

Luxembourg, 27 June 2024

## Environmental and Social Data Sheet

### Overview

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| Project Name:  | Cologne Sustainable Wastewater Network Program   |
| Project Number:  | 2023-0685  |
| Country:   | Germany  |
| Project Description:   | The EIB will co-finance a specific part of the investment program for 2023-2029 of the Stadtentwässerungsbetriebe Köln, the wastewater utility for the City of Cologne through a Framework Loan. The pipeline includes the following schemes: the construction of a new combined sewer culvert under the River Rhine as well as a new sludge transport pipe, a sludge dewatering and a sludge incineration facility. |
| EIA required:  | Yes.   |
| Project included in Carbon Footprint Exercise <sup>1</sup> :                             | yes  |
| (details for projects included are provided in section: “EIB Carbon Footprint Exercise”) |  |

### Environmental and Social Assessment

The Promoter and Borrower of the project is the Stadtentwässerungsbetriebe Köln (StEB Köln). StEB Köln is collecting and treating wastewater from around 1.1 million customers in the City of Cologne. The proposed operation concerns the following investments:

- the construction of a new combined sewer culvert under the River Rhine
- a new sludge transport pipe,
- a sludge dewatering facility and
- a sludge incineration facility in cooperation with other nearby wastewater utilities.

### Environmental Assessment

The project supports compliance with the requirements of the Urban Wastewater Treatment Directive (91/271/EC) and the Water Framework Directive (WFD, 2000/60/EC).

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<sup>1</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20,000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.



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### Strategic Environmental Impact Assessment

The Rhine River Basin Management Plan (RBMP) 2022-2027 was published on 22 March 2022<sup>2</sup>, according to the WFD requirements. Consequently, under the RBMP, a Strategic Environmental Assessment (SEA) further to Directive 2001/42/EC was conducted and approved for the programme. STEB's programme was included in the part elaborated by the Federal State of Nordrhein-Westfalen (NRW)<sup>3</sup>.

### Environmental Impact Assessment (EIA) procedure

The competent authority on district level is the "Bezirksregierung Köln", which is also the competent authority for all environmental matters.

There was no EIA requirement for the construction of the new culvert. An appropriate assessment was done as discussed in the following section.

An EIA procedure will be required for the construction of the new sludge drying and sludge incineration facilities and is under preparation. The EIB will not allow the allocation of EIB funds to these investments until receiving the EIA report, as approved by the competent authority.

No other EIAs are required.

### Appropriate Assessment (AA)

The project components do not affect any Natura 2000 areas, but two national protected areas are affected. For the construction of the new culvert, two of the tunnel shafts are located within the national protected area of "Flittarder Rheinaue" and the neighbouring national protected area of "Rhein, Rheinauen und Uferbereiche von Flittard bis Rodenkirchen".

An environmental permit was granted on 28 February 2023. It was acknowledged in the permit that the Promoter has minimised the environmental impact of the new culvert during construction. In addition, a compensation measure to plant similar vegetation in a nearby area was requested to mitigate any permanent negative impact.

### Environmental impacts

During the construction period of the new sludge transport pipe and the new culvert under the River Rhine, small temporary negative impacts to the environment are expected, such as noise and dust, which will be mitigated as much as feasible.

During operation, only the new culvert under the River Rhine is expected to have small permanent negative impacts on the environment due to the removal of some vegetation at the location of the access shafts in a national protected area. They will be compensated through planting new vegetation in a nearby location.

Overall, the project will have long-term positive environmental impact on surface water by reducing the risk of sewage leaking from the existing culvert under the River Rhine. It is also expected to improve the air quality along the transport route used by trucks to bring dried sludge from the wastewater treatment plant to the sludge disposal site, currently the Hürth or Frechen brown coal power plant (40 km away) and in the future the sludge incineration facility located on the other river bank. In the future, the sludge from the wastewater treatment plant in Cologne will be transported through the new pipe. The sludge incineration facility will also be used by Bonn and several other nearby smaller towns to dispose of their sludge. Sludge from Bonn will be brought to the new sludge incinerator by boat. The relatively small amounts of sludge from nearby towns and the transport of the ashes will still be transported by truck along a new transport route or potentially by train. The environmental impact of the sludge incinerator,

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<sup>2</sup> [River basin management plan 2021 \(iksr.org\)](https://www.iksr.org/)

<sup>3</sup> [www.flussgebiete.nrw.de/die-flussgebietseinheit-rhein](https://www.flussgebiete.nrw.de/die-flussgebietseinheit-rhein)



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including the transport to and from the incinerator, will be assessed once the EIA has been completed.

