5%	3.5%
Design calculation - electrical components	26-May-18	4-Jul-18	10%		10%	10%
Electrical control philosophy	26-May-18	4-Jul-18	10%			
Miscellaneous drawings	26-May-18	9-Jul-18	9%			
Instrumentation document submissions & approvals	1-Jun-18	20-Jul-18				
Instrument index / alarm list	1-Jun-18	15-Jul-18				
Instrument hook - up diagram	1-Jun-18	15-Jul-18				
PLC - I/O list	1-Jun-18	15-Jul-18				
Loop wiring diagram	1-Jun-18	15-Jul-18				
Instrument cable layout plan	1-Jun-18	15-Jul-18				
Instrument cable schedule/ JB wiring detail	1-Jun-18	15-Jul-18				
Cause & effect diagram	1-Jun-18	15-Jul-18				
Miscellaneous drawings	6-Jun-18	20-Jul-18				
Instrumentation control & philosophy	6-Jun-18	16-Jul-18				

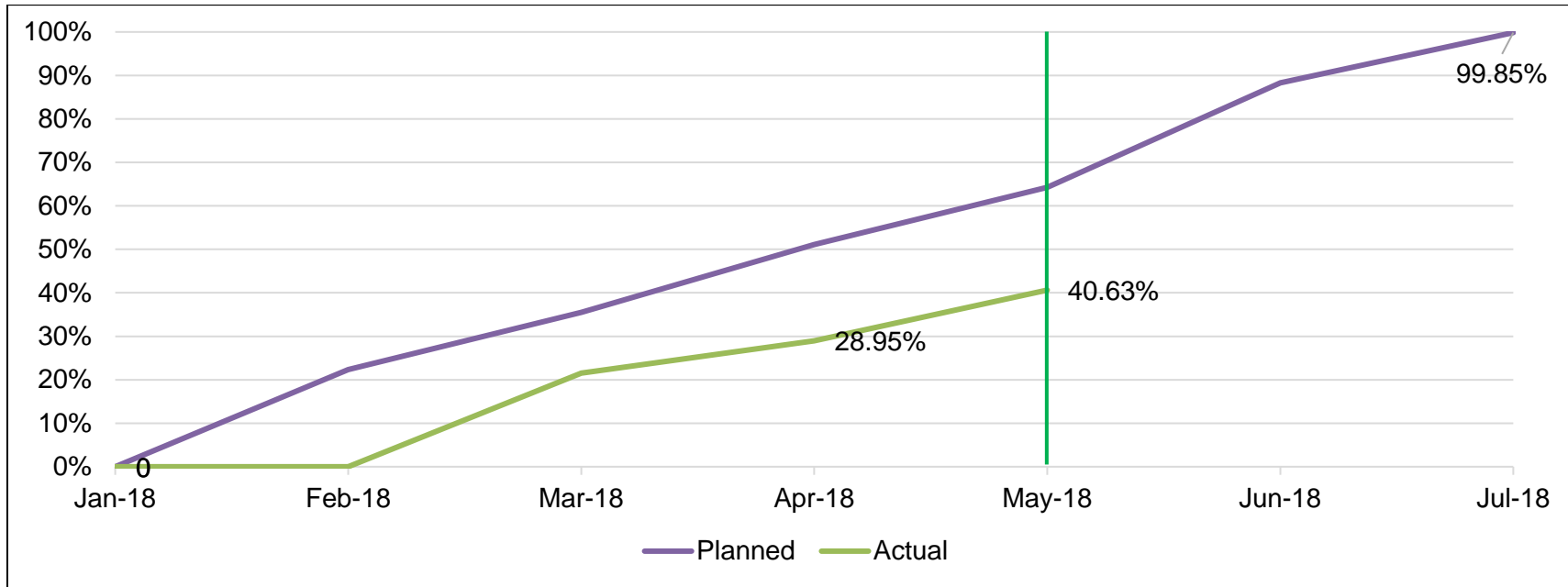
Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Design SCADA	6-Jun-18	16-Jul-18				
Miscellaneous drawings	10-Jul-18	20-Jul-18				

2.1.4. Design detailed engineering - Physical progress graph

Design detailed engineering – Physical progress



Design detailed engineering for first milestone



2.1.5. Equipment procurement, logistics and receipt of equipment at site

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Equipment procurement, logistics and receipt of equipment at site			1.0%		0.1%	0.1%

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Fine screen / coarse screen / belt conveyors	6-Apr-18	6-Dec-18	13.6%			
Procurement (including submission & approval of drgs / documents)	6-Apr-18	22-Oct-18	27%			
Inspection / logistics	23-Oct-18	21-Nov-18				
Receipt of equipment at site	22-Nov-18	6-Dec-18				
Grit removal mechanism	26-May-18	25-Jan-19	1.0%			
Procurement (including submission & approval of drgs / documents)	26-May-18	11-Dec-18	2%			
Inspection / logistics	12-Dec-18	10-Jan-19				
Receipt of equipment at site	11-Jan-19	25-Jan-19				
SBR system	26-May-18	25-Jan-19	1.0%			
Procurement (including submission & approval of drgs / documents)	26-May-18	11-Dec-18	2%			
Inspection / logistics	12-Dec-18	10-Jan-19				
Receipt of equipment at site	11-Jan-19	25-Jan-19				
SAS / RAS pumps / booster pumps / treated water pumps/ drain pumps	26-May-18	25-Jan-19	1.0%			
Procurement (including submission & approval of drgs / documents)	26-May-18	11-Dec-18	2%			
Inspection / logistics	12-Dec-18	10-Jan-19				

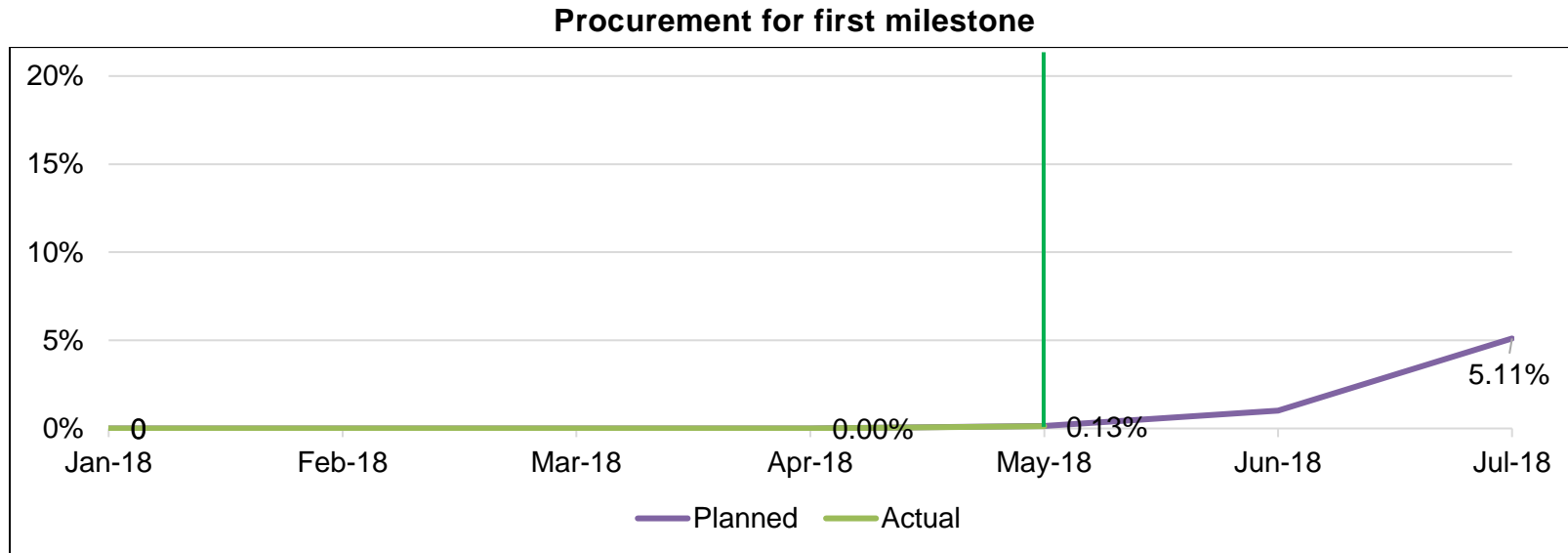
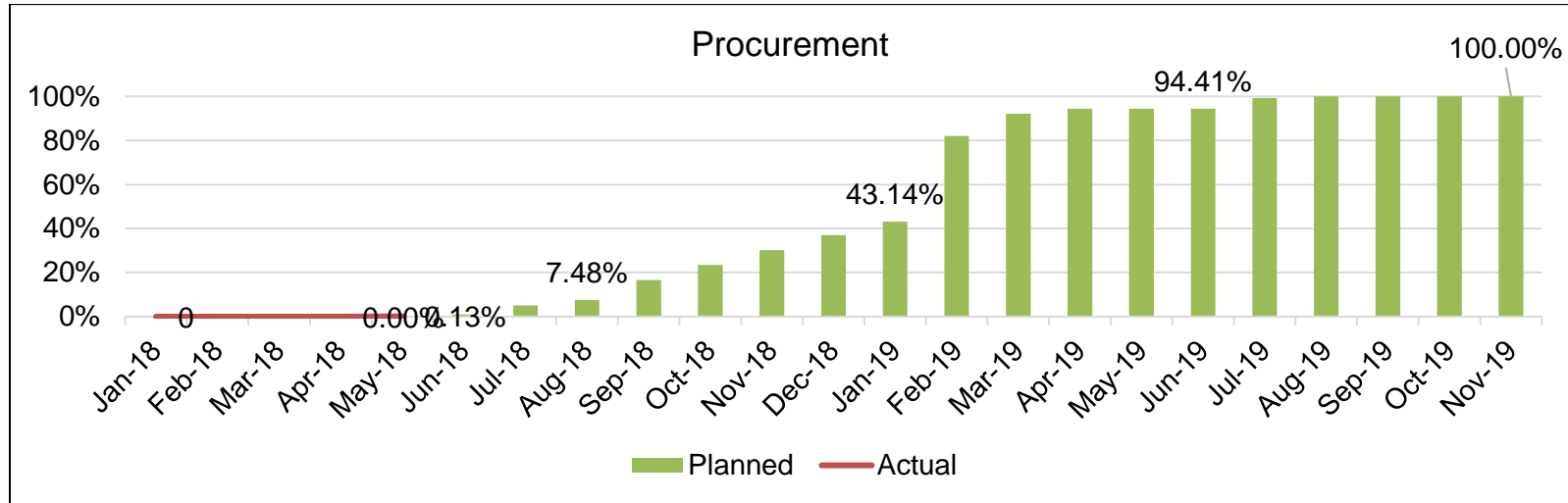
Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Receipt of equipment at site	11-Jan-19	25-Jan-19				
Air Blowers	16-May-18	15-Jan-19	3.5%		2.5%	2.5%
Procurement (including submission & approval of drgs / documents)	16-May-18	1-Dec-18	7%		5%	5%
Inspection / logistics	2-Dec-18	31-Dec-18				
Receipt of equipment at site	1-Jan-19	15-Jan-19				
Chlorination System	6-Apr-18	6-Dec-18				
Procurement (including submission & approval of drgs / documents)	6-Apr-18	22-Oct-18				
Inspection / logistics	23-Oct-18	21-Nov-18				
Receipt of equipment at site	22-Nov-18	6-Dec-18				
Tube well	16-May-18	15-Jan-19	3.5%			
Procurement (including submission & approval of drgs / documents)	16-May-18	1-Dec-18	7%			
Inspection / logistics	2-Dec-18	31-Dec-18				
Receipt of equipment at site	1-Jan-19	15-Jan-19				
Piping & fittings, valves, flanges, other associated connections	26-May-18	10-Jan-19	1.1%			
Procurement (including submission & approval of drgs / documents)	26-May-18	26-Nov-18	2%			
Inspection / logistics	27-Nov-18	26-Dec-18				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Receipt of equipment at site	27-Dec-18	10-Jan-19				
Miscellaneous	11-Jan-19	24-Feb-19				
Procurement (including submission & approval of drgs / documents)	11-Jan-19	9-Feb-19				
Inspection / logistics	10-Feb-19	19-Feb-19				
Receipt of equipment at site	20-Feb-19	24-Feb-19				
VCB panel / APFC panel / transformer / DG set / PMCC / synchronizing panel	21-Jul-18	7-Mar-19				
Procurement (including submission & approval of drgs / documents)	22-Jan-19	21-Jan-19				
Inspection / logistics	21-Feb-19	20-Feb-19				
Receipt of equipment at site	21-Jul-18	7-Mar-19				
Power, control, lighting cables / plant lighting / cable trays / other electrical accessories	21-Jul-18	7-Mar-19				
Procurement (including submission & approval of drgs / documents)	21-Jul-18	21-Jan-19				
Inspection / logistics	22-Jan-19	20-Feb-19				
Receipt of equipment at site	21-Feb-19	7-Mar-19				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Analysers – TDS / Total Nitrogen / TSS / COD-BOD / pH / Total phosphorus	21-Jul-19	7-Mar-19				
Procurement (including submission & approval of drgs / documents)	21-Jul-18	21-Jan-19				
Inspection / logistics	22-Jan-19	20-Feb-19				
Receipt of equipment at site	21-Feb-19	7-Mar-19				
Flow meters - Magnetic flow meters / differential LT / weir type flowmeter	21-Jul-18	7-Mar-19				
Procurement (including submission & approval of drgs / documents)	21-Jul-18	21-Feb-19				
Inspection / logistics	22-Jan-19	20-Feb-19				
Receipt of equipment at site	21-Feb-19	7-Mar-19				
Motorized - Gate valves & butterfly valves & pressure release valves	21-Jul-18	7-Mar-19				
Procurement (including submission & approval of drgs / documents)	21-Jul-18	21-Jan-19				
Inspection / logistics	22-Jan-19	20-Feb-19				
Receipt of equipment at site	21-Feb-19	7-Mar-19				
Transmitter-Temp./Level/ Temperature	21-Jul-18	7-Mar-19				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Procurement (including submission & approval of drgs / documents)	21-Jul-18	21-Jan-19				
Inspection / logistics	22-Jan-19	20-Feb-19				
Receipt of equipment at site	21-Feb-19	7-Mar-19				
Level switches	21-Jul-18	7-Mar-19				
Procurement (including submission & approval of drgs / documents)	21-Jul-18	21-Jan-19				
Inspection / logistics	22-Jan-19	20-Feb-19				
Receipt of equipment at site	21-Feb-19	7-Mar-19				
Pressure & Temperature Gauges	21-Jul-18	7-Mar-19				
Procurement (including submission & approval of drgs / documents)	21-Jul-18	21-Jan-19				
Inspection / logistics	22-Jan-19	20-Feb-19				
Receipt of equipment at site	21-Feb-19	7-Mar-19				
Other accessories - cables, cable trays, SCADA, PLC system/GPRS system	21-Jul-18	10-Jan-19				
Procurement (including submission & approval of drgs / documents)	21-Jul-18	27-Dec-18				
Inspection / logistics	28-Dec-18	6-Jan-19				
Receipt of equipment at site	7-Jan-19	10-Jan-19				

