

# Analysis of the TIDE Estuarine Conflict Matrices

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#### SUMMARY

North-west European estuaries are multi-user environments requiring appropriate management to ensure the best use of resources amongst the various legitimate stakeholders. As this varies along an estuary, severe and less-severe conflicts between users will occur in particular areas and so management actions need to reflect this variability. Estuarine managers and planners therefore need information on the main areas of spatial and sectoral uses and conflicts within their estuary for the targeting of resources, as well as information on appropriate tools needed to address these problems.

The use of conflict matrices is to be a valuable tool for the initial assessment of potential user conflict, spatial extent, severity and management focus. The tool is also a useful, transparent medium to inform stakeholders of the basis for management options and decisions.

The conflict analysis was undertaken for the four TIDE estuaries through estuary-specific **Regional Working Groups** (RWGs). These groups included 'experts' representing the main areas of estuarine 'use', e.g. nature conservation management, flood risk protection, the ports industry, navigation, and other important user groups including the diverse recreational user community, fisheries and the scientific community.

The conflict matrix process identified a series of conflict interactions that were present in a number of the management zones for the estuaries, these centring around:

- Conservation on Navigation;
- Conservation on Access;
- Access on Conservation;
- Flood Protection on Conservation;
- Navigation on Conservation.

However, whilst the conflict matrix process identified these core antagonisms between key sectoral uses, the spatial distribution of these was variable across some of the estuaries. The Humber in particular showed considerable dissimilarity with reduced conflict levels arising from navigation-related issues on Natura 2000 protection requirements and vice versa, this considered to be mainly due to the position of the main ports industry on the Humber being close to the mouth of the estuary and with non-accreting shipping channels in comparison to the other TIDE estuaries.

Furthermore, some specific interactions were observed that have implications for management provision. In particular, managed realignment was identified as having a potential impact on conservation protection requirements in adjacent terrestrial areas, industrial activity and residential housing provision in the immediate flood plain. Whilst the tool has undoubted merit in many situations in terms of mitigating or compensating for habitat losses and maintaining Natura 200 integrity, its success as a management solution requires both management focus and possibly additional stakeholder involvement.



The deployment of management measures therefore needs to be estuary and even zone specific and be targeted at sectoral pinch-points. In particular, the need for conservation protection raises several management conflicts with other uses, including the ports industry, flood protection requirements and recreational access to the estuary and vice versa. There is the possibility that measures employed to mitigate one management problem may affect others and as such, mechanisms are necessary to assist in stakeholder inclusion and conflict resolution as part of a wider integrative management strategy. This strategy needs to employ other methods, including the Ecosystem Services Approach which provides a common currency linking conflict areas and potential mitigatory measures.

The report therefore concludes that whilst north-west European estuaries present many generic management challenges, management initiatives need to be site-specific in order to accommodate both the natural and human systems. Furthermore, the Ecosystem Services and Conflict Matrix approaches employed in TIDE have the potential to be combined to assist in effective management. However, it is important to understand that measures employed to provide a management solution for a specific problem can also generate their own management issues. This is particularly the case for measures used to address flood protection, land claim offset and Natura 2000 requirements.



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## 1. INTRODUCTION

#### 1.1 General

One of the main research strands and deliverables within the TIDE project was the provision of a 'Toolbox' to assist integrated estuarine management in relation to a range of port development and flood risk protection scenarios and against a background of Natura 2000 compliance and enhancement.

One important tool within the 'Toolbox' approach used to assist components of the Management Planning & Governance strand in the TIDE project has been the development of *Conflict Matrices* for each estuary, and their subsequent analysis and integration.

These matrices have been developed to provide a tool to facilitate the integration of the requirements and operations of a range of users and uses within an estuary on a management zone basis and to integrate these outcomes with other research strands such as management plan best practice, the development of the ecosystem services approach and the derivation of a series of defined mitigatory measures.

The individual estuary conflict matrices have been developed using Regional Working Groups (RWGs) established for each estuary, the composition of these groups being drawn from a range of 'experts' within each estuary representing the main areas of estuarine 'use'.

Effectively, this has included representatives from a number of organisations including those tasked with statutory nature conservation management and flood risk protection; the ports industry; navigation; and other important user groups including representation of the diverse recreational user community, fisheries, and the scientific community.

The exact composition of the RWGs has however varied on an individual estuary basis reflecting the main uses and issues of that particular estuary and the management structures already in place.

For the TIDE estuaries, RWG composition was therefore not prescribed, but instead, required that there was sufficient representation within the group to address with expert knowledge, the main uses and issues within the estuary.

## 1.2 Research Aims

One of the main aims of TIDE has been to develop a holistic management planning framework for estuaries using a multi-manager sectoral framework. However, the intention was to provide assistance where possible to the operation of existing frameworks and organisations, developing an inclusive management system involving the expertise and understanding of a range of stakeholder groups.

Effectively, TIDE was looking to assist in the development of a holistic management planning framework for estuaries building on existing structures and using a multi-manager sectoral framework.

Some research questions considered to be of relevance to estuarine management and integration include:

• What should be legitimate management priorities for estuaries and how we can better integrate these in Natura 2000 estuaries?



- Where are the main areas of spatial and sectoral 'conflict' and what methods can we employ to address these (e.g. which plans work)?
- How do we integrate traditional planning and assessment structures with developing ecosystem services requirements?

In order to address the above, it is necessary to understand:

- the management issues in estuaries (in this project the four TIDE estuaries);
- the methods used to deliver the management;
- the basis that management is delivered;
- the efficacy of the management tools;
- the best tools/plans available to meet these needs;
- gaps in management.

In addressing these questions, a conflict matrix approach was identified as of value in addition to a review of the body of estuarine system legislation and organisational remit for management for the four TIDE estuaries. Further analysis has also been undertaken in relation to the content and efficacy of estuarine plans derived from this review, using a Strength, Weakness, Opportunity, Threat (SWOT) approach. This strand of the analysis is reported in Boyes *et al.*, 2013, but with outcomes were applicable integrated into the results of the conflict matrix analysis and conclusions later in this report.

#### 1.3 Conflict Matrices

In order to effectively manage a dynamic estuarine system it is considered important to:

- Identify the users and uses of the system (both legal and illegal, desirable and undesirable).
- Identify *sectoral* areas that most require management (or improved management), e.g. contribute to the greatest level of user conflict in an estuary.
- Identify *spatial* areas that most require management (or improved management), e.g. feature the greatest level of user conflict in an estuary.
- Identify synergistic opportunities that can occur and how they might be expanded or better utilised.
- Identify areas where conflict levels are lower than expected (e.g. systems are in place that may be particularly good at managing multi-user issues), and vice versa (e.g. areas of unusually high conflict and potentially management failure).

The use of conflict matrices and subsequent outcome analyses allows the points identified above to be at least partially characterised, particularly when integrated with other strands of Governance information as described above.



## 1.4 Conflict Matrix Tool

As described above, the conflict matrices have been developed to assist the TIDE project, and in particular, aspects of estuarine governance and management. As such, a *proforma conflict matrix* is included within the TIDE Toolbox for use as an estuarine management tool by a range of practitioners who may use the Toolbox package. In addition to the proforma conflict matrix, a user guide has been produced that describes the process involved in establishing the RWG process and deriving the outcomes from the matrix analysis. The proforma conflict matrix and associated user guide are provided in Hemingway & Cutts (2013).



#### 2. CONFLICT MATRIX METHODOLOGY

## 2.1 Approach

As noted in Section 1.4, a proforma conflict matrix and associated User Guide (Hemingway & Cutts, 2013) is provided within the TIDE Toolbox for download and use by estuarine managers and other practitioners. The User Guide describes in detail the development of the conflict matrix process, as well as how to complete one and undertake subsequent analysis. As such, it is not the intention here to describe in detail the structure of the various aspects of the matrix. However, in summary, there are three main phases to the process:

- 1) Completion of the main conflict matrix spreadsheets for an estuary through a Regional Working Group (RWG) that provides a sufficient breadth of expert knowledge on the estuarine system to be able to populate the matrices without user bias.
- 2) Analysis of the derived matrices to identify key areas of sectoral and spatial user conflict, synergisms etc. as outlined in Section 1.3.
- 3) Integration of the outcomes with other information on management systems for the estuary e.g. availability and integration of sectoral plans, legal compliance requirements etc.

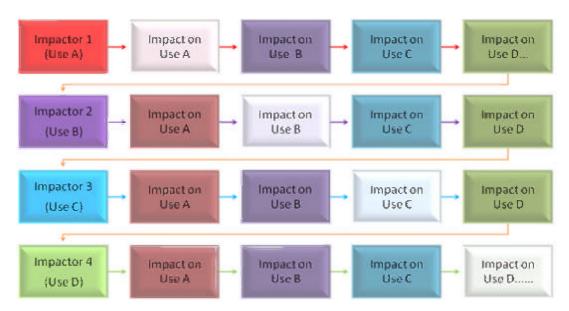


Figure 1: Theoretical matrix approach to establish two-way multi-user interactions.

The matrices were developed based on an expectation of broad uses and users regularly encountered in north-west European estuaries (and certainly within the four TIDE estuaries). Whilst the categories of use are broad, sub-categories tighten the focus further to a subsector level of activity that might be addressed via a specific management plan or suite of measures in many instances, and these are linked to the already established TEEB categories (as described in Jacobs *et al.*, 2013).

As such, and using Figure 1 as a broad guide, the impact of a single use or user is 'scored' running along the user line in the conflict matrix spreadsheet as follows:

Impactor 1 (Use A) might for instance be Maintenance Dredging, and the impact of this activity on other uses is then scored (Zero on Use A as that would be an impact on itself).



but then on the other uses, e.g. Use B might be Conservation Protection, Use C Flood Protection and Use D Recreation.

Impactor 2 (Use B) which using the above example has been identified as Conservation Protection is then scored for its impact on other uses as above (Use A - Maintenance Dredging), Use B (itself so Zero), Use C, Use D etc.

This is then continued for each Impactor running along and then down the conflict matrix sheet.

It should be noted that all interaction scores, i.e. both Use B on Use C and Use C on Use B need to completed, as the severity of conflict between uses are not always directly reciprocal.

## 2.2 Analysis

On completion of the initial RWG user input stage, the conflict matrix for an estuary effectively has three main information areas:

- The 'amount' of each use or user activity within each estuarine zone.
- The likely considered level of conflict between two users/uses across the estuary as a whole.
- The severity of the actual conflict between two users/uses. This is based on the anticipated level of generic conflict between two users/uses and the actual level of each use in each estuarine zone.

Subsequently, there is then a suite of analyses that can be performed on the derived information, both in terms of additional conflict matrix iterations to identify headline conflicts and synergies, intra estuarine variations, and conflict typologies etc., as well as more specific univariate and multivariate statistical analyses which can be undertaken on the derived data. Where appropriate, these aspects are described in the subsequent analysis text in this report.



#### 3. CONFLICT MATRIX SET-UP PROCESS FINDINGS

## 3.1 Salinity/Management Zone Extent Comparison

Within the TIDE project, analysis has been undertaken on methods for zonation within the estuaries in order to provide a basis for inter-estuarine comparison analyses and other management approaches. These zonation methods are discussed in the Geerts *et al.* (2012) TIDE report.

As such, each TIDE estuary has been divided into a series of zones with, where practicable, zonation based upon the salinity conditions of the estuary reach, but also reflecting broader estuarine management requirements where applicable. For instance, the Humber Estuary has primarily been zoned based on an existing management framework operated in the estuary, but with salinity parameters allocated to the zones as a 'best fit', whilst the Elbe Estuary utilises a number of smaller existing management sub-zones within the broader salinity classification developed in TIDE.

Figure 2 illustrates the relative distribution of the main management zones identified within each of the TIDE estuaries, the graphic produced on the basis of length of zone reach expressed as a percentage of total estuary length, and with the zones numbered from the TIDE 0km (Zone 1) to the mouth of each estuary.

Figure 2 indicates that within the Elbe Estuary, zonation along the system is almost equally divided along standardised lengths, whilst for the Weser Estuary longer zones are present at the mouth and inland reaches, for the Scheldt Estuary the outer half of the estuary length is comprised of two of the six zones, whilst on the Humber Estuary, management zone length is greatest along its tributaries. These differences obviously reflect variations in salinity regime along each of the TIDE estuaries, but also different methods applied to deliver appropriate ecosystem management.

When analysing the outcomes from the conflict characterisation and assessment process, it is therefore important to bear these zone length variations in mind. For instance, a series of high conflict scenarios within a long estuary zone may be more of a management priority than those from a relatively short reach. However, it is also noted that this analysis considers only zone length, rather than area, and other spatial considerations may therefore also require consideration in some circumstances.

By placing the management zones for each estuary within the four main salinity classes (Limnetic (Freshwater), Oligohaline, Mesohaline and Polyhaline), some broad patterns of zonation distribution across the sites can be identified (Figure 3). The Elbe in particular, has a dominant limnetic zone and relatively short polyhaline zone, with the Weser and Scheldt also featuring a dominant limnetic zone reach, but with relatively long lengths of other zones also present (polyhaline and mesohaline in the Scheldt and polyhaline in the Weser).

For the Humber, the polyhaline and mesohaline sections of the estuary dominate the system, but with a relatively long limnetic zone also present (along its tidal tributaries).



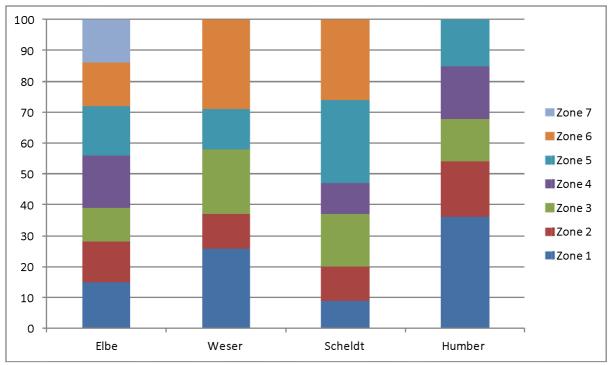


Figure 2: Relative extent composition of management zones established for the TIDE estuaries.

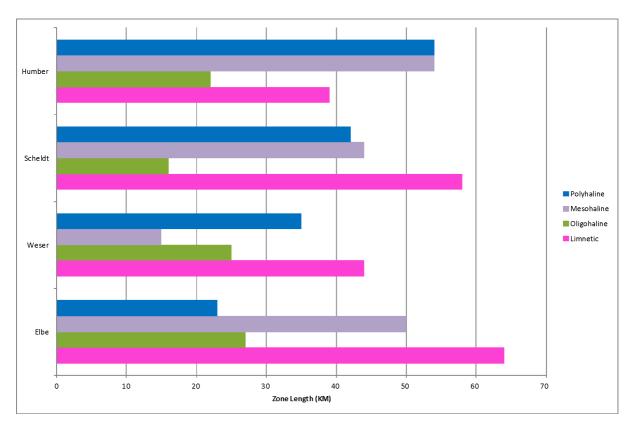


Figure 3: Salinity zone length comparison for the TIDE estuaries (in km).

Figure 4 compares the percentage length of the four salinity zones for each of the TIDE estuaries. This indicates that in terms of percentage distribution of zones, there are



differences between all estuaries. The Elbe, Weser and Scheldt have broadly comparable limnetic (freshwater) zone contributions, but with the Scheldt featuring a reduced oligohaline contribution, compared to those of the Elbe and Weser which in combination with the limnetic zone accounts for over 50% of total length in both cases. However, there is considerable variation between the contributions of mesohaline and polyhaline reaches of these three estuaries.

The Humber features relatively large mesohaline and polyhaline zone contributions, these covering almost two thirds of the total system and the majority of the estuary itself.

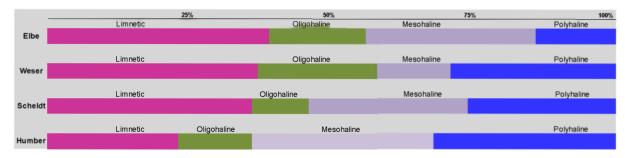


Figure 4: Salinity zone relative extent for the TIDE estuaries.

Any relevant correlations relating to conflict matrix outcomes and salinity and management zonation schemes for each of the TIDE estuaries will be addressed later in this report.

## 3.2 Regional Working Group (RWG) Composition and Interests Comparison

As part of the completion of the conflict matrix process for each estuary, it was necessary to establish a small Regional Working Group (RWG) per estuary in order to cover the range of management topics and concerns present within each estuary. The main areas of estuary function and management importance/concern were considered to be *Transport & Accessibility*; *Flood Protection & Assimilation*; *Ecological Function & Diversity*; and *Recreation & Social Use*. Whilst representative parity across these broad function areas was not required within the composition of each of the RWGs, it was requested that representatives of each function topic were present, or that someone able to accurately represent the key concerns of the function topics was included within the group analysis.

RWG members were asked to both represent their organisation's main management remit(s), but also where possible, take into account other management users and uses when completing the conflict matrices, in order to gain both a spectrum of interests and concerns, and also a balanced indication of the headline issues for each estuary.

In order to address any potential bias in RWG composition or outcomes, each estuary RWG was asked to complete a short questionnaire detailing the membership, main area of management remit, and individual management priorities in terms of the relative importance of the four main function areas identified above.

A summary of the responses to these questionnaires is provided in Figure 5. The Figure shows that at least five representatives formed each RWG, with 'importance/concern' scoring across all estuaries and function topic areas.



Regional Working Group Conflict Matrix Composition and Concerns								
Estuary	Number in RWG	Transport & Accessibility	Flood Protection and Assimilation	Ecological Function and Diversity	Recreation and Social Use	Total		
Elbe	5	1.8	1.2	1.6	1.2	5.8		
Weser	6	1.8	2.0	1.8	1.0	6.7		
Scheldt	5	1.4	1.6	1.8	1.2	6.0		
Humber	8	1.0	1.9	1.9	0.8	5.5		
Estuaries	Estuaries Combined 1.5 1.7 1.8 1.0							
Values above based on individual 'scores' of importance per broad activity area: High Importance								
Moderate Importance								
				Zero t	o low Importance	0		

Figure 5: Regional Working Group composition and function topic area weighting summary.

The RWGs identified Ecological Function & Diversity as the most important topic area provided by all the TIDE estuaries, with a mean score of 1.8 (2.0 being highly important, 1.0 being moderately important, 0 being unimportant). Flood Protection & Assimilation was also highly rated across the TIDE estuaries with a mean of 1.7. Transport & Accessibility scored a mean of 1.5 (mid way between moderate and highly important), and Recreation & Social Use was ranked as moderately important with a mean of 1.0.

On an individual estuary basis, the Weser RWG scored the combined function area importance/concerns of their estuary highest within the TIDE groups, with a mean score of 6.7 across all areas (maximum potential of 8.0), and with the Humber RWG scoring theirs the lowest with a mean score of 5.5. The mean function importance/concern score across all estuaries was 6.0.

The Elbe RWG (5 members) rated the Transport & Accessibility function as being of greatest importance in their estuary, with a score of 1.8, followed by Ecological Function & Diversity with 1.6, and with both Flood Protection & Assimilation and Recreation & Social Use with scores of 1.2.

The Weser RWG (6 members) rated Flood Protection & Assimilation as the most important function with a mean of 2.0, followed by Transport & Accessibility and Ecological Function & Diversity with scores of 1.8. However, Recreation & Social Use was scored at 1.0.

The Scheldt RWG (5 members) rated Ecological Function & Diversity as being the most important function area (1.8), followed by Flood Protection & Assimilation (1.6), Transport & Accessibility (1.4), and Recreation & Social Use (1.2).

The Humber RWG (8 members) scored Ecological Function & Diversity and Flood Protection & Assimilation as being the most important functions each with a score of 1.9, followed by Transport & Accessibility with a score of 1.0, and Recreation & Social Use with a score of 0.8.

In summary therefore, the Elbe identified Transport & Accessibility as the most important function, the Weser Flood Protection & Assimilation, the Scheldt Ecological Function & Diversity, and the Humber Flood Protection & Assimilation and Ecological Function & Diversity of equal greatest importance. Recreation & Social Use were scored lowest by all four RWGs.



Whilst the values generated from this exercise are considered to be overly simplistic in terms of describing and prioritising ecosystem functions for estuaries, they are considered to be of value in identifying the main functional areas of importance and concern in each estuary and reflect the focus of other studies undertaken by groups within the TIDE project. For example, Transportation & Accessibility (e.g. navigation) has been identified as the most important functional attribute on the Elbe, whilst on the Humber, this has been Flood Protection & Assimilation, and Ecological Function and Diversity.

There is an obvious potential reduced weighting attached to the Recreation & Social Use function across all estuaries, given the scores and the restricted representation within the RWG composition.

## 3.3 Conflict Matrix Estuary Zone Level of Use Comparison

As part of the conflict matrix completion process, the RWGs were initially tasked with assigning a level of 'use' or 'activity' for each management zone within their estuary based on a four point score of 0 to 3 (see Appendices). These data have been analysed in the context of the salinity zones and provided in the following Figures (Figures 6-9), with the moderate and high use scores shown in orange and red respectively.

## 3.3.1 LIMNETIC (FRESHWATER) ZONE

For the limnetic zone (Figure 6), the three main sectors of high uses/concerns in the Humber were identified as relating to recreational access along the banks and intertidal zone; flood protection from flood bank (dyke/gabion/wall); and agricultural run-off.

For the Elbe, two high scores were identified: *flood protection from flood bank* (dyke/gabion/wall); and vessel movement.

For the Scheldt, five high scoring uses/concerns were identified: recreational access on water, recreational access along the banks and intertidal zone; commercial access; flood protection from flood bank (dyke/gabion/wall); and channel stabilisation for navigation.

For the Weser high uses/concerns were identified as being: recreational access along the banks and intertidal zone; flood protection from flood bank (dyke/gabion/wall); channel stabilisation for navigation; and residential housing adjacent to the estuary.

