



Luxembourg, 9 October 2023

Environmental and Social Completion Sheet (ESCS)

Overview

Project Name:	WATERSCHAP HOLLANDSE DELTA
Project Number:	2015-0698
Country:	The Netherlands
Project Description:	The project concerned the 2016-2021 investment programme of Waterschap Hollandse Delta. The investment programme focused on flood protection, wastewater treatment and other water management infrastructure.

Summary of Environmental and Social Assessment at Completion

EIB notes the following Environmental and Social performance and key outcomes at Project Completion.

The project would finance part of the 2016-2021 investment programme of Waterschap Hollandse Delta (WSHD), one of the 23 Water Authorities in the Netherlands in charge of mainly flood protection, regional water management and wastewater treatment in their areas of jurisdiction. The investment programme concerned flood protection works along the selected sections of the 364 km of primary dykes between the river Haringvliet and the river Meuse, an area that lies in the south-west of the Province of Zuid-Holland. The flood protection related works are part of the National "Deltaprogramma" which is the national dutch flood protection programme defining measures to protect the Netherlands from floods and droughts in the context of climate change. In addition, the programme entailed wastewater treatment renovation / maintenance works at Sluisjesdijk sludge treatment plant and Dokhaven WWTP as well as water management works including pipelines and pumping stations to safeguard fresh water supply and secure water quality against excessive salt intrusion mainly on Voorne and Goeree-Overflakkee areas. Finally, some other investments were earmarked under the programme related to the construction of new roads, the construction of bike connection paths, lighting, central IT infrastructure, and regular maintenance equipment.

This was the first operation with the WSHD whose area of responsibility is an area of around 1,000 km² and has ca. 870.000 inhabitants. The programme was developed by an experienced promoter and took into consideration environmental and social aspects as required by national and European environmental requirements and in particular the Floods Directive 2007/60/EC, the Urban Wastewater Treatment Directive 98/15/EC, Water Framework Directive 2000/60/EC, EIA Directive 2011/92/EU, Birds Directive 2009/147/EC, Habitats Directive 92/43/EC and SEA Directive 2001/42/EC.

The project generated long term positive environmental impacts through the renovation works at Dokhaven Wastewater Treatment Plant (WWTP) such as the replacement of the aeration system and maintenance works for the sewerage transport system and at Sluisjesdijk Sludge Treatment Facility such as the renovation of the two sludge digesters and the replacement of the Combined Heat and Power (CHP) installation. Moreover, the works including pumping stations and pipelines related to the construction of the water supply canals on Voorne and Goeree-Overflakkee islands contributed significantly to ensure fresh water supply and good water quality and to prevent excessive salt intrusion on Voorne and Goeree-Overflakkee islands.



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Regarding the flood protection related investments, there were all included in the national Delta Programme of the Netherlands for the improvement of the flood safety levels. Amongst the different investments financed, those that required an EIA were the following:

- Uitvoering Spui Oost
- Uitvoering Eiland van Dordrecht
- Uitvoering Hoeksche Waard Zuid
- Uitvoering Hoeksche Waard Noord
- Uitvoering Spui West (at Voorne Putten)

Based on his regular progress reporting, the Promoter also confirmed that there were no project components that have significantly affected any Natura 2000 areas due to the either nature and/or the location of the components.

The province of South Holland was the Competent Authority that approved these EIAs and determined the mitigation measures required for all the abovementioned components. Dike related earthworks were foreseen to affect species such as migrating birds, amphibians including some that hibernated in the dike “body”, mammals and fish found in the drain ditches at the foot of the dykes. Temporary negative effects on species, fauna and landscape during construction were alleviated by implementing effective mitigation measures as required by the EIAs and implemented by the contractor through the environmental management plans. These measures included for example working only in designated months, lowering water levels in the ditches that are to be backfilled and catching the fish with nets for relocation before the backfilling, etc. The interventions of the programme’s components were generally geographically dispersed with minor temporary negative impacts during construction works (dust, noise, traffic).. The Promoter confirmed regularly through its annual progress reporting that all mitigation measures were implemented as planned. All EIA related documentation has been shared with the Bank. Overall, no major issues have been reported.

In addition, the programme included specific measures driven by Water Framework Directive (WFD) compliance and in particular the targets set for achieving good ecological status of the surface water bodies by 2027. There is a WFD monitoring program developed at national level to justify progress in the field of water quality in the WFD water bodies and Hollandse Delta participated in this for its own management area through its 2016-2021 investment programme. For instance, the scheme titled as “Maatregelen Binnenbedijkte Maas Binnenmaas” concerned measures to contribute to the Binnenbedijkte Maas surface water body’s compliance to WFD objectives by adjusting the foreshores at 3 different locations to facilitate the fish population movement between the open water and different banks¹.

Regarding the project’s contribution to Climate Action, some project components contributed to significantly to climate change mitigation, namely those renovating and rehabilitating the wastewater components at Dokhaven wastewater treatment plant and the renovation works located at Sluisjesdijk sludge treatment facility. According to the most recent statistics on climate footprint among the dutch water authorities², for the Hollandse Delta the emissions of methane and nitrous oxide from the sewage treatment plant determined 90% of the total CO2 emissions. The replacement of the combined heat and power (CHP) installation and the renovated sludge digesters at Sluisjesdijk sludge treatment facility alone resulted in significant emissions savings of 2,700 tonnes of CO2 equivalent per year. Finally, the protection against flooding through investments included in the national dutch flood protection programme (DeltaProgramma) contributed fully to climate change adaptation.

¹ [Work on the Binnenbedijkte Maas completed | Hollandse Delta Water Board \(wshd.nl\)](#)

² Climate monitor Water Authorities reporting year 2021’, which can be reached via:

[Klimaatmonitor-Waterschappen-verslagjaar-2021-1.pdf \(unievanwaterschappen.nl\)](#)



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Summary opinion of Environmental and Social aspects at completion:

EIB is of the opinion based on reports from the promoter during Construction that the Project has been implemented in line with EIB Environmental and Social Standards, applicable at the time of appraisal.