NASHIK MUNICIPAL CORPORATION

Solid Waste Management Department

Rajiv Gandhi Bhawan, Sharanpur Road, (Post Box No. 12,) NASHIK - 422001

Visit us at : www. nmc.gov.in E-mail – se_mech@nmc.gov.in

O.No. NMC/SWM/54 /2022 **Date: 18 / 05 / 2022**

To,

State Mission Director,
Swachh Maharashtra Mission-Urban,
Maharashtra Urban Development Mission Directorate,
3rd Floor,Mittal Tower, Nariman Point
Mumbai-400021

Sub:-Submission of CSWAP for Nashik Municipal Corporation.

Dear Sir,

Nashik Municipal Corporation has prepared the City Solid Waste Action plan (CSWAP) as per direction shared by the Mission office, basis the actual conditions on ground. NMC currently has Door to door collection arrangement with GPS based two compartment vehicles and integrated solid waste processing facility in the city.NMC intends to increase its capacity in accordance with the population and waste generation growth as highlighted in the CSWAP.

Details are attached in the CSWAP. Please find the file attached herewith.

Regards,

(Ramesh Pawar)
Municipal Commissioner,
Nashik Municipal Corporation

SBM U-2.0 Operational Guidelines

ANNEX 2: CITY SOLID WASTE ACTION PLAN (CSWAP)

Sr. No.	Particulars	Data
	ULB's City Profile: (demographic and waste generation details)	
1	Name of the State	MAHARASHTRA
2	ULB Code	802776
3	Name of the ULB	NASAHIK
4	Name of the District	NASHIK
5	Name of the Division	NASHIK
6	No. of Municipal Zones in ULB	6
7	No. of wards in the ULB	31
8	Whether ULB boundry expanded after 2011 census	Yes
8.1	If Yes, enter population with extended boundry as per 2011 census and please attached Town Planning Department's surevy report	
8.2	Annul Population Growth Rate Percentage [R]	2.3
9	Population & Households in the ULB as per 2011 Census:	
	Population_2011	1486053
	Households_2011	153977
10	Population & Households in the ULB as per current scenario for 2022:	
	Population_2022	1908386
	Households_2022	381677
11	Projected Population & Households in the ULB @2026	
	Population_2026	2090108
	Households_2026	418022
12	**Institutional and Governance framework:**	
A	**Regulatory Framework**	
a	Whether Municipal SWM Bylaws notified? (conforming to SWM Rules 2016)	Yes
b	State SWM Strategy & Plan (available / not available)	Yes
B	**Institutional Arrangement**	
a	Roles and Responsibilities for dealing with MSWM services.	yes
C	**Governance Reforms**	
a	Implementation of e-governance in ULBs (available/ not available)	Yes
D	**ICT based Governance**	
a	ICT based monitoring of MSWM operations	Yes
	If no, action to be taken to notify & timeline	
b	services and complaint redressal	yes
13	**MSWM Service Level Benchmarks**	
a	**Household level coverage of SWM services**	
	Benchmark	100%
	Before Implimentation of Project(s) (%)	100%