Based on the above, the limnetic zone featured three high scoring uses/issues in the Humber, with a total score for the zone of 40. For the Elbe, two high scoring uses/issues were identified, with a total score for that region of the estuary of 40, the same as the Humber. The Scheldt featured five high scoring uses/issues with again an overall score of 41 for the estuary zone being broadly comparable to those of the Humber and Elbe. However, whilst four high scoring uses/issues were identified, the overall score for the zone was considerably higher than the other estuaries (51).

Only the use/issue of *flood protection from flood bank (dyke/gabion/wall)* was common across all estuaries as being afforded the highest score. However, when all scores across the four TIDE estuaries are combined, then the following uses/issues were rated as a moderate/high combination (e.g. a score in excess of 8 from a maximum of 12), ranked from highest score downwards.



## Limnetic zone high uses/issues categories:

- Flood protection from flood bank (dyke/gabion/wall) (12)
- Recreational access along the banks and intertidal zone (11)
- Channel stabilisation for navigation (10)
- Recreational access on water (9)
- Residential housing adjacent to the estuary (9)
- Maintenance dredging for navigation (8)
- Vessel movement (8)
- Agricultural run-off (8)

Further details of the uses/issues analysis for the limnetic zone are given below in Figure 6.

	Limnetic				
Activity	Humber	Elbe	Scheldt	Weser	Total
Landscape - High value landscape feature	0	2	2	1	5
Conservation - Protected area adjacent to system	1	2	2	1	6
Conservation - Protected subtidal area	1	2	1	2	6
Conservation - Protected intertidal area	1	2	2	2	7
Archaeology - Archaeology/History protected site	1	1	0	1	3
Access (e.g. Disturbance) - Recreational access on water	2	2	3	2	9
Access (e.g. Disturbance) - Recreational access on the banks & intertidal	3	2	3	3	11
Access (e.g. Disturbance) - Commercial	0	0	3	1	4
Flood/coast protection - Defence set-back	0	1	2	1	4
Flood/coast protection - Flood bank (dyke/gabbion/wall)	3	3	3	3	12
Navigation - Channel stabilisation	2	2	3	3	10
Navigation - Capital dredging	0	2	0	2	4
Navigation - Maintenance dredging	2	2	2	2	
Navigation - Vessel movement	2	3	2	1	8
Ports & Harbours - Port land claim (intertidal/subtidal)	1	1	0	1	3
Ports & Harbours - Port related activity adjacent to system	2	1	1	2	6
Ports & Harbours - Port activity on the intertidal/subtidal area	2	1	0	2	5
Infrastructure - Infrastructure on bed or in water column	1	1	2	2	6
Industry - Tidal/current energy device	0	0	0	1	1
Industry - Water abstraction	2	1	0	2	5
Industry - Aggregate extraction	0	1	1	1	3
Industry - Industrial discharge	2	1	1	2	6
Industry - Industrial activity adjacent to system	1	1	1	1	4
Agriculture - Water abstraction	1	1	0	1	3
Agriculture - Agricultural run-off	3	1	2	2	8
Biological Extraction - Commercial (e.g. fish & shellfish)		0	0	1	2
Biological Extraction - Recreational		1	1	2	5
Biological Extraction - Wildfowling	1	0	1	1	3
Residential - Waste water discharge	1	1	1	2	5
Residential - Housing adjacent to system	2	2	2	3	9
Residential - Drinking water abstraction	1	0	0	0	1
Total Usage / Estuary	40	40	41	51	

Figure 6: Usage scores for the limnetic zones of each estuary and total activity per zone.



#### 3.3.2 OLIGOHALINE ZONE

Three high uses/issues scores were established for the oligohaline zone of the Humber, these being recreational access along the banks and intertidal zone; flood protection from flood bank (dyke/gabion/wall); and agricultural run-off.

For the Elbe, six high scoring uses/issues were identified: protected areas for conservation adjacent to the system; protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; recreational access on water, flood protection from flood bank (dyke/gabion/wall); and vessel movement.

On the Scheldt, 11 high scoring uses/issues were noted: protected areas for conservation adjacent to the system; protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; recreational access on water, recreational access along the banks and intertidal zone; commercial access; flood defence set-back; flood protection from flood bank (dyke/gabion/wall); channel stabilisation for navigation; vessel movement; and residential housing adjacent to the estuary.

The Weser group rated five high scoring uses/issues from the oligohaline zone: protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; flood protection from flood bank (dyke/gabion/wall); channel stabilisation for navigation; and agricultural run-off.

Based on the above, the oligohaline zone featured three high scoring uses/issues in the Humber, with a total score for the zone of 40. For the Elbe, six high scoring uses/issues were identified, but with a total score of 38. The Scheldt featured 11 high scoring uses/issues unsurprisingly giving a total score for the zone of 55, the highest individual zone score for any estuary and zone from the analysis. The Weser featured five high scoring uses/issues with a total usage score of 45.

As with the limnetic zone, only the use/issue of *flood protection from flood bank* (dyke/gabion/wall) was common across all estuaries as being afforded the highest score. However, when all scores across the four TIDE estuaries are combined, then the following uses/issues were rated as a moderate/high combination (e.g. a score in excess of 8 from a maximum of 12), ranked from highest score downwards.

Oligohaline zone high uses/issues categories:

- Flood protection from flood bank (dyke/gabion/wall) (12)
- Protected areas for conservation in the subtidal (10)
- Protected areas for conservation in the intertidal (10)
- Recreational access on water (10)
- Recreational access along the banks and intertidal zone (10)
- Channel stabilisation for navigation (10)
- Vessel movement (9)
- Agricultural run-off (9)
- Protected areas for conservation adjacent to the system (8)
- Residential housing adjacent to the estuary (8)



Of note, tidal or current energy device deployment was identified as not being a use/issue in any of the estuaries in this zone.

Further details of the uses/issues analysis for the oligonaline zone are given below in Figure 7.

	Oligohaline				
Activity	Humber	Elbe	Scheldt	Weser	Total
Landscape - High value lands cape feature	0	2	2	2	6
Conservation - Protected area adjacent to system		3	3	1	8
Conservation - Protected subtidal area		3	3	3	10
Conservation - Protected intertidal area		3	3	3	10
Archaeology - Archaeology/History protected site	1	1	0	1	3
Access (e.g. Disturbance) - Recreational access on water	2	3	3	2	10
Access (e.g. Disturbance) - Recreational access on the banks & intertidal	3	2	3	2	10
Access (e.g. Disturbance) - Commercial		0	3	1	4
Flood/coast protection - Defence set-back	0	0	3	0	3
Flood/coast protection - Flood bank (dyke/gabbion/wall)	3	3	3	3	12
Navigation - Channel stabilisation	2	1	3	3	9
Navigation - Capital dredging	0	2	1	1	4
Navigation - Maintenance dredging	2	1	2	2	7
Navigation - Vessel movement	2	3	3	1	9
Ports & Harbours - Port land claim (intertidal/subtidal)	1	0	1	1	3
Ports & Harbours - Port related activity adjacent to system	2	1	2	1	6
Ports & Harbours - Port activity on the intertidal/subtidal area	2	0	1	1	4
Infrastructure - Infrastructure on bed or in water column		0	2	1	4
Industry - Tidal/current energy device	0	0	0	0	0
Industry - Water abstraction	2	1	1	2	6
Industry - Aggregate extraction	0	0	2	1	3
Industry - Industrial discharge	2	2	2	1	7
Industry - Industrial activity adjacent to system		1	2	1	5
Agriculture - Water abstraction	1	0	0	2	3
Agriculture - Agricultural run-off	3	2	1	3	
Biological Extraction - Commercial (e.g. fish & shellfish)		1	0	1	3
Biological Extraction - Recreational		1	1	1	4
Biological Extraction - Wildfowling		0	1	1	3
Residential - Waste water discharge	1	1	1	1	4
Residential - Housing adjacent to system		1	3	2	8
Residential - Drinking water abstraction	1	0	0	0	1
Total Usage / Estuary	40	38	55	45	

Figure 7: Usage scores for the oligohaline zones of each estuary and total activity per zone.

#### 3.3.3 MESOHALINE ZONE

Eight high level uses/issues scores were established for the mesohaline zone of the Humber, these being: protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; recreational access on water, recreational access along the banks and intertidal zone; flood defence set-back; flood protection from flood bank (dyke/gabion/wall); vessel movement, and agricultural run-off.



For the Elbe, four high scoring uses/issues were identified: protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; flood protection from flood bank (dyke/gabion/wall); and vessel movement.

On the Scheldt, 11 high scoring uses/issues were again noted, in this zone being: protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; recreational access along the banks and intertidal zone; commercial access; flood protection from flood bank (dyke/gabion/wall); channel stabilisation for navigation; capital dredging; maintenance dredging for navigation; vessel movement; aggregate extraction; and agricultural run-off.

The Weser group rated 10 high scoring uses/issues: protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; flood protection from flood bank (dyke/gabion/wall); channel stabilisation for navigation; capital dredging; maintenance dredging for navigation; vessel movement; port land claim; port related activity adjacent to the estuary; and port activity on the intertidal and subtidal.

Based on the above, the mesohaline zone featured eight high scoring uses/issues in the Humber, with a total score for the zone of 52. For the Elbe, four high scoring uses/issues were identified, with a total score of 37. The Scheldt again featured 11 high scoring uses/issues giving a total score for the zone of 52, and the Weser featured 10 high scoring uses/issues with a total usage score of 51.

In the mesohaline zone, the categories of: protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; flood protection from flood bank (dyke/gabion/wall); and vessel movement were afforded the highest score across all estuaries. Combining all estuary scores for the zone then identifies the following uses/issues as being rated as a moderate/high combination (e.g. a score in excess of 8 from a maximum of 12), ranked from highest score downwards.

Mesohaline zone high uses/issues categories:

- Protected areas for conservation in the subtidal (12)
- Protected areas for conservation in the intertidal (12)
- Flood protection from flood bank (dyke/gabion/wall) (12)
- Vessel movement (12)
- Capital dredging (10)
- Recreational access on water (9)
- Recreational access along the banks and intertidal zone (9)
- Channel stabilisation for navigation (9)
- Agricultural run-off (9)
- Port related activity adjacent to the estuary (8)

Water abstraction for agricultural use and water abstraction for residential use were identified as not being present as a use/issue in any of the estuaries in this zone.

Further details of the uses/issues analysis for the mesohaline zone are given below in Figure 8.



	Mesohaline				
Activity	Humber	Elbe	Scheldt	Weser	Total
Landscape - High value landscape feature	1	2	1	2	6
Conservation - Protected area adjacent to system	1	2	1	1	5
Conservation - Protected subtidal area	3	3	3	3	12
Conservation - Protected intertidal area	3	3	3	3	12
Archaeology - Archaeology/History protected site	2		0	1	4
Access (e.g. Disturbance) - Recreational access on water	3	2	2	2	9
Access (e.g. Disturbance) - Recreational access on the banks & intertidal	3	2	3	1	9
Access (e.g. Disturbance) - Commercial	1		3	1	5
Flood/coast protection - Defence set-back	3		1	0	4
Flood/coast protection - Flood bank (dyke/gabbion/wall)	3	3	3	3	12
Navigation - Channel stabilisation	1	2	3	3	9
Navigation - Capital dredging	2	2	3	3	10
Navigation - Maintenance dredging	1	2	3	3	9
Navigation - Vessel movement	3	3	3	3	12
Ports & Harbours - Port land claim (intertidal/subtidal)	2	0	1	3	6
Ports & Harbours - Port related activity adjacent to system	2		2	3	8
Ports & Harbours - Port activity on the intertidal/subtidal area	2		1	3	6
Infrastructure - Infrastructure on bed or in water column	2		2	1	6
Industry - Tidal/current energy device	1		0	0	1
Industry - Water abstraction	1		2	1	5
Industry - Aggregate extraction	0		3	1	4
Industry - Industrial discharge	1		2	1	5
Industry - Industrial activity adjacent to system	2		2	1	6
Agriculture - Water abstraction	0		0	0	0
Agriculture - Agricultural run-off	3		3	2	9
Biological Extraction - Commercial (e.g. fish & shellfish)	0		0	1	2
Biological Extraction - Recreational			1	1	4
Biological Extraction - Wildfowling			0	0	1
Residential - Waste water discharge			0	2	5
Residential - Housing adjacent to system			1	2	6
Residential - Drinking water abstraction	0		0	0	0
Total Usage / Estuary	52	37	52	51	

Figure 8: Usage scores for the mesohaline zones of each estuary and total activity per zone.

#### 3.3.4 POLYHALINE ZONE

Within the Humber, eight high level uses/issues scores were identified for the polyhaline zone, these being: protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; recreational access along the banks and intertidal zone; flood defence set-back; flood protection from flood bank (dyke/gabion/wall); capital dredging; maintenance dredging for navigation; and vessel movement.

For the Elbe, six high scoring uses/issues were identified: high value landscape; protected areas for conservation adjacent to the system; protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; flood protection from flood bank (dyke/gabion/wall); and vessel movement.

On the Scheldt, nine high scoring uses/issues were noted, they being: protected areas for conservation in the subtidal; protected areas for conservation in the intertidal; recreational access along the banks and intertidal zone; commercial access; flood protection from flood



bank (dyke/gabion/wall); capital dredging; maintenance dredging for navigation; vessel movement; and agricultural run-off.

The Weser group scored four of the uses/issues as high scoring in the polyhaline zone: high value landscape; protected areas for conservation adjacent to the system; protected areas for conservation in the subtidal; and protected areas for conservation in the intertidal.

Based on the above, the polyhaline zone featured eight high scoring uses/issues in the Humber, with a total score for the zone of 46, whilst for the Elbe, six high scoring uses/issues were identified, with a total score of 31. The Scheldt featured nine high scoring uses/issues giving a total score for the zone of 43, and the Weser featured 4 high scoring uses/issues with a total usage score of 35.

In the polyhaline zone, the categories of *protected areas for conservation in the subtidal*, and *protected areas for conservation in the intertidal* were afforded the highest score across all estuaries. By combining all estuary scores for the zone then the following uses/issues can be rated as a moderate/high combination (e.g. a score in excess of 8 from a maximum of 12), ranked from highest score downwards.

#### Polyhaline zone high uses/issues categories:

- Protected areas for conservation in the subtidal (12)
- Protected areas for conservation in the intertidal (12)
- Flood protection from flood bank (dyke/gabion/wall) (11)
- Vessel movement (11)
- Capital dredging (10)
- Maintenance dredging for navigation (10)
- Recreational access along the banks and intertidal zone (9)

Tidal and wave energy devices, water abstraction for agricultural use, and water abstraction for residential use were identified as not being present as a use/issue in any of the estuaries in this zone.

Further details of the uses/issues analysis for the mesohaline zone are given below in Figure 9.



	Polyhaline				
Activity	Humber	Elbe	Scheldt	Weser	Total
Landscape - High value landscape feature	0	3	1	3	7
Conservation - Protected area adjacent to system	1	3	0	3	7
Conservation - Protected subtidal area	3	3	3	3	12
Conservation - Protected intertidal area	3	3	3	3	12
Archaeology - Archaeology/History protected site	1		0	1	3
Access (e.g. Disturbance) - Recreational access on water	1	1	2	1	5
Access (e.g. Disturbance) - Recreational access on the banks & intertidal	3	2	3	1	9
Access (e.g. Disturbance) - Commercial	1		3	1	5
Flood/coast protection - Defence set-back	3		0	0	3
Flood/coast protection - Flood bank (dyke/gabbion/wall)	3	3	3	2	11
Navigation - Channel stabilisation	0	2	2	2	6
Navigation - Capital dredging	3	2	3	2	10
Navigation - Maintenance dredging	3	2	3	2	10
Navigation - Vessel movement	3	3	3	2	11
Ports & Harbours - Port land claim (intertidal/subtidal)	1		0	0	1
Ports & Harbours - Port related activity adjacent to system	2		1	0	3
Ports & Harbours - Port activity on the intertidal/subtidal area	2		0	0	2
Infrastructure - Infrastructure on bed or in water column	2		2	2	6
Industry - Tidal/current energy device	0		0	0	0
Industry - Water abstraction	1		1	0	2
Industry - Aggregate extraction	0		2	1	4
Industry - Industrial discharge	1		0	0	1
Industry - Industrial activity adjacent to system	1		1	0	2
Agriculture - Water abstraction	0		0	0	0
Agriculture - Agricultural run-off	2		3	2	7
Biological Extraction - Commercial (e.g. fish & shellfish)	1		1	2	5
Biological Extraction - Recreational			1	1	4
Biological Extraction - Wildfowling			0	0	1
Residential - Waste water discharge	1		0	0	1
Residential - Housing adjacent to system	2		2	1	5
Residential - Drinking water abstraction	0		0	0	0
Total Usage / Estuary	46	31	43	35	

Figure 9: Usage scores for the polyhaline zones of each estuary and total activity per zone.

#### 3.3.5 ESTUARY ZONE SCORES COMPARISON

Figure 10 summarises the uses/issues scores for each estuary and zone, as well as for all estuaries combined.

This indicates that for all of the TIDE estuaries combined, the zone with the greatest uses/issues is the mesohaline zone and with the polyhaline zone featuring the lowest uses/issues (at *c*. 80% of the level identified in the mesohaline).

Across all of the TIDE estuaries, the greatest level of uses/issues was identified for the Scheldt estuary, with the Elbe featuring the lowest score (c. 75% of the score for the Scheldt).

The Elbe and the Weser recorded the highest individual uses/issues scores in the limnetic zone, although for the Weser, the same score was also recorded from the mesohaline zone. The Scheldt recorded the highest uses/issues score in the oligohaline, with the Humber peak occurring from the mesohaline zone.



Usage Scores for Estuaries & Zones								
Freshwater								
Humber	Elbe	Scheldt	Weser	Total Zone				
40	40	41	51	172				
		Oligohalin	e					
Humber	Elbe	Scheldt	Weser	Total Zone				
40	38	55	45	178				
		Mesohalin						
Humber	Elbe	Scheldt	Weser	Total Zone				
52	37	52	51	192				
		Polyhalin	e					
Humber	Elbe	Scheldt	Weser	Total Zone				
46	31	43	35	155				
	Total I	Estuary						
Humber	Elbe	Scheldt	Weser					
178	146	191	182					

Figure 10: Summary of uses/issues scores for each estuary zone and for all estuaries combined (maximum usage scores for each estuary shown in darker grey).

#### 3.3.6 CONCLUSIONS

Based on this uses/issues scores analysis undertaken by the RWGs for each estuary, it is concluded that for the four TIDE estuaries:

- In terms of high level functional importance Ecological Function & Diversity was considered most important and Recreation & Social Use was considered the least important;
- The most frequently highly scored uses and users relate to conservation protection, navigation and flood protection attributes in most zones from all estuaries;
- The identified level of use is greatest in the Scheldt and lowest in the Elbe;
- The identified level of use across the estuaries is greatest in the mesohaline zone and lowest in the polyhaline zone;
- Relative proportion of salinity zones within each estuary varies, with the Humber being most atypical with a much reduced limnetic zone.

## 3.4 Generic Estuary Conflict Scores

Each estuary RWG was tasked with defining the level of 'conflict' between users/uses at a generic level for their estuary, producing an estuary specific activity 'conflict' matrix. This matrix characterised the conflicts and synergisms between all users on each of the estuaries and the outcomes are given in Figure 11 a-d.



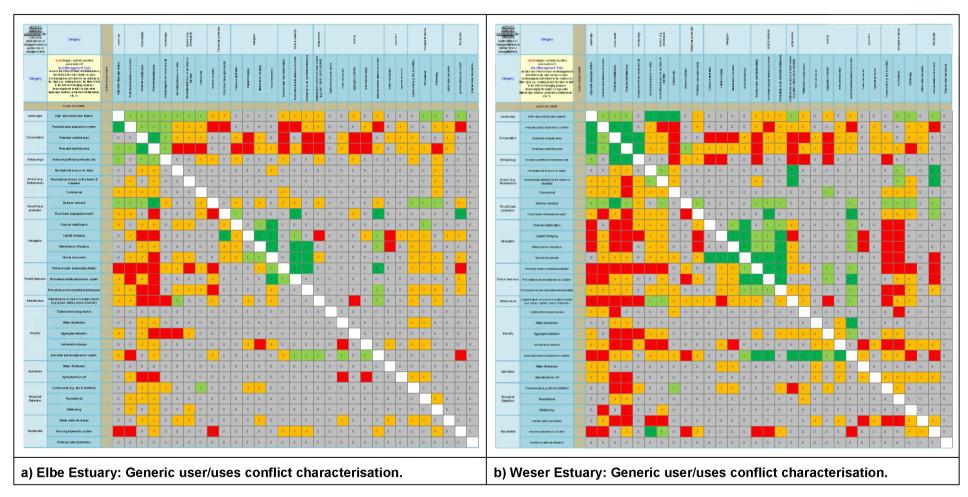


Figure 11 a&b: Generic user/uses conflict characterisation - Elbe & Weser.



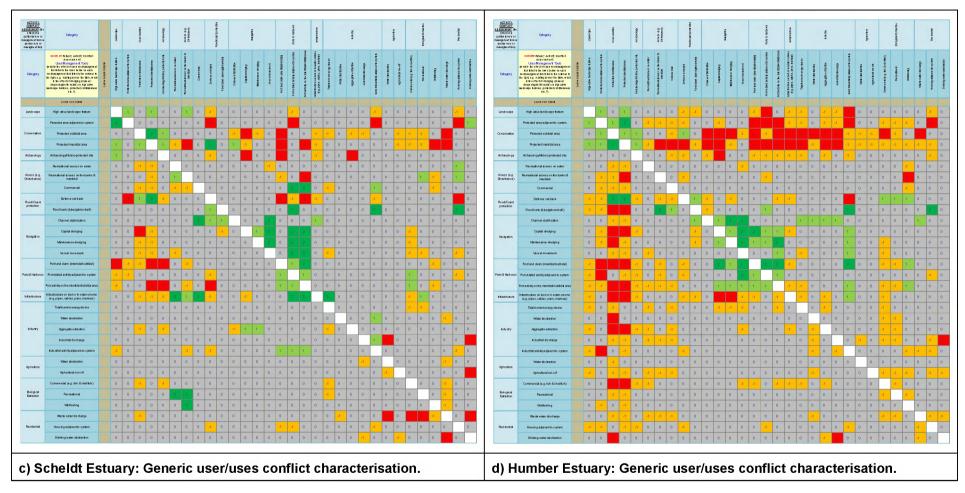


Figure 11 c&d: Generic user/uses conflict characterisation - Scheldt & Humber.