2.1.6. Equipment procurement, logistics and receipt of equipment at site - Physical progress graph



2.1.7. New construction units

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Civil executions			8.9%	1.8%	2.3%	4.1%
Band wall / earthen embankment	6-Apr-18	10-Oct-18	28.1%	5.0%	11.0%	16.0%
Excavation filling & compaction	6-Apr-18	11-Jul-18	56%	10%	22%	32%
Stone pitching	11-Jun-18	10-Sep-18				
Side drain works	12-Aug-18	10-Oct-18				
Fencing works	12-Aug-18	10-Oct-18				
Inlet chamber manual & mechanical screen chamber	16-Apr-18	26-Jul-18	44.2%			
Excavation, dressing, filling G & PCC	16-Apr-18	25-Apr-18	100%			
Foundation and raft	26-Apr-18	5-May-18	100%			
Wall & superstructure	6-May-18	4-Jul-18	41%			
Hydrotesting	5-Jul-18	11-Jul-18				
Misc. works	12-Jul-18	21-Jul-18				
Finishing & landscaping	22-Jul-18	26-Jul-18				
Grit chamber & outlet channel of grit chamber	21-Apr-18	8-Aug-18	41.3%			
Excavation, dressing, filling G & PCC	21-Apr-18	30-Apr-18	100%			

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Foundation and raft	1-May-18	10-May-18	100%			
Wall & superstructure	11-May-18	9-Jul-18	32%			
Hydrotesting	10-Jul-18	14-Jul-18				
Misc. works	15-Jul-18	24-Jul-18				
Finishing & landscaping	25-Jul-18	8-Aug-18				
Parshall flume (I) & distribution chamber of SBR basin	21-Apr-18	16-Jul-18	46.9%			
Excavation, dressing, filling G & PCC	21-Apr-18	30-Apr-18	100%			
Foundation and raft	1-May-18	15-May-18	100%			
Wall & superstructure	16-May-18	14-Jun-18	48%			
Hydrotesting	15-Jun-18	21-Jun-18				
Misc. works	22-Jun-18	1-Jul-18				
Finishing & landscaping	2-Jul-18	16-Jul-18				
SBR basins & SBR outlet chamber	6-Apr-18	10-Jan-18	10.3%	3.0%	2.4%	5.4%
Excavation, dressing, filling G & PCC	6-Apr-18	24-Jun-18	68%	20%	14%	34%
Foundation and raft	15-Jul-18	28-Aug-18			2.3%	2.3%
Wall & superstructure	29-Aug-18	16-Nov-18				
Hydrotesting	17-Nov-18	1-Dec-18				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Misc. works	2-Dec-18	11-Dec-18				
Finishing & landscaping	12-Dec-18	10-Jan-19				
Chlorination building	1-May-18	3-Aug-18	28.6%			
Excavation, dressing, filling G & PCC	1-May-18	15-May-18	100%			
Foundation and raft	16-May-18	9-Jun-18	58%			
Wall & superstructure	26-May-18	24-Jun-18	14%			
Misc. works	25-Jun-18	4-Jul-18				
Finishing & landscaping	5-Jul-18	3-Aug-18				
Chlorine contact tank & treated water collection tank, treated water pumps	1-May-18	28-Aug-18	23.8%		0.5%	0.5%
Excavation, dressing, filling G & PCC	1-May-18	15-May-18	100%		3%	3%
Foundation and raft	16-May-18	9-Jun-18	58%			
Wall & superstructure	10-Jun-18	9-Jul-18				
Hydrotesting	10-Jul-18	19-Jul-18				
Misc. works	20-Jul-18	29-Jul-18				
Finishing & landscaping	30-Jul-18	28-Aug-18				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Final outfall chamber	9-Dec-18	5-Mar-19				
Excavation, dressing, filling G & PCC	9-Dec-18	18-Dec-18				
Foundation and raft	19-Dec-18	2-Jan-19				
Wall & superstructure	3-Jan-19	1-Feb-19				
Hydrotesting	2-Feb-19	8-Feb-19				
Misc. works	9-Feb-19	18-Feb-19				
Finishing & landscaping	19-Feb-19	5-Mar-19				
Overhead treated water tank	5-Jul-18	12-Dec-18				
Wall & superstructure	5-Jul-18	8-Aug-18				
Hydrotesting	9-Aug-18	28-Aug-18				
Misc. works	29-Aug-18	17-Sep-18				
Finishing & landscaping	18-Sep-18	12-Oct-18				
Belt filter press/ sludge sump / filtrate sump	5-Jun-18	27-Sep-18				
Excavation, dressing, filling G & PCC	5-Jun-18	4-Jul-18				
Foundation and raft	5-Jul-18	3-Aug-18				
Wall & superstructure	4-Aug-18	2-Sep-18				
Misc. works	3-Sep-18	12-Sep-18				
Finishing & landscaping	13-Sep-18	27-Sep-18				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Pump house 2	5-Jul-18	12-Oct-18				
Excavation, dressing, filling G & PCC	5-Jul-18	29-Jul-18				
Foundation and raft	30-Jul-18	18-Aug-18				
Wall & superstructure	19-Aug-18	17-Sep-18				
Misc. works	18-Sep-18	27-Sep-18				
Finishing & landscaping	28-Sep-18	12-Oct-18				
PE dosing tank	5-Sep-18	4-Oct-18				
Excavation, dressing, filling G & PCC	5-Sep-18	7-Sep-18				
Foundation and raft	8-Sep-18	10-Sep-18				
Wall & superstructure	11-Sep-18	17-Aug-18				
Hydrotesting	18-Aug-18	24-Sep-18				
Misc. works	25-Sep-18	29-Sep-18				
Finishing & landscaping	30-Sep-18	4-Oct-18				
Administrative building & overhead tank	16-May-18	7-Oct-18	20.7%			
Excavation, dressing, filling G & PCC	16-May-18	25-May-18	100%			
Foundation and raft	26-May-18	9-Jun-18	29%			
Wall & superstructure	10-Jun-18	8-Aug-18				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Misc. works	9-Aug-18	7-Sep-18				
Finishing & landscaping	8-Sep-18	7-Oct-18				
Staff Quarters	16-Apr-19	21-Aug-19				
Excavation, dressing, filling G & PCC	16-Apr-19	15-May-19				
Foundation and raft	19-May-19	2-Jun-19				
Wall & superstructure	24-Apr-19	22-Jun-19				
Misc. works	23-Jun-19	22-Jul-19				
Finishing & landscaping	23-Jul-19	21-Aug-19				
Roads, drainage & firefighting system	1-Apr-19	14-Jun-19				
Roads work	1-Apr-19	30-May-19				
Drainage works	16-Apr-19	14-Jun-19				
Firefighting system	16-Apr-19	14-Jun-19				
Finishing	16-Apr-19	14-Jun-19				
Landscaping / parking area	15-Jun-19	14-Jul-19				
Levelling & PCC	15-Jun-19	24-Jun-19				
Misc. works	25-Jun-19	4-Jul-19				
Finishing & landscaping	5-Jul-19	14-Jul-19				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
SBR air blower room	5-Jun-18	22-Sep-18				
Excavation, dressing, filling G & PCC	5-Jun-18	14-Jun-18				
Foundation and raft	10-Jun-18	19-Jun-18				
Wall & superstructure	15-Jun-18	23-Aug-18				
Misc. works	24-Aug-18	12-Sep-18				
Finishing	13-Sep-18	22-Sep-18				
HT room	5-Jun-18	8-Aug-18				
Excavation, dressing, filling G & PCC	5-Jun-18	6-Jun-18				
Foundation and raft	7-Jun-18	11-Jun-18				
Wall & superstructure	10-Jun-18	9-Jul-18				
Misc. works	10-Jul-18	19-Jul-18				
Finishing	20-Jul-18	8-Aug-18				
MCC room	5-Jun-18	2-Oct-18				
Excavation, dressing, filling G & PCC	5-Jun-18	14-Jun-18				
Foundation and raft	20-Jun-18	14-Jul-18				
Wall & superstructure	30-Jun-18	28-Aug-18				
Misc. works	29-Aug-18	17-Sep-18				
Finishing	18-Sep-18	2-Oct-18				

