



Ministry of Housing and Urban Affairs
Government of India



Swachh Bharat Mission (Urban) SBM Water Plus Protocol





1. BACKGROUND

India's urban population has sharply increased from 19.9% in 1971 to 31.2% in 2011. This unprecedented growth, along with high economic growth, has resulted in a severe challenge for Urban India, in terms of addressing the incremental infrastructural needs of a fast-growing urban population. One of the major challenges arising out of increased migration of the populace from rural areas to cities and towns in search of an improved quality of life has been the issue of access to sanitary facilities, and the attendant menace of open defecation, especially in areas housing economically weaker sections of society, where open defecation (OD) spots are more likely to be found.

The Swachh Bharat Mission – Urban aims to fulfil the objective of 100% Open Defecation Free status in all Urban Local Bodies (ULBs) in the country by 2 October 2019. This entails providing access to toilet facilities (i.e. construction of sanitary latrines at individual households, community and public toilets level) hereby referred to as SBM ODF. Further, it also entails operation and maintenance of these facilities to ensure their functionality, hereby referred to as SBM ODF+. Effective faecal sludge and septage management (FSSM) is being ensured which comprises of safe containment, emptying, collection, transportation, treatment, and/or safe disposal of septic tank contents, hereby referred to as SBM ODF++. Simultaneously, behavior change initiatives have been continued through intensive participation of key stakeholders – women and youth, to ensure that these sanitary facilities are used regularly and correctly. Now, as we are towards the conclusion of this phase of the mission, it is imperative that progress attained in achieving our objectives needs to be sustained financially and in an environmentally feasible manner.

2. SCOPE

The purpose of this toolkit is to provide a readiness check and guideline for cities and towns that have already achieved Open Defecation Free (ODF)/ODF+ /ODF++ status as per the existing protocols prescribed by the Ministry of Housing and Urban Affairs (MoHUA) and to work towards ensuring sustainability of sanitation status, hereby referred to as SBM Water Plus in order to achieve safe sustainable sanitation for all, by ensuring that no untreated waste water is discharged into the open environment. This toolkit provides the detailed SBM Water Plus protocol laid down by MoHUA, along with declaration formats to be obtained from various stakeholders, that wards / work circles (in case under jurisdiction of development authority) and cities are required to submit, as part of the SBM Water Plus declaration and certification process.

This toolkit can serve as a readiness checklist for all ULBs / Development Authorities / Cantonment Boards to prepare themselves and their concerned stakeholders in achieving SBM Water Plus status and officially declare the same, followed by certification, as per the protocol outlined.