## 4. CONFLICT MATRIX OUTCOMES ANALYSIS PER ESTUARY & ZONE

The following text describes and illustrates the basic outcomes from the conflict matrix process. This is based on the uses/issues scoring undertaken per estuary management zone, together with the generic conflict scores that were derived for each estuary undertaken by the estuary RWGs as described in Section 3.

Outputs from the analysis for each estuary are provided on a zone by zone basis against an estuary map background which also shows the extent of urban and Natura 2000 use in and around each estuary.

The maps and tables provided in this section show only the highest scoring 'conflicts and synergisms' identified during the process (key given in Figure 12). However, all use/user interactions are shown against a similar background in the Appendices.

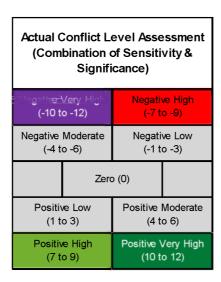


Figure 12: Conflict scoring and impact levels.



## 4.1 Elbe Estuary Conflicts Analysis

The main function of importance identified from the Elbe RWG was in relation to Transport and Accessibility (Figure 13). This relates to the requirements for port operation and in particular, vessel movement along the estuary to the port of Hamburg. The maintenance of this vessel passage and future port operation requires fairway deepening, but this has hydrodynamic and Habitats & Species Directive (HSD) issues for the estuary.

Estuary	Transport & Accessibility	Flood Protection and Assimilation	Ecological Function and Diversity	Recreation and Social Use	Total
Elbe	1.8	1.2	1.6	1.2	5.8
Estuaries Combined	1.5	1.7	1.8	1.0	6.0
Values above based	on individual lecore		2		
	oroad activity area:	•	Moderate Importance		1
per i	noad activity area.	Zero to	low Importance	0	

Figure 13: Elbe uses/issues importance weighting.

In deriving the conflict matrices for the Elbe, the Elbe RWG participants ranked Flood Protection & Assimilation, and Recreation & Social Use function as being of moderate importance.

#### 4.1.1 ESTUARY ANALYSIS

The Elbe has been divided into 7 management zones for the purposes of the TIDE project stretching from the reach immediately upstream of Hamburg, to the mouth of the estuary.

The majority of the intertidal and subtidal area of the tidal Elbe is protected under the HSD as a Natura 2000 site, with only the reach around the main city and port of Hamburg not included within this designation and with further designation upstream. In addition, sections of adjacent terrestrial habitat are also designated, e.g. agricultural land east of Freiburg and around Krautsand.

Considerable modification to the channel occurs around the city of Hamburg (arising from the Suderelbe and Norderelbe channels), with anabranch modification for vessel traffic and port related activity in this area.

Downstream from Hamburg the Elbe contains a series of islands and sub-channels, but with the main fairway maintained through maintenance dredging to allow safe vessel transit.

The results of the conflict matrix process (Figure 14 & Table 1) identified 12 high level conflicts (5 with a score of -10 or below), primarily relating to the impact of conservation protection of intertidal habitat on recreational access and navigation; flood protection from dykes on the conservation of the intertidal area; navigation (dredging and vessel movement on the conservation of the intertidal areas; and agricultural run-off on intertidal and subtidal habitat protection.

Nine strong synergisms (with 3 scoring 10 or above) were also recorded (Figure 14 & Table 2) from the various aspects of conservation protection as well as with landscape character; various aspects of navigation requirements as well as flood protection; and flood protection and residential housing provision.



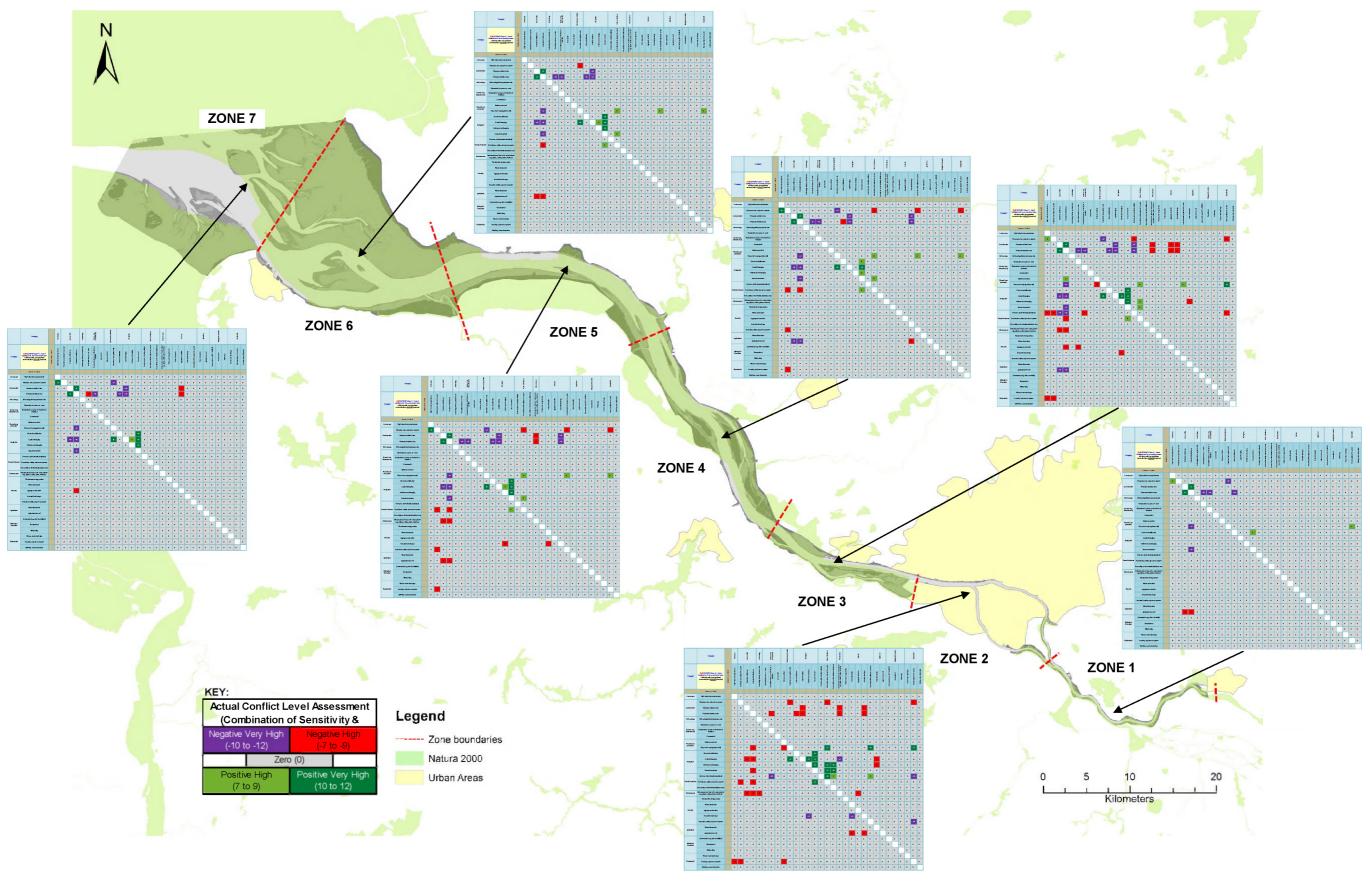


Figure 14: Elbe - high scoring user interactions per zone.



Table 1: Strong negative associations between uses/users for the Elbe Estuary.

	Impact of	Impact On			
Category	Activity	Category	Activity		
Conservation	Protected area adjacent to system	Flood/coast protection	Flood bank (dyke/gabion/wall)	-10	
Conservation	Protected subtidal area	Navigation	Capital dredging	-8	
Conservation	Protected intertidal area	Access (e.g. disturbance)	Recreational access on water	-10	
Conservation	Protected intertidal area	Access (e.g. disturbance)	Recreational access on the banks & intertidal	-10	
Conservation	Protected intertidal area	Navigation	Channel stabilisation	-9	
Conservation	Protected intertidal area	Navigation	Capital dredging	-8	
Flood/coast protection	Flood bank (dyke/gabion/wall)	Conservation	Protected intertidal area	-11	
Navigation	Capital dredging	Conservation	Protected subtidal area	-8	
Navigation	Capital dredging	Conservation	Protected intertidal area	-8	
Navigation	Vessel movement	Conservation	Protected intertidal area	-11	
Agriculture	Agricultural run-off	Conservation	Protected subtidal area	-7	
Agriculture	Agricultural run-off	Conservation	Protected intertidal area	-7	



Table 2: Strong positive associations between uses/users for the Elbe Estuary.

	Impact of		Impact On		
Category	Activity	Category	Activity		
Conservation	Protected area adjacent to system	Landscape	High value landscape feature	8	
Conservation	Protected subtidal area	Conservation	Protected intertidal area	11	
Conservation	Protected intertidal area	Conservation	Protected subtidal area	11	
Flood/coast protection	Flood bank (dyke/gabion/wall)	Residential	Housing adjacent to system	8	
Navigation	Channel stabilisation	Navigation	Vessel movement	10	
Navigation	Capital dredging	Flood/coast protection	Flood bank (dyke/gabion/wall)	9	
Navigation	Capital dredging	Navigation	Maintenance dredging	7	
Navigation	Capital dredging	Navigation	Vessel movement	9	
Navigation	Maintenance dredging	Navigation	Vessel movement	9	



#### 4.1.2 ZONE ANALYSIS

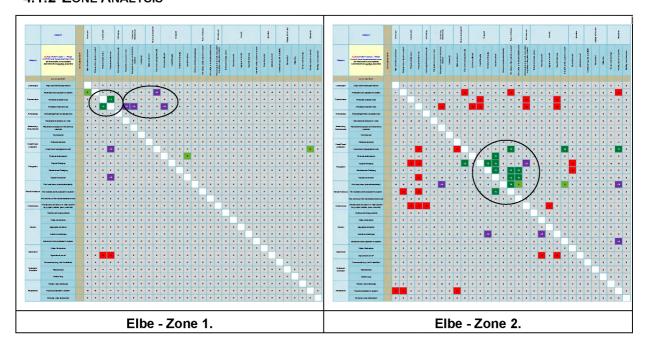


Figure 15a: Main conflict scores for the Elbe Estuary.

Zone 1 (Figure 15a) of the Elbe is located upstream from the city of Hamburg. It is included within the Natura 2000 designation and features a mix of residential and agricultural land. The zone was assessed as having a relatively low level of high scoring conflicts, but with conflicts noted arising from conservation protection on recreational access, flood protection and channel stabilisation, and from flood protection and vessel movement on conservation protection in the intertidal zone. Synergisms between the conservation protection of the intertidal and subtidal habitats were also recorded.

Zone 2 (Figure 15a) of the Elbe is located within much of the City of Hamburg limits as well as within the main Hamburg port area. There is considerable level of residential activity here, as well as ports activity, but with the majority of the reach excluded from any Natura 2000 designation. Analysis identified a greater number of conflicts occurring in this reach, but with a proportional reduction in severity, these tending to arise from the effects of port activity and navigation on protected conservation areas, as well as from protected conservation areas on port activity and navigation, the reduction in severity presumably reflecting a reduction in Natura extent. However, a cluster of synergistic effects were identified relating to ports and navigation measures.

Zone 3 (Figure 15b) includes a part of the City of Hamburg, reduced port activity, and inclusion under Natura 2000. A slight reduction in the number of conflict areas was noted from Zone 2, but with a greater severity of conflict occurring, these primarily relating to the impacts of conservation protection on recreation, flood protection, navigation, port activities and industry, reflecting the inclusion of the intertidal and subtidal reaches within Natura 2000. Further severe conflict areas resulting from flood protection, capital dredging, vessel movement, land claim and agriculture on conservation protection of the intertidal and subtidal zones were also noted as might be expected, but again, expected synergies between vessel movement and port operation occur.



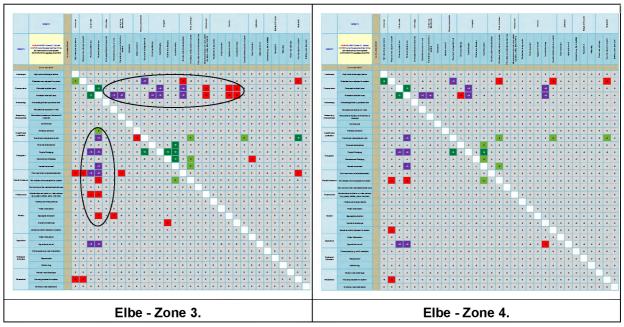


Figure 15b: Main conflict scores for the Elbe Estuary.

Zone 4 (Figure 15b), which is located outwith the main urban and port area of Hamburg features a mix of residential and agricultural land use as well as navigation management requirements for upstream access to the port and inclusion within the Natura 2000 designation. This zone features a further reduction in the number of high conflict combinations, but with a broadly similar pattern of high level interactions as those observed in Zone 3.

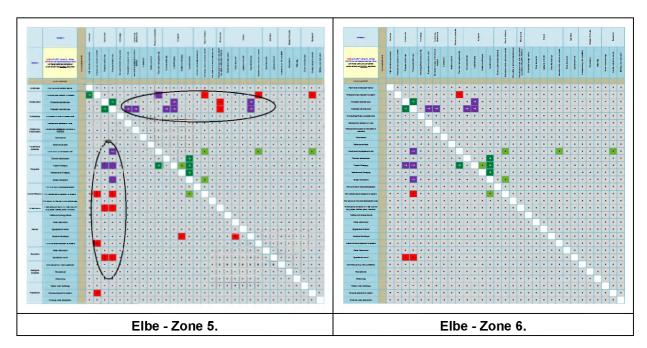


Figure 15c: Main conflict scores for the Elbe Estuary.



Zone 5 (Figure 15c) features a broadly similar land use composition to that of Zone 4 with conflict combinations and severity (as well as synergisms) also broadly comparable (slightly increased) to the zone.

Zone 6 (Figure 15c) located at the broadening mouth of the estuary includes the port of Cruxhaven and shows a further reduction in severe conflict combinations, with conflict areas remaining from conservation protection on navigation and recreational access and navigation on protected areas.

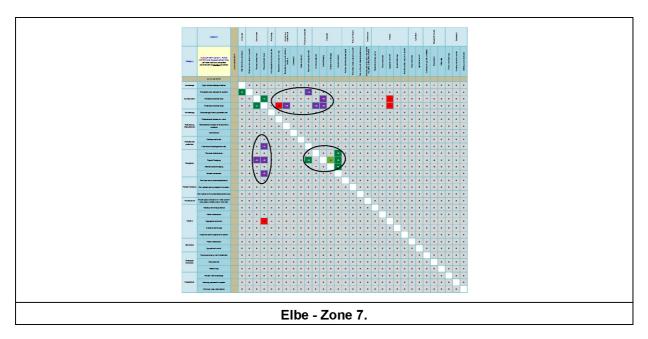


Figure 15d: Main conflict scores for the Elbe Estuary.

Zone 7 (Figure 15d) which is effectively the open coast at the mouth of the Elbe again sees the number of high conflict areas reduce, but with specific issues remaining between conservation and recreational access, flood protection and navigation and flood protection and navigation on protected conservation areas.

## 4.1.3 DISCUSSION

The RWG for the Elbe scored the four main use topics as marginally below the mean (5.8 compared to a mean of 6.0 for all the TIDE estuaries), indicating a broad correlation of use importance weighting. Transport & Accessibility was rated as most importance but with Ecological Function & Diversity also scored as high importance.

The conflict matrices for the estuary indicate that the main management problems are associated with the provision of safe navigation requirements stretching from the estuary mouth to the port of Hamburg, with the most severely scored conflicts from this use occurring with requirements for the protection of Natura 2000 interests in the estuary. Similarly, the need to meet the requirements of the Natura 2000 Directives incurs a potentially high conflict on the need to maintain safe navigation along this part of the estuary and further upstream.



As might be expected, the absence of Natura 2000 interests within much of Zone 2 which features the main City of Hamburg urban area as well as the ports industry centre means that the impacts of nature conservation concerns are reduced in this reach, whilst in general, the frequency of high scoring conflict interactions between users reduces towards the mouth of the estuary, away from the urban and ports centres, despite these reaches being included in the Natura 2000 designation. However, issues relating to navigation requirements and conservation interests remain in these areas.

Section 8 (Appendices) provides the Conflict Level Assessment spreadsheets for Zones 1 to 7 of the Elbe in greater detail (larger scale).



## 4.2 Weser Estuary Conflicts Analysis

#### 4.2.1 BACKGROUND INFORMATION

The Weser RWG identified the provision of Flood Protection & Assimilation as the most important high level function within the estuary, but with Transport & Accessibility and Ecological Function & Diversity also ranked as being of high importance (Figure 16).

Estuary	Transport & Accessibility	Flood Protection and Assimilation	Ecological Function and Diversity	Recreation and Social Use	Total
Weser	1.8	2.0	1.8	1.0	6.7
Estuaries Combined	1.5	1.7	1.8	1.0	6.0
Values above based	on Individual lecom		2		
	orroad activity area:		Moderate Importance		1
per i	ordad activity area.		Zero to	low Importance	0

Figure 16: Weser uses/issues importance weighting.

Recreation & Social use was scored as being a function of moderate importance.

#### 4.2.1 ESTUARY ANALYSIS

For the purposes of the TIDE project the Weser has been divided into 6 zones including one relating to the anabranches, these zones covering the reaches stretching from the mouth of the estuary to the centre of the City of Bremen.

The majority of the intertidal and subtidal area within the estuary is included within the Natura 2000 designation, with only the upstream area of Zone 1 within the main urban and port area of Bremen excluded from this. Apart from the main urban and port area of Bremen located within Zone 1, other main urban and port centre is located in Zone 5 (Bremerhaven).

The majority of the remaining reach features agricultural usage with smaller urban centres, and with the main channel both constrained by flood protection structures and dredged in order to maintain navigation. Several large islands are present in the middle estuary (Zones 2 and 3), e.g. Harriersand and Strohauser Plate.

The conflict matrix process for the Weser (Figure 17) identified 29 high level conflicts with 4 of these scored at -10 or below), together with 19 strong synergisms, 2 of which were scored as very strong (e.g. 10 or above). However, whilst this means that the Weser was identified as having a considerably greater number of high level conflicts than the Elbe (29 interactions scoring -7 or below for the Weser compared to 12 high scoring interactions for the Elbe), this may to some extent be a result of the RWG weighting of topic area importance, which rated the four main topic areas of greater overall importance than the Elbe RWG (a score of 6.7 compared to 5.8 and a mean across the TIDE estuaries of 6.0). This potential skew is further borne out by a much greater number of strong synergisms than for the Elbe.

However, whilst this topic importance skew might be considered likely to have influenced the number of high level scoring interactions, it is of note that only 4 of the 29 were rated as severe (e.g. -10 or above) suggesting that there may be additional ameliorating factors influencing conflict severity.



The main interaction areas of user conflict were between conservation requirements and navigation needs, as well as between conservation requirements and infrastructure and commercial access, with archaeology also observed as impacting on navigation. Access onto the system, as well as flood protection needs and a range of activities associated with navigation requirements were recorded as having impacts with conservation needs, with infrastructure, agricultural run-off and residential development also impacting on conservation protection requirements. Navigation requirements also impacted on recreational activity, landscape and flood protection needs.

Despite this, a range of strong synergistic interactions were also produced by the analysis, including linkages between conservation requirements and landscape value and archaeology, as well as between landscape and recreation and within various navigation requirements. The provision of flood protection was also identified as being a benefit for ports related activity adjacent to the estuary.

Strong negative and positive associations for the Weser are provided in Tables 3 and 4.