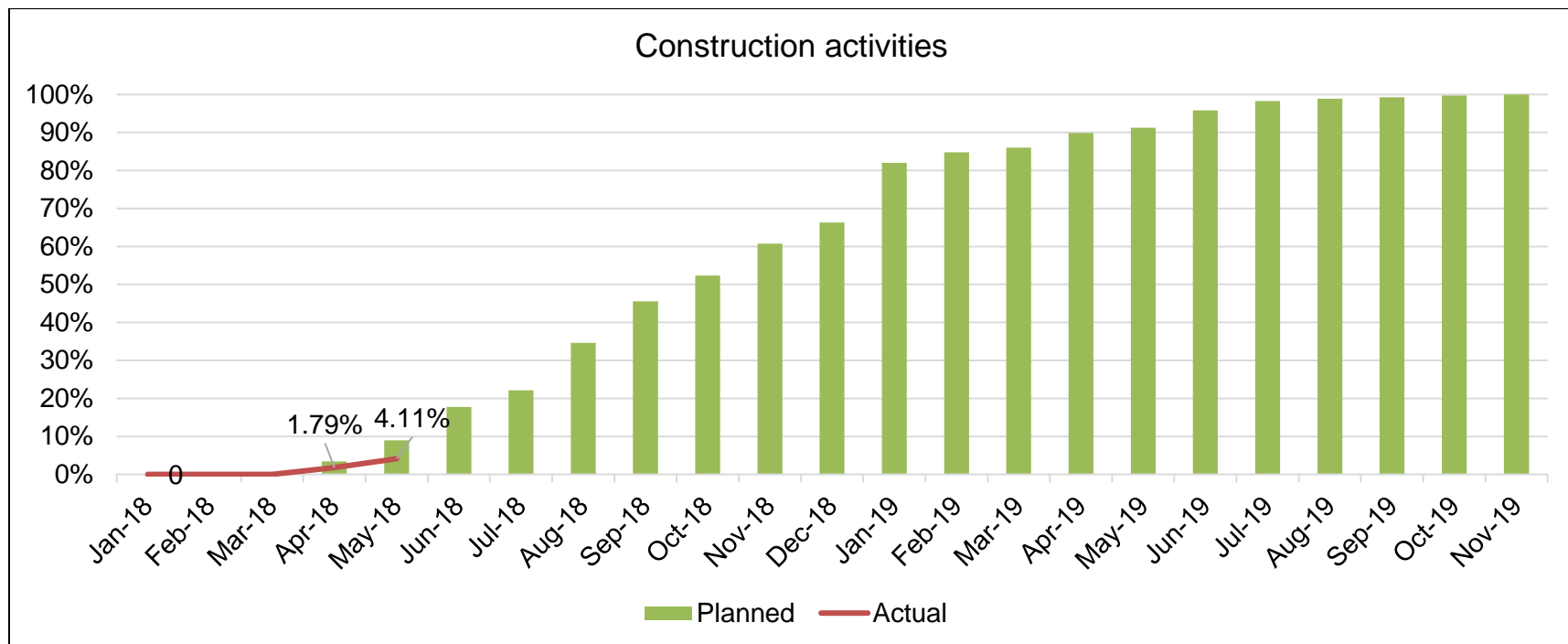
Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Transformer yard	5-Jun-18	13-Jul-18				
Excavation, dressing, filling G & PCC	5-Jun-18	8-Jun-18				
Foundation and raft	9-Jun-18	18-Jun-18				
Wall & superstructure	14-Jun-18	28-Jun-18				
Misc. works	29-Jun-18	3-Jul-18				
Finishing	4-Jul-18	13-Jul-18				
DG set area	5-Jun-18	29-Jun-18				
Excavation, dressing, filling G & PCC	5-Jun-18	9-Jun-18				
Foundation and raft	10-Jun-18	19-Jun-18				
Misc. works	20-Jun-18	24-Jun-18				
Finishing	25-Jun-18	29-Jun-18				
Security room	5-Jan-19	15-Feb-19				
Excavation, dressing, filling G & PCC	5-Jan-19	6-Jan-19				
Foundation and raft	7-Jan-19	16-Jan-19				
Wall & superstructure	7-Jan-19	5-Feb-19				
Misc. works	6-Feb-19	10-Feb-19				
Finishing & landscaping	11-Feb-19	15-Feb-19				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
DP structure	5-Jan-19	15-Feb-19				
Excavation, dressing, filling G & PCC	5-Jan-19	11-Jan-19				
Foundation and raft	12-Jan-19	26-Jan-19				
Wall & superstructure	27-Jan-19	5-Feb-19				
Misc. works	6-Feb-19	10-Feb-19				
Finishing	11-Feb-19	15-Feb-19				
Mechanical installation	7-Jun-18	9-Feb-19				
RAS/SAS pumps for STP	26-Jan-19	9-Feb-19				
Booster pumps for STP	11-Jan-19	20-Jan-19				
BFB feed pump for STP	11-Jan-19	22-Jan-19				
Belt wash pumps for STP	11-Jan-19	16-Jan-19				
Filtrate pump for STP	11-Jan-19	16-Jan-19				
Treated water pump for STP	11-Jan-19	16-Jan-19				
Drained pump for STP	11-Jan-19	14-Jan-19				
PE dosing pump for STP	11-Jan-19	16-Jan-18				
Agitator for PE dosing tank	11-Jan-19	18-Jan-18				
Piping & valve for rising main 5.5 km to discharge the effluent	7-Jun-18	2-Aug-18				
Other mechanical installation	23-Oct-18	9-Feb-19				
Portable water tube well	11-Jan-19	20-Jan-19				

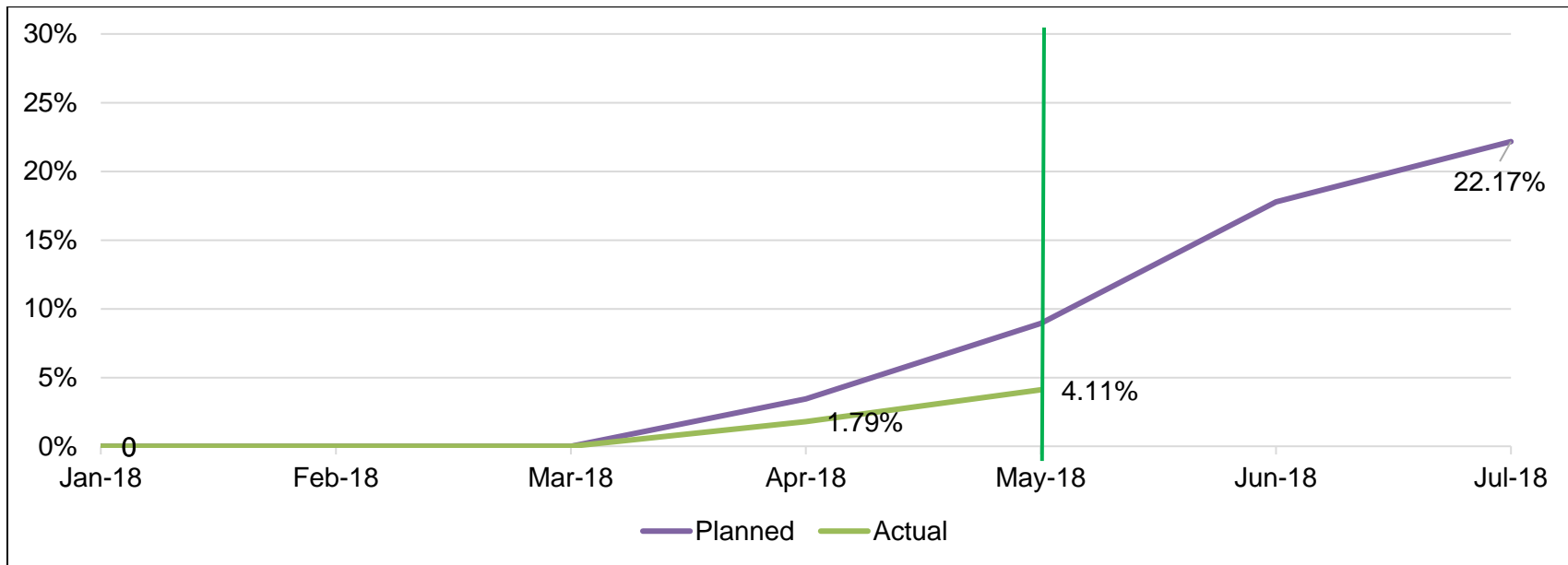
Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Gates (inlet / outlet & grit chamber) manual	12-Dec-18	4-Jan-19				
Gates inlet (motorized at inlet of each SBR unit)	12-Dec-18	23-Dec-18				
Fine screen mechanical	11-Jan-19	26-Jan-19				
Fine screen manual	17-Nov-18	27-Dec-18				
Grit removal mechanism (rake arm classified & organic pump)	25-Dec-18	8-Jan-19				
Conveyor belt for fine screen	27-Jan-19	29-Jan-19				
Wheel barrow	31-Jan-19	3-Feb-19				
SBR decanter	17-Nov-18	16-Dec-18				
Fine diffusor for SBR	17-Dec-18	9-Feb-19				
Turbo blower for SBR	30-Dec-18	1-Feb-19				
Vacuum chlorinator	27-Dec-18	10-Jan-19				
Chlorine tonner	11-Jan-19	18-Jan-19				
Belt fitter press	4-Jan-19	13-Jan-19				
Air compressor	11-Jan-19	14-Jan-19				
Air scour blower	11-Jan-19	14-Jan-19				
Perforated pipe grid	23-Oct-18	21-Nov-18				
Electrical & instrumentation installation	11-Jan-19	31-Mar-19				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Pre-commissioning	1-Apr-19	30-Apr-19				
Trail Run - COD	1-May-19	31-Jul-19				
Commissioning	1-Aug-19	18-Nov-19				

