

Description of a Challenge - Shimla

City	Shimla	Contact person	Gopal Krishan Executive Engineer (Sewerage) +91177-2802771 to 6
Concerned Department / Authority	Shimla Jal Prabandhan Nigam Limited	Contact person	Dharmendra Gill MD cum CEO Mcsml-hp@nic.in ; mcs_shimla@yahoo.com +919418301809
Theme	Waste water management – Coverage, treatment and recycling of the city's waste water and sewage		
Background	<p>Discovered in 1819 by British, Shimla has evolved from a small hill settlement to one of the popular tourist destinations in India. Himachal Pradesh was carved out of erstwhile Punjab state in 1966 and Shimla became capital of Himachal Pradesh. Shimla located in the south of Himachal Pradesh is surrounded by Kullu and Kinnaur district in the North East, Sirmour district in South East, Solan and Mandi districts and Dehradun district of Uttaranchal in the North West. Shimla is situated in the Central Himalayas, south of river Satluj at 31°4" to 31°10' north latitude and 77°5' to 77°15' east longitude.</p> <p>Shimla, one of the most visited tourist destination is well connected with major cities of North India and all parts of Himachal Pradesh. National Highway (NH) 22 connects Shimla with major cities such as Delhi, Chandigarh and Ambala, while NH 88 links Shimla with Kangra and Hamirpur in Himachal Pradesh. Apart from the national highways, state roads provide connectivity to other major tourist destinations like Manali, Kullu, Chamba and Dharmashala. Shimla has railway access through a narrow gauge line, connecting Shimla with Kalka town. Shimla airport located 23 Km from the city has flight connectivity to Delhi, Chandigarh and Kullu.</p> <p>Presently, there are two authorities responsible for the sewerage system in Shimla. Irrigation and Public Health (I&PH) department is responsible for planning, construction, operation & maintenance of trunk sewer lines (in periphery areas) and sewage treatment plants, while MC Shimla maintains domestic and commercial connections from household to trunk sewer lines (branches and laterals), billing and addressing peoples" grievances. However the proposal for handing over entire responsibility of sewerage system along with STPs to MC Shimla is under process.</p> <p>Sewage Generation</p> <p>The estimated population of Shimla in 2010 was 2.16 lakhs including permanent and floating population. The estimated sewage generation for 2010 is 27.75 MLD and is projected to be 40.40 MLD for 2025 and 57.99 MLD for 2040</p> <p>This provides description of waste water situation in Shimla. The SJPNL has arranged funds under AMRUT and World Bank loan for improving and upgrading the waste water management in Shimla</p>		

<p>Description of the specific challenge</p>	<p>The challenges emulate from the fact that there are Worn out and missing links Grey water and yellow water in some areas are not going to sewer system. There is a lack of public toilets infrastructure especially to urban poor and migrant workers. Consequently, these have led to the following specific challenges:</p> <ol style="list-style-type: none"> 1. Low sewage collection efficiency 2. Presence of drinking water sources downstream of STPs 3. Steep slopes restricting the land availability for conventional techniques of sewage Treatment, requiring compact low-cost techniques 4. Low temperatures affecting Sewage Treatment 5. Sludge management, requiring specific techniques fitting space constraints, Uphill transportation 6. Effective plan for Recycling and reuse of effluent 7. High BOD in the influent 8. Energy efficiency through solar energy harvesting or sludge treatment. 9. Odour and aesthetics
<p>Description of the effected area</p>	<p>Out of six watersheds, three namely, Sanjouli Malyana, Dhalli and Lalpani are affected. (Refer City Sanitation Plan)</p>
<p>Desired outcome</p>	<ol style="list-style-type: none"> 1. Compliance to the Pollution Control Board norms for treatment and effluent disposal. 2. The goal of the exercise is to achieve 100% sanitation in the city. The following are the indicators of 100% sanitation in a city: <p>Primary Indicators as mandated by National Urban Sanitation Policy</p> <ul style="list-style-type: none"> • Every citizen has access to a toilet & the city is „Open Defecation Free (ODF)“ • All the sewage generated is collected, treated, and disposed off safely <p>Secondary Indicators</p> <p>Secondary indicators are optional and are not mandated by the NUSP. However, for holistic sanitation in a city it is important that the following indicators are also addressed. Our consortium will advocate for the inclusion of these indicators into the city sanitation planning</p> <ul style="list-style-type: none"> • All the solid waste generated is collected, treated, and disposed off safely • All water bodies and drainages are preserved and kept clean • All the storm water drains are kept clean <p>Every aspect of the process and infrastructure provision must integrate community participation and must be inclusive. In addition, water and wastewater management must be carried out in an environmentally sustainable manner, recycling and reusing the by-products as far as possible.</p>
<p>Current status</p>	<p>Refer City Sanitation Plan and the Himachal Pradesh Pollution Control Board website hppcb.nic.in for results of STPs</p>
<p>Estimated timelines</p>	<p>One year</p>

Procurement procedure	Quality cum least cost bidding
Key local stakeholders	Government of Shimla (Dept of Urban Planning), Government of Shimla (Dept of Environment), Shimla Jal Prabandhan Nigam Limited, (Utility) Municipal Corporation of Shimla, Directorate of Town and Country Planning, Himachal Pradesh Pollution Control Board
Any other remarks	We are looking for new and innovative technologies from Nordic Countries, that have similar climatic condition to Shimla, for solutions that can improve the current situation of waste water and sewage in Shimla