	After Implimentation of Project(s) (%)	100%
b	**Efficiency of collection of municipal solid waste**	
	Benchmark (%)	100%
	Before Implimentation of Project(s) (%)	100%
	After Implimentation of Project(s) (%)	100%
c	**Extent of segregation of municipal solid waste**	
	Benchmark (%)	100%
	Before Implimentation of Project(s) (%)	100%
	After Implimentation of Project(s) (%)	100%
d	**Extent of municipal solid waste recovered**	
	Benchmark (%)	80%
	Before Implimentation of Project(s) (%)	80%
	After Implimentation of Project(s) (%)	80%
e	**Extent of scientific disposal of municipal solid waste**	
	Benchmark	100%
	Before Implimentation of Project(s) (%)	100%
	After Implimentation of Project(s) (%)	100%
f	**Efficiency in redressal of customer complaints**	
	Benchmark (%)	80%
	Before Implimentation of Project(s) (%)	100%
	After Implimentation of Project(s) (%)	80%
g	**Extent of cost recovery in SWM services**	
	Benchmark	100%
	Before Implimentation of Project(s) (%)	
	After Implimentation of Project(s) (%)	100%
h	**Efficiency in collection of SWM-related user charges**	
	Benchmark	90%
	Before Implimentation of Project(s) (%)	
	After Implimentation of Project(s) (%)	90%
i	**Notified User Fee for MSWM services**	Yes
	Notified User Fee for MSWM services (in INR):	
	Current MSW Management	
1	**Current MSW total generation in TPD (A):**	**613**
	TPD= Tonnes per day	
a	Per Capita generation in gms:	321
2	**Total waste collected (TPD):**	613
3	**No. of wards practicing source segregation:**	31
	% of wards practicing source segregation	100%
4	**No. of wards practicing 100% door to door waste collection:**	31
	% of wards practicing 100% door to door waste collection	100%
5	**Total quntity transported in TPD to:**	
a	Processing Plants	613
b	SLF	0
6	**Secondary collection points/Transfer Stations (TS) (only if TS is/ are existing, otherwise not applicable) (ULBs > 5 Lakh and haulage of fully loaded vehicles if >15 km)**	

a	Wet waste: Number of TS	0
b	Wet waste: Capacity of TS (in TPD)	0
c	Dry waste: Number of TS	0
d	Dry waste: Capacity of TS (in TPD)	0

7	**On basis of Waste Characterization, quantity of segregated waste generated (in TPD), of given waste streams:**	
A	**Wet Waste:**	
a	Current Wet waste Generation Quntity in TPD	369.05
	Wet waste processing & capacity:	
b	Current Composting Plant Capacity in TPD (Permanent)	420
c	Current Composting Plant Capacity in TPD (Temporary)	0
d	Current Composting Plant Processing in TPD (Permanent)	366.22
e	Current Composting Plant Processing in TPD (Temporary)	0
f	Current Bio-methanation Plant Capacity in TPD(Permanent)	15
g	Current Bio-methanation Plant Capacity in TPD(Temporary)	0
h	Current Bio-methanation Plant Processing in TPD(Permanent)	2.83
i	Current Bio-methanation Plant Processing in TPD(Temporary)	0
j	Total Current Wet Waste Processing in TPD	369.05
k	**Wet waste % of MSW**	60%
B	**Dry Waste:**	
a	Current Dry waste Generation Quntity in TPD	245
	Dry waste processing & capacity:	
b	Current MRF cum RDF Plant Capacity in TPD (Permanent)	300
c	Current MRF cum RDF Plant Capacity in TPD (Temporary)	0
d	Current MRF cum RDF Plant Processing in TPD (Permanent)	245
e	Current MRF cum RDF Plant Processing in TPD (Temporary)	0
f	Current WtE (RDF based- only for ULBs >10 lakh population) Plant Capacity in TPD(Permanent)	0
g	Current WtE (RDF based- only for ULBs >10 lakh population) Plant Capacity in TPD(Temporary)	0
h	Current WtE (RDF based- only for ULBs >10 lakh population) Plant Processing in TPD(Permanent)	0
i	Current WtE (RDF based- only for ULBs >10 lakh population) Plant processing in TPD(Temporary)	0
j	Total Current Dry Waste Processing in TPD	245
k	**Dry waste % of MSW**	40%
C	**Sanitary waste:**	
a	Current Sanitary waste generation quantity in TPD	0.04
b	Current Sanitary waste Plant Capacity in TPD (Permanent)	7.2
c	Current Sanitary waste Plant Capacity in TPD (Temporary)	0
d	Total Current Sanitary waste Processing in TPD	0.04
e	**Sanitary waste % of MSW**	0%
D	**Domestic Hazardous Waste:**	
a	Current Domestic Hazardous Waste generation quantity in TPD	0.04
b	Current Domestic Hazardous Waste Plant Capacity in TPD (Permanent)	7.2
c	Current Domestic Hazardous Waste Plant Capacity in TPD (Temporary)	0
d	Total Current Domestic Hazardous Waste Processing in TPD	0.04
e	**Domestic Hazardous Waste % of MSW**	0%
E	**Other wastes (Drain Silt & Inert):**	
a	Current Other waste (Drain Silt & Inert) generation quantity in TPD	0