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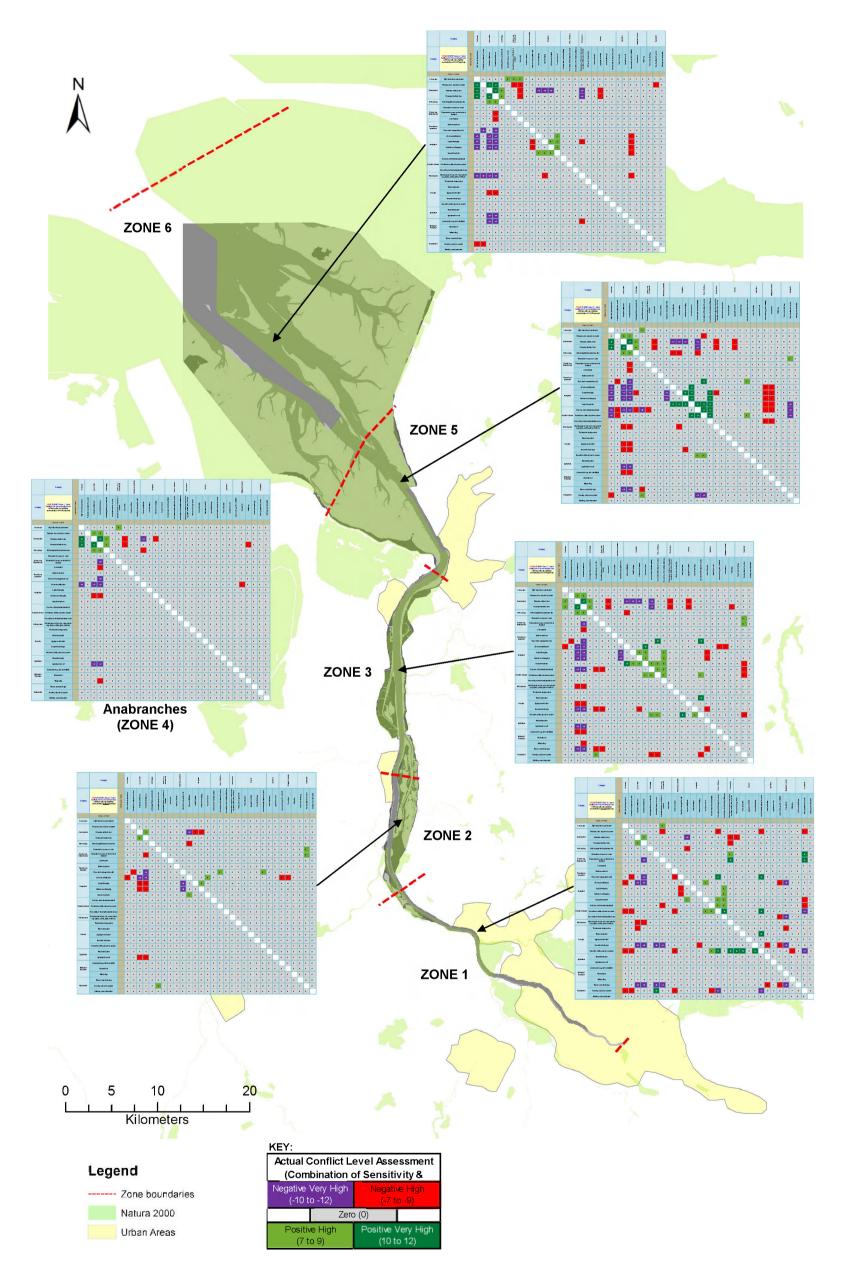


Figure 17: Weser - high scoring user interactions per zone.



Table 3: Strong negative associations between uses/users for the Weser Estuary.

	Impact of		Impact On	Score
Category	Activity	Category	Activity	
Conservation	Protected subtidal area	Access (e.g. disturbance)	Commercial	-7
Conservation	Protected subtidal area	Navigation	Channel stabilisation	-11
Conservation	Protected subtidal area	Navigation	Capital dredging	-8
Conservation	Protected subtidal area	Navigation	Maintenance dredging	-9
Conservation	Protected subtidal area	Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	-7
Conservation	Protected intertidal area	Access (e.g. disturbance)	Commercial	-7
Conservation	Protected intertidal area	Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	-7
Archaeology	Archaeology/history protected site	Navigation	Channel stabilisation	-8
Access (e.g. disturbance)	Recreational access on the banks & intertidal	Conservation	Protected intertidal area	-9
Access (e.g. disturbance)	Commercial	Conservation	Protected intertidal area	-7
Flood/coast protection	Flood bank (dyke/gabion/wall)	Conservation	Protected area adjacent to system	-8
Flood/coast protection	Flood bank (dyke/gabion/wall)	Conservation	Protected intertidal area	-11
Navigation	Channel stabilisation	Landscape	High value landscape feature	-9
Navigation	Channel stabilisation	Conservation	Protected subtidal area	-11
Navigation	Channel stabilisation	Conservation	Protected intertidal area	-11
Navigation	Channel stabilisation	Biological extraction	Commercial (e.g. fish & shellfish)	-7



# Table 3 (cont.): Strong negative associations between uses/users for the Weser Estuary.

	Impact of		Impact On		
Category	Activity	Category	Activity		
Navigation	Channel stabilisation	Biological extraction	Recreational	-8	
Navigation	Capital dredging	Conservation	Protected subtidal area	-8	
Navigation	Capital dredging	Conservation	Protected intertidal area	-8	
Navigation	Capital dredging	Flood/coast protection	Flood bank (dyke/gabion/wall)	-8	
Navigation	Maintenance dredging	Landscape	High value landscape feature	-7	
Navigation	Maintenance dredging	Conservation	Protected subtidal area	-9	
Navigation	Maintenance dredging	Conservation	Protected intertidal area	-9	
Navigation	Maintenance dredging	Flood/coast protection	Flood bank (dyke/gabion/wall)	-9	
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Conservation	Protected subtidal area	-7	
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Conservation	Protected intertidal area	-7	
Agriculture	Agricultural run-off	Conservation	Protected subtidal area	-9	
Agriculture	Agricultural run-off	Conservation	Protected intertidal area	-9	
Residential	Housing adjacent to system	Landscape	High value landscape feature	-7	



Table 4: Strong positive associations between uses/users for the Weser Estuary.

	Impact of		Impact On	Score
Category	Activity	Category	Activity	
Landscape	High value landscape feature	Access (e.g. disturbance)	Recreational access on water	7
Landscape	High value landscape feature	Access (e.g. disturbance)	Recreational access on the banks & intertidal	7
Conservation	Protected area adjacent to system	Conservation	Protected subtidal area	8
Conservation	Protected area adjacent to system	Conservation	Protected intertidal area	8
Conservation	Protected subtidal area	Landscape	High value landscape feature	9
Conservation	Protected subtidal area	Conservation	Protected intertidal area	11
Conservation	Protected subtidal area	Archaeology	Archaeology/history protected site	7
Conservation	Protected intertidal area	Landscape	High value landscape feature	9
Conservation	Protected intertidal area	Conservation	Protected subtidal area	11
Conservation	Protected intertidal area	Archaeology	Archaeology/history protected site	7
Archaeology	Archaeology/history protected site	Conservation	Protected subtidal area	7
Archaeology	Archaeology/history protected site	Conservation	Protected intertidal area	7
Access (e.g. disturbance)	Recreational access on water	Residential	Housing adjacent to system	7
Access (e.g. disturbance)	Recreational access on banks & intertidal	Residential	Housing adjacent to system	7
Flood/coast protection	Flood bank (dyke/gabion/wall)	Ports & Harbours	Port related activity adjacent to system	7
Navigation	Channel stabilisation	Navigation	Vessel movement	8
Navigation	Capital dredging	Navigation	Maintenance dredging	7
Navigation	Vessel movement	Navigation	Channel stabilisation	8



# Table 4 (cont.): Strong positive associations between uses/users for the Weser Estuary.

Impact of			Score	
Category	Activity	Category Activity		
Residential	Housing adjacent to system	Access (e.g. disturbance)	Recreational access on water	7



# 4.2.2 ZONE ANALYSIS

Zone 1 (Figure 18a) of the Weser covers the reach within much of the City of Bremen and with associated port activity, with parts of the reach also included in the Natura 2000 designation for the estuary. A series of high scoring interactions were observed across a range of uses in this zone identified as impacting on the nature conservation requirements, as well as recreational fishing. Downstream from the City of Bremen (Zone 2) (Figure 18a), a considerable reduction in the number and severity of interactions was observed, this area featuring primarily agricultural land use along the banks, although being included in the Natura 2000 designation. A cluster of issues associated with navigation requirements impacts on nature conservation protection are noted.

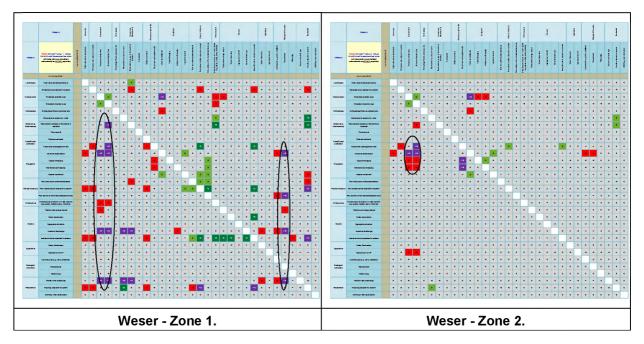


Figure 18a: Main conflict scores for the Weser Estuary.

Zone 3 (Figure 18b) which lies primarily within an area of agricultural land with marsh areas and inclusion in the Natura 2000 designation features an increased impact severity of uses on the conservation interests, with high scores arising from not just navigational requirements but also flood protection, port land claim industrial and residential discharges and agricultural run-off.

Further conflict interactions arise from nature conservation needs on navigation and port expansion (land claim), with navigation needs (dredging) also affecting flood protection.

Zone 4 (Figure 18b) on the Weser relates to the anabranches and in general features a low level of impact interactions, but with a number of high scoring conflicts from uses acting on the conservation protection needs of the area.



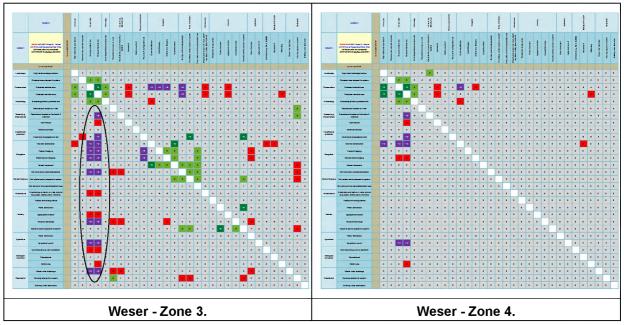


Figure 18b: Main conflict scores for the Weser Estuary.

Zone 5 (Figure 18c) towards the mouth of the estuary also exhibits a range of high scoring user interactions broadly comparable to those of Zone 3. The reach whilst running through areas of extensive marsh and mudflat included within the Natura 2000 designation also includes the port of Bremerhaven and associated urban usage. These interactions again centre around multiple user impacts on the conservation protection requirements of the reach, but with a similar, albeit more restricted corollary impact as well. Notably, requirements for maintaining navigation and flood protection, as well as ports related activity have a high scoring impact on landscape value in this area of the estuary. Flood protection and dredging activity is also scored as impacting on residential housing adjacent to the estuary.

Zone 6 (Figure 18c) at the mouth of the estuary includes Natura 2000 habitats of extensive intertidal mudflats as well as some fringing marsh. The area is semi open coast but with management of the channel for navigation maintenance. Navigation requirements are identified as having a considerable impact on both landscape and conservation protection functions, with infrastructure needs having a similar impact severity on these uses. Agricultural water abstraction and run-off also severely conflict with the nature conservation protection needs, whilst the requirements of nature conservation are noted to have a high conflict level on both the navigation needs (including dredging) and port related land claim.



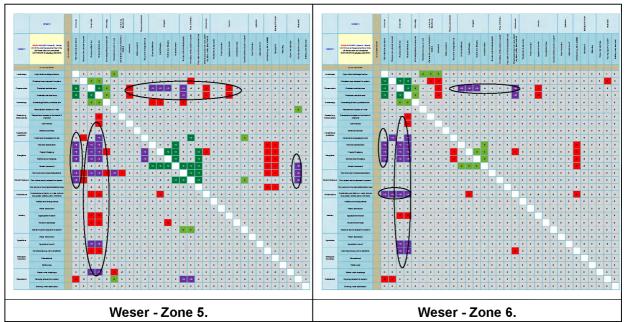


Figure 18c: Main conflict scores for the Weser Estuary

### 4.2.3 DISCUSSION

The conflict matrix analysis for the Weser indicates a considerably greater number of high scoring conflict interactions for most zones than for the Elbe. However similarly, a greater number of high scoring synergistic interactions are also recorded, which suggests that RWG scoring of conflict levels was perhaps higher than for the Elbe. This conclusion is somewhat borne out by the greater score attached to the high level main topic assessment undertaken by the RWG (scoring this at 6.7 compared to 5.8 for the Elbe and with a TIDE estuaries mean of 6.0). However, it is also noted that usage scores for the Weser as a whole, were considerably greater than for the Elbe (but below those for the Scheldt), and it therefore may the case that the elevated conflict and synergisms scores between uses are to some extent a reflection of a greater level of use in the estuary compared to the Elbe.

The outcomes from the matrix analysis process are interesting in that they indicate that the greatest severity of conflict interactions arise towards the outer estuary zones (zones 3, 5 and 6), primarily, but not exclusively relating to navigation related activity on the nature conservation aspects of the estuary. These issues largely arise from the need for management actions along the outer estuary to maintain the navigable fairway for traffic to and from the port of Bremen. It is also apparent that the corresponding requirements for conservation protection (the Natura 2000 site) produce conflicts with the need for the maintenance of navigational access.

Zone 1, which covers much of the urban area of the City of Bremen, features a reduction in the impact levels relating to navigation:conservation interactions, this not unexpected given that around half of the zone is outwith the Natura 20000 site boundary. However, there are high scoring impacts observed on recreational activity such as fishing and residential housing provision arising from port and port-related activity as well as industrial uses and the discharge of residential effluent.

Section 8 (Appendices) provides the Conflict Level Assessment spreadsheets for Zones 1 to 6 of the Weser in greater detail (larger scale).



# 4.3 Scheldt Estuary Conflicts Analysis

The RWG for the Scheldt identified the provision of Ecological Function & Diversity as the most important high level function within the estuary, followed by Flood Protection & Assimilation. The provision of Transport & Accessibility was scored just below the average for the TIDE estuaries.

Estuary	Transport & Accessibility	Flood Protection and Assimilation	Ecological Function and Diversity	Recreation and Social Use	Total
Scheldt	1.4	1.6	1.8	1.2	6.0
Estuaries Combined	1.5	1.7	1.8	1.0	6.0
Values above based	on individual 'coord	o' of importance		High Importance	2
Values above based on individual 'scores' of importance			Mode	erate Importance	1
pei i	per broad activity area:			low Importance	0

Figure 19: Scheldt uses/issues importance weighting.

The RWG high level importance assessment for the 4 main topic areas for the Scheldt were scored at the mean for the TIDE estuaries.

### 4.3.1 ESTUARY ANALYSIS

For the purposes of the conflict matrix analysis the Scheldt system was divided into 6 management zones (Figure 20). As with the other TIDE estuaries, the majority of the intertidal and subtidal area of the Scheldt is protected under EU Directive as a Natura 2000 site, with only the extreme upper reach of Zone 1 excluded from this.

Zones 1-3 are located upstream from the City of Antwerp and feature a relatively narrow dyked channel running through a mix of agricultural land with small urban areas. Despite the embanking, there are areas of intertidal marsh as well as realignments, e.g. the Kruibeke site.

The main urban centre of the City of Antwerp is located within Zones 4 and 5, with the estuarine width increasing downstream from the conurbation.

The port area extends through much of Zones 4 and 5 and includes extensive modifications to morphology and channels (e.g. Kanaaldok and the Schelde-Rijnverbinding) as well as land claim around Doel. There are however extensive intertidal marsh and mudflat habitats in this zone (between Doel and Kruispolderhaven), including areas of managed realignment.

Zone 6 features a further widening of the estuary towards its mouth and includes the Westerschelde. The zone includes large areas of intertidal and subtidal habitat included within the Natura 2000 designation, but also with the port complex of Flushing-Nieuwdorp.

The conflict matrix analysis process for the Scheldt (Figure 20) recorded only four high scoring conflict interactions (Table 5) across the estuary as a whole, but with some specific issues identified for some of the zones. For instance, whilst Zone 2 recorded a high score interaction of conservation protection of the intertidal zone was noted on recreational access on the flood protection banks and intertidal mudflat, the pattern and scoring of most user interactions in this Zone being very similar for the estuary as a whole. However, Zones 3



and 4 feature an increased number of high scoring interactions, these detailed in the following text.

Strong negative and positive associations for the Scheldt are provided in Tables 5 and 6 respectively.



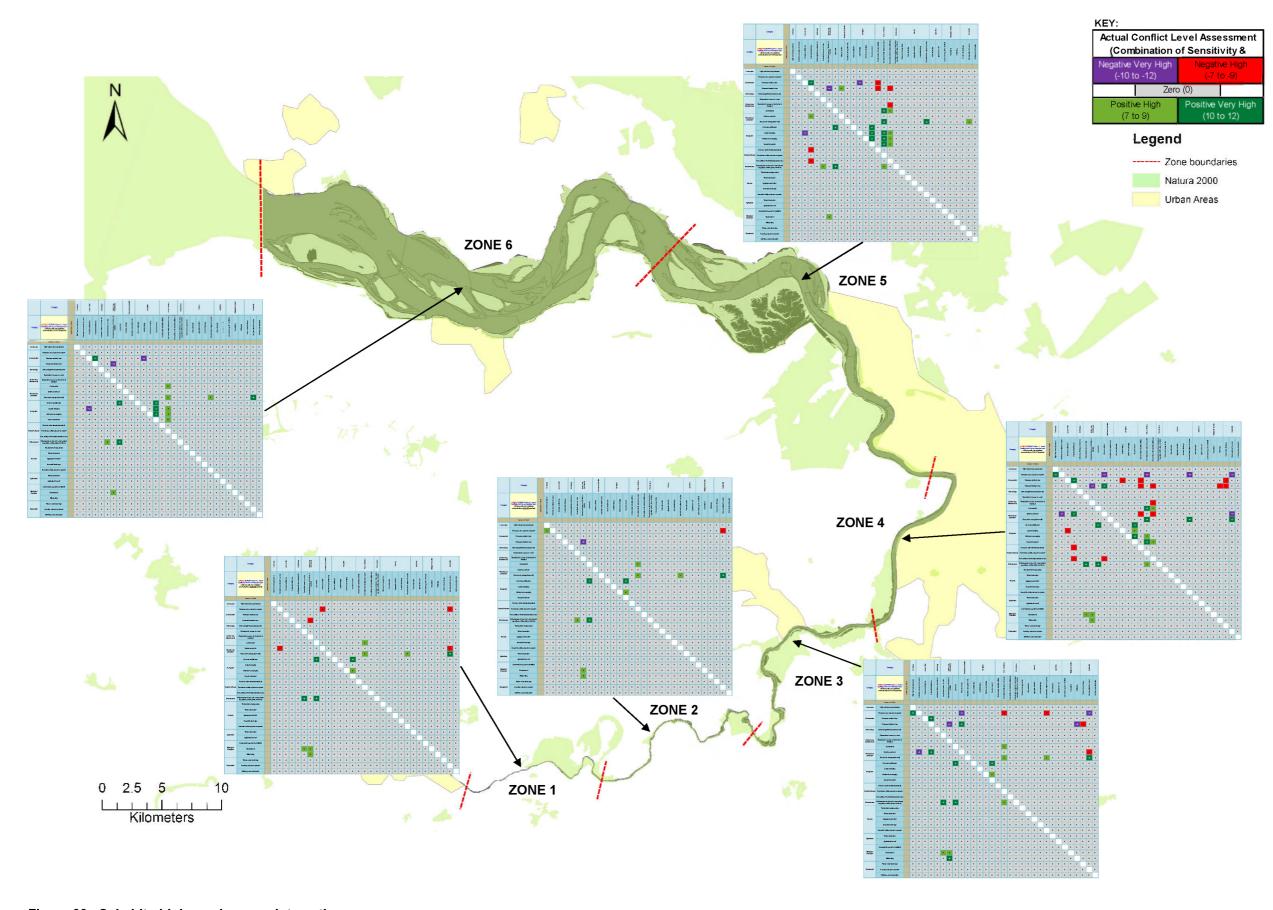


Figure 20: Scheldt - high scoring user interactions per zone.



Table 5: Strong negative associations between uses/users for the Scheldt Estuary.

Impact of			Score	
Category	Activity	Category Activity		
Conservation	Protected area adjacent to system	Flood/coast protection	Defence set-back	-7
Conservation	Protected area adjacent to system	Residential	Housing adjacent to system	-7
Conservation	Protected intertidal area	Access (e.g. disturbance)	Recreational access on the banks & intertidal	-11
Flood/coast protection	Defence set-back	Conservation	Protected area adjacent to system	-7



Table 6: Strong positive associations between uses/users for the Scheldt Estuary.

	Impact of		Impact On	Score
Category	Activity	Category	Activity	
Conservation	Protected subtidal area	Conservation	Protected intertidal area	9
Conservation	Protected intertidal area	Flood/coast protection	Defence set-back	7
Access (e.g. disturbance)	Commercial	Ports & harbours	Port related activity adjacent to system	9
Flood/coast protection	Defence set-back	Conservation	Protected intertidal area	7
Flood/coast protection	Flood bank (dyke/gabion/wall)	Ports & Harbours	Port related activity adjacent to system	9
Flood/coast protection	Flood bank (dyke/gabion/wall)	Industry	Industrial activity adjacent to system	9
Flood/coast protection	Flood bank (dyke/gabion/wall)	Residential	Housing adjacent to system	10
Navigation	Channel stabilisation	Access (e.g. disturbance)	Commercial	12
Navigation	Channel stabilisation	Navigation	Vessel movement	11
Navigation	Maintenance dredging	Navigation	Vessel movement	10
Navigation	Maintenance dredging	Ports & Harbours	Port related activity adjacent to system	7
Navigation	Vessel movement	Ports & Harbours	Port related activity adjacent to system	8
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Access (e.g. disturbance)	Recreational access on water	9
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Access (e.g. disturbance)	Commercial	10
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Ports & Harbours	Port related activity adjacent to system	7



# Table 6 (cont.): Strong positive associations between uses/users for the Scheldt Estuary.

Impact of			Score	
Category	Activity	Category Activity		
Biological extraction	Recreational	Access (e.g. disturbance)	Recreational access on water	7
Biological extraction	Recreational	Access (e.g. disturbance)	Recreational access on the banks & intertidal	8



### 4.3.2 ZONE ANALYSIS

Zones 1 and 2 (Figure 21a) are located upstream of the City of Antwerp and within a mix of agricultural land with population centres. Vessel traffic and partial Natura 2000 inclusion recorded generally a low frequency and intensity of conflict scores, although a high score interaction of conservation protection of the intertidal zone was noted on recreational access on the flood protection banks and intertidal mudflat in Zone 2. However, a number of high scoring synergisms were also recorded from these zones including flood protection and the provision of residential housing; infrastructure and recreational and commercial access; and channel stabilisation and navigational issues.