2.1.8. New construction units - Physical progress graph



Construction activities - first milestone



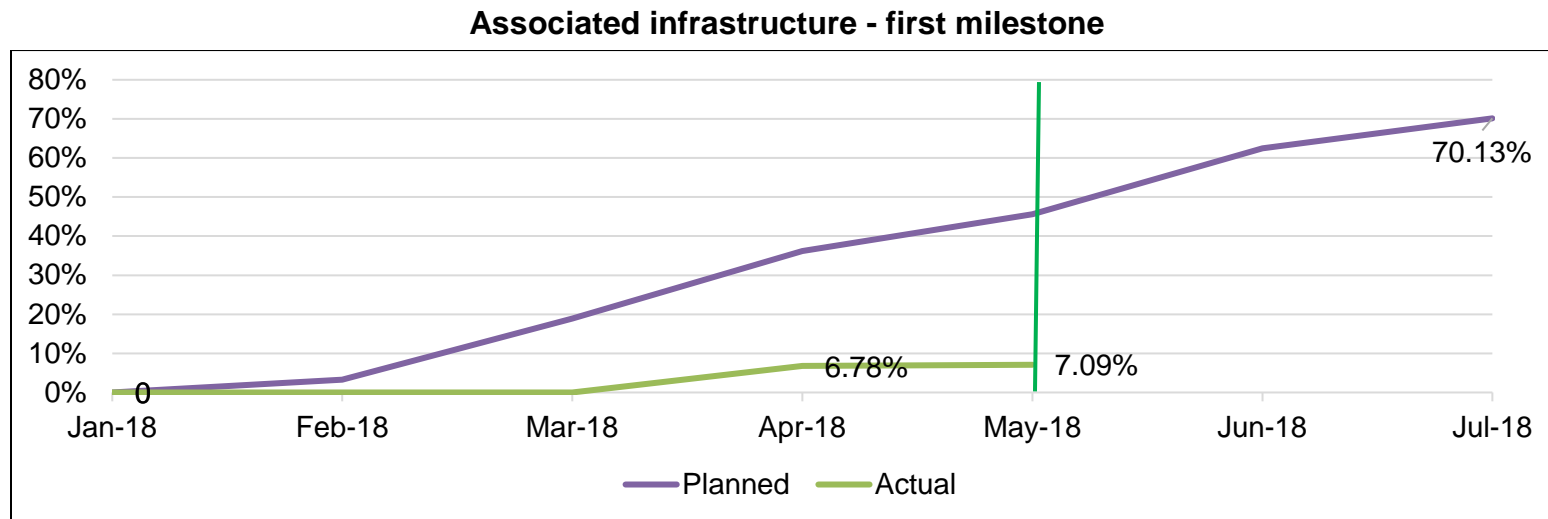
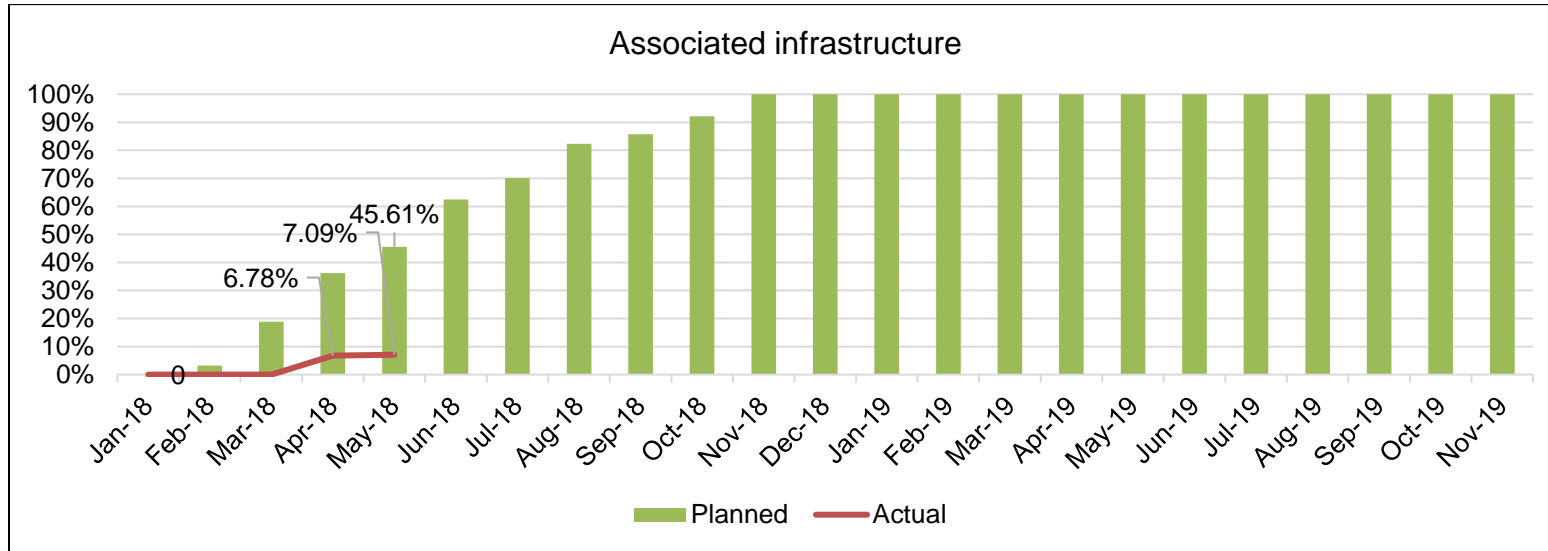
2.1.9. Associated works

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Associated works			45.61%	6.78%	0.29%	7.07%
MPS pumping station	10-Apr-18	23-Aug-18	35.34%		0.56%	0.56%
Submission & approval of drawings / documents	10-Apr-18	15-May-18	100%			

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Rehabilitation and construction of weir across Assi Nalla	20-Apr-18	18-Jun-18	68%			
Desilting of the MPS	20-Apr-18	19-May-18	100%		7%	7%
Procurement & installation	20-Apr-18	17-Aug-18	34%			
Repair of equipment	20-Apr-18	18-Jun-18	68%			
Raising of height of Nalla tapping structure upto HFL	19-Jun-18	13-Jul-18				
Construction of control room	19-Jun-18	8-Aug-18				
Other works	8-Aug-18	23-Aug-18				
Rising main	10-Apr-18	2-Aug-18	47.96%			
Submission & approval of drawings / documents	10-Apr-18	10-May-18	100%			
Desilting & CCTV inspection	20-Apr-18	3-Jun-18	91%			
Strengthening and pipe protection of rising main	20-Apr-18	18-Jun-18	68%			
Shifting & laying of pipe near Samne Ghat bridge	20-Apr-18	3-Jun-18	91%			
Other repairing work	4-Jun-18	3-Jul-18				
Extension of existing rising main to the inlet point at the STP site	4-Jun-18	3-Jul-18				
Hydrotesting of the PSC	4-Jul-18	2-Aug-18				

Item of work	As per schedule		Physical status			
	Proposed Date	Completed Date	Scheduled completion in %	Previous month completion in %	Completion during this month in %	Total completion in %
Treated effluent disposal line	20-Feb-18	18-Nov-18	46.75%	8.05%	0.30%	8.35%
Survey	20-Feb-18	24-Feb-18	100%	100%		100%
Procurement	25-Feb-18	25-Apr-18	100%	14%		14%
Inspection	26-Apr-18	30-Apr-18	100%	14%		14%
Drawing submission	25-Feb-18	5-Apr-18	100%	50%	30%	80%
Drawing approval	6-Apr-18	5-May-18	100%	50%		50%
Excavation	6-May-18	2-Sep-18	20%			
PCC	16-May-18	12-Sep-18	12%			
Pipe laying	23-May-18	19-Oct-18	5%			
Hydrotesting	20-Oct-18	18-Nov-18				
Back filling	23-May-18	6-Jul-18	16%			

2.1.10. Associated works - Physical progress graph



2.1.11. Overall progress: 5.38%

2.2. Financial status

- Contract amount : Rs. 153.15 crores (Rs. 102 crores for construction + Rs. 51.15 crores for O&M)
- Expenditure
 - Mob. Adv : Rs. 10.20 crores
 - Work done - First milestone : Rs. 0.00 crores
 - Total : Rs. 10.20 crores**

2.3. Important issues

1. Progress of work is lagging the schedule, it has to be expedited
2. Office setup for UPJN yet to be provided by Concessionaire
3. Clearing of debris & shrub along the treated effluent pipeline, immediate action to be taken by Concessionaire
4. Soil investigation report along the treated effluent pipeline yet to be submitted by Concessionaire
5. Expediting the design detailed engineering documents and drawings at the earliest by Concessionaire
6. Placement of work order for the bought-out items to be initiated at the earliest by Concessionaire
7. The machinery, material receipt at site, manpower to be increased to four folds than the present level, to achieve the targeted schedule and to compensate the delay occurred
8. Concessionaire has to commence the activities immediately which are already scheduled to start but not yet started
9. Concessionaire has to set up the testing laboratory at site
10. Concessionaire agreed to submit revised construction plan keeping the agreed milestone without changing on or before this month end
11. Concessionaire agreed to invite inspection of remaining PSC pipes during 1st week of May 2018. However, there is no action taken till date
12. Concessionaire informed to inspect the MS pipe on 5th June 2018

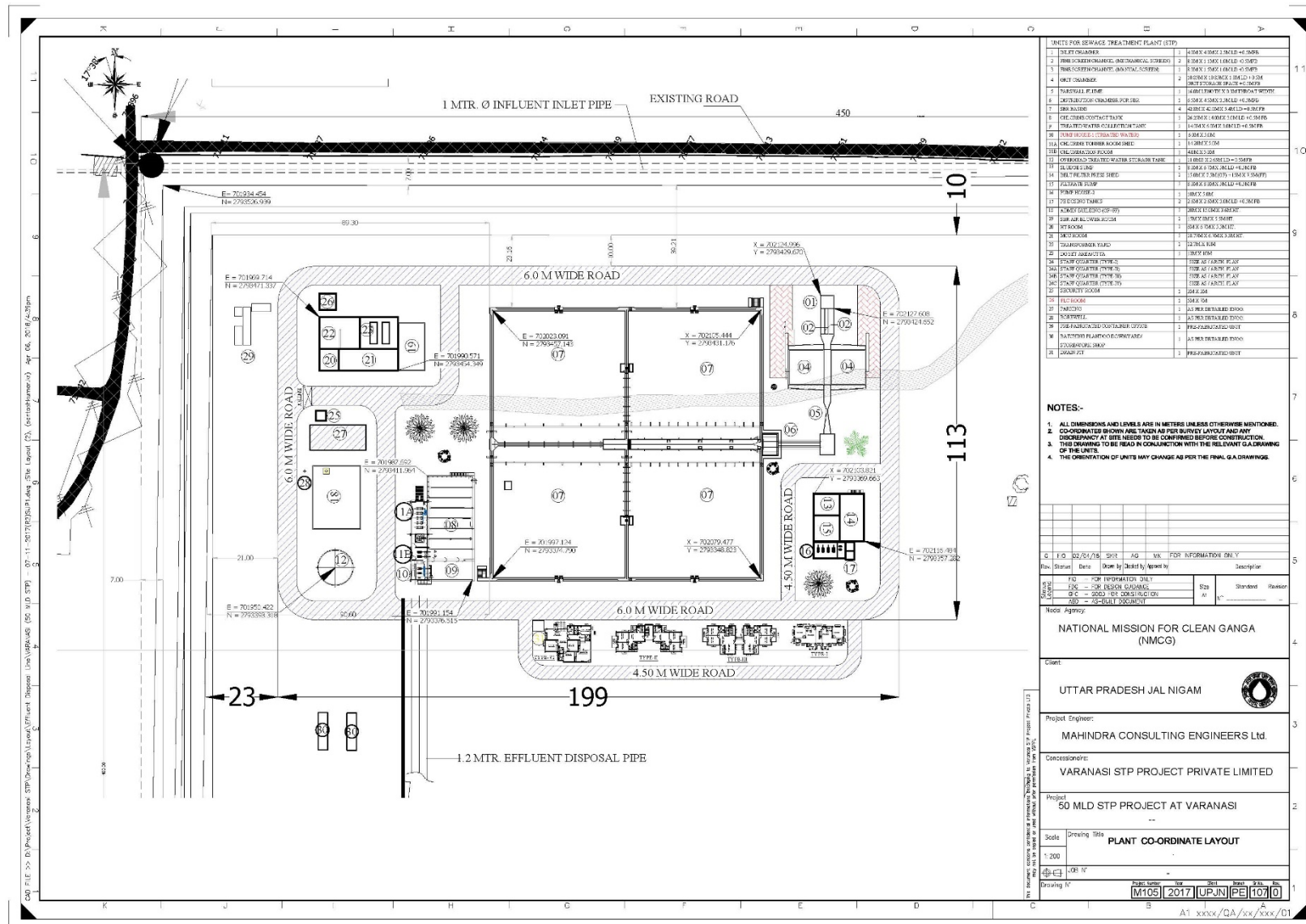


Figure 2: Development of sewage treatment plant and associated infrastructure under Hybrid Annuity based PPP mode at Varanasi