b	Current Other waste (Drain Silt & Inert) Plant Capacity in TPD (Permanent)	0
c	Current Other waste (Drain Silt & Inert) Plant Capacity in TPD (Temporary)	0
d	Total Current Other waste (Drain Silt & Inert) Processing in TPD	0
e	**Other waste (Drain Silt & Inert) % of MSW**	0%
8.1	**Total Current C&D waste plant capacity: quantity in TPD**	50
	Total Current C&D waste generated: quntity in TPD	29.7
	C&D waste % of MSW	5%
8.2	**Dumpsite Remediation: Total proposed requirement (gap projected @ 2026) in Tonnes**	0
9	**Total quantity of MSW currently processed (B) in TPD**	**614.13**
10	**Total Permanent Plant design capacity available of all types of processing plants in TPD**	**749.4**
11	**Total Temporary Plant design capacity available of all types of processing plants in TPD**	**0**
12	**Total Design Capacity* of permanent processing plants in TPD**	**749.4**
13	**Operation & Maintenance and Recovery of SWM fees Issues:**	
	Note: Prepare statement of previous 5 years O&M costs incurred in ULB for O&M and the collections of SWM user fees and analyses for sustainability of O&M	
13.1	Financial Year 2017-18 - SWM cost incurred in ULB for O&M	5.28
	Financial Year 2017-18 - SWM user fees collected for O&M	5.28
	Financial Year 2017-18 - % sustainability	100%
12.2	Financial Year 2018-19 - SWM cost incurred in ULB for O&M	6.77
	Financial Year 2018-19 - SWM user fees collected for O&M	6.77
	Financial Year 2018-19 - % sustainability	100%
12.3	Financial Year 2019-20 - SWM cost incurred in ULB for O&M	8.42
	Financial Year 2019-20 - SWM user fees collected for O&M	8.42
	Financial Year 2019-20 - % sustainability	100%
12.4	Financial Year 2020-21 - SWM cost incurred in ULB for O&M	11.72
	Financial Year 2020-21 - SWM user fees collected for O&M	11.72
	Financial Year 2020-21 - % sustainability	100%
12.5	Financial Year 2021-22 - SWM cost incurred in ULB for O&M	15.14
	Financial Year 2021-22 - SWM user fees collected for O&M	15.14
	Financial Year 2021-22 - % sustainability	100%

	Assessment of requirement of processing plants / facilities	
1	**Projected MSW generation @2026 in TPD**	**1150**
1.1	**Per capita waste generation for calculating waste generation**	550
	Note: ULBs > 10 lakh population@550 gms/capita; ULBs 1 lakh -10 lakh (both included) population@450gm/capita; ULBs <l lakh population@300gm/capita	
2	**Projected waste generation streams for year 2026**	
A	**Wet Waste:**	
a	Projected Wet waste generation quntity in TPD	692
b	Wet waste % of Projected MSW	60%
c	% Wet waste for composting plant processing	95%
d	Projected Composting Plant Capacity in TPD (Permanent)	657
e	% Wet waste for Bio-methanation plant processing	5%
f	Projected Bio-methanation Plant Capacity in TPD (Permanent)	35
B	**Dry Waste:**	
a	Projected Dry waste generation quntity in TPD	459
b	Dry waste % of Projected MSW	40%
c	% Dry waste for MRF-cum-RDF Plant processing	100%
d	Projected MRF-cum-RDF Plant Capacity in TPD (Permanent)	459
e	% Dry waste for WtE (RDF based- only for ULBs >10 lakh population) plant processing	0%
f	Projected WtE (RDF based- only for ULBs >10 lakh population) Plant Capacity in TPD (Permanent)	0
C	**Sanitary Waste:**	
a	Projected Sanitary waste generation quntity in TPD	0.08
b	Sanitary waste % of projected MSW	0%
D	**Domestic Hazardous Waste:**	
a	Projected Domestic Hazardous Waste generation quntity in TPD	0.08
b	Domestic Hazardous Waste % of projected MSW	0%
E	**Other (Drain Silt & Inert) Waste:**	
a	Projected Other waste generation quntity in TPD	0.00
b	Other waste % of projected MSW	0%
F	**To Sanitary Landill (SLF)**	
a	To SLF not more than (20%)	15%
b	To SLF in TPD	172
G	**Mechanical Road Sweepers:**	
a	No. of Machines currently operating/existing	0
b	Current requirement (gap projected @ 2026) in Nos	6
H	**Transfer Station: Total proposed requirement (gap projected @ 2026) in TPD**	0
I	**Other Components of MSW Management: Sanitary Lanfill (SLF) (filling CELL for 5 years only)**	