The project is expected to positively contribute towards climate change mitigation and adaptation. The new culvert with increased capacity can better manage the increased precipitation because of climate change and thus contributes to climate adaptation. The heat generated by the sludge incineration will be used for district heating of nearby houses and thus reduce the use of fossil energy. The energy efficiency measures in the sludge drying facility will reduce the energy consumption. Also changing the truck transport of sludge to the previous location for incineration by pipe transport to the new location will contribute towards the overall reduction of greenhouse gas emissions.

The project has been assessed for Paris Alignment and is considered to be aligned both against low carbon and resilience goals against the policies set out in the Climate Bank Roadmap (CBR).

The EIA for the new sludge incineration and drying facility is under preparation. The environmental impact of these investments will be reviewed upon the allocation request.

### **EIB Carbon Footprint Exercise**

The estimated emissions of the project are about 32 kilotons of CO<sub>2</sub> equivalent per year. The project results in savings of 5 kilotons of CO<sub>2</sub> equivalent per year.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

### **EIB Paris Alignment for Counterparties (PATH) Framework**

The counterparty is in scope and screened out of the PATH framework, because it is not considered high emitting nor high vulnerability.

### **Social Assessment**

The project will have long-term positive social impacts, by reducing the risk of sewage breaking out of the existing culvert under the River Rhine and thus preventing any health risks and by reducing the transportation of sludge by trucks and thus reducing the traffic in areas.

To allow the construction of the new culvert, a primary school had to be temporarily moved to another nearby location. The relocation was necessary in order not to expose the school to construction site emissions. The relocation was carried out according to the specifications of the involved offices of the city of Cologne, affecting around 180 persons (pupils and teachers). The relocation will be used by the City of Cologne to do necessary renovation works in the original building.

The construction of the sludge incinerator is a joint commitment with nearby municipalities, which will allow the smaller ones among them to fulfil their legal requirements on sludge management in a very economic way.

The project will increase the employment opportunities during the construction.

The construction of the new sludge transport pipe and the new culvert under the River Rhine may have some temporary negative social impacts during the construction period, such as the possible disruption of utility services and road traffic, noise and temporary occupation of public and private space. They are common for this type of projects and will be addressed during construction site management.

### **Public Consultation and Stakeholder Engagement**

The Promoter has held several public consultation meetings to inform the public about the planned construction work for the culvert and the sludge incinerator and set up dedicated



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websites to keep the different stakeholders informed. A contact form and email address is available to the public.

Where relevant, the Promoter will be required to ensure compliance with national and European environmental legislation, notably to facilitate public access to environmental information and guarantee public consultation during the environmental decision process.

### **Other Environmental and Social Aspects**

The Promoter has implemented an environmental management system in line with the standard Environmental Management and Audit Scheme (EMAS), is certified EN ISO 9001 (quality management) and EN ISO 14001 (environmental management), as well as further to the German Sustainability Codex ("Deutscher Nachhaltigkeitskodex"). External auditors periodically control all schemes.

In December 2019, DWA<sup>4</sup> audited and approved Cologne's flood prevention system both for river floods and for torrential rains.

## **Conclusions and Recommendations**

By the investments in the replacement and upgrading of the wastewater collection and sludge treatment facilities and their performance, the project is expected to have a positive impact on the environment and to contribute to the improvement of living conditions of the inhabitants of the broader area of the City of Cologne.

All components covered by the project will be subject to the Promoter complying with the following requirements:

- The Promoter will be required to act according to the provisions of the relevant EU Directives, Urban Wastewater Treatment Directive (91/271/EC) and the Water Framework Directive (2000/60/EC), EIA Directive (2011/92/EC) amended by the EIA Directive (2014/52/EC), Habitats (92/43/EEC) and Birds (2009/147/EC) Directives.
- The Promoter will be required not to allocate Bank funds to project components that require a full EIA study until the EIA study and/or the necessary appropriate assessments have been finalised and approved by the relevant competent authority. Once any EIA study is available, the Promoter will provide the Bank with an electronic copy of the EIA study, for publication on the EIB website.
- The Promoter undertakes to provide to the Bank, any decisions issued by the competent authority that screen out project components and the main reasons for not requiring an EIA study with the reference to the relevant criteria listed in Annex III of the EIA Directive (if relevant).

Considering the above, the Project is acceptable for EIB financing from an environmental and social point of view.

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<sup>4</sup> Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall e.V.