3.0. PROJECT ENGINEER ACTIVITIES

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
4.1 (i)	Review, analysis and qualifying assessment of field investigations carried out and reported by the Concessionaire in respect of topographical surveys, hydraulic & hydrologic data verification, sub- surface investigation including laboratory testing and reports of geologists wherever applicable, investigation of construction material including lab testing.	Yes	Review of soil test report for Treated effluent pipe line	Review of construction material testing
4.1 (ii)	Review, analysis and qualifying assessment of design memorandums, specifications and construction drawings prepared and submitted by the concessionaire.	Yes	Review of construction drawings	Review of construction drawings
4.1 (iii)	Conduct kick off meetings			
4.1 (iv)	Review of the submissions of the Concessionaire such as <ul style="list-style-type: none"> a. Work schedule b. Detailed survey report c. Basic engineering d. Detailed design and drawings for <ul style="list-style-type: none"> i) Civil works <ul style="list-style-type: none"> 1. Geo-tech reports 2. Lab testing reports 	Yes	<ul style="list-style-type: none"> • Financial milestone • Detailed design and drawings for CCT • Electrical load list 	<ul style="list-style-type: none"> • Revised construction plan • Remaining GA and structural Drawings of

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	3. Third Party Inspection report ii) Mechanical and Electrical Works iii) Automation and Instrumentation works iv) Any other allied works e. QA/QC plans f. Safety plan		<ul style="list-style-type: none"> QAP for MS pipe 	civil structures <ul style="list-style-type: none"> PSC pipe inspection MS pipe inspection
4.1 (v)	Review of the drawings and documents	Yes	As mentioned above	As mentioned above
4.1 (vi)	Identification of milestones & verifications		Review of financial milestones	Regular review and monitoring
4.1 (vii)	To Assist NMCG for getting Statutory permissions		NA	NA
4.1 (viii)	Ensure compliance with Statutory provisions under various applicable laws		Yes	Yes
4.1 (ix)	Review, inspection, supervision and monitoring of construction works conducting tests on completion of construction and issuing completion/ provisional certificate	Yes	Day to day monitoring of construction activities by site personnel and Monthly	Day to day monitoring of construction activities by site personnel and Monthly

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
			inspection by Key experts	inspection by Key experts
4.1 (x)	Review, inspection and monitoring of O&M	NA	NA	NA
4.1 (xi)	Determining, as required under the Concession Agreement, the costs of any works or services and/or their reasonableness	NA	NA	NA
4.1 (xii)	Determining, as required under the Concession Agreement, the period or any extension thereof, for performing any duty or obligation	NA	NA	NA
4.1 (xiii)	Determining the events of default and guidance on consequent termination notices and payment as detailed in clauses 16.1 to 16.5 of the Concession Agreement	NA	NA	NA
4.1 (xiv)	Determine deficiencies in the commissioning & trial runs; prepare the final acceptance document for acceptance of commissioning & trial runs. Prepare & Issue Commercial Operation certificate through Uttar Pradesh Jal Nigam	NA	NA	NA
4.1 (xv)	Any other matter which is not specified in ((vi), (vii), or (viii) above and which creates an obligation or liability on the Employer /NMCG beyond the provisions of the Concession Agreement	NA	NA	NA
4.1 (xvi)	The Project Engineer shall submit regular periodic reports, as specified in the Concession Agreement to Uttar Pradesh Jal Nigam and NMCG, in respect of its duties and functions under the		Monthly progress report	Preparation and review of monthly

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	Concession Agreement			progress report
4.1 (xvii)	The Project Engineer shall aid and advise the Employer on any proposal for variation under Article 20 of the Concession Agreement	NA	NA	NA
4.1 (xviii)	Assisting the Parties in resolution of Disputes	NA	NA	NA
4.1 (xix)	Assisting the employer in the fulfilment of Hand back requirements as detailed in clause 19.3 of the Concession Agreement		NA	NA
4.1 (xx)	Undertaking all other duties and functions in accordance with this agreement	As mentioned above	As mentioned above	As mentioned above
4.2	The Project Engineer shall discharge its duties in an efficient manner, consistent with the highest standards of professionalism and Good Industry Practice	Yes	Yes	Yes
4.3(i)	The Project Engineer must function in a manner to assist and equip the employer to ascertain that the Concessionaire shall operate and maintain the Facilities and the Associated Infrastructure in a manner that: Is in compliance with the Technical Specifications, Applicable Laws, Applicable Permits and Good Industry Practice; Results in the Facilities and the Associated Infrastructure achieving the KPIs as detailed in schedule 10 of the Concession Agreement	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	and certify within 7 days the KPI adherence Report as per clause 8.12 of the Concession Agreement;			
4.3(ii)	Ensures that the Varanasi STP are capable of treating Sewage up to the Design Capacity on a daily basis;	Yes	Yes	Yes
4.3(iii)	Ensures efficient treatment of Sewage and handling and disposal of STP By- Products and the Treated Effluent	NA	NA	NA
4.3(iv)	STPs are safe and reliable, subject to normal wear and tear of the Facilities and the Associated Infrastructure;	NA	NA	NA
4.3(v)	Is in compliance with the technology license agreement executed by the Concessionaire for the technology, processes, know-how and systems used or incorporated into the Facilities and/or the Associated Infrastructure	Yes	NA	NA
4.3(vi)	Maintains the safety and security of personnel, material and property at the Site, in accordance with the approved EHS Plan, Applicable Laws and Applicable Permits; and	Yes	Yes	Yes
4.3(vii)	Ensures that all waste materials and hazardous substances are stored and/or disposed in accordance with the EHS Plan, Applicable Laws and Applicable Permits.	Yes	Yes	Yes
4.4	Overall, The Project Engineer shall assist the Uttar Pradesh Jal Nigam in supervising the construction, rehabilitation, operation and	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	maintenance of the Facilities and the Associated Infrastructure and shall work closely with the Uttar Pradesh Jal Nigam and NMCG to monitor compliance with the KPIs.			
5.1	During the Development Period, the Project Engineer shall undertake a detailed review of the basic engineering Designs, furnished by the Concessionaire along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys and Sewage Flow Analysis. The Project Engineer shall complete such review and send its comments/observations to the NMCG/Name of the Employer (i.e. State Institution) and the Concessionaire within 10 (ten) days of receipt of such Drawings. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards	Yes	Review of construction drawings submitted by concessionaire	Review of construction drawings submitted by concessionaire
5.2	The Project Engineer shall review and assist the (Name of the Employer) in approval of the submissions by the concessionaire relating to the “ design and Construction Plan ” so as to confirm to the scope as per Schedule 1 of the Concession Agreement.	Yes	Yes	Yes
5.3	The basic engineering drawings in the above case shall mean the designs and documents to be submitted by the Concessionaire and	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	<p>approved by the Uttar Pradesh Jal Nigam as a Condition Precedent and shall include but not limited to:</p> <ul style="list-style-type: none"> a) Conduct Kick off meeting, Scrutiny of contractors submittals b) Process description, process calculations and hydraulic calculations; c) List of design codes and standards; d) Master drawing schedule; e) Drainage design; f) STP Facilities layout; g) Process flow diagram; h) Hydraulic flow diagram; i) Mass balance diagram; j) Process and instrumentation diagram; k) Single line diagram; l) Electrical load list; and m) General arrangement diagrams of all units of Facilities and Associated Infrastructure 			
5.4	The Project Engineer shall review any modified Drawings or supporting Documents sent to it by the Concessionaire and furnish its comments within 10 (ten) days of receiving such Drawings or	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	Documents.			
5.5	The Project Engineer shall review the detailed design, construction methodology, quality assurance procedures and the procurement, engineering and construction time schedule sent to it by the Concessionaire and furnish its comments within 10 (ten) days of receipt thereof.	Yes	Yes	Yes
5.6	Upon reference by the NMCG/Uttar Pradesh Jal Nigam, the Project Engineer shall review and; comment on the EPC Contract or any other contract for construction, operation and maintenance of the Project, and furnish its comments within 10 (ten) days from receipt of such reference from the NMCG/Uttar Pradesh Jal Nigam.	NA	NA	NA
6.1	In respect of the Designs Drawing and Documents received by the Project Engineer for its review and comments during the Construction Period, the provisions of Paragraph 4 shall also apply, mutatis mutandis	Yes	Yes	Yes
6.2	The Project Engineer shall review, and assist the Uttar Pradesh Jal Nigam in reviewing the submissions by the concessionaire, the Construction plan as defined in clause 7.3 of the Concession Agreement including Phase 1 and Phase II drawings, as well as the 'As Built' drawings on completion and EHS plans as defined in	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	clause 7.4 of the Concession Agreement			
6.3	The Project Engineer shall assist the Uttar Pradesh Jal Nigam submit their comments on effectiveness or otherwise of the Work plan submitted for meeting the specified payment milestones and completion of the work on or before the scheduled construction completion date	Yes	Yes	Yes
6.4	The Project Engineer shall review, in particular, the submissions by the Concessionaire as per Schedule 1 of the Concession Agreement, and assist Uttar Pradesh Jal Nigam in assessing the effectiveness them	Yes	Yes	Yes
6.5	The Project Engineer shall review the monthly progress report furnished by the Concessionaire and send its comments thereon to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 7 (seven) days of receipt of such report	Yes	Not yet submitted by the concessionaire and hence prepared by Project Engineer	Yes
6.6	The Project Engineer shall inspect the Construction Works and the Project as and when necessary, and submit a report of such	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	inspection (the "Inspection Report"), preferably after receipt of the monthly progress report from the Concessionaire, but before the 20th (twentieth) day of each month in any case. The report shall contain, an overview of the status, progress, quality and safety of construction, including the work methodology adopted, the materials used and their sources, and conformity of Construction Works with the Scope of the Project and the Specifications and Standards. In a separate section of the Inspection Report, the Project Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the construction of the Project. The Project Engineer shall send a copy of its Inspection Report to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 3 (three) days of the inspection			
6.7	However serious lapses, defects and/or deficiencies shall be reported to the Uttar Pradesh Jal Nigam/NMCG immediately without waiting for the monthly progress submissions as mentioned in the previous paragraph	Yes	Yes	Yes
6.8	For determining that the Construction Works conform to Specifications and Standards, the Project Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests on a	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	sample basis, to be specified by the Project Engineer in accordance with approved norms/Good Industry Practice for quality assurance. The Project Engineer shall issue necessary directions to the Concessionaire for ensuring that the tests are conducted in a fair and efficient manner, and shall monitor and review the results thereof			
6.9	The timing of tests referred to in Paragraph 6.8, and the criteria for acceptance/ rejection of their results shall be determined by the Project Engineer in accordance with the norms /rules and Good Industry Practice. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Concessionaire for its own quality assurance in accordance with Good Industry Practice	Yes	Yes	Yes
6.10	In the event that the Concessionaire carries out any remedial works for removal or rectification of any defects or deficiencies, the Project Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests to determine that such remedial works have brought the Construction Works into conformity with the Specifications and Standards, and the provisions of this Paragraph 5 shall apply to such tests	NA	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
6.11	In the event that the Concessionaire fails to achieve any of the Project Milestones, the Project Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Project Engineer identifies that completion of the Project is not feasible within the time specified in the Concession Agreement, it shall require the Concessionaire to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which COD shall be achieved. Upon receipt of a report from the Concessionaire, the Project Engineer shall review the same and send its comments to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire forthwith.	Yes	Yes	Yes
6.12	If at any time during the construction period, the Project Engineer determines that the Concessionaire has not made adequate arrangements for the safety of workers and common public in the zone of construction or that any work is being carried out in a manner that threatens the safety of the workers and the common public, it shall make a recommendation to the NMCG/ Uttar Pradesh Jal Nigam forthwith, identifying the whole or part of the Construction Works that should be suspended for ensuring safety in respect thereof.	NA	NA	