3. DEFINITION OF WATER PLUS

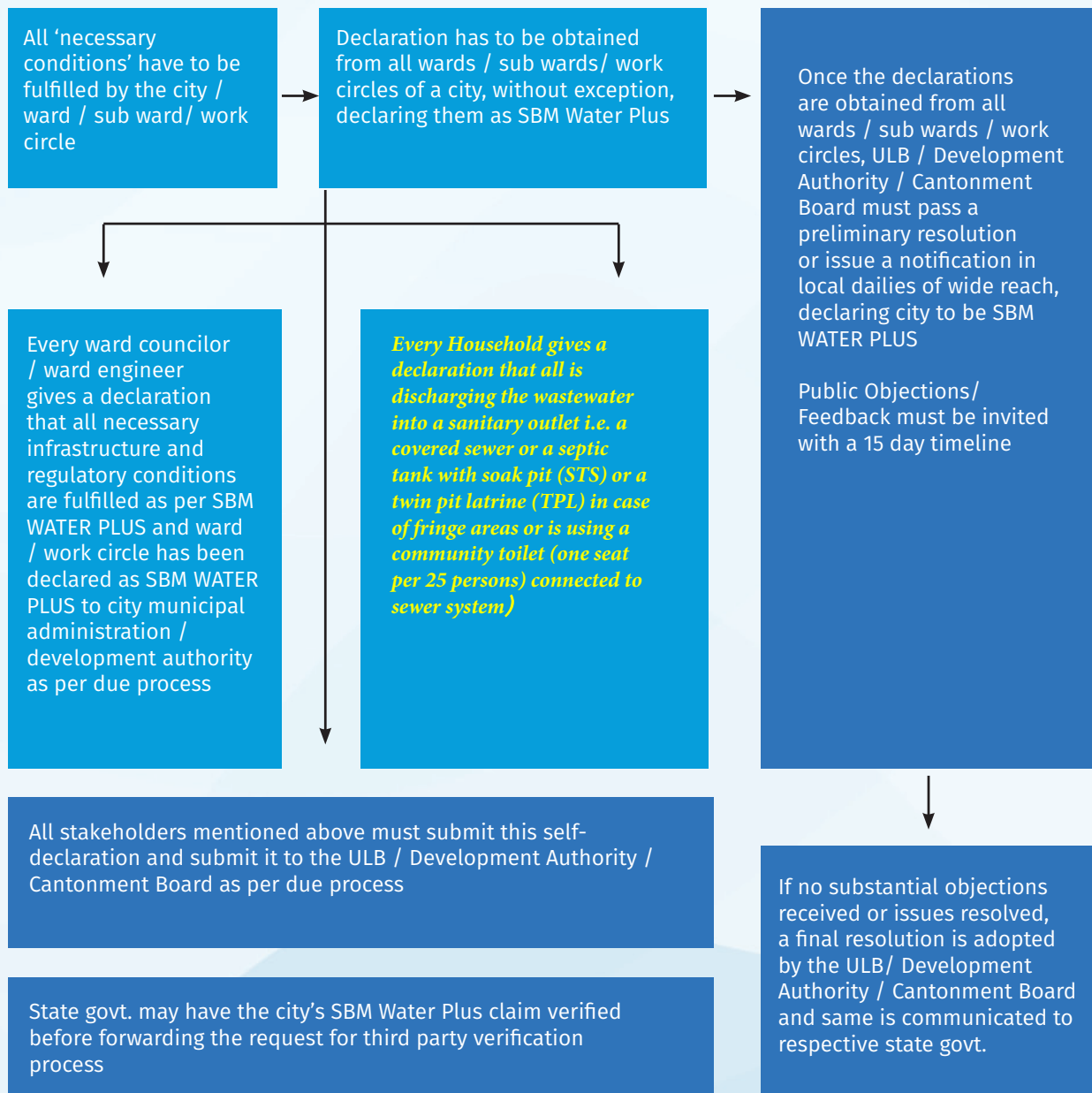
A city / ward / circle / zone can be declared as Water Plus provided all wastewater released from households, commercial establishments, drains, nallahs etc. is treated to a satisfactory level (as per CPCB norms), before releasing the treated wastewater to the environment. Further, adequate capacity of wastewater and sewage treatment facilities is to be ensured. The infrastructure should be maintained properly and cost recovery is ensured through reuse / recycling of treated wastewater to ensure sustainability.

4. NECESSARY INFRASTRUCTURE AND REGULATORY CONDITIONS TO BE ACHIEVED BEFORE DECLARING A CITY/ WARD AS SBM WATER PLUS

- (a) *The Ward Councillor/Ward Engineer should declare that Wastewater (black water) from all toilets is being discharged into a sanitary outlet i.e. an underground sewer or a septic tank together with soak pit or a twin pit latrine (TPL) .Any additional sullage (greywater) leaving the household premises is being discharged into a continuous municipal drain which is further connected to STP for treatment.*
- (b) The Municipal Commissioner/ City Engineer should declare that:
 - (i) Designed capacity of sewage treatment plant is sufficient to treat 500 LPD per household (or 100 liters per person) through a decentralized or centralized treatment plant for the number of households connected to sewer
 - (ii) *Sufficient suction and haulage capacity exists with the city in terms of desludging vehicles to meet the requirement of emptying septic tanks and management of their contents at an interval of 3 years*
 - (iii) All septic tanks are de-sludged in every three years
 - (iv) Sufficient Septage treatment facility is available in the city
 - *By way of co-processing at an existing STP where adequate spare capacity is available (as per CPHEEO norms) to treat the content of septic tanks being desludged every day in the city OR*
 - *By way of treatment at a standalone FSTP with a capacity equivalent to the total volume of septage removed from the septic tanks being emptied every day.*
 - (v) A Minimum of **25** % wastewater is being reused after treatment at city level viz. horticulture, agriculture, industrial use, cleaning roads etc.
 - (vi) *A schedule exists to repair, clean and desilt all municipal drains both pre and post monsoon (Supporting documentation needs to maintained)*
 - (vii) *Bar Screens are placed at laid down intervals in all open municipal drains which receive sullage and a schedule exists to remove accumulated solids on daily basis.*
 - a) *At 500m interval for drains of X-Section > 10 Sq ft*
 - b) *At all junctions of major secondary to primary drains and primary drains and major water bodies/rivers.*
 - (viii) *Municipal drains receiving sullage should be well maintained, continuous and connected and do not peter out in an unplanned way.*
 - (ix) *All manholes to be covered to avoid any accident and garbage dumping*
 - (x) *No sewage overflow from wastewater conveyance system- manholes, pumping stations.*
 - (xi) *Sewers and manhole chambers are being cleaned at least once in a year. (Supporting documentation needs to be maintained)*
 - (xii) Drains should be well maintained
 - (xiii) Sewer and septic tanks should be cleaned mechanically only (any manual entry done only with adequate PPE and due approval). Supporting documents to be maintained
 - (xiv) **100 %** Operations and Maintenance costs of sewer networks / STPs / FSTPs are being recovered through dedicated revenue streams
 - (xv) All Swachhata / local app complaints pertaining to choked sewers, leakage of sewage, water logging, septic tank cleaning, uncovered manholes, drain cleaning -are being addressed within SLA

