

Public Works takes action to improve its wastewater facilities

It is not only municipalities and industry that discharge wastewater into KwaZulu-Natal's rivers. The Department of Public Works (DPW) owns and operates 19 wastewater systems in the province, two at police stations, seven at military installations, two at a correctional institutions, two at ports and a further six at institutions like magistrate's courts, colleges, schools or museums. A further seven wastewater works are in the process of becoming operational. Nine of the current works discharge their effluent into the country's rivers.

The 2013 Green Drop results indicated that these wastewater systems did not meet the regulatory standards as set by the Department of Water and Sanitation. DPW's 2013 Green Drop Score for KwaZulu-Natal (KZN) was 19,3% on average.

Glencoe Prison was the best performer of the region with a Green Drop Score of 37,9%. Glencoe is in the northern part of KZN, between Newcastle and Ladysmith. The works' effluent achieved 100% on microbiological compliance, 95,8% on chemical compliance and 72,2% on physical compliance.

The Green Drop Project

The DPW leadership was not discouraged by these disappointing results, but saw the Green Drop scorecards and regulatory comments as an opportunity to improve their wastewater services.

Taking action, the Department initiated the Green Drop Project towards the end of 2016. The project is aimed at ensuring that DPW's wastewater treatment works in KZN, and the rest of South Africa, progressively improve their operations, so as not to impact negatively on the water bodies into which they discharge their effluent.

Process and deliverables

For the Green Drop Project, the DPW contracted a team of water experts, which is led by the Entsika-Water Group Consortium.

Quick facts about Green Drop Certification

- In 2009, the Department of Water and Sanitation initiated The Green Drop programme to give the regulator objective and reliable information about wastewater management at each treatment plant in our country.
- It was the first time that municipalities could receive a reward for excellent performance in wastewater management.
- Wastewater treatment works receive Green Drop status when they achieve compliance scores of 90% or higher, against a set of strict criteria.
- If a wastewater treatment plant has a Green Drop, it means that the effluent that it discharges is not harmful to humans or the environment.

The main thrust of the Project is to bring about change, and to address deficiencies and areas of non-performance through a three-phased process:

| Stabilisation Phase | Efficiency Phase | Sustainability and Growth Phase |
|--|--------------------------------------|--|
| 2012-2016 | 2017-2018 | 2019-2021 |
| Assessing the current status quo Determine the baseline | Improvement measures put into action | Implementing risk abatement plan Achieving Green Drop status Low risk status for all works |

Skills development

The Green Drop Project is aligned with DPW's Strategic Plan, which emphasises skills development, mentorship and job creation. The Project includes an intensive skills transfer programme to improve employees' technical skills in wastewater management.

The size and design of a wastewater works determine the staff contingent it requires. The Green Drop Project will make sure that all works in KZN are registered in the correct category or class. All process controllers will be registered on the Green Drop system accordingly and upskilled to have the technical capacity that the works requires.

To support skills development, the Project initiated a dynamic mentorship programme. The programme involves one-on-one sessions between experienced mentors and young leaders within the Department. The aim is that it should become a long-term mutually beneficial relationship between a mentor and mentee with a common interest.

Commitment to sustainable wastewater management

The DPW KwaZulu-Natal region is committed to achieving and sustaining Green Drop status for all its wastewater facilities by 2021.

This action and commitment would make a significant contribution towards keeping the country's rivers safe and clean.



Treated wastewater of good quality



A well-maintained wastewater facility



A well-maintained and safe terrain