a	Waste sent to SLF restricted to <20% of total MSW	172
b	SLF capacity for 5 years duly adding extra volume for daily cover, top cover etc. (asper Manual on MSWM) in Tonnes (10% excess volume considered)	346161
J	**Estimated cost for proposed components as per GAP analysis for 2026**	
1	Wet waste processing by composting: Total proposed requirement (gap projected @ 2026) in TPD	237
	Wet waste processing by composting: Estimated Cost/tonne	0.115
	Wet waste processing by composting: Proposed estimated cost (Cr)	27.31
2	Wet waste processing by bio-methanation: Total proposed requirement (gap projected @ 2026) in TPD	20
	Wet waste processing by bio-methanation: Estimated Cost/tonne	0.18
	Wet waste processing by bio-methanation: Proposed estimated cost (Cr)	3.53
3	Dry waste processing by MRF-cum-RDF: Total proposed requirement (gap projected @ 2026) in TPD	159
	Dry waste processing by MRF-cum-RDF: Estimated Cost/tonne	0.085
	Dry waste processing by MRF-cum-RDF: Proposed estimated cost (Cr)	13.55
4	Dry waste processing by WtE RDF based: Total proposed requirement (gap projected @ 2026) in TPD	0
	Dry waste processing by WtE RDF based: Estimated Cost/tonne	0.18
	Dry waste processing by WtE RDF based: Proposed estimated cost (Cr)	0
5	C&D waste processing: Total proposed requirement (gap projected @ 2026) in TPD	157
	C&D waste processing: proposed estimated cost	0.06
	C&D waste processing: Proposed estimated cost (Cr)	9.41
6	Dumpsite Remediation: Total proposed requirement (gap projected @ 2026) in Tonnes	0
	Dumpsite Remediation: Total proposed requirement Estimated Cost/tonne	0.000055
	Dumpsite Remediation: Proposed estimated cost (Cr)	0.00
7	Sanitary Landfill: Total proposed requirement (gap projected @ 2026) in TPD	172
	Sanitary Landfill: Total proposed requirement Estimated Cost/tonne	0.065
	Sanitary Landfill: Proposed estimated cost (Cr)	11.21
8	Transfer Station: Total proposed requirement (gap projected @ 2026) in TPD	0
	Transfer Station: Total proposed requirement Estimated Cost/tonne	0.045
	Transfer Station: Proposed estimated cost (Cr)	0
9	Mechanical Road Sweepers: Total proposed requirement (gap projected @ 2026) in Nos	6
	Mechanical Road Sweepers: Total proposed requirement Estimated Cost per machine for MRSs	0.55
	Mechanical Road Sweepers: Proposed estimated cost (Cr)	3.3