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
6.13	In the event that the Concessionaire carries out any remedial measures to secure the safety of suspended works and common public, it may, by notice in writing, require the Project Engineer to inspect such works, and within 3 (three) days of receiving such notice, the Project Engineer shall inspect the suspended works and make a report to the NMCG/ Uttar Pradesh Jal Nigam forthwith, recommending whether or not such suspension may be revoked by the NMCG/ Uttar Pradesh Jal Nigam.	NA	NA	
6.14	If suspension of Construction Works is for reasons not attributable to the Concessionaire, the Project Engineer shall determine the extension of dates set forth in the project completion schedule, to which the Concessionaire is reasonably entitled, and shall notify the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire of the same	NA	NA	
6.15	Upon reference from the NMCG/ Uttar Pradesh Jal Nigam, the Project Engineer shall make a fair and reasonable assessment of the costs of providing information, works and services and certify the reasonableness of such costs for payment by the NMCG/ Uttar Pradesh Jal Nigam to the Concessionaire	NA	NA	

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
6.16	The Project Engineer shall aid and advise the Concessionaire in preparing the Operation & Maintenance Manual	NA	NA	
6.17	Upon reference from the NMCG/ Uttar Pradesh Jal Nigam the Project Engineer shall undertake the assessment of cost of civil works, as per applicable schedule of rates, for the reduction of Scope of work if any as per Article 20.	NA	NA	
6.18	The Project Engineer shall review the construction progress as per payment milestones proposed by the concessionaire and provide necessary recommendation/s to Uttar Pradesh Jal Nigam for issuance of 'Milestone Construction Certificates'	NA	NA	
6.19	The Project Engineer shall support the employer in ensuring that the provisions specified in Clause 7, of the Concession Agreement including those for liquidated damages and Bonus, are being complied with	NA	NA	
6.20	On completion of construction and at behest of Employer, the Project Engineer may review the work done as per 'as built' drawings and identify defects and suggest changes as per clause 7.13(v) of the Concession Agreement	NA	NA	
6.21	Similarly, the Project Engineer may inspect the trial process and may point out the defects and cause changes or retrial of the process as	NA	NA	

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	per clause 7.14(d) of the Concession Agreement			
7.1	In respect of the Designs, Drawings, and Documents received by the Project Engineer for its review and comments during the Operation Period, the provisions of Paragraph 4 shall apply, mutatis mutandis	NA	NA	
7.2	<p>The Project Engineer shall review the O&M Manual (Clause 8.2) and the Scheduled Maintenance Programme submitted by the concessionaire and provide its recommendations on the same, including suggestions for change, if any.</p> <p>The O&M Manual shall cover:</p> <ul style="list-style-type: none"> a) O&M Procedures; b) O&M Plan; c) Provision of Spare Parts; d) Sampling and Testing Methodologies; e) Storage and control of Inventory; f) Arrangements for data security and Integrity; g) Procedures for recording and disposal of complaints; h) Operational Contingencies Plans; i) Human Resources Plans; j) EHS Plans; 	NA	NA	

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	k) Emergency procedures; l) Management of Assets Plans. And m) Annual Scheduled Maintenance Programme.			
7.3	The Project Engineer shall review the annual Maintenance Program furnished by the Concessionaire and send its comments thereon to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 10 (ten) days of receipt of the Maintenance Program	NA	NA	
7.4	The Project Engineer shall review the reports generated from online monitoring systems to assess adherence to KPIs and submit the monthly KPI Adherence Report to Uttar Pradesh Jal Nigam	NA	NA	
7.5	The Project Engineer shall verify the daily reports submitted by the concessionaire regarding the volume of sewage and its quality re influent standards and monitor and record the same on regular basis	NA	NA	
7.6	The Project Engineer shall monitor, review and advise the Uttar Pradesh Jal Nigam on the reports submitted by the concessionaire as per clause 8.8(b)(iii) (A) to (G) of the Concession Agreement	NA	NA	
7.7	The Project Engineer shall regularly verify the report submitted by the concessionaire on the tests conducted at the Inlet Point, the Outlet Point or at any other point at the Varanasi STP for the Digested Sludge. Separately, the Project Engineer shall also have	NA	NA	

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	the right to take random samples of the incoming Sewage, the Digested Sludge and the Treated Effluent at any time during the O&M Period to test compliance with the Influent Standards and the Discharge Standards.			
7.8	The Project Engineer shall review the monthly status report furnished by the Concessionaire (as required under clause 812(c) of the Concession Agreement) and send its comments thereon to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 7 (seven) days of receipt of such report	NA	NA	
7.9	The Project Engineer shall inspect the Project once every month, preferably after receipt of the monthly status report from the Concessionaire, but before the 20th (twentieth) day of each month in any case, and make out an O&M Inspection Report setting forth an overview of the status, quality and safety of O&M including its conformity with the Maintenance Requirements and Safety Requirements. In a separate section of the O&M Inspection Report, the Project Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in O&M of the Project. The Project Engineer shall send a copy of its O&M Inspection Report to the NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within	NA	NA	

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	7 (seven) days of the inspection			
7.10	The Project Engineer may inspect the project more than once in a month, if any lapses, defects or deficiencies require such inspections.	NA	NA	
7.11	The Project Engineer shall in its O&M Inspection Report specify the tests, if any, that the Concessionaire shall carry out, or cause to be carried out, for the purpose of determining that the project is in conformity with the Maintenance Requirements. It shall monitor and review the results of such tests and the remedial measures, if any, taken by the Concessionaire in this behalf.	NA	NA	
7.12	The Project Engineer shall determine if any delay has occurred in completion of repair or remedial works in accordance with the Concession Agreement, and shall also determine the Damages, if any, payable by the Concessionaire to the NMCG/ Uttar Pradesh Jal Nigam for such delay.	NA	NA	
7.13	The Project Engineer shall monitor and review the curing of defects and deficiencies by the Concessionaire.	NA	NA	
7.14	In the event that the Concessionaire notifies the Project Engineer of any modifications that it proposes to make to the project, the Project Engineer shall review the same and send its comments to the	NA	NA	

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	NMCG/ Uttar Pradesh Jal Nigam and the Concessionaire within 15 (fifteen) days of receiving the proposal.			
7.15	The Project Engineer shall undertake sewage flow sampling, as and when required by the NMCG/ Uttar Pradesh Jal Nigam, under and in accordance with the provisions of this agreement	NA	NA	
7.16	The Project Engineer shall review and report to the employer on all the reports (Daily, Monthly, Quarterly and Annual), including monthly Environmental Monitoring Reports as detailed in Schedule 11(Part G) of the Concession Agreement.	NA	NA	
7.17	The Project Engineer shall provide necessary training/capacity building to the operators/technicians of the STP, as and when required, so as to address the gap in skill sets of the manpower deployed by the Concessionaire	NA	NA	
9.1	The Project Engineer shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Concession Agreement	NA	NA	
9.2	The Project Engineer shall determine the period, or any extension thereof, that is required to be determined by it under the Concession Agreement	NA	NA	

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
10.1	When called upon by either Party in the event of any Dispute, the Project Engineer shall mediate and assist the Parties in arriving at an amicable settlement	NA	NA	
10.2	In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Concession Agreement, the Project Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature	NA	NA	
11.0	As and when requested by NMCG/ Uttar Pradesh Jal Nigam, the Project Engineer shall provide its opinion and assessment on the events related to Emergency, Change in Law, Force Majure, Minor or total Casualties, Variation and unforeseen Site conditions etc	NA	NA	
12.1	The Project Engineer shall notify its programme of inspection to the NMCG/ Uttar Pradesh Jal Nigam and to the Concessionaire, who may, in their discretion, depute their respective representatives to be present during the inspection.	Yes	Yes	Yes
12.2	A copy of all communications, comments, instructions, Drawings or Documents sent by the Project Engineer to the Concessionaire pursuant to this TOR, and a copy of all the test results with	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	comments of the Project Engineer thereon shall be furnished to the NMCG/ Uttar Pradesh Jal Nigam forthwith.			
12.3	The Project Engineer shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.	Yes	Yes	Yes
12.4	Upon completion of its assignment hereunder, the Project Engineer shall duly classify and list all Drawings, Documents, results of tests and other relevant records, and hand them over to the NMCG/ Uttar Pradesh Jal Nigam or such other person as the NMCG/ Uttar Pradesh Jal Nigam may specify, and obtain written receipt thereof. Two copies of the said documents shall also be furnished in their editable digital format or in such other medium or manner as may be acceptable to the NMCG/Uttar Pradesh Jal Nigam	Yes	Yes	Yes
12.5	Wherever no period has been specified for delivery of services by the Project Engineer, the Project Engineer shall act with the efficiency and urgency necessary for discharging its functions in accordance with Good Industry Practice.	Yes	Yes	Yes
12.6	Project Engineers shall be expected to fully comply with all the provisions of the "Terms of Reference", and shall be fully responsible for supervising the Design, Construction and maintenance and	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	operation of the Facility in accordance with the provisions of the Concession Agreement and other schedules. Any failure of the Project Engineer in notifying to the Employer and the Concessionaire on non-compliance of the provisions of the Concession Agreement and other schedules by the Concessionaire, non-adherence to the provision of this ToR and non-adherence to the time schedule prescribed under this ToR shall amount to non-performance.			
12.7	The project Engineer shall develop & maintain a project website and with the approval of NMCG/UPJN post from time to time, information (textual and Audio- Visual) on project progress on a continuous basis. On completion of services as per this RFP document, the website with all necessary technical information shall be handed over to UPJN.	Yes	Yes	Yes
14.1	Uttar Pradesh Jal Nigam may review with the Project Engineer, any or all of the documents and advice forming part of the Consultancy, in meetings and conferences which will be held at the office of the Uttar Pradesh Jal Nigam / NMCG. Uttar Pradesh Jal Nigam / NMCG may, in its discretion, require the Project Engineer to participate in extended meetings and/ or work from the offices of Uttar Pradesh	Yes	Yes	Yes