5. SBM WATER PLUS DECLARATION PROTOCOL

The following protocol is to be adopted for declaring a city / ward / work circle as SBM WATER PLUS:



The protocol is elaborated below:

- 1) All the 'necessary infrastructure and regulatory conditions' have to be fulfilled by the city/ ward / work circle/ zone

Following the fulfilment of (1) above, the city municipal administration / cantonment board/development authority would self-declare itself Water Plus provided it has obtained the following sub-declarations from all wards/zones/circles:

- i) Declaration by all ward Councillors / Ward engineers that necessary infrastructure and regulatory condition mentioned in Section 4 of this toolkit (as per declaration format prescribed in Section 7 of this toolkit).
- 2) The above sub-declaration is to be submitted to the municipal administration / development authority / cantonment board by all wards / work circles, (as applicable) in order to facilitate the self-declaration by the Municipal Administration.
- 3) On fulfillment of the above, the city municipal administration / development authority must pass a preliminary resolution or issue a notification in local dailies of wide reach, declaring the city to be SBM Water Plus.
 - i) Following such resolution/notification, a suitable public announcement must be made for the same as well, in atleast two newspapers of wide circulation and readership, inviting public feedback / objection with a fifteen day timeline.
- 4) If no substantial objections are received at the end of this time, a final resolution is adopted by the city municipal administration/ cantonment board/ development authority and the same is communicated to respective state government or directly to MoHUA for Development Authority / Cantonment Board.
- 5) On receipt of the said communication, the state government may have the claim of the city verified through an appropriate third party verification process (in a time bound process) before formally sending the assessment request to Ministry of Housing and Urban Affairs (MoHUA).
- 6) MoHUA will then carry out the "Swachh Certification for SBM Water Plus" process (detailed later in this document). Upon successful assessment, the city/ cantonment board/ development authority would be issued a certificate which shall be valid for six months and the certification process will need to be carried out every six months. In case of failure in certification, a one-month cooling off period (from date of certification failure) shall be applicable. If the city fails consecutively for the second time, cooling-off period would be six months (from the date of second certification failure) before the respective city may again request for SBM Water Plus certification, so as to ensure that there is no slippage of the SBM Water Plus status.

6. SWACHH CERTIFICATION PROCESS FOR WATER PLUS

Once a city has communicated to the respective state government the final resolution declaring the city to be SBM Water Plus, and the state government has communicated the same to MoHUA (or in case of development authority or cantonment board, city has directly communicated to MoHUA), a third party verification process (“Swachh Certification for SBM Water Plus”) is to be adopted, for the final SBM Water Plus certification.

In case of failure in certification, a one-month cooling off period (from date of certification failure) shall be applicable. If the city fails consecutively for the second time, cooling-off period would be six months (from the date of second certification failure) before the respective city may again request for SBM Water Plus certification, so as to ensure that there is no slippage of the SBM Water Plus status.

Protocol to be followed for Swachh Certification for SBM Water Plus

The following protocol will need to be followed for receiving the Swachh Certification:

- a) City self-declares itself as “SBM Water Plus” for the first time and communicates the same to state SBM Mission Directorate, which in turn communicates to MoHUA, or directly to MoHUA for Development Authority / Cantonment Board.
- b) Upon request by City/State to MoHUA, a third party (selected by MoHUA) will mobilize assessors to conduct the verification within a period of 30 days.
- c) For the initial verification, the third party will assess both Service Level Status as well as conduct Independent Observation.
- d) Based upon the result of the assessment, the third party will make recommendations to MoHUA for cities to be certified SBM Water Plus.
- e) MoHUA will subsequently issue a certificate to the city for the same based upon the recommendation of the third party.
- f) The certificate, when issued, will need to be recertified every 12 months.
- g) For recertification, upon receiving request, the third party will conduct independent observation within the city within a period of 30 days.
- h) It is to be noted that Service Level Status will not be re-checked during the re-certification/ re-assessment. City should ensure that all conditions of ODF++ Protocol are adhered.