K	**Financing Planning of Fund Required for Addressing the GAPs (Rs. In Crore)**	
	Note: Other States: ULBs with population of less than 1 lakh, central 50%, State 33%, ULB 17%	
	Note: Other States: ULBs with population between 1 - 10 lakh (both included), central 33%, State 22%, ULB 45%	
	Note: Other States: ULBs with population of above 10 lakh, central 25%, State 16%, ULB 59%	
	Central Share	**25**
	State Share	**16**
	ULB Share	**59**
1	For Wet waste processing: Total Proposed Cost in Cr	30.84
	For Wet waste processing: Central share under SBM-U 2.0	7.71
	For Wet waste processing: State Government share	4.93
	For Wet waste processing: ULB share	18.19
2	For Dry waste processing: Total Proposed Cost in Cr	13.55
	For Dry waste processing: Central share under SBM-U 2.0	3.39
	For Dry waste processing: State Government share	2.17
	For Dry waste processing: ULB share	8.00
3	For C&D waste processing: Total Proposed Cost in Cr	9.41
	For C&D waste processing: Central share under SBM-U 2.0	2.35
	For C&D waste processing: State Government share	1.50
	For C&D waste processing: ULB share	5.55
4	For Dumpsite Remediation waste processing: Total Proposed Cost in Cr	0.00
	For Dumpsite Remediation waste processing: Central share under SBM-U 2.0	0.00
	For Dumpsite Remediation waste processing: State Government share	0.00
	For Dumpsite Remediation waste processing: ULB share	0.00
5	For Sanitary Landfill waste processing: Total Proposed Cost in Cr	11.21
	For Sanitary Landfill waste processing: Central share under SBM-U 2.0	2.80
	For Sanitary Landfill waste processing: State Government share	1.79
	For Sanitary Landfill waste processing: ULB share	6.61
6	For Transfer Station: Total Proposed Cost in Cr	0
	For Transfer Station : Central share under SBM-U 2.0	0
	For Transfer Station: State Government share	0
	For Transfer Station: ULB share	0
7	For Mechanical Road Sweepers: Total Proposed Cost in Cr	3.30
	For Mechanical Road Sweepers : Central share under SBM-U 2.0	0.83
	For Mechanical Road Sweepers: State Government share	0.53
	For Mechanical Road Sweepers: ULB share	1.95

	Grand Total	
	Total Proposed Cost in Cr	**68.31**
	Total Central Share under SBM-U 2.0 in Cr	**17.08**
	Total State Governmemt Share in Cr	**10.93**
	Total ULB Share in Cr	**40.30**
	Module 1: MSW Processing GAP analysis & Action Plan	
M1.1	**GAP Assessment for 100% Processing of MSW at ULB level**	
	* Operational/ Under construction/ in Tender Process, Non-Functional good condition	
1	**Composite Plants (for WET waste)**	
a	Existing Plants capacity (TPD*)	420
b	Status of Current Capacity- Deficit/ Surplus	Deficit
c	GAP Projected @2026 (TPD) *	237
2	**Bio-methanation Plants (for WET Waste)**	
a	Existing Plants capacity (TPD*)	15
b	Status of Current Capacity- Deficit/ Surplus	Deficit
c	GAP Projected @2026 (TPD) *	20
3	**Material Recovery Facilities MRF-cum RDF- (For DRY waste)**	
a	Existing Plants capacity (TPD*)	300
b	Status of Current Capacity- Deficit/ Surplus	Deficit
c	GAP Projected @2026 (TPD) *	159
4	**Waste to Electricity (RDF based- only for ULBs > 10 Lakh)**	
a	Existing Plants capacity (TPD*)	0
b	Status of Current Capacity- Deficit/ Surplus	Surplus
c	GAP Projected @2026 (TPD) *	0
	[Explanation for calulating GAP: Many ULBs have installed composting plants receiving mass waste, without segregation at source, but carry out segregation within the process. Such plants shall continue to be utilized for either wet or dry waste, for full design capacity with segregation at source. It will result in proposing plants for other waste stream only. Additional process may be added down the line to process RDF if not already being done in such plants. after the GAP analysis, actions need to be taken for preparation of DPRs; Identifying & earmarking land; documents for tenders etc.]	