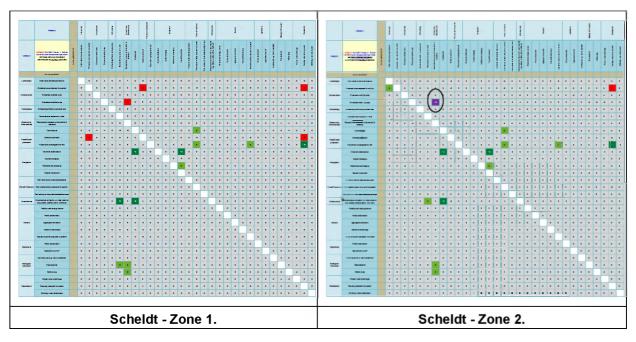


Figure 21a: Main Conflict Scores for the Scheldt Estuary.

Zone 3 (Figure 21b), immediately upstream from the centre of Antwerp featured an increased number of high scoring interactions, including conservation protection adjacent to the system impacting on flood protection and housing provision; conservation protection of the intertidal zone on recreational access along the banks and intertidal as well as wildfowling, whilst the setting back of flood defences was identified as impacting on protected conservation areas adjacent to the estuarine system. Notably however, no high scoring antagonistic interactions were noted on users resulting from aspects of navigation provision and port and port related activity.

Zone 4 (Figure 21b) which covers much of the City of Antwerp frontage, some of the port facilities and is also included within the Natura 2000 designation featured a considerably higher number of user conflicts, many of these high scoring. The conservation protection afforded habitats adjacent to the system were recorded as having a high conflict impact on flood defence realignment, port related activity adjacent to the estuary, and industrial development and housing provision in the same area. Conservation protection of the intertidal area was also recorded as having a high conflict on recreational activity along the banks and intertidal area. The setting back of defences was identified as having a high



impact conflict on the protected conservation areas adjacent to the system and housing provision. However, a large number of synergisms were again recorded.

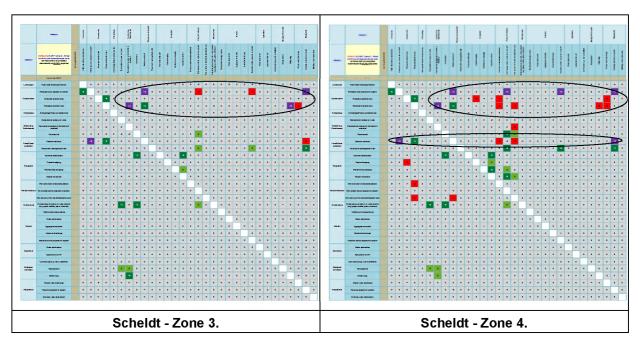


Figure 21b: Main conflict scores for the Scheldt Estuary.

Zone 5 (Figure 21c) which covers the reach along the main port area of the Antwerp conurbation, also includes some areas of agricultural land as well as intertidal marsh and mudflat together with mid channel banks, this intertidal habitat included within the Natura 2000 designation. The reach also features increased vessel traffic as it handles maritime port traffic to Antwerp. However, the results of the conflict assessment process indicate that moderate to high scoring conflicts (coloured red and purple in the Figure) occurring between a range of users in this reach are somewhat reduced from upstream (by around a half).

High scoring conflicts however remain from conservation protection of the intertidal area on recreational access along banks and across the intertidal zone, but also from conservation protection of the subtidal habitats on capital dredging activity, with a reciprocal high scoring conflict identified.

Zone 6 (Figure 21c) covers the outer Scheldt estuary which includes Natura 2000 protection, this reach featuring a number of mid channel banks and islands as well as extensive fringing mudflats and marsh. Adjacent land-use is primarily agricultural with dyke protection along the length of the reach. Some port related activity occurs around Flushing-Nieuwdorp, and the main channel is maintained for navigation requirements to the port of Antwerp and upstream. High scoring conflict interactions are further reduced, and relate to the impact of intertidal habitat conservation protection on recreational access and subtidal conservation protection on capital dredging. As with Zone 5, a reciprocal similar high score is identified for the latter interaction. A pattern of similar synergistic interactions is identified for Zone 6 as for Zone 5.



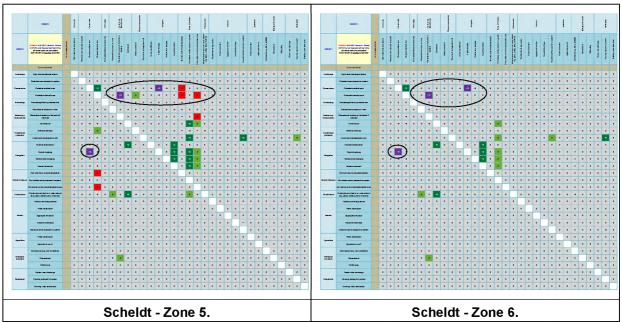


Figure 21c: Main conflict scores for the Scheldt Estuary.

### 4.3.3 DISCUSSION

It is interesting that the despite the number and severity of conflict interactions identified for the Scheldt by the RWG, these are somewhat lower than for the other TIDE estuaries, particularly given that the RWG rated the importance of the provision of the four high level usage functions at the mean for the TIDE estuaries with Ecological Function and Diversity rated as the most important. Furthermore, the use level scores from the Scheldt for all zones (Figure 9) was higher than for the other TIDE estuaries, the use level score being 10% higher than the mean for the TIDE estuaries.

As such, it might be expected that the number and severity of user conflict interactions would be at least comparable to those of the other TIDE estuaries, and the relative low frequency of high scoring conflict interactions from the matrices would therefore indicate that either the management of conflicts on the Scheldt is more effective than on other TIDE estuaries, or that the generic scores attributed to the conflict interactions by the RWG are lower across the estuary. The highest level of use on the Scheldt was recorded for the oligohaline section of the estuary, and this correlates with the highest number and severity of user conflicts identified from the conflict matrix process. This will be discussed further, later in this report.

The outcomes from the Scheldt analysis are also of interest in that whilst the use level scoring indicates substantial ports related activity including navigation uses in the mid to outer estuary (oligohaline to polyhaline), together with conservation protection (HSD) in the same zones, the number of severe conflict interactions between components of these two uses are relatively infrequent when compared to the same interaction combinations from the other estuaries.

Furthermore, the scoring of these interactions indicates that there is some asymmetry between the two user topics in terms of severity of impact, with higher conflict scores identified from the impact of conservation protection requirements on navigation and ports activity, than from navigation and ports activity on conservation protection needs. This is atypical in terms of the responses seen from other TIDE estuaries and would appear to



indicate either an effective navigation and ports management strategy in terms of impacts to the Natura 2000 protection requirements, or perhaps it is an artefact of the RWG perception of issues. This will be discussed further, later in the report.

Section 8 (Appendices) provides the Conflict Level Assessment spreadsheets for Zones 1 to 6 of the Scheldt in greater detail (larger scale).



## 4.4 Humber Estuary Conflicts Analysis

The Humber RWG identified Flood Protection & Assimilation and Ecological Function & Biodiversity as being of high importance in terms of high level function provision within the estuary. However, Transport & Accessibility and Recreation and Social Use were scored only at a moderate importance level.

Estuary	Transport & Accessibility	Flood Protection and Assimilation	Ecological Function and Diversity	Recreation and Social Use	Total
Humber	1.0	1.9	1.9	0.8	5.5
Estuaries Combined	1.5	1.7	1.8	1.0	6.0
Value above based	an individual lecore	e' of importance		High Importance	2
Values above based on individual 'scores' of importance			Mode	erate Importance	1
per u	per broad activity area:			low Importance	0

Figure 22: Humber uses/issues importance weighting.

This RWG scoring rated overall provision of these four main topic areas at below the mean for the TIDE estuaries, together with Transport & Accessibility, but with Flood Protection & Assimilation and Ecological Function & Biodiversity rated as more important than the mean.

#### 4.4.1 ESTUARY ANALYSIS

For the conflict analysis, the Humber system was divided into 5 main zones using existing established management boundaries (Figure 23). The outer estuary was however split into sub-zones, as the land use on either bank is considerably different in this area.

The entire estuary and the lower reaches of the freshwater system (Zone 1) are included within the Natura 2000 designation (SPA & SAC). Zone 1, which covers the tidal freshwater/upper oligohaline reaches of the system, includes the two main fluvial tributaries into the estuarine system. These tributaries feature fringing dykes with very little intertidal mud or marsh habitat available. Commercial navigation occurs along both of the tributaries to inland ports and wharves, but with the fairways of these fluvial systems not subject to any maintenance dredging.

Zone 2 includes the inner estuary oligohaline/mesohaline section. As with Zone 1, this zone features a largely agricultural hinterland and is used as a navigation. However, this zone is characterised by several extensive and mobile sandbanks and vegetated islands.

Zone 3 in the inner middle estuary mesohaline zone includes the City of Hull frontage and port complex. As with the rest of the estuary, the intertidal and subtidal areas are covered by the Natura 2000 designation and again, several extensive mobile sandbanks are present mid channel. As with the inner estuary, no active maintenance dredging of the main navigation channel is undertaken, and instead, an active system of sounding and navigation marker repositioning is employed. However, the entrance to docks and berthing pockets are actively dredged.

Zone 4 covers the outer middle mesohaline/polyhaline zone. This area includes the extensive ports frontage on the south bank, with associated industrial development on the near-hinterland and gain dredging of harbours and pockets is undertaken. Historically, the morphology of the estuary in this zone has been modified through landclaim for agriculture.



Zones 5a and 5b cover the outer polyhaline zone and feature a much wider estuarine morphology, which include the extensive mudflats of Spurn Bight (included in the Natura 2000) and the sand spit of Spurn Peninsula. Coastal recreation occurs on the outer south bank, with the port of Grimsby also in this zone. The only large active fairway dredging programme (Sunk Dredged Channel) is also located in this zone (5a).

Strong negative and positive associations for the Humber are provided in Tables 7 and 8 respectively.

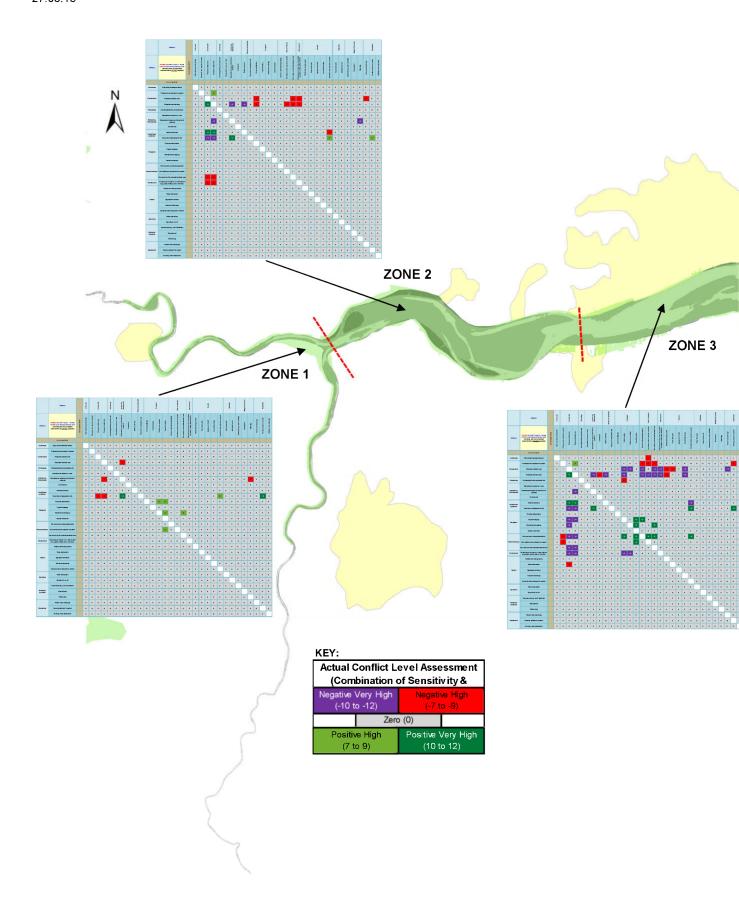


Figure 23: Humber - high scoring user interactions per zone.



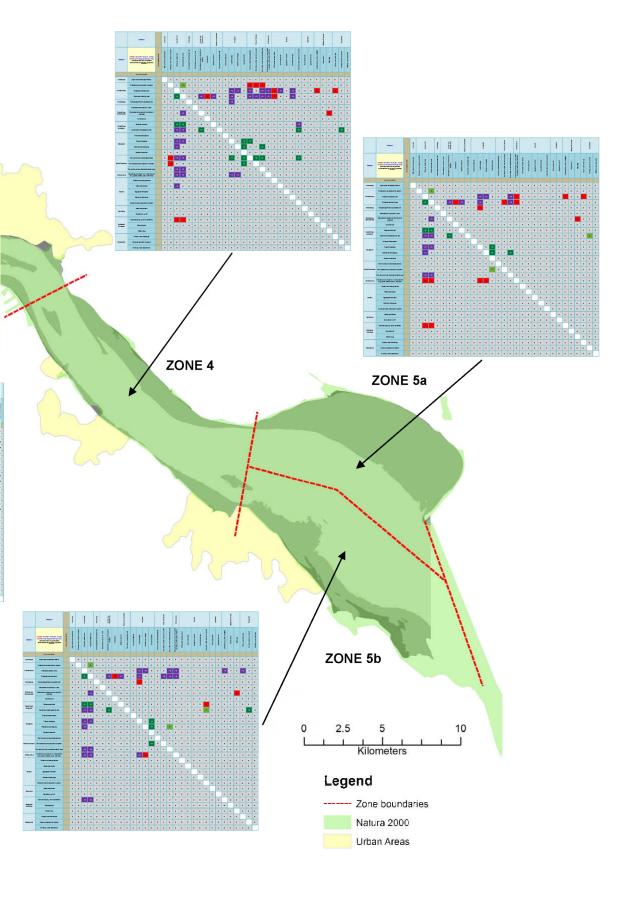




Table 7: Strong negative associations between uses/users for the Humber Estuary.

	Impact of		Impact On	Score
Category	Activity	Category	Activity	
Conservation	Protected subtidal area	Navigation	Capital dredging	-8
Conservation	Protected subtidal area	Navigation	Maintenance dredging	-8
Conservation	Protected subtidal area	Ports & Harbours	Port activity on the intertidal/subtidal area	-10
Conservation	Protected subtidal area	Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	-9
Conservation	Protected subtidal area	Residential	Waste water discharge	-8
Conservation	Protected intertidal area	Access (e.g. disturbance)	Recreational access on the banks & intertidal	-11
Conservation	Protected intertidal area	Flood/coast protection	Defence set-back	-10
Conservation	Protected intertidal area	Navigation	Capital dredging	-8
Conservation	Protected intertidal area	Ports & Harbours	Port related activity adjacent to system	-9
Conservation	Protected intertidal area	Ports & Harbours	Port activity on the intertidal/subtidal area	-10
Conservation	Protected intertidal area	Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	-9
Access (e.g. disturbance)	Recreational access on the banks & intertidal	Conservation	Protected intertidal area	-11
Access (e.g. disturbance)	Recreational access on the banks & intertidal	Biological extraction	Wildfowling	-7
-lood/coast protection	Flood bank (dyke/gabion/wall)	Conservation	Protected subtidal area	-11
Flood/coast protection	Flood bank (dyke/gabion/wall)	Conservation	Protected intertidal area	-11



# Table 7 (cont.): Strong negative associations between uses/users for the Humber Estuary.

	Impact of		Score	
Category	Activity	Category	Activity	
Navigation	Capital dredging	Conservation	Protected subtidal area	-8
Navigation	Capital dredging	Conservation	Protected intertidal area	-8
Navigation	Maintenance dredging	Conservation	Protected subtidal area	-8
Ports & Harbours	Port activity on the intertidal/subtidal area	Conservation	Protected subtidal area	-10
Ports & Harbours	Port activity on the intertidal/subtidal area	Conservation	Protected intertidal area	-10
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Conservation	Protected subtidal area	<b>-9</b>
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Conservation	Protected intertidal area	-9
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Navigation	Capital dredging	-7
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Navigation	Maintenance dredging	-7



Table 8: Strong positive associations between uses/users for the Humber Estuary.

	Impact of		Impact On		
Category	Activity	Category	Activity		
Conservation	Protected area adjacent to system	Conservation	Protected intertidal area	7	
Conservation	Protected intertidal area	Conservation	Protected subtidal area	11	
Flood/coast protection	Defence set-back	Conservation	Protected subtidal area	10	
Flood/coast protection	Defence set-back	Conservation	Protected intertidal area	10	
Flood/coast protection	Flood/coast protection	Access (e.g. disturbance)	Recreational access on the banks & intertidal	12	
Flood/coast protection	Flood/coast protection	Industry	Industrial activity adjacent to system	7	
Flood/coast protection	Flood/coast protection	Residential	Housing adjacent to system	10	
Navigation	Capital dredging	Navigation	Vessel movement	8	
Navigation	Maintenance dredging	Navigation	Vessel movement	9	
Navigation	Maintenance dredging	Ports & Harbours	Port activity on the intertidal/subtidal area	8	
Ports & Harbours	Port related activity adjacent to system	Navigation	Vessel movement	9	



#### 4.4.2 ZONE ANALYSIS

The main tidal freshwater tributaries of the Humber (Rivers Ouse and Trent) are included in Zone 1 (Figure 24a) of the conflict analysis. These tidal rivers flow through predominantly low-lying agricultural land and are dyked/banked for the majority of their length. The lower reaches are included in the Natura 2000 designation although there is very little intertidal mudflat and marsh present.

The river systems are used for navigation (e.g. by vessels up to *c*. 4,500 DWT to the Port of Goole), but the river channels are not actively dredged. Few high scoring conflict interactions were identified, e.g. from flood protection requirements and access on conservation protection.

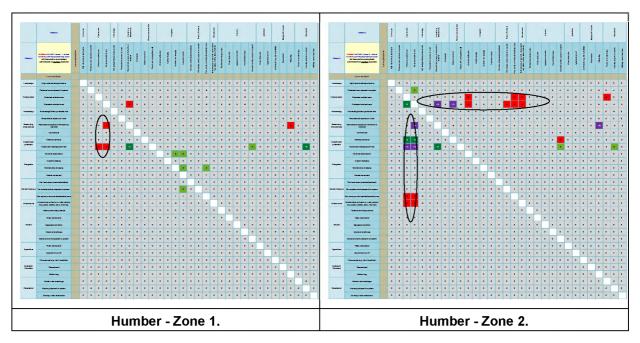


Figure 24a: Main conflict scores for the Humber Estuary.

The Zone 2 area (Figure 24a) which covers the upper estuary to the confluence of the twin main tributaries is also located in predominantly low lying agricultural land which is protected by embankments. The reach is included in the Natura 2000 designation and navigation through the reach is achieved by adaptive channel buoyage in reaction to channel movement. The zone features an increased number and severity of interactions, although they remain low in the context of other zones in the estuary, with key impacts resulting from flood protection requirements, recreational access, ports activity and infrastructure on conservation protection needs, and from conservation protection requirements on recreational access and flood defence setback, as well as to a lesser extent, navigation and ports requirements as well as infrastructure needs.

Zone 3 (Figure 24b) which covers the middle estuary (inner), including the City of Hull frontage and ports complex, features a considerably elevated conflict interaction level (frequency and severity). There is a clear concentration of issues relating to the provision of conservation protection, either by a range of activities on conservation protection, or by conservation protection on other activities. Whilst the majority of these interactions were



with coastal protection and ports related/navigation uses, other high scoring interactions were recorded, e.g. conservation protection impacting on waste water discharge, seabed infrastructure on navigation needs.

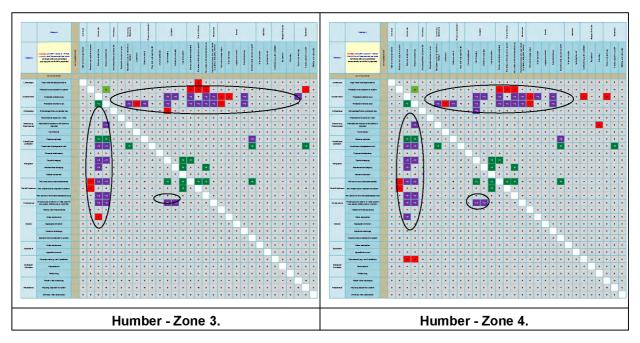


Figure 24b: Main conflict scores for the Humber Estuary.

Zone 4 (Figure 24b), in the outer middle estuary includes the main port frontage of North Killingholme/Immingham on the south bank as well as agricultural land on the north, this land claimed from the estuary in the 18<sup>th</sup> & 19<sup>th</sup> Century with considerable modification to the morphology of the estuary in this area. The hinterland of the zone remains low-lying and thus protected by dykes/banks, with issues relating to flood protection maintenance along some of the reach. Severe conflict interactions are broadly similar to those of Zone 3, relating to impacts to conservation protection from flood protection, navigation and ports related activities and vice versa. Again, impacts of estuary bed infrastructure on navigation were identified as a problem and in this zone the requirements for flood defence setback on industrial activity in the hinterland were also scored as a high conflict.

Zones 5a and 5b (Figure 24c) are located in the outer estuary covering the north and south sides respectively. The north side features extensive intertidal areas fronting agricultural land, with the south side including the port of Grimsby and recreational resort of Cleethorpes.

Zone 5a includes the only area of maintenance dredged fairway on the estuary (Sunk Dredge Channel), with the intertidal and subtidal areas included in the Natura 2000 designation. Unsurprisingly therefore, a series of conflict interactions between navigation and ports needs and those of conservation protection (and vice versa) are identified as severe although importantly, they are somewhat reduced from those recorded in Zones 3 and 4. However, the high scoring conflict interactions between flood protection needs and conservation protection remain comparable to Zone 4. As with some of the upstream zones, an important synergistic interaction was identified between flood defence setback requirements and conservation protection.