Methodology for Swachh Certification for SBM Water Plus:

The verification process will be conducted in two parts:

- i. Service Level Status
- ii. Independent Observations

a. Service Level Status:

- i. Preliminary data will be collected in advance through Common City Profile of ULBs/ Development Authorities / Cantonment Boards as per the defined protocol and data submitted.
- ii. Third party assessors will visit ULBs / Development Authorities / Cantonment Boards to review the documentation and collect the data systematically ensuring that the process is independent and unbiased.

b. Independent Validation:

- i. ULB / Development Authority / Cantonment Board must mandatorily provide complete city profile data to MoHUA after SBM Water Plus declaration, to facilitate field visits for validation and observation.
- ii. The collection of data will be based on physical observation by the third party assessors.
- iii. The questionnaire to facilitate data collection will be created by the third party in conjunction with Ministry of Housing and Urban Affairs.
- iv. The survey assessors will use handheld IT enabled devices to record their observations and findings along with photographs.
- v. The third party will systematically collect photos as evidence for field observations ensuring that the location, date and time are tagged on all the pictures. The third party may interact with stakeholders to ascertain the SLP data.
- vi. For the assessment, cities will be classified based on population as below. Based upon the size of the city, it will be divided into zones.
- vii. For cities with greater than 10 lakh population, the city will be divided into 4 zones - North, South, East and West.
- viii. For cities with population between 1 – 10 lakh, the city will be divided into 4 zones – North, South, East and West.
- ix. For cities with population less than 1 lakh, the city will be divided into 2 zones – North and South.
- x. All locations shall be within ULB limits and will be finalized at the discretion of the third party. The selected locations shall not be communicated to ULB / Development Authority / Cantonment Board.
- xi. The following locations which have to be mandatorily inspected by the third party for independent observation, without exception. Refer Annexure 1 for breakup.
 - I. Location Type, II. Households for STS, III. Household TPL,
 - IV. Household for sewerage, V. Commercial Establishment, VI. Construction Sites
 - VII. Industrial Establishments, VIII. Treatment Plant (Centralized or Decentralized)
 - IX. Decanting Point and Desludging Vehicles, X. Water Bodies, XI. Point of Recycling and Reuse

Protocol to be mandatorily followed by the Third Party to carry out SBM Water Plus inspection:

- i. The third party shall **NOT** communicate assessors' arrival in the city to ULB Development Authority /Cantonment Board. **Assessment shall be conducted within one month from the date of application. The condition is in-line with Swachh Survekshan Toolkit and GFC Protocol.**
- ii. The assessor(s) shall **NOT** meet the Municipal Commissioner / Nodal Officer / Chairperson/ CEO or any designated officer .
- iii. Assessor(s) shall conduct inspection for the locations (inspection sites) as per table and city profile. **A pre-visit may be conducted by a separate team to identify locations for sampling at the discretion of MoHUA**
- iv. The designated assessor shall visit the inspection sites (only) and prepare/ submit her/his report.
- v. The assessor(s) shall **NOT** be accompanied by ULB / Development Authority / Cantonment Board staff on the inspection.
- vi. If the assessor(s) fails to geo tag the location correctly (i.e., latitude and longitude versus the name of the said location) and in the report if there is a mis-match then the said location shall be considered null and void and in case of complaint by ULB / Development Authority / Cantonment Board on such and related matters a penalty of Rs. 500/- per case may be imposed on the third party. **Quality Audit on the work of the assessor would be conducted.**

7. DECLARATION FORMATS

a. Format for declaration to be submitted by City / town

I, Mayor / Chairperson / Commissioner / CEO of (Name of ULB / development authority / cantonment board) do hereby declare that all necessary conditions for SBM Water Plus (as per the SBM Water Plus protocol laid down by MoHUA) have been achieved, and :