M1.2	**ULB Level Action Plan for achieving scientific MSW Processing**	
1	**Composting Plants (for WET waste)**	
a	Proposed Plant Capacity (TPD)	237
b	Estimated Cost	27.31
c	Plant Commissioning Date	30.03.2024
2	**Bio-methanation Plants (for WET waste)**	
a	Proposed Plant Capacity (TPD)	20
b	Estimated Cost	3.53
c	Plant Commissioning Date	30.03.2024
3	**Material Recovery Facilities MRF cum RDF - (For DRY waste)**	
a	Proposed Plant Capacity (TPD)	159
b	Estimated Cost	13.55
c	Plant Commissioning Date	30.03.2024
4	**Waste to electricity (RDF based- only for ULBs > 10 Lakh)**	
a	Proposed Plant Capacity (TPD)	0
b	Estimated Cost	0
c	Plant Commissioning Date	30.03.2024
5	**Construction of SLF**	
a	Proposed Plant Capacity (TPD)	172
b	Estimated Cost	11.21
c	Plant Commissioning Date	30.03.2024
6	**Construction of TS, if required (ULBs > 5Lakh and haulage of fully loaded vehicles if >15 km)**	
a	Proposed Plant Capacity (TPD)	0
b	Estimated Cost	0
c	Plant Commissioning Date	30.03.2024
	Total Estimated Cost	55.60
M1.3	**ULB commitment timelines for Certification under Garbage-free Cities Star Rating**	
1	1-Star GFC Rating Certification: Committed Date	
2	3-Star GFC Rating Certification: Committed Date (mandatory before 31.03.2026)	
3	5-Star GFC Rating Certification: Committed Date	(these certifications are beyond the mandatory requirement under SBM 2.0. ULBs are encouraged to get these certifications)
4	7-Star GFC Rating Certification: Committed Date	

	Module 2: Legacy Waste Dumpsites Remediation Action Plan	
M2.1	**ULB's Dumpsite Remediation Plan** (applicable only if ULB has an existing dumpsite(s)	
1	Total quantity of existing legacy waste in tonnes	0
2	Land occupied by the dumpsite, Acres	0
3	Proposed method of remediation*(* to be compliant with extant NGT and Court orders)	Bioremediation, Biomining
4	Action Plan for recoverable material	
5	Indicative uses/ Utilization of Segregated Material	
6	Land to be covered, Acres (extent of land from which waste is completely removed)	
7	End uses of remediated dumpsite area	
8	Estimated cost for Remediation	0.00
9	Most likely date for complete remediation (not beyond 31.3.2023 for ULBs < 10 Lakhs and 31.3.2024 for ULBs > 10 Lakhs)	
	Module 3: C & D Waste Processing Action Plan (Only for 154 non-complying (NCAP cities) and 5-lakh size ULBs)	
M3.1	**ULBs Gap Assessment for processing of construction and demolition waste: (Applicable for ULBs > 5 lakh population and/or 154 Non-attainment cities)**	
1	Estimated C&D Waste generated @ 50gms/ capita of total Municipal Solid Waste in TPD	104.51
2	Add 25% extra for bulk C & D waste generators, depositing with ULB	130.63
3	Add 20% over and above	156.76
4	Total C&D waste currently generated in TPD	29.7
5	Existing capacity of C&D waste processing plant available in TPD	50
6	Proposed capacity in TPD for 2026	156.76
	Module 4: Mechannical Road Sweepers Action Plan (only for 154 non-complying (NCAP) and 5-lakh size ULBs)	
M4.1	**Mechanical Road Sweepers (Applicable only for ULBs> 5 Lakh population and/ or 154 Non-attainment cities)- Assessment for a ULB**	
1	Length of road to be swept daily (Only those roads which are 4-lane or more lanes)	80
2	Detailed calculation of mechanical sweepeing required in Lane-KMs	320
3	Proposed no. of Machines required to sweep the length	6
4	No. of Machines currently operating/ existing	0

5	Current requirement of machines (nos)	6

Approval by Competent Authority

	Date: 18/5/2022
	Place: Nashik
	Signature:
	Stamp

Superintending Engineer (Mech.)
Nashik Municipal Corporation

Director (SWM)
Nashik Municipal Corporation

18/5

आयुक्त
नाशिक महानगरपालिका, नाशिक

આદેશ