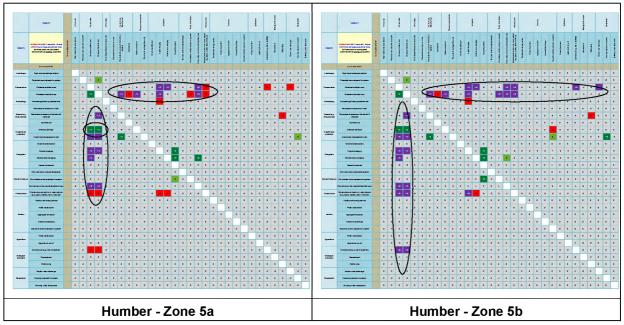


Figure 24c: Main conflict scores for the Humber Estuary.

Zone 5b which includes the port of Grimsby as well as the recreational resort of Cleethorpes and the Tetney Monobuoy bulk oil transfer facility featured an increased number of severe conflict interactions, although in general, these were less numerous than in Zones 3 and 4. For the most part, interactions were again related to flood protection provision and navigation and port related activity on conservation protection needs (and vice versa). A high scoring impact was observed from commercial fishing on conservation protection, as well as infrastructure on the bed on navigation and conservation protection on commercial shell fishing and residential waste water discharge. Synergisms were again observed from flood protection setback on conservation protection, as well as flood protection banks on recreational access and adjacent housing provision.

#### 4.4.3 DISCUSSION

The conflict matrix outputs for the Humber indicate that there are a number of high scoring potential conflicts, many of which are either acting from or on conservation protection requirements. Many of these interactions are with navigation needs and associated ports industry, although also in relation to flood protection requirements.

Interestingly, whilst the abundance and severity of these interactions is possibly greatest in the middle estuary (Zones 3 and 4), reducing somewhat in the outer estuary (Zone 5a in particular), although Zone 5a includes the only area of fairway subject to maintenance dredging. This may be due to the presence of a dredge management strategy for the estuary, recently produced and implemented to meet requirements under the Habitats Regulations.

Whilst there are conflict interactions relating to navigational and conservation protection needs, more consistent interactions occur between conservation protection, ports activity and flood protection in the middle and outer estuary, this reflecting the limited resources available particularly in relation to intertidal habitat and compensatory provision.



Upstream in the inner estuary and tidal freshwater tributaries, the level of user conflicts reduces both in terms of frequency and severity. The presence of flood protection banks and access along them are identified as a high impact on conservation protection, and with conservation protection impacting on public access and the provision of set-back for flood protection.

Synergisms are however identified from flood protection set-back for conservation protection as on recreational access and the dislocation of a reciprocal synergism and associated management issues will be discussed later in text.

Navigation related conflicts, in particular with conservation protection needs are relatively low to absent in the inner estuary and tidal freshwater tributaries. These zones include navigational access through them by vessels up to c. 4500 DWT (e.g. up to the Port of Goole. However, access to Goole and other inland docks is maintained in the estuary through an active adaptive buoyage strategy, with channel depth and position regularly monitored and the path of the navigation channel changed through buoy relocation as necessary. Maintenance dredging is not undertaken in the lower reaches of the freshwater zone (e.g. to the Port of Goole), the channel maintained through flow and in some areas, repositioning of buoyage. This effectively limits the draught of vessels moving through the system.

Section 8 (Appendices) provides the Conflict Level Assessment spreadsheets for Zones 1 to 5b of the Humber in greater detail (larger scale).

## 4.5 Estuary Conflict Matrix Analysis Summary

Whilst many north-west European estuarine management user issues are to some extent generic, there are estuary specific variations, both in the user interactions, and also their severity. Although the main foci of management will be in addressing user conflicts, it is important to emphasise that synergisms also exist between a number of uses and that these can be built upon to enhance the integrated management approach. These differences (antagonistic and synergistic) have been identified from the conflict matrices applied to the TIDE estuaries.

For instance, the main use/issue of importance identified from the **Elbe** RWG was in relation to Transport and Accessibility. The associated conflict matrices indicate that the main management problems are associated with the provision of safe navigation requirements from the estuary mouth to the port of Hamburg, with the most severely scored conflicts from this use occurring with requirements for the protection of Natura 2000 sites in the estuary. Similarly, the need to meet the requirements of the Natura 2000 Directives incurs a potentially high conflict on the need to maintain safe navigation along this part of the estuary.

Flood protection was identified as a key requirement by the **Weser** RWG, but transport and biodiversity (conservation protection) rated almost as highly. This reflects both the need to maintain deep navigable access to the port of Bremen, but with substantial issues related to Natura 2000 requirements and tidal range along the estuary. The highest rated of these conflict interactions related to the impacts of conservation protection in the subtidal zone on navigation requirements as well as the converse channel stabilisation needs for navigation purposes on Natura 2000 protection in the intertidal and subtidal zones. The need to provide flood protection was also recorded as conflicting with Natura 2000 protection in the intertidal zone.



The broad provision of ecological function and diversity was identified as being of greatest importance by the **Scheldt** RWG but closely followed by flood protection & assimilative capacity and transport & accessibility. However, whilst fewer severe conflict issues were identified for the Scheldt as a whole than for the other TIDE estuaries, specific issues were recorded in the outer estuary relating to conflicts between dredging needs and protection of the subtidal habitat, with high level conflicts increasing around the port of Antwerp to include Natura 2000 site protection on specific flood protection measures (managed realignment), port activity, industry, recreation and housing provision, as well as conflicts resulting from managed realignment on conservation protection in sites adjacent to the estuary and housing provision. Notably, a number of positive synergisms between users were also identified, more than for the other TIDE estuaries.

The provision of flood protection & assimilative capacity and ecological function & diversity were ranked as most important headline uses for the **Humber**, with the provision of transport and accessibility scoring far lower than for the other TIDE estuaries. This reflects the somewhat different management priorities already in place on the Humber, with the region low lying and subject to relative sea-level rise, and whilst featuring the UK's largest port activity, there being relatively little requirement to artificially maintain navigable channels through dredging and channel stabilisation. However, the matrix analysis identified many severe conflict scenarios, with Natura 2000 conservation protection, primarily in the intertidal zone, impacting on port activity, recreational access and flood protection provision, as well as recreational access impacts on intertidal conservation protection, the requirements of flood protection provision and port activity on Natura 2000 protection.

As such, whilst many management issues are generic across most north-west European estuaries, estuary and/or management zone specific 'one size fits all' management responses are often insufficient, with a number of user and location specific responses required, including the targeting of management resources, stakeholder engagement and decision-making transparency.



### 5 TYPOLOGY OF ASSOCIATIONS ACROSS ALL TIDE ESTUARIES

### 5.1 Management Awareness and Focus

The combined mean RWG management concern scoring resulted in aspects of Ecological Function and Diversity being rated as the most important estuarine function with Recreation and Social use being scored lowest (Figure 25).

Estuary	Transport & Accessibility	Flood Protection and Assimilation	Ecological Function and Diversity	Recreation and Social Use	Total
Estuaries Combined	1.5	1.7	1.8	1.0	6.0
Values about board	High Importance 2		2		
Values above based on individual 'scores' of importance per broad activity area:			Moderate Importance		1
			Zero to low Importance		0

Figure 25: Combined TIDE estuaries uses/issues importance weighting.

To some extent, this weighting may be an artefact of RWG composition (in particular the lower scoring for recreational components), but also reflects the often fundamental management issues between the main estuarine usage foci of flood protection, conservation and navigation/port operation.

These high level issues were transposed within the conflict matrices to a series of user interactions, with highest scoring conflict interactions occurring between conservation protection and flood protection, and navigation and ports activities, although some synergies were also noted, primarily within the topic areas, but on occasion between groups, e.g. managed realignment for flood protection on conservation protection.

However, whilst at a high level, the provision of Ecological Function & Biodiversity may be a core management aim (together with Flood Protection and Assimilation and/or Transport & Accessibility, there are significant differences in the spatial distribution of uses between estuaries and zones.

## 5.2 Salinity Zone Associations

Based on the information from the conflict matrix process, MDS ordination and cluster analysis has been performed on the activity scores per salinity zone and by estuary (Figure 26).

2-way ANOSIM has been performed on the conflict matrix data using the estuaries and salinity zones as crossed factors. This analysis confirmed a significant difference in activity levels amongst the TIDE estuaries, with the Scheldt Estuary distinct from the others.

Whilst less clear, the other differences in activity levels were largely observed between estuaries rather than between comparable zones. However, there are some groupings of note within the analysis, with the A groups in general exhibiting higher levels of activity overall, in particular relating to port activities (e.g. land claim for ports, port related use of adjacent land etc.), as well as industrial activity (e.g. water abstraction and discharge).



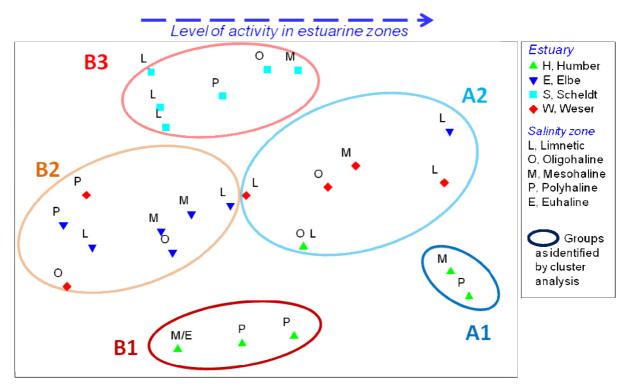


Figure 26: MDS ordination of estuarine zones based on dominant estuarine activities.

Group A1 (Humber Estuary - outer mesohaline and inner polyhaline) shows the highest overall level of activity, in particular high port activity, infrastructure on the bed and industrial activity. However notably, no channel stabilisation. This is compared to group A2 which is predominantly comprised of zones from the Weser Estuary which have higher water abstraction.

Group B clusters featured lower activity levels, with B1 (Humber Estuary - inner mesohaline and outer polyhaline) showing low levels of channel stabilisation for navigation, recreational access onto the estuary and landscape value, and no port land claim, industrial discharge and water abstraction.

Group B2 which is predominantly zones within the Elbe Estuary, features the lowest level of activities overall, with low recreational access onto banks and the intertidal, low infrastructure on the bed, low residential housing, as well as no port activity in the intertidal and subtidal, although with a high value landscape.

Group B3 which is predominantly the Scheldt Estuary features high commercial access, aggregate extraction and channel stabilisation for navigation, but low levels of capital dredging and no archaeological features.

Based on the distribution of uses within each estuary, the analysis allows the identification of estuarine zone groups exhibiting similar types and levels of activity. The analysis indicates that the Scheldt Estuary has a more homogenous distribution of activities across all zones, and thus may require a more uniform management approach, compared to the other TIDE estuaries where there is greater variability between zones, thus requiring spatial targeting of management actions.



This homogeneity may allow implementation of management actions to be more readily undertaken in the Scheldt, given a reduced spatial and sectoral variability, although the Scheldt uniquely amongst the TIDE estuaries also has to integrate trans-national boundary management issues. Certainly the results of the RWG conflict matrix assessment indicate that whilst levels of use within the Scheldt Estuary are high (greater than the other TIDE estuaries), severe conflict associations are less frequent within the estuary.

The analysis shown above therefore identifies that in most cases there are a number of specific management requirements for each estuary, these requirements based on differing usage levels on a sectoral and spatial basis. As such, there is no common typology of use for each of the salinity zones, with the characterising parameters of use possibly more linked to morphology and use.

However. despite this, all estuaries are also identifiable as having specific management requirements, with some clear cross-cutting user conflicts identified from the TIDE estuaries.

## 5.3 Conflict Interaction Typology

The analysis has identified a series of user interactions that are present across most zones in the TIDE estuaries, and these are shown as a mean score across all zones and all estuaries in Figure 27 and Table 9. Table 9 therefore summarises the main interactions observed from the conflict matrix process across the TIDE estuaries, both antagonistic and synergistic.

Eight high scoring conflicts were recorded. These centre around:

- Conservation on Navigation;
- Conservation on Access;
- Access on Conservation;
- Flood Protection on Conservation;
- Navigation on Conservation.

Within these categories, further typologies are identified.

- Conservation on the intertidal zone is impacted by:
  - Recreational access along the banks & intertidal zone;
  - Provision of flood bank protection;
  - Capital dredging for navigation.
- Conservation on the subtidal zone is impacted by:
  - Capital dredging for navigation;
  - Maintenance dredging for navigation.
- Capital dredging for navigation impacted by:
  - Conservation of the subtidal zone.



- Maintenance dredging for navigation impacted by:
  - Conservation of the subtidal zone.
- Recreational access along banks and the intertidal zone impacted by:
  - Conservation on the intertidal zone

In addition, a series of synergisms were also identified. Unsurprisingly, many of these were within a high level topic, e.g. intertidal conservation on subtidal conservation, and maintenance dredging on vessel movement. However, there were some high scoring inter topic associations also identified. These were in relation to the provision of flood protection banks/dykes and port related activity adjacent to the estuary, industrial activity adjacent to the estuary and housing provision adjacent to the estuary.

An average of the conflict scores across all zones and all TIDE estuaries illustrates the main sectors of potential estuarine user conflict which may require management focus (shaded red in Figure 27), together with areas of synergistic potential (shaded green in the Figure 27), the severity of the conflict (or value of synergism) indicated by the intensity of the shading with darker shading for more intense interactions.



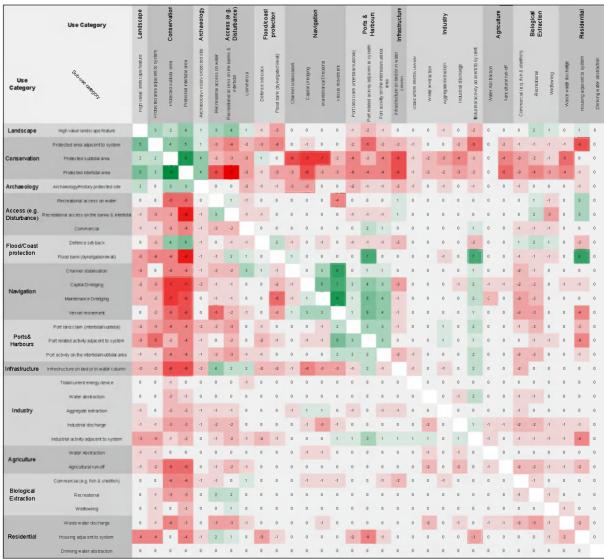


Figure 27: Summary of antagonistic and synergistic user interactions for all zones and all TIDE estuaries.

As noted earlier in text, interaction areas are frequently aligned with conservation protection - flood protection - ports and navigation requirements, with the specific synergisms resulting from flood protection services also notable in addition to those that occur within a topic area.

As such, the identification of these relatively generic high scoring interactions (both negative and positive) are of value in terms of establishing a typology of management needs, this in turn providing a basis for the translation of management requirements into an Ecosystem Service common currency, and thus linking this to the provision of mitigation and compensation measures.

However, whilst these high level typologies provide an indication of the main interaction areas, it is important to emphasise that estuary specific interactions will require specific management focus as discussed in detail in earlier sections of this report. This focus necessarily will have both estuary and topic specific components, although again, the application of these, using appropriate mitigation/compensation measures can be assessed using an Ecosystem Services approach (Jacobs *et al.*, 2013).



Table 9: Strong negative and positive associations between uses/users for all TIDE estuaries combined.

	Impact of		Impact On	Score
Category	Activity	Category	Activity	
Conservation	Protected subtidal area	Navigation	Capital dredging	-7
Conservation	Protected subtidal area	Navigation	Maintenance dredging	-7
Conservation	Protected intertidal area	Access (e.g. disturbance)	Recreational access on the banks & intertidal	-9
Access (e.g. disturbance)	Recreational access on the banks & intertidal	Conservation	Protected intertidal area	-8
Flood/Coast protection	Flood bank (dyke/gabion/wall)	Conservation	Protected intertidal area	-8
Navigation	Capital dredging	Conservation	Protected subtidal area	-7
Navigation	Capital dredging	Conservation	Protected intertidal area	-7
Navigation	Maintenance dredging	Conservation	Protected subtidal area	-7
Conservation	Protected subtidal area	Conservation	Protected intertidal area	9
Conservation	Protected intertidal area	Conservation	Protected subtidal area	10
Flood/coast protection	Flood bank (dyke/gabion/wall)	Ports & Harbours	Port related activity adjacent to system	7
Flood/coast protection	Flood bank (dyke/gabion/wall)	Industry	Industrial activity adjacent to system	7
Flood/coast protection	Flood bank (dyke/gabion/wall)	Residential	Housing adjacent to system	8
Navigation	Channel stabilisation	Navigation	Vessel movement	8
Navigation	Capital dredging	Navigation	Vessel movement	7
Navigation	Maintenance dredging	Navigation	Vessel movement	9



#### 6. DISCUSSION & RECOMMENDATIONS

As described earlier in text, the conflict matrix process has allowed the comparison of conflict interactions both between the TIDE estuaries and between estuarine uses within each estuary.

The process has highlighted a number of well established antagonisms between key sectoral uses in estuaries, as well as areas of synergistic opportunity. This has allowed the comparison of conflict levels to be made across the TIDE estuaries and for a series of conflict and benefit relationship typologies to be identified at a north-west European estuarine level and these have been described in Section 5 of this report.

# **6.1 Spatial Conflict Variation**

Although the process has allowed inter estuarine comparisons to be made and typologies to be established, the conflict matrix analysis has also identified that in most instances the spatial distribution of these interactions was variable both at an inter and intra estuarine scale.

The analysis of use levels and interactions with salinity zonation from the TIDE estuaries did not identify any strong correlations, suggesting that whilst salinity can be an important factor in determining ecological functions within an estuary, other factors will also influence a range of uses and thus conflict scenarios.

For instance, the Humber in particular showed considerable dissimilarity in terms of use levels and conflict interactions compared to the other TIDE estuaries, with reduced conflict levels arising from navigation related issues on Natura 2000 protection requirements and vice versa.

This atypical outcome in relation to ports services and conservation protection needs is considered primarily due to the positioning of the main ports industry on the Humber, compared to the other estuaries, with the Humber's main port industry proportionally closer to the mouth of the estuary than the other TIDE estuaries. This is reduction in conflict level is assisted by natural processes maintaining navigation depth in most reaches of the estuary and tributaries but within an adaptive channel buoyage process whereby changes in channel position are monitored and the fairway alignment altered accordingly.

#### 6.2 Sectoral Conflict Variation

Estuaries are subject to many often similar competing and conflicting uses and users and while high level management needs are the same across most north-west European estuaries, e.g. to protect and enhance nature conservation while ensuring public safety and the delivery of ecosystem services and societal benefits, there are clear differences in priorities for specific management actions. The conflict matrix analysis process has shown that these vary between estuaries but also within an estuary and so management needs to reflect this and be targeted.

The conflict matrix analysis identified some notable sectoral variations between estuaries. For instance, on the Humber, the provision of Natura 2000 protection in the intertidal zone was frequently identified as having a high level of impact on the provision of managed realignment sites, whilst the presence of flood protection dykes/banks was similarly identified



as having a high impact on intertidal Natura 2000 provision. On the Scheldt, managed realignment was further identified as impacting on conservation protection requirements on adjacent terrestrial areas.

As managed realignment is often used as a measure to mitigate for the impacts of coastal squeeze arising from the presence of fixed flood protection dykes, then this would seem to be a considerable management pinch-point that requires redress. The technique is also used as a compensation measure for development related habitat loss in Natura 2000 estuaries, and again, therefore requires attention if, as a technique, it can be deployed effectively without associated conflicts occurring.

Managed realignment provision was also identified as having the potential for high level conflicts with industrial activity and residential housing in the immediate flood plain, primarily this would occur through competition or restriction in land availability. Again therefore, given the potential for the tool to be used as a measure to increase flood assimilation capacity and wider flood protection, then the success of the technique requires both management focus and possibly additional stakeholder involvement.

# 6.3 Conflict Management

## **6.3.1 STAKEHOLDER INTEGRATION**

As described earlier, the requirements for conservation protection in many estuaries raise a number of management conflicts with other uses, including the ports industry, flood protection requirements and recreational access to the estuary and vice versa.

As such, mechanisms are necessary to assist in stakeholder inclusion and conflict resolution as part of a wider integrative management strategy. A pilot study (Ratter & Weig, 2012) was undertaken within TIDE project on the Elbe to investigate how the general public perceive issues associated with management of estuaries.

The study involved the interviewing of residents living along the Elbe Estuary regarding their main concerns and priorities. The outcomes of the process were that nature conservation provision had the most serious potential for conflict with other uses, as residents perceived nature conservation to be incompatible with other land uses.

In the rural parts of the Elbe region, nature conservation and agriculture were perceived to be the main conflict uses, whilst in the more developed areas of the system, it was nature conservation and industry interactions that were identified as having the greatest potential conflict. However, these responses mostly reflect general opinions about the interaction of different land uses and do not refer to existing regional conflicts. These Elbe-specific findings are consistent with those identified by the RWGs when developing the conflict matrices for each estuary and would be considered broadly transferable to other similar estuaries.

As such, whilst again a typology of conflict interactions is clearly identifiable, estuary-specific surveys of stakeholder issues might be a useful tool to confirm key areas of conflict, and incorporate local variations in terms of both spatial and sectoral severity, thus delivering management assistance to key areas of requirement.



#### 6.3.2 INTEGRATED & TARGETED MANAGEMENT

The analysis process has identified a series of high level conflict interactions between Natura 2000 requirements and the ports industry and related requirements such as the maintenance of navigation routes (and vice versa), albeit with issues relating to navigation considerably reduced for the Humber (see above).