- i. All wastewater released from households, commercial establishments etc. is treated to a satisfactory level
- ii. The cumulative effect of pollutants have been minimized to avoid harmful effects to public health before releasing the treated wastewater to the environment.
- iii. The treated wastewater should is reused or recycled to ensure sustainability
- iv. Wastewater collection should is efficient and collected through proper network including storm water drainage.
- v. Adequate capacity of wastewater and sewage treatment facilities is present.
- vi. Wastewater infrastructure is maintained properly and cost recovery is ensured.
- vii. All Ward Councillors / Work Circle In-Charge or Engineers (as applicable) in the city / town have submitted their self-declarations regarding SBM Water Plus status with compliance to necessary infrastructure and regulatory conditions as per Section 4 of the Water Plus Protocol
- viii. Preliminary resolution has been passed declaring the city / town as SBM Water Plus
- ix. Above resolution has been publicly announced, in atleast two newspapers of wide circulation and readership, inviting public feedback / objection within 15 days of announcement
- x. Since no objections have been received within the stipulated time period / since objections and feedback received from the public have been addressed, a final resolution has been adopted by this office regarding SBM Water Plus status
- xi. This final resolution has been communicated to the state government for further verification (if decided to be carried out).

Accordingly..... (Name of city/ town/ cantonment board/ development authority) is hereby declared SBM Water Plus.

MoHUA is now requested to carry out the “Swachh Certification for SBM Water Plus” process for (Name of city/town/cantonment board/ development authority).

..... (Signature, and Name of Mayor / Chairperson /Commissioner / CEO)

Date:

Seal:

**b. Format for declaration to be submitted by every Ward Councillor/
Ward Engineer / Work Circle In-Charge**

I, Ward Councillor/Ward Engineer / Work Circle In-Charge of (ward / work circle details), under (Name of ULB / development authority / cantonment board) do hereby declare that:

- i. ***Every household is discharging the wastewater into a sanitary outlet i.e. a covered sewer or a septic tank with soak pit (STS) or a twin pit latrine (TPL) in case of fringe areas or is using a community toilet (as per CPHEEO norms) connected to sewer system***
- ii. Designed capacity of sewage treatment is sufficient to treat wastewater through a decentralized or centralized treatment plant for the number of households connected to sewer.
- iii. Desludging vehicles are available for households which are dependent on Septic tanks with soak pits.
- iv. Septage treatment facility is available :
 - For all such households based on septic tanks with soak pit
 - By way of standalone functional FSTP which is functional: Design capacity is sufficient to treat septage for all such households based on septic tanks with soak pits
- v. No septic tanks with soak pits are discharging effluents into open drains .
- vi. ***All households with septic tanks + soak pit in the fringe areas are mapped to a treatment /co-treatment plant.***
- vii. All other households discharge wastewater into a small bore or conventional sewer connected to a centralized/decentralized wastewater treatment plant.
- viii. A minimum of **25 %** wastewater is being reused after treatment
- ix. All industrial establishments, construction sites (more than 20000 Sq. ft.) which are discharging more than 500 liters per day have submitted a declaration that they are maintaining Zero Liquid Discharge (ZLD) in the said establishment.
- x. ***All Soak pits have been checked for design compliance and household level data is maintained. Annual scheduled Inspection by ULB/nominated service providers to at least 25% of on-site sanitation systems to ascertain its Proper maintenance by respective owners (Supporting documentation needs to maintained) . The IS 2470 Part I and II may be referred.***
- xi. There is 100% collection efficiency of wastewater through adequate network.
- xii. 100% functional capacity of treatment plant is available to treat wastewater.
- xiii. Infrastructure is available to monitor quality of water/sewage treated
- xiv. More than 80% of citizen complaints pertaining to sewage overflow have been resolved (quarterly).
- xv. 90% efficiency is maintained for collecting charges for sanitation services provided to citiz

I further declare that I have formally submitted this declaration to the (Name of ULB / (Signature, and Name of Ward Councillor / Ward Engineer/ Work Circle In-Charge/Engineer)
development authority / cantonment board) for further necessary action.

Date:

Seal:

Annexure 1: Water Plus – No. of Locations

Location Type	No. of Locations (>20 lakh)	No. of Locations (10-20 lakh)	No. of Locations (1- 10 lakh)	No. of Locations (< 1 lakh)
Slum (STS, TPL, Sewer)	12	8	4	2
Residential (STS, TPL, Sewer)	12	8	4	2
Commercial Establishments (Toilet to be mandatory checked)	12	8	4	2
Public Area (Toilet to be mandatory checked)	8	8	4	2
Transport Hub	4	4	2	2
Construction Sites (More than 20,000 sq. Ft)	4	4	4	2
Industrial Establishments	8	8	4	2
Roads and streets (Main roads and Storm Water Drainage/ roads aligned with open or closed drains)	12	8	4	2
Water Bodies	4	4	2	2
Decanting points and Desludging Vehicle	2	2	1	1

Point of recycling and reuse	2	2	1	1
Treatment Plant (Centralized or Decentralized)	All			
Total	80	64	34	20





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