

**SAKARYA GAS FIELD DEVELOPMENT PROJECT – ENHANCEMENT OF SUBSEA PRODUCTION  
CAPACITY AND FLOATING PRODUCTION UNIT**

**Chapter 11 - Residual Impacts and Conclusions**

**COMPANY Doc. No. SC26-2A-OTC-PRJ-EN-REP-000025**

01	28.10.2024	Issued as Final	WSP	TP-OTC	TP-OTC	
00	28.10.2024	Issued for Review	WSP	TP-OTC	TP-OTC	
Rev. N°	Date	Issue Type	Prepared by	Checked by	Approved by	COMPANY Acceptance Code
					Classification:	Internal

**REVISION TRACKING TABLE**

Rev. N°	Modification Description	Modified Page No.
00	Issued for review	N/A
01	Issued as final	N/A

**Information Classification**

Code	Description of Information Classification
PUBLIC	Information and data that may be shared without restrictions because it is unlikely to result in any harm if disclosed to outside parties. Permission to actually release information to the public must be obtained separately through External Affairs
INTERNAL	Information and data that may be freely shared with staff in Engineer, Client and Partners, and contracted companies and individuals bounded by confidentiality agreements.
RESTRICTED	Only 5-10% of document content with such information classification can be released by Document Owner (or with his delegation) to identified recipients.
CONFIDENTIAL	Information that is extremely sensitive, of the highest value to the company and individuals and intended for use by named individual(s) only.

Title:	<i>Chapter 11 - Residual Impacts and Conclusions</i>		
DocID:	SC26-2A-OTC-PRJ-EN-REP-000025	Classification:	Internal
Rev. :	01	Page:	1 of 4

## Table of Contents

<b>11.0 RESIDUAL IMPACTS AND CONCLUSIONS.....</b>	<b>3</b>
11.1 Offshore.....	3
11.2 Onshore.....	4
11.3 Social.....	4

Title:	<i>Chapter 11 - Residual Impacts and Conclusions</i>		
DocID:	SC26-2A-OTC-PRJ-EN-REP-000025	Classification:	Internal
Rev. :	01	Page:	2 of 4

## 11.0 RESIDUAL IMPACTS AND CONCLUSIONS

Several environmental and social surveys, calculations and modelling work (especially noise) and assessments have been conducted within the scope of the ESIA. These are:

- Onshore and offshore baseline surveys of environmental, biological and social components;
- Noise modelling;
- Hydrogeological modelling; and
- Impact assessments of the offshore and onshore components.

The surveys, studies and the impact assessments have allowed TP-OTC to develop robust mitigation measures for residual impacts. As discussed in Chapter 5, the Residual Impact Value (RIV) results from the impact value and the effectiveness of the mitigation measure put in place to reduce the negative outcomes generated by the Project Actions/Impact Factors (or to maximize the positive ones). The RIVs contribute to the overall impact on each component. Overall impact is a synthesis of the residual impacts on a component from all the impact factors generated by the Project actions.

Relying on the assessment conducted in Chapter 7, the overall residual impact value for each component is summarized in the following sections.

### 11.1 Offshore

In the **marine environment**, the overall residual impact value is assessed as Low, with some factors even having a Negligible residual impact (Seafloor morphology, Sediments, Seawater and *Physical oceanography*).

*Physical oceanography* is only impacted during the construction phase and not during the operation phase, the residual impacts are therefore limited.

Other components are impacted during both phases (construction and operation). Some of these, such as *Benthic communities* and *Fishes*, are expected to also have a positive impact, meaning that the residual negative impact is partly offset by the positive one.

Finally, for some of the components impacted during both phases, a more significant cumulative impact is expected. The component *Plankton*, in particular, and consequently the *Pelagic habitats* in general, is expected to be potentially affected by six impact factors triggered by three different Project actions during construction and by six impact factors triggered by one Project action during the operation phase.

Considering that there are no major criticalities in the marine environment, it should however be pointed out the issue of wastewater discharge. This impact factor, which is potentially impacting mainly pelagic habitats and the set of organisms that inhabit such environments (namely *Fishes*, *Plankton* and *Marine mammals*) can become Low during construction phase if properly managed with the appropriate mitigation measures remain low with implementation of the mitigation measures throughout the operation phase. For this reasons, series of dedicated monitoring measures are proposed for the management of this impact factor (Chapter 7.3). Monitoring measures ensure that true effects of the Project on the different components are assessed during the construction/operation phases, and also verify the effectiveness of the mitigation measures.

Finally, regarding the marine environment, it should be emphasized that no particular sensitivity of the benthic components emerged from the baseline, while the pelagic components were more sensitive both from the

Title:	Chapter 11 - Residual Impacts and Conclusions		
DocID:	SC26-2A-OTC-PRJ-EN-REP-000025	Classification:	Internal
Rev. :	01	Page:	3 of 4

biodiversity and ecosystem services (mainly fishing) point of view. This further reinforces what was above expressed regarding the impacts on the pelagic habitat's components and the importance of the related mitigation and monitoring measures.

## 11.2 Onshore

In the **terrestrial environment** the overall residual impact is assessed to be negligible-low.

Despite the generally higher impacts on habitats during the Construction phase, the components linked to these habitats will be involved in effective mitigation measures, are expected to leave a negligible impact on *Flora* and terrestrial *Habitats*.

It is important to notice that despite the criticality of *Flora*, due to the presence of an endangered species (*C. kilaea*), the selected mitigation measures are expected to leave a negligible residual impact on the component. However, the low residual impacts assessed for some components reinforce the need for implementation of mitigation and monitoring measures as per the instructions presented in Chapter 7.2.2.

In the **physical environment**, the overall residual impact is assessed to be low for *Noise and Vibration Air Quality* only for the construction phase. The residual impact is assessed as negligible for *Soil and Subsoil, Hydrology and Surface Water, Hydrogeology and Groundwater Quality* both for the construction and the operation phases and also for Air Quality during operation phase. In order to mitigate these residual impacts, detailed measures have been developed and monitoring for some of the components are defined as presented in Chapter 7.2.1. The mitigation and monitoring measures for the operation phase should be evaluated annually. Component specific mitigation measures and monitoring are further detailed in the Project's Pollution Prevention Plan and the Chapter 12 ESMP Framework.

## 11.3 Social

It is seen that the possible social impacts of the Project will be both positive and negative. During construction, the overall residual impact for ***Economy & Employment*** is very high-high positive, however, ***Community Health and Safety, Ecosystem Services (Fishery), Infrastructure and Utilities and Services, Marine Traffic, Visual Aesthetics*** and ***Marine Archaeology*** is low to negligible negative.

In the **operation phase**, the benefits to the community become more prominent. ***Population & Demography*** will experience significant positive outcomes, and ***Economy & Employment*** will maintain a very high positive impact. However, the other components such as ***Ecosystem Services (Fishery), Community Health and Safety, Visual Aesthetics, Infrastructure and Utilities and Services***, will have minimal impact (low to negligible) during operation phase.

In order to mitigate these overall residual impacts several mechanisms have been put in place. Existing management plans of the SGFD, such as Stakeholder Engagement Plan, Grievance Mechanism, Livelihood Restoration Plan and specific management plans such as Contractor Management Plan, Community Health and Safety Plan, Offsite Accommodation Plan and others are updated for the Phase 2 of the SGFD.

Title:	Chapter 11 - Residual Impacts and Conclusions		
DocID:	SC26-2A-OTC-PRJ-EN-REP-000025	Classification:	Internal
Rev. :	01	Page:	4 of 4