The reduced conflict scenario between Natura 2000 requirements and navigation related activity on the Humber is considered primarily to be a result of the positioning of the main Humber ports industry towards the mouth of the estuary, particularly when compared to the other TIDE estuaries where the main port activity is located some distance upstream, requiring ongoing management measures to maintain safe navigation. However, the recent development of a dredging strategy for the Humber in the context of requirements under the Habitat Regulations Assessment is considered to have assisted in the reduction of conflict potential, with the strategy developed by the ports authority in conjunction with statutory agencies charged with environmental protection.

Whilst the Humber provides a good example of sectoral-based management development, the conflict process identified a high number of high scoring conflict issues, within the estuary, as well as on the Elbe and Weser particularly in the context of those derived for the Scheldt estuary. The Scheldt, whilst having some very high level conflicts present, primarily between navigation requirements and Natura 2000 protection needs, in general featured a reduced number of conflict areas and an increased number of synergistic activities.

Of course this lower scoring may be to some extent an artefact of the RWG assessment process, and the successful application of management actions have not been specifically identified from the review of legislation and SWOT analysis (Boyes *et al.*, 2013).

However, based on the outcomes of the analysis process, it is possible to conclude that management on the Scheldt appears to be effective in a number of areas. This reduction in the level of conflicts and indeed the relatively high level of synergistic interactions may be a result of its relatively long period of integrated management arising from the 'Long term vision Westerscheldt' plan, integrating 'safety accessibility and environment' aspects, including requirements for trans-national action and data sharing between Belgium and the Netherlands.

Indeed, it may be that the need to establish a trans-national management approach, with associated co-ordination of monitoring and data provision, has meant that a more effective integrated management approach has been developed than for estuaries where such a requirement is unnecessary and a more sectoral and less integrated management approach can be developed.

#### 6.4 Measures Interactions and Disbenefits

The conflict matrix analysis has highlighted that in some instances measures employed to mitigate one management problem can produce other conflict areas. For instance, managed realignment can be employed as a specific tool or measure to offset intertidal habitat loss from both direct land claim and/or coastal squeeze, in order to maintain Natura 2000 integrity as well as offsetting losses in flood assimilation capacity.

However, based on the results of the conflict matrix analysis from the TIDE estuaries, the application of this technique can in itself impact on aspects of Natura 2000 provision as well



as on flood protection requirements not to mention potential provision for housing, industry and agriculture.

As such, whilst the potential of the tool to be of value as a measure to increase flood assimilation capacity and wider flood protection, as well as providing compensatory/mitigatory Natura 2000 function is evident, the success of the technique within the wider process of estuarine management requires both management focus and possibly additional stakeholder involvement.

# 6.5 Links to Other Approaches

Based on the results of the conflict matrix approach, together with research strands from other aspects of TIDE, it has been possible to derive a typology of key conflict areas for most estuaries, and based on these, derive guidance principles for integrated management as well as a series of measures to assist in both in determining conflict areas, but also in addressing some of the causal impact factors.

It is in such a role that it is considered that the conflict matrix approach is of value, particularly when used in conjunction with the measures tools developed under TIDE and with the Ecosystem Services approach, this combined approach allowing the Ecosystem Services to provide a common currency to assist in the determination of the relative values of management options, and appropriate management measure delivery (Figure 28).

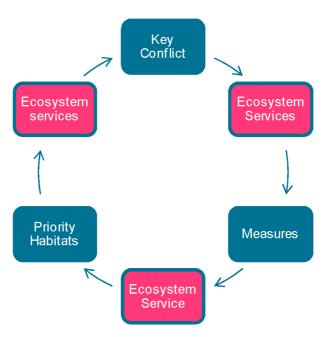


Figure 28: Conceptual framework showing the linkages between conflict areas, mitigatory measures and priority habitats using the Ecosystem Services approach as a common currency.

It is concluded that whilst north-west European estuaries present many generic management challenges, initiatives need to be site-specific in order to accommodate both the natural and human systems. Furthermore, the Ecosystem Services and Conflict Matrix approaches employed in TIDE have the potential to be combined to assist in effective management.



However, importantly it is necessary to understand that measures employed to provide a management solution for specific problem can also generate their own management issues. This is particularly the case for measures used to address flood protection, land claim offset and Natura 2000 requirements.



### 7. REFERENCES

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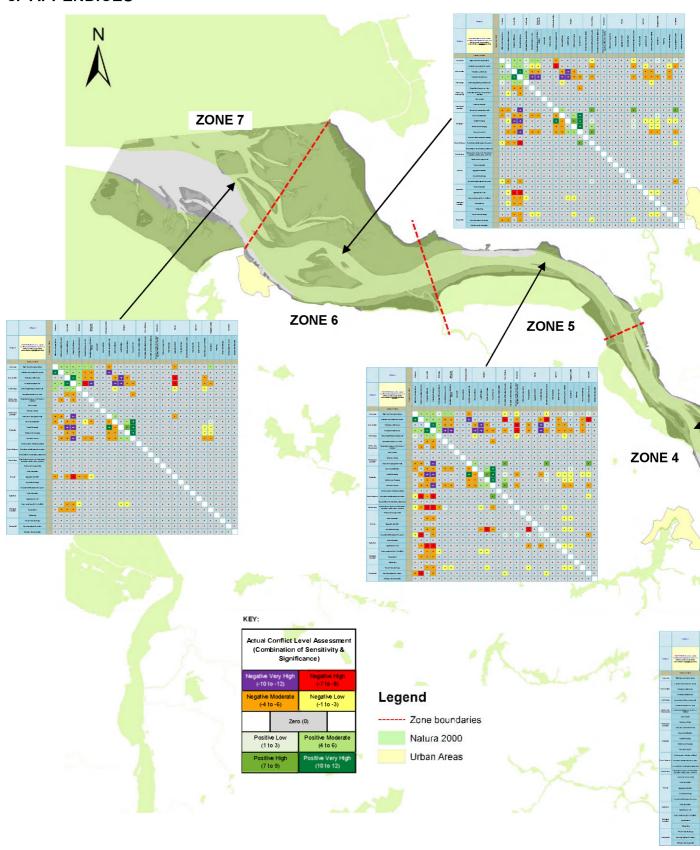
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# 8. APPENDICES



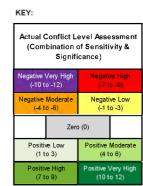
Elbe - Full conflict matrix output per zone.







	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			Nevigation			Ports & Harbours		Infrastructure			Industry			One of the second	anino il		Biological Extraction			Residential	
Category	ELBE ESTUARY (Zone 1): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DO NOT populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vessel movement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/sutkidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wadowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			4	5	5	3	4	4	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0
	Protected area adjacent to system		8		5	5	3	-4	-4	0	0	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	0	-6	0
Conservation	Protected subtidal area		0	0		12	4	-5	-5	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
	Protected intertidal area		5	5	12	Г	4	-10	-10	0	0	0	-10	0	0	-5	0	0	0	0	0	0	0	0	0	0	-4	0	-4	0	0	0	0
Archaeology	Archaeology/History protected site		3	0	4	4		0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recreational access on water		0	0	-5	-5	0		0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-4	0	-5	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
,	Commercial		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-5	-5	0	-12	0	0	0	0	0		5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
	Channel stabilisation		-4	0	-5	-5	0	-4	-4	0	0	-5		0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
	Capital Dredging		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navigation	Maintenance Dredging		0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Vessel movement		0	-4	-5	-10	0	-4	-4	0	0	-5	4	0	0		0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	-3	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	-3	-8	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-2	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	-3	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Residential	Housing adjacent to system		-6	-6	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

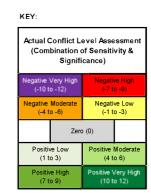




Elbe Estuary: Conflict Level Assessment (Zone 1)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)		:	ricodicoast protection		:	Navigation			Ports & Harbours		Infrastructure			Industry				Agrounde		Biological Extraction			Residential	
Category	ELBE ESTUARY (Zone 2): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DONOT populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vessel movement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subbidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agnoutural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfawling	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			2	2	2	2	3	4	0	-2	-4	0	0	0	0	-3	-4	-3	-4	0	0	-2	0	-3	0	0	0	2	0	0	4	0
	Protected area adjacent to system		4		2	2	2	-3	-4	0	-4	-8	0	0	0	0	-6	-8	-3	-4	0	0	0	-4	-6	0	-2	0	0	0	-4	-8	0
Conservation	Protected subtidal area		0	0		4	2	-3	-4	0	0	0	4	-8	4	0	-6	0	-6	-8	0	-4	-4	-8	0	-2	-2	0	0	0	4	0	0
	Protected intertidal area		2	2	4		2	-6	-8	0	0	0	-8	-8	-4	-4	-6	-4	-6	-8	0	-4	-4	-8	-3	0	-2	0	-2	0	-4	0	0
Archaeology	Archaeology/History protected site		2	0	2	2		0	0	0	-2	0	-4	0	0	0	-3	0	0	-4	0	0	-2	0	0	0	0	0	0	0	0	0	0
	Recreational access on water		0	0	-3	-3	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-4	0	-4	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
,	Commercial		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Defence set-back		2	2	2	4	-2	0	0	0		0	-4	0	-4	0	-3	-4	0	-4	0	0	0	0	-3	0	0	0	2	0	0	-4	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-4	-4	0	-8	0	0	0	0	-8		6	0	0	0	0	12	0	0	0	0	-4	0	10	0	0	0	0	0	0	12	0
	Channel stabilisation		-4	0	-4	-4	0	-5	-6	0	0	-6		0	6	12	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0
	Capital Dredging		0	-4	-8	-8	0	0	0	0	0	12	-6		12	12	0	6	0	-12	0	0	0	-6	5	-8	-4	0	-4	0	-6	-6	0
Navigation	Maintenance Dredging		0	0	-4	-4	0	0	0	0	0	-6	-6	0		12	0	12	10	0	0	0	0	0	5	-8	0	0	-4	0	0	0	0
	Vessel movement		0	-4	-4	-8	0	-5	-6	0	0	-6	-6	6	6		0	12	10	-6	0	0	0	0	0	0	0	0	-4	0	0	-6	0
	Port land claim (intertidal/subtidal)		-6	-6	-6	-6	-3	-4	-10	0	-6	0	0	0	-5	5		10	8	0	0	0	0	0	8	0	0	0	-3	0	0	-10	0
Ports& Harbours	Port related activity adjacent to system		-4	-8	-4	-8	0	0	0	0	-4	0	0	0	0	12	5		0	0	0	0	0	0	0	0	0	0	0	0	0	-6	0
	Port activity on the intertidal/subtidal area	1	-3	-3	-6	-6	0	-4	-5	0	-6	0	0	0	0	-5	0	0		0	0	0	0	0	4	0	0	0	-3	0	0	-5	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-4	-4	-8	-8	-8	5	0	0	-4	0	0	-6	0	-6	0	0	0		0	0	-8	0	5	0	0	0	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	4	0	0	0	0
Industry	Aggregate extraction		-2	0	-2	-4	-4	-6	-4	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	-4	-4	0	0	0	0	0	0	0	-6	-12	-6	0	0	0	0	0	-12	0		0	-4	0	0	-4	0	0	0	0
	Industrial activity adjacent to system		-3	-6	0	-3	0	0	0	0	-3	0	0	0	0	0	-4	5	4	5	0	5	0	5		0	0	0	0	0	0	-10	0
	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	-2	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	0	-8	0	0		0	-2	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological	Recreational		0	-2	-2	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
Extraction	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-4	-4	0	-5	-6	0	0	0	0	0	-6	0	0	0	0	0	0	-6	0	0	0	-4	0	0	-4	0		0	0
Residential	Housing adjacent to system		-8	-8	0	-4	0	0	0	0	-8	0	0	0	0	0	-5	-6	-5	0	0	0	0	0	-5	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Diffixing water abstraction		J		U	Ü		U		U		U	U	U	U	Ů		U	J	ľ	Ü	ľ	ľ	ľ	ľ		U	U		U	U	U	

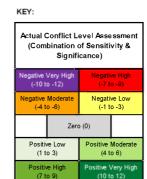


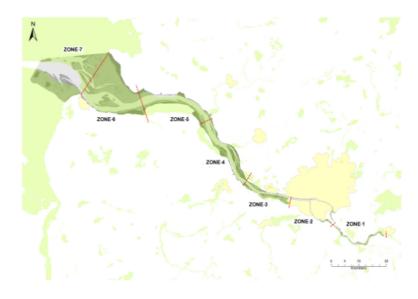


Elbe Estuary: Conflict Level Assessment (Zone 2)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			Navigation			Ports & Harbours		Infrastructure			Industry				a name in the same		Biological Extraction			Residential	
Category	ELBEESTUARY (Zone 3): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bark (dyke/gabion/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vessel movement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertida/sutkidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfsh)	Recreational	Wildowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			4	5	5	3	5	4	0	-3	-5	0	0	0	0	-4	-3	0	-3	0	0	-3	0	-3	0	0	0	3	0	0	4	0
	Protected area adjacent to system		8	Г	5	5	3	-5	-4	0	-6	-10	0	0	0	0	-8	-6	0	-3	0	0	0	-3	-6	0	-4	0	0	0	-3	-8	0
Conservation	Protected subtidal area		0	0		12	4	-6	-5	0	0	0	-5	-10	-6	0	-10	0	0	-8	0	-4	-8	-8	0	-4	-5	-4	0	0	-4	0	0
	Protected intertidal area		5	5	12	г	4	-12	-10	0	0	0	-10	-10	-6	-6	-10	-4	0	-8	0	4	-8	-8	-4	0	-5	-4	-4	0	-4	0	0
Archaeology	Archaeology/History protected site		3	0	4	4		0	0	0	-2	0	-3	0	0	0	-3	0	0	-2	0	0	-2	0	0	0	0	-2	0	0	0	0	0
	Recreational access on water		0	0	-6	-6	0		0	0	0	0	0	0	0	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-4	0	-5	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Commercial		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Defence set-back		3	3	4	8	-2	0	0	0		0	-3	0	-4	0	-3	-2	0	-2	0	0	0	0	-2	0	0	2	2	0	0	-3	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-5	-5	0	-12	0	0	0	0	-8		5	0	0	0	0	8	0	0	0	0	4	0	8	0	0	0	0	0	0	10	0
	Channel stabilisation		-4	0	-5	-5	0	-5	-4	0	0	-5		0	5	10	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
	Capital Dredging		0	-4	-10	-10	0	0	0	0	0	10	-4		10	10	0	3	0	-6	0	0	0	-3	3	-6	-4	-3	-3	0	-3	-4	0
Navigation	Maintenance Dredging		0	0	-6	-6	0	0	0	0	0	-6	-5	0		12	0	8	0	0	0	0	0	0	4	-8	0	-4	-4	0	0	0	0
	Vessel movement		0	-5	-6	-12	0	-6	-5	0	0	-6	-5	5	6		0	8	0	-4	0	0	0	0	0	0	0	-4	-4	0	0	-5	0
	Port land claim (intertidal/subtidal)		-8	-8	-10	-10	-3	-5	-8	0	-6	0	0	0	-5	5		6	0	0	0	0	0	0	6	0	0	-3	-3	0	0	-8	0
Ports & Harbours	Port related activity adjacent to system		-3	-6	-4	-8	0	0	0	0	-2	0	0	0	0	8	3		0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-3	-3	-8	-8	-4	4	0	0	-2	0	0	-3	0	-4	0	0	0		0	0	-4	0	2	0	0	-2	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	-2	-2	0	0	0	0
Industry	Aggregate extraction		-3	0	-4	-8	-4	-8	-3	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	-4	-4	0	0	0	0	0	0	0	-3	-8	-4	0	0	0	0	0	-4	0		0	-2	0	-2	-2	0	0	0	0
	Industrial activity adjacent to system		-3	-6	0	-4	0	0	0	0	-2	0	0	0	0	0	-3	2	0	2	0	2	0	2		0	0	0	0	0	0	-6	0
Agriculture	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
	Agricultural run-off		0	-4	-10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	0	-6	0	0		-3	-3	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	-4	-4	-2	0	0	0	0	0	0	-3	-4	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	-3	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-4	-4	0	-4	-3	0	0	0	0	0	-4	0	0	0	0	0	0	-2	0	0	0	-2	0	-2	-2	0		0	0
Residential	Housing adjacent to system		-8	-8	0	-5	0	0	0	0	-6	0	0	0	0	0	-4	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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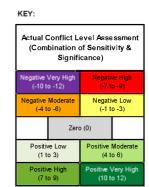


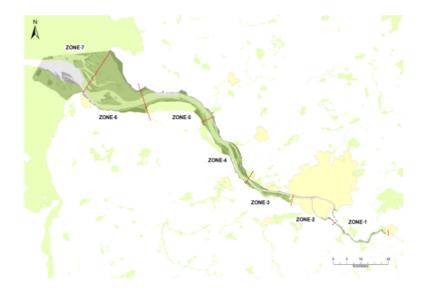


Elbe Estuary: Conflict Level Assessment (Zone 3)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			Longo			Ports & Harbours		Infrastructure			Industry				Agriculture		Biological Extraction			Residential	
Category	ELBE ESTUARY (Zone 4): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DONOT populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stablisation	Capital Dredging	Maintenance Dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subbidal area	Infrastructure on bed or in water column (e.g. pipes, cattles, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			5	5	5	3	5	4	0	0	-5	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	3	0	0	3	0
	Protected area adjacent to system		10		6	6	4	-6	-5	0	0	-12	0	0	0	0	0	-8	0	0	0	0	0	-5	-8	0	-5	0	0	0	-4	-8	0
Conservation	Protected subtidal area		0	0		12	4	-6	-5	0	0	0	-4	-10	-4	0	0	0	0	0	0	-4	0	-10	0	0	-5	-4	0	0	-4	0	0
	Protected intertidal area		5	6	12		4	-12	-10	0	0	0	-8	-10	-4	-6	0	-4	0	0	0	-4	0	-10	-4	0	-5	-4	-4	0	-4	0	0
Archaeology	Archaeology/History protected site		3	0	4	4		0	0	0	0	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	0
	Recreational access on water		0	0	-6	-6	0		0	0	0	0	0	0	0	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-5	0	-5	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Commercial		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
protection	Flood bank (dyke/gabion/wall)		-5	-6	0	-12	0	0	0	0	0		4	0	0	0	0	8	0	0	0	0	0	0	8	0	0	0	0	0	0	8	0
	Channel stabilisation		-3	0	-4	-4	0	-4	-3	0	0	-4		0	2	8	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
	Capital Dredging		0	-5	-10	-10	0	0	0	0	0	10	-3		6	10	0	3	0	0	0	0	0	-4	3	0	-4	-3	-3	0	-3	-3	0
Navigation	Maintenance Dredging		0	0	-4	-4	0	0	0	0	0	-4	-2	0		8	0	4	0	0	0	0	0	0	2	0	0	-2	-2	0	0	0	0
	Vessel movement		0	-6	-6	-12	0	-6	-5	0	0	-6	-4	5	4		0	8	0	0	0	0	0	0	0	0	0	-4	-4	0	0	-4	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-3	-8	-4	-8	0	0	0	0	0	0	0	0	0	8	0		0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	-2	-2	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	-5	-5	0	0	0	0	0	0	0	-4	-6	-5	0	0	0	0	0	-6	0		0	0	0	-3	-3	0	0	0	0
	Industrial activity adjacent to system		-3	-8	0	-4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	3		0	0	0	0	0	0	4	0
	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	-5	-10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	0	-8	0	0		-3	-3	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	-4	-4	-2	0	0	0	0	0	0	-3	-2	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	-4	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-4	-4	0	-4	-3	0	0	0	0	0	-2	0	0	0	0	0	0	-2	0	0	0	0	0	-2	-2	0		0	0
Residential	Housing adjacent to system		-6	-8	0	-4	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	-2	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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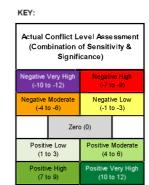




Elbe Estuary: Conflict Level Assessment (Zone 4)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			Navigation			Ports & Harbours		Infrastructure			Industry			America			Biological Extraction			Residential	
Category	ELBE ESTUARY (Zone 5): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DO NOT populate)	Leave column blank	Hgh value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bark (dyke/gabion/wall)	Channel stablisation	Capital Dredging	Maintenance Dredging	Vessel movement	Port land claim (intertitial/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/sulcidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			5	5	5	3	4	4	0	0	-5	0	0	0	0	0	-3	0	-3	0	0	0	0	-3	0	0	0	3	0	0	3	0
	Protected area adjacent to system		10		6	6	4	-5	-5	0	0	-12	0	0	0	0	0	-8	0	-4	0	0	0	-5	-8	0	-4	0	0	0	-4	-8	0
Conservation	Protected subtidal area		0	0		12	4	-5	-5	0	0	0	-5	-10	-5	0	0	0	0	-8	0	-5	0	-10	0	0	-4	-4	0	0	4	0	0
	Protected intertidal area		5	6	12	Г	4	-10	-10	0	0	0	-10	-10	-5	-6	0	-4	0	-8	0	-5	0	-10	4	0	-4	-4	-4	0	4	0	0
Archaeology	Archaeology/History protected site		3	0	4	4		0	0	0	0	0	-3	0	0	0	0	0	0	-2	0	0	0	0	0	0	0	-2	0	0	0	0	0
	Recreational access on water		0	0	-5	-5	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-5	0	-5	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
,	Commercial		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-5	-6	0	-12	0	0	0	0	0		5	0	0	0	0	8	0	0	0	0	0	0	8	0	0	0	0	0	0	8	0
	Channel stabilisation		-4	0	-5	-5	0	-4	-4	0	0	-5		0	4	10	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
	Capital Dredging		0	-5	-10	-10	0	0	0	0	0	10	-4		8	10	0	3	0	-6	0	0	0	-4	3	0	-3	-3	-3	0	-3	-3	0
Navigation	Maintenance Dredging		0	0	-5	-5	0	0	0	0	0	-5	-4	0		10	0	6	0	0	0	0	0	0	3	0	0	-3	-3	0	0	0	0
	Vessel movement		0	-6	-6	-12	0	-5	-5	0	0	-6	-5	5	5		0	8	0	-4	0	0	0	0	0	0	0	-4	-4	0	0	-4	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-3	-8	-4	-8	0	0	0	0	0	0	0	0	0	8	0		0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-3	-4	-8	-8	-4	3	0	0	0	0	0	-3	0	-4	0	0	0		0	0	0	0	2	0	0	-2	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-5	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	-3	-3	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	-5	-5	0	0	0	0	0	0	0	-4	-8	-5	0	0	0	0	0	-8	0		0	0	0	-3	-3	0	0	0	0
	Industrial activity adjacent to system		-3	-8	0	-4	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3		0	0	0	0	0	0	-4	0
	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	4	-8	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	0	-6	0	0		-2	-2	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	-4	-4	-2	0	0	0	0	0	0	-3	-3	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	-4	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-4	-4	0	-3	-3	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	-2	-2	0		0	0
Residential	Housing adjacent to system		-6	-8	0	-4	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	-2	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