Activities carried out as per TOR				
Clause as per TOR	Scope	Period: April 2018 to May 2018		
		Undertaken till previous month - April 2018	Undertaken during this month - May 2018	Expected for next month June 2018
	Jal Nigam /NMCG and the Project Engineer shall, on a best endeavour basis and without unreasonable delay, provide such services at the offices of the Uttar Pradesh Jal Nigam/NMCG.			
15.1	The Project Engineer may prepare Issue Papers highlighting issues that could become critical for the timely completion of the Project and that require attention from Uttar Pradesh Jal Nigam/NMCG. The Project Engineer shall report to UPJN for routine activities and deliverables. All major and critical issues shall be reported to NMCG and UPJN simultaneously.	Yes	Yes	Yes
15.2	The Project Engineer will make a presentation on the inception report for discussion with the Uttar Pradesh Jal Nigam /NMCG at a meeting. This will be a working document. Regular communication with Uttar Pradesh Jal Nigam/NMCG is required in addition to all key communications. This may take the form of telephone/teleconferencing, emails, and occasional meetings.	Yes	Yes	Yes
15.3	The Deliverables will be submitted as per schedule provided in this RFP	Yes	Yes	Yes

4.0. MEETINGS

Project Engineer undertaken and planned services.

Sl. No.	Services	Undertaken by	Period: April 2018	Period: May 2018
			Description	Expected for next month
1	Site inspection	Senior Engineer, MACE	04/05/2018	Project review meeting and site inspection
2	Progress review meeting and discussion on M15 concrete	General Manager, UPJN	07/05/2018	
3	Site inspection	Chief Engineer & Project Manager, UPJN	10/05/2018	
4	Project review meeting and discussion for financial milestone	Project Manager, UPJN	12/05/2018	
5	Progress review regarding delay in works under execution discussion	General Manager, UPJN	22/05/2018	
6	Site inspection and progress review meeting	General Manager, UPJN & Senior Engineers, MACE	31/05/2018	

5.0. STAFF DEPLOYMENT

The work had commenced on 15.02.2018 the same has been communicated to NMCG vide letter number P968:8230 dated 05.03.2018.

The Project Engineer office space was finalized and the address of the office is as below:

Mahindra consulting Engineers Limited
Sudarshan Apartment, Flat No: 305, 4th Floor,

Ramnagar Road, Samne Ghat,
Opp: Janki Nagar Colony,
Near Hanuman Mandir,
Lanka, Varanasi - 221005, Uttar Pradesh.

The position of staff deployment since beginning of the project till end of May 2018 is given in the following table:

Staff deployed on site at Ramana, Varanasi			Date of deployment	
Sl. No.	Designation	Name of staff	From	To
1	Team Leader	Jiut Bandhan Rai	07/05/2018	
2	Project Manager	G. Sathiskumar	19/02/2018	
3	Civil Engineer	M. Sivapriyan	15/02/2018	
4	Civil Engineer	T. Sathyamoorthy	20/04/2018	07/05/2018
5	Senior Engineer (Electrical & Instrumentation)	R. Satish	20/04/2018	
6	Civil Engineer	P. Ramasubramanian	20/04/2018	
7	Civil Engineer	Imran Khadhar Mohideen	20/04/2018	
8	Structural Engineer	S. Varun Athithiya	20/04/2018	
9	Liaison Officer	O. B. Shivakumar	20/04/2018	
10	QA QC Expert	L. Selva Kumar	29/05/2018	

ANNEX - 1

PROJECT PROGRESS (PHYSICAL)

ANNEX 1 - PROJECT PROGRESS (PHYSICAL)

Sl. No.	Component / Package	Physical Progress in Percentage			Remarks
		Up to Previous month	During month	Total	
1	2	3	4	5	6
1	Development of sewage treatment plant and associated infrastructure under Hybrid Annuity based PPP mode at Varanasi	3.24%	2.13%	5.38%	Physical progress observed to be very slow and needs to be accelerated by Concessionaire.

ANNEX - 2

FINANCIAL STATEMENTS

ANNEX 2 - FINANCIAL STATEMENTS

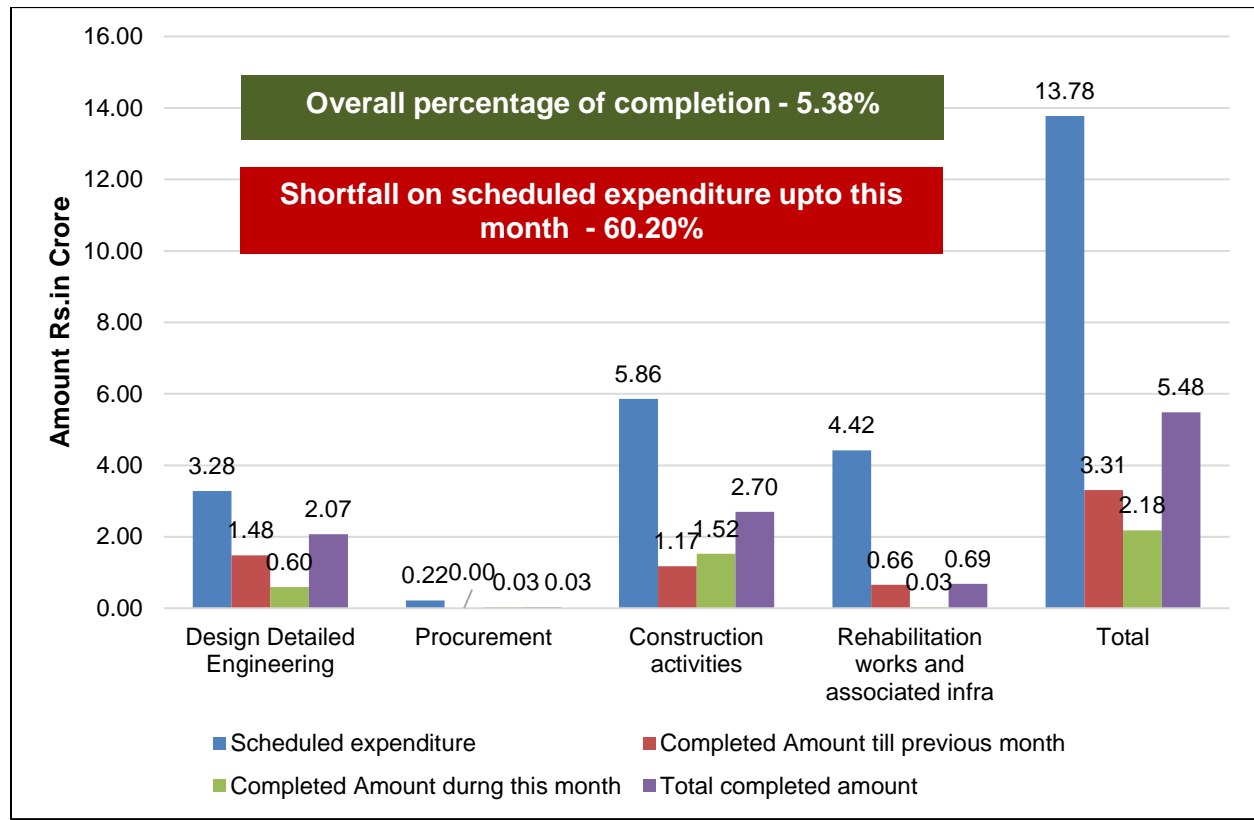
Item of work	Scheduled expenditure in Rs	Completed Amount till previous month in Rs	Completed Amount during this month in Rs	Total completed amount in Rs
Design detailed engineering				
Phase-I D&E (BEP)	10,200,000	10,200,000	-	10,200,000
Phase-II D&E (civil, mechanical, electrical, inst. drawings)	5,100,000	2,652,000	642,600	3,294,600
Structural drawings submissions & approvals	7,650,000	1,912,500	1,147,500	3,060,000
Mechanical & piping drawings submissions & approvals	7,650,000	-	3,503,700	3,503,700
Electrical drawings submissions & approvals	1,912,500	-	573,750	573,750
Miscellaneous documents & drawings	257,080	-	89,250	89,250
Instrumentation document submissions & approvals	-	-	-	-
Miscellaneous drawings	-	-	-	-
Associated infrastructure				
MPS pumping station	3,605,099	-	40,800	40,800
Rising main	2,446,035	-	-	-
Treated effluent disposal line	38,147,969	6,565,091	244,800	6,809,891
Equipment procurement, logistics and receipt of equipment at site				
Fine screen / coarse screen / belt conveyors	691,960	-	-	-
Grit removal mechanism	51,256	-	-	-
SBR system	615,075	-	-	-

Item of work	Scheduled expenditure in Rs	Completed Amount till previous month in Rs	Completed Amount during this month in Rs	Total completed amount in Rs
SAS/RAS pumps / booster pumps / treated water pumps / drain pumps	205,025	-	-	-
Air blowers	394,673	-	280,500	280,500
Chlorination system	-	-	-	-
Tube well	179,397	-	-	-
Piping & fittings, valves, flanges, other associated connections	55,435	-	-	-
Miscellaneous	-	-	-	-
VCB panel / APFC panel / Transformer / DG set / PMCC / synchronizing panel	-	-	-	-
Power, control, lighting cables/ plant lighting/ cable trays/ other electrical accessories	-	-	-	-
Analysers – TDS / Total Nitrogen / TSS / COD-BOD / pH / Total phosphorus	-	-	-	-
Flow meters - Magnetic flow meters / differential LT/ weir type flowmeter /	-	-	-	-
Motorized - Gate valves & butterfly valves & pressure release valves	-	-	-	-
Transmitter-Temp./Level/ Temperature	-	-	-	-
Level Switches	-	-	-	-
Pressure & temperature gauges	-	-	-	-

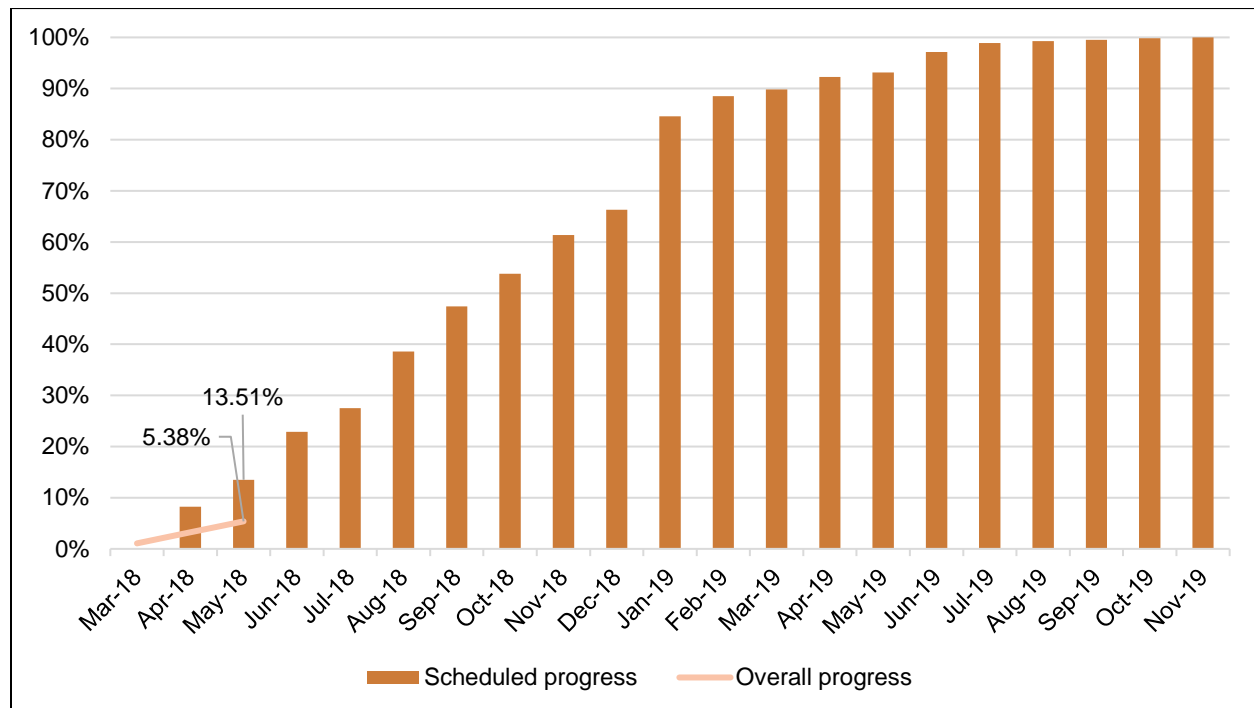
Item of work	Scheduled expenditure in Rs	Completed Amount till previous month in Rs	Completed Amount during this month in Rs	Total completed amount in Rs
Other accessories - Cables, cable trays, SCADA, PLC system/GPRS system	-	-	-	-
Civil Executions				
Band wall / earthen embankment	22,950,000	4,080,000	8,976,000	13,056,000
Inlet chamber manual & mechanical screen chamber	451,220	-	-	-
Grit chamber & outlet channel of grit chamber	420,966	-	-	-
Parshall flume (I) & distribution chamber of SBR basin	1,195,862	-	-	-
SBR basins & SBR outlet Chamber	26,145,570	7,650,000	6,215,625	13,865,625
Chlorination Building	2,914,914	-	-	-
Chlorine contact tank & treated water collection tank, treated water pumps	2,422,500	-	45,900	45,900
Final outfall chamber	-	-	-	-
Overhead treated water tank	-	-	-	-
Belt filter press/ sludge sump / filtrate sump	-	-	-	-
Pump house 2	-	-	-	-
PE dosing tank	-	-	-	-
Administrative building & overhead tank	2,112,857	-	-	-
Staff quarters	-	-	-	-
Roads, drainage & firefighting system	-	-	-	-
Landscaping / parking area	-	-	-	-

Item of work	Scheduled expenditure in Rs	Completed Amount till previous month in Rs	Completed Amount during this month in Rs	Total completed amount in Rs
SBR air blower room	-	-	-	-
HT room	-	-	-	-
MCC room	-	-	-	-
Transformer yard	-	-	-	-
DG set area	-	-	-	-
Security room	-	-	-	-
DP structure	-	-	-	-
Mechanical installation	-	-	-	-
Other mechanical installation	-	-	-	-
Electrical & instrumentation installation	-	-	-	-
Pre-commissioning	-	-	-	-
Trail run - COD	-	-	-	-
Commissioning	-	-	-	-
	137,775,395	33,059,591	21,776,745	54,836,336
	Percentage completion of overall project			5.38%

Financial status for the month of May 2018



Progress status scheduled vs Actual - May 2018



ANNEX - 3

QUALITY ASSURANCE / QUALITY CONTROL

Annex 3 – Quality Assurance / Quality Control

S. No	Description	As per IS code No. of test required	No. of test conducted	No. of acceptance	No. of rejects	Remarks
A	Bund wall					
1	Soil compaction test	66	66	44	22	Rectification suggested for the rejects and re test is recommended
B	Incoming construction materials					
1	Reinforcement steel					
	Chemical prosperities & mechanical prosperities (weight, tensile strength, yield strength, elongation %, bend test & re bend test)					Sample submitted to IIT-BHU, Varanasi
2	Cement					
	Chemical prosperities & physical prosperities (fineness test, sound test, setting time & compressive strength)					Sample submitted to IIT-BHU, Varanasi
3	Course aggregate					
	Sieve analysis, crushing test, flakiness test & elongation index					Sample submitted to IIT-BHU, Varanasi
4	Fine aggregate					
	Sieve analysis, silt content & bulkage					Sample submitted to IIT-BHU, Varanasi
5	Water					
	Chemical & Physical properties					Sample submitted to IIT-BHU, Varanasi

ANNEX - 4 PHOTOGRAPHS

ANNEX 4 – PHOTOGRAPHS

SBR basin



PCC



PCC being laid

SBR basin



Steel reinforcement for footing



Curing for PCC

SBR Basin



Steel reinforcement for wall



Raft concrete laying

SBR Basin



PCC laying



Site inspection

Bund wall



Formation of bund



Levelling and compaction

Bund wall



Site inspection



Formation of bund

Bund wall



Soil testing

MPS



Desilting Inlet chamber

MPS



Desilting inlet chamber

CCT



Earth work excavation

ANNEX - 5
OUTWARD CORRESPONDENCE LIST
OF MAY 2018

ANNEX 5 - OUTWARD CORRESPONDENCE LIST OF MAY 2018

Sl. No.	Document No	Date	To (Organization)	Copies To	Subject File No	Subject
1.	MACE: P968: 8312	05-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Approval with comments on the inlet-chamber with five screen grid removal and parshall flume GA drawing
2.	MACE: P968: 8313	05-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation on monthly progress report
3.	MACE: P968: 8317	07-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Architectural drawings of staff quarters approval with comments
4.	MACE: P968: 8318	08-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Architectural drawing of security house – Observation
5.	MACE: P968: 8320	08-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Approval with comments on MS Pipes design calculation
6.	MACE: P968: 8322	08-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Revised observations on civil drawings of CCT & treated water PH
7.	MACE: P968: 8327	12-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation of Milestone
8.	MACE: P968: 8328	14-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Mechanical GA drawing of CCT - Comments
9.	MACE: P968: 8329	15-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation on architectural drawing of Admin building

Sl. No.	Document No	Date	To (Organization)	Copies To	Subject File No	Subject
10.	MACE: P968: 8331	21-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Submission of monthly progress report for the month of March 2018
11.	MACE: P968: 8332	22-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation on Mechanical GA – CCT, Chlorination room & treated water pumping station drawing.
12.	MACE: P968: 8333	22-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observations on mechanical GA drawing of air blower and electrical room.
13.	MACE: P968: 8336	23-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation on civil GA & reinforcement drawing of staff quarters (Type I & IV)
14.	MACE: P968:8339	24-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Recommended for approval on MS pipes QAP
15.	MACE: P968:8340	24-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation on electrical load list STP & MPS
16.	MACE: P968: 8341	24-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation on STP layout
17.	MACE: P968:8343	26-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Recommended for approval on Mechanical GA, CCT, Chlorination room & treated water pumping station drawing

Sl. No.	Document No	Date	To (Organization)	Copies To	Subject File No	Subject
18.	MACE: P968:8344	26-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Approval with comments on Mechanical GA of air blower & electrical
19.	MACE: P968:8346	26-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Vendor approval for supply of blower
20.	MACE: P968:8347	26-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Approval of subcontractors
21.	MACE: P968:8349	28-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation in architectural drawing of administrative building
22.	MACE: P968:8357	30-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Progress status
23.	MACE: P968:8358	30-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observations & amendments on inspection category list of mechanical and E&I
24.	MACE: P968:8359	30-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observations on the effluent disposal pipeline bedding drawing
25.	MACE: P968: 8361	30-05-2018	GM, UPJN	NMCG, PM, UPJN	NA	Observation on outfall structure thrust block & value chamber.

ANNEX - 6
INWARD CORRESPONDENCE LIST OF
MAY 2018

ANNEX 6 - INWARD CORRESPONDENCE LIST OF MAY 2018

Sl. No.	Document No	Letter Date	From		Attachments		Subject
			Organization	Writer	Y/N	No.	
1.	EIL/VSPPL/2018/19 -060	2/5/2018	VSPPL / UPJN	Manish Khandelwal	Y	6	Submission of arch drawings S.Q & G.A drawings of Inlet chamber
2	EIL/VSPPL/2018/19 -073	5/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	1	Submission of revised QAP of 1000mm MS pipe & design calculation
3	EIL/VSPPL/2018/19 -080	11/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	3	Submission of Arch drawing of admin, mech G.A drawing of Chlorine contact tank, chlorination building and treated water pump house and mech GA of air blower 7 MCC room for approval
4	EIL/VSPPL/2018/19 -084	19/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	10	Submission of revised mech GA of CCT, treated water PH & chlorination building, effluent pipe line layout, longitudinal section and Plant layout of STP for approval

Sl. No.	Document No	Letter Date	From		Attachments		Subject
			Organization	Writer	Y/N	No.	
5	EIL/VSPPL/2018/19 -081	15/5/2018	VSPPL / UPJN	Manish Khandelwal	Y	3	Submission of datasheet & QAP documents of SBR, air blower and civil GA & reinforced drawing of staff quarters (type 1 & 4)
6	EIL/VSPPL/2018/19 -088	22/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	10	Submission of arch drawing of admin building, design of PSC pipeline, Sizing calculation of DG, APFC & transformer approval.
7	EIL/VSPPL/2018/19 -090	23/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	1	Submission of revised QAP of 1000mm MS pipe
8	EIL/VSPPL/2018/19 -091	23/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	1	Submission of CCT & TW pumphouse GA drawing
9	EIL/VSPPL/2018/19 -092	24/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	1	Submission of mech GA of air blower room and MCC room Rev.1
10	EIL/VSPPL/2018/19 -097	28/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	6	Submission of Electrical load list and sizing calculation of DG and transformer for approval

Sl. No.	Document No	Letter Date	From		Attachments		Subject
			Organization	Writer	Y/N	No.	
11	EIL/VSPPL/2018/19 -098	29/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	3	Submission of mech GA of inlet, fine screen, grid removal and Parshall flume and plant layout of STP
12	EIL/VSPPL/2018/19 -099	30/5/2018	VSPPL / UPJN	Amit B Ghorpade	Y	1	Replay for approval of sub-contractors