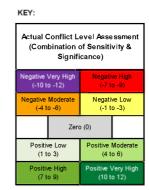


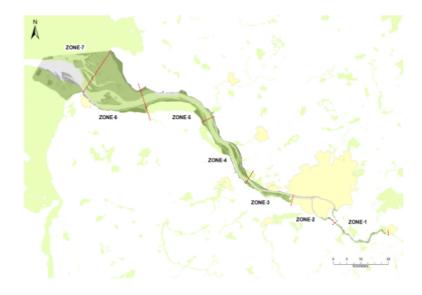


Elbe Estuary: Conflict Level Assessment (Zone 5)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)		i.	LOCOCOCO SECONO			L OSBO			Ports & Harbours		Infrastructure			Industry			A province of the property of			Biological Extraction			Residential	
Category	ELBE ESTUARY (Zone 6): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value landscape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/sutkidal area	Infrastructure on bed or in water column (e.g. pipes, cattles, piers, marinas)	TidaVcurrert energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfaving	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			3	5	5	3	4	4	0	0	-5	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	3	0	0	3	0
	Protected area adjacent to system		6		4	4	2	-3	-3	0	0	-8	0	0	0	0	0	-4	0	0	0	0	0	0	-4	0	-2	0	0	0	-2	-4	0
Conservation	Protected subtidal area		0	0		12	4	-5	-5	0	0	0	-5	-10	-5	0	0	0	0	0	0	0	0	0	0	0	4	-4	0	0	-4	0	0
	Protected intertidal area		5	4	12		4	-10	-10	0	0	0	-10	-10	-5	-6	0	-4	0	0	0	0	0	0	-4	0	-4	-4	-4	0	-4	0	0
Archaeology	Archaeology/History protected site		3	0	4	4		0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	0
	Recreational access on water		0	0	-5	-5	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-3	0	-5	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Commercial		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
protection	Flood bank (dyke/gabion/wall)		-5	4	0	-12	0	0	0	0	0		5	0	0	0	0	8	0	0	0	0	0	0	8	0	0	0	0	0	0	8	0
	Channel stabilisation		-4	0	-5	-5	0	-4	-4	0	0	-5		0	4	10	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
	Capital Dredging		0	-3	-10	-10	0	0	0	0	0	10	-4		8	10	0	3	0	0	0	0	0	0	3	0	-3	-3	-3	0	-3	-3	0
Navigation	Maintenance Dredging		0	0	-5	-5	0	0	0	0	0	-5	-4	0		10	0	6	0	0	0	0	0	0	3	0	0	-3	-3	0	0	0	0
	Vessel movement		0	-4	-6	-12	0	-5	-5	0	0	-6	-5	5	5		0	8	0	0	0	0	0	0	0	0	0	-4	4	0	0	-4	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-3	-4	-4	-8	0	0	0	0	0	0	0	0	0	8	0		0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		-3	4	0	-4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0		0	0	0	0	0	0	4	0
	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	-2	-8	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-2	-2	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	-4	-4	-2	0	0	0	0	0	0	-3	-3	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	-2	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-4	-4	0	-3	-3	0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	-2	-2	0		0	0
Residential	Housing adjacent to system		-6	-4	0	-4	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	-2	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	





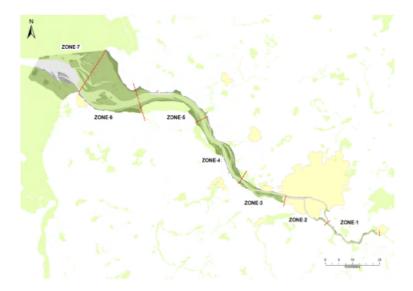
Elbe Estuary: Conflict Level Assessment (Zone 6)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)		:	Flood/Coast protection		Monthonton	Σρ Σβ Ξ			Ports & Harbours		Infrastructure			Industry			A contract of			Biological Extraction			Residential	
Category	ELBE ESTUARY (Zone 7): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value landscape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabionwal)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vesselmovement	Port land clam (intertidal/sublidal)	Port related activity adjacent to system	Port activity on the intertidalisutitidal area	infrastructure on bed or in water column (e.g. pipes, cables, piers, marnas)	Tide/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	ndustrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	VAIdrowing	Waste water discharge	Housing adjacent to system	Drnking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			6	6	6	4	4	5	0	0	-6	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	0	0	4	0	0	0	0
	Protected area adjacent to system		12		6	6	4	-4	-5	0	0	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conservation	Protected subtidal area		0	0		12	4	-4	-5	0	0	0	-5	-10	-5	0	0	0	0	0	0	0	-8	0	0	0	0	4	0	0	0	0	0
	Protected intertidal area		6	6	12		4	-8	-10	0	0	0	-10	-10	-5	-6	0	0	0	0	0	0	-8	0	0	0	0	4	-4	0	0	0	0
Archaeology	Archaeology/History protected site		4	0	4	4		0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	-2	0	0	0	0	0
	Recreational access on water		0	0	-4	-4	0		0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-5	0	-5	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Disturbance)	Commercial		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-6	-6	0	-12	0	0	0	0	0		5	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
					-5	-5	0			0		-5	ŭ		4			0		0			0					0					
	Channel stabilisation		-5	0				-3	-4		0			0		10	0		0		0	0		0	0	0	0		3	0	0	0	0
Navigation	Capital Dredging		0	-5	-10	-10	0	0	0	0	0	10	-4		8	10	0	0	0	0	0	0	0	0	0	0	0	-3	-3	0	0	0	0
	Maintenance Dredging		0	0	-5	-5	0	0	0	0	0	-5	-4	0		10	0	0	0	0	0	0	0	0	0	0	0	-3	-3	0	0	0	0
	Vessel movement		0	-6	-6	-12	0	-4	-5	0	0	-6	-5	5	5		0	0	0	0	0	0	0	0	0	0	0	-4	-4	0	0	0	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		-4	0	-4	-8	4	4	-3	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	-4	-4	-2	0	0	0	0	0	0	-3	-3	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	-4	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Residential	Housing adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

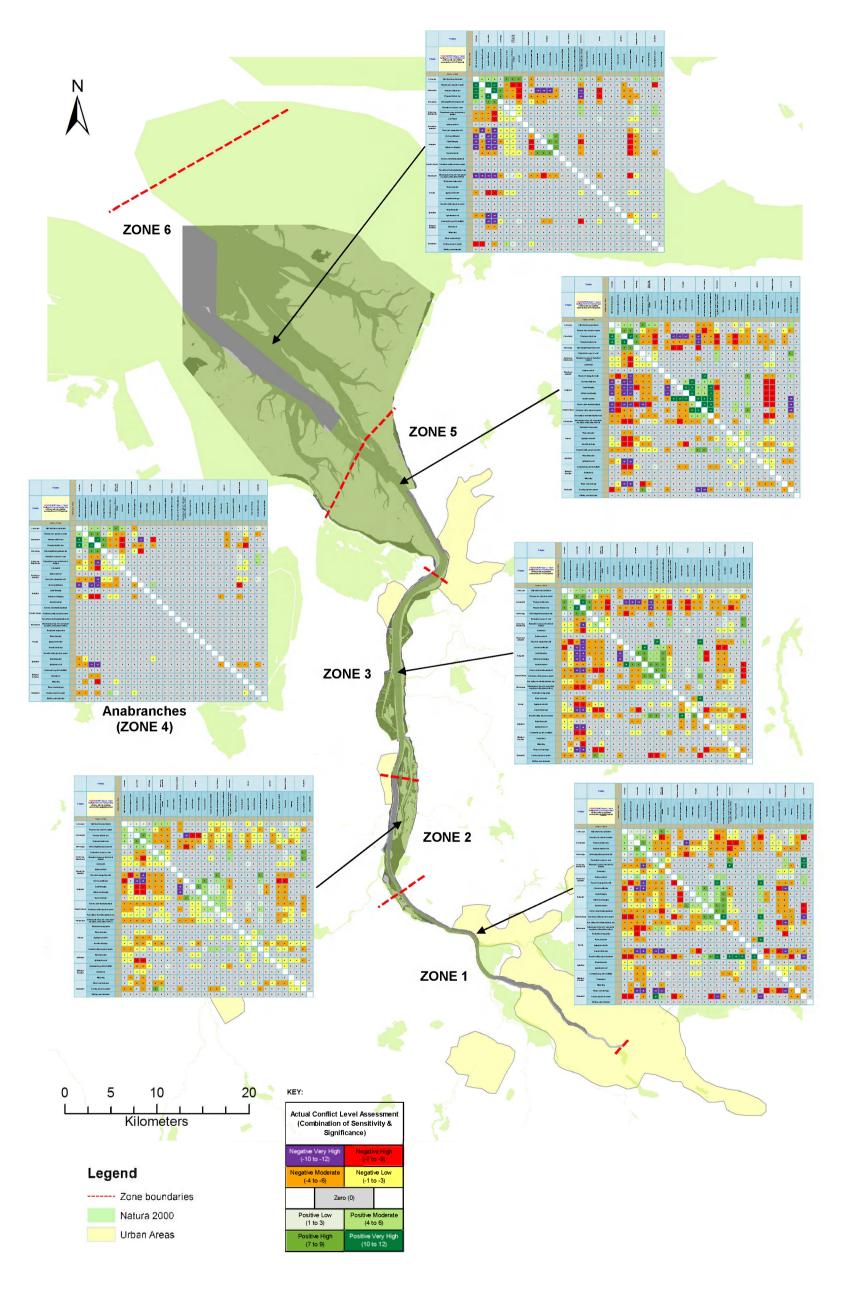


Conflict Lobination of Signification		
Very High o -12)	-	ve High o -9)
Moderate o -6)		ve Low o -3)
Zero	0 (0)	
 e Low o 3)		Moderate o 6)
e High o 9)		/ery High o 12)



Elbe Estuary: Conflict Level Assessment (Zone 7)

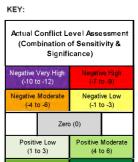




Weser - Full conflict matrix output per zone.



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)		:	Flood/coast protection		1	L Gardania N Gardania			Ports & Harbours		Infrastructure			Industry				Agnounce		Biological Extraction			Residential	
Category	WESER ESTUARY (Zone 1): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence sel-back	Flood bank (dyke/gabion/vall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tida/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfowling	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			2	3	3	0	6	8	4	0	-4	0	0	0	0	-2	-4	-4	3	-3	0	0	0	-4	0	0	0	3	2	0	4	0
	Protected area adjacent to system		4		6	6	0	-3	-8	-4	0	-4	0	0	0	0	-2	-8	-4	-3	-3	0	0	-4	-8	0	-2	0	0	-2	-4	-8	0
Conservation	Protected subtidal area		6	3		8	6	4	-5	-6	0	0	-10	-6	-6	-3	-6	-5	-5	-8	-8	-4	0	-5	-5	0	-3	-3	0	-3	-5	0	0
	Protected intertidal area		6	3	8	П	6	-4	-5	-6	3	-5	-5	-3	-3	-3	-6	-5	-5	-8	-4	-4	0	-5	-5	0	-3	-3	-4	-6	-5	0	0
Archaeology	Archaeology/History protected site		2	0	6	6		0	0	-4	-2	-4	-8	4	0	0	-4	0	0	-6	-6	0	0	0	0	0	0	-4	0	0	0	0	0
	Recreational access on water		0	0	-4	-4	0		5	-3	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	4	0	0	10	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		-4	-4	-5	-10	-4	5		-4	0	0	0	0	0	0	-4	0	0	10	0	0	0	0	0	0	0	0	5	-4	0	12	0
	Commercial		-2	-2	-3	-6	-2	-3	-4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	-3	-2	0	0	0
Flood/Coast	Defence set-back		2	2	6	3	-2	0	4	0		4	0	0	0	0	2	4	4	0	0	0	0	0	4	0	0	2	3	2	0	4	0
protection	Flood bank (dyke/gabion/wall)		-4	-8	-5	-10	-4	-5	-6	0	-8		0	0	0	0	0	12	0	0	0	0	0	0	12	0	0	-4	-5	-4	0	6	0
	Channel stabilisation		-8	0	-10	-10	-4	-5	-6	0	0	-6		0	4	8	0	6	6	-5	0	0	0	0	6	0	0	-8	-10	0	0	0	0
	Capital Dredging		-4	-2	-6	-6	-4	-3	-4	0	0	-8	0		4	4	2	4	8	-6	0	0	0	0	4	4	0	-4	-6	0	0	0	0
Navigation	Maintenance Dredging		-4	-2	-6	-6	0	-3	-4	0	0	-8	0	0		4	2	4	8	-3	0	0	0	0	4	4	0	4	-6	0	0	0	0
	Vessel movement		0	-2	-3	-3	0	-3	-4	-2	0	-4	8	4	4		4	8	8	-3	0	0	0	0	0	0	0	-4	-6	0	0	-8	0
	Port land claim (intertidal/subtidal)		-4	-4	-6	-6	-4	-6	-8	0	-2	0	0	-2	-2	2		8	8	-3	-3	0	0	0	4	0	0	-4	-6	-4	0	-8	0
Ports & Harbours	Port related activity adjacent to system		-8	-8	-5	-5	0	0	-6	0	-8	-6	0	4	-4	8	8		12	0	0	0	0	0	12	0	0	0	-5	-4	0	-12	0
	Port activity on the intertidal/subtidal area		-4	-4	-5	-5	0	-5	-6	-4	0	0	0	-4	-4	4	4	6		-5	-5	0	0	0	6	0	0	-8	-10	-4	0	-6	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-6	-6	-8	-8	-6	4	5	-3	-3	-5	-5	-6	-3	-3	-3	0	-5		-4	0	0	0	5	0	0	-6	-4	-3	0	0	0
	Tidal/current energy device		-3	-3	-8	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	-8	0	0	0	0
	Water abstraction		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-5	10	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		-4	-4	-10	-10	-4	-10	-12	0	0	0	0	-4	-8	0	0	0	0	0	0	-5	0		0	-8	-4	-8	-10	-4	-6	-6	0
	Industrial activity adjacent to system		-8	-8	-5	-5	0	-5	-6	-4	-8	-6	0	0	0	4	8	12	0	10	10	10	0	12		-4	0	-4	-5	-8	0	-12	0
Agriculture	Water Abstraction		-2	-2	0	0	0	0	0	0	0	0	0	-2	-2	0	0	0	0	0	0	-3	0	4	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		-2	-2	-6	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	-4	0	-2		-2	-3	-2	-4	-4	0
	Commercial (e.g. fish & shellfish)		0	0	-6	-6	-2	0	0	2	0	0	0	-2	-2	0	0	0	-4	-6	-3	0	0	0	0	0	0		-3	0	0	0	0
Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	-4	0	-6	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	-4	-10	-10	0	-10	-12	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	-6	0	-8	4	-8	-10	-4		-6	0
Residential	Housing adjacent to system		-8	-8	0	-5	0	10	6	0	-8	-6	0	0	0	0	-8	-12	-6	0	0	0	0	0	-12	0	0	0	0	-4	-6		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

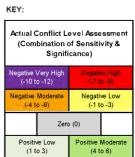


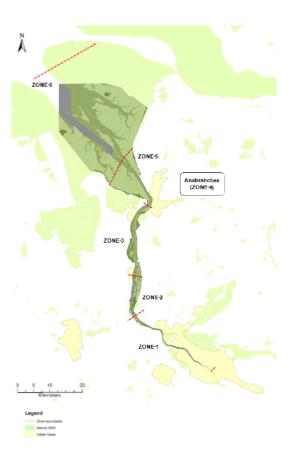


Weser Estuary: Conflict Level Assessment (Zone 1)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)		:	riood/coast protection		:	Navigation			Ports & Harbours		Infrastructure			Industry			A series of the	Agriculture		Biological Extraction			Residential	
Category	WESER ESTUARY (Zone 2): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vessel movement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	VAldfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			2	3	3	0	6	6	4	0	-4	0	0	0	0	-2	-2	-2	2	0	0	-2	0	-2	0	0	0	2	2	0	3	0
	Protected area adjacent to system		4		6	6	0	-3	-6	-4	0	-4	0	0	0	0	-2	-4	-2	-2	0	0	0	-2	-4	0	-3	0	0	-2	-2	-6	0
Conservation	Protected subtidal area		6	3		8	6	-4	-4	-6	0	0	-10	-8	-8	-3	-6	-3	-3	-6	0	-3	-6	-3	-3	0	-4	-3	0	-3	-3	0	0
,	Protected intertidal area		6	3	8	Т	6	-4	-4	-6	0	-5	-5	-4	-4	-3	-6	-3	-3	-6	0	-3	-6	-3	-3	0	-4	-3	-3	-6	-3	0	0
Archaeology	Archaeology/History protected site		2	0	6	6		0	0	-4	0	-4	-8	-6	0	0	-4	0	0	-4	0	0	-4	0	0	0	0	-4	0	0	0	0	0
	Recreational access on water		0	0	-4	-4	0		4	-3	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	3	0	0	8	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		-3	-3	-4	-8	-3	4		-3	0	0	0	0	0	0	-3	0	0	6	0	0	0	0	0	0	0	0	3	-3	0	8	0
,	Commercial		-2	-2	-3	-6	-2	-3	-3		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	-2	-2	-2	0	0	0
	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-4	-8	-5	-10	-4	-5	-5	0	0		0	0	0	0	0	8	0	0	0	0	0	0	8	0	0	4	-4	4	0	5	0
	Channel stabilisation		-8	0	-10	-10	-4	-5	-5	0	0	-6		0	5	8	0	4	4	-4	0	0	0	0	4	0	0	-8	-8	0	0	0	0
,	Capital Dredging		-6	-3	-8	-8	-6	-4	-4	0	0	-10	0		8	6	3	3	6	-6	0	0	0	0	3	-6	0	-6	-6	0	0	0	0
Navigation	Maintenance Dredging		-6	-3	-8	-8	0	-4	-4	0	0	-10	0	0		6	3	3	6	-3	0	0	0	0	3	-6	0	-6	-6	0	0	0	0
	Vessel movement		0	-2	-3	-3	0	-3	-3	-2	0	-4	8	6	6		4	4	4	-2	0	0	0	0	0	0	0	-4	-4	0	0	-6	0
	Port land claim (intertidal/subtidal)		-4	-4	-6	-6	-4	-6	-6	0	0	0	0	-3	-3	2		4	4	-2	0	0	2	0	2	0	0	-4	-4	-4	0	-6	0
Ports & Harbours	Port related activity adjacent to system		-4	-4	-3	-3	0	0	-3	0	0	-4	0	-3	-3	4	4		4	0	0	0	2	0	4	0	0	0	-2	-2	0	-6	0
	Port activity on the intertidal/subtidal area		-2	-2	-3	-3	0	-3	-3	-2	0	0	0	-3	-3	2	2	2		-2	0	0	0	0	2	0	0	-4	-4	-2	0	-3	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-4	-4	-6	-6	-4	3	3	-2	0	-4	-4	-6	-3	-2	-2	0	-2		0	0	-4	0	2	0	0	-4	-2	-2	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-3	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-2	4	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		-2	0	-6	-6	-4	-3	-3	0	0	0	0	0	0	0	-2	0	-2	-2	0	-2		-2	2	0	0	-2	-2	0	0	0	0
	Industrial discharge		-2	-2	-6	-6	-2	-6	-6	0	0	0	0	-3	-6	0	0	0	0	0	0	-2	-2		0	4	-3	-4	-4	-2	-2	-3	0
	Industrial activity adjacent to system		-4	-4	-3	-3	0	-3	-3	-2	0	-4	0	0	0	2	4	4	0	4	0	4	2	4		-2	0	-2	-2	4	0	-6	0
	Water Abstraction		-2	-2	0	0	0	0	0	0	0	0	0	-3	-3	0	0	0	0	0	0	-2	0	-2	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		-3	-3	-8	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	-3	0	-3		-3	-3	-3	-3	-4	0
	Commercial (e.g. fish & shellfish)		0	0	-6	-6	-2	0	0	2	0	0	0	-3	-3	0	0	0	-2	-4	0	0	-2	0	0	0	0		-2	0	0	0	0
Biological Extraction	Recreational		0	0	-3	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	-4	0	-6	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	-2	-6	-6	0	-6	-6	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	-2	0	-4	-3	-4	-4	-2		-3	0
Residential	Housing adjacent to system		-6	-6	0	-4	0	8	4	0	0	-5	0	0	0	0	-6	-6	-3	0	0	0	0	0	-6	0	0	0	0	-3	-3		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	





Weser Estuary: Conflict Level Assessment (Zone 2)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			FIOO GLOOMST DTOTECTION		1	Lossion			Ports & Harbours		Infrastructure			Industry			A control of the cont	Popolitic		Biological Extraction			Residential	
Category	WESER ESTUARY (Zone 3): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	Hgh value landscape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & interbdal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vessel movement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	TidaVourrent energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfowling	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			2	4	4	0	6	6	4	0	-4	0	0	0	0	-3	-3	-3	2	0	0	-2	0	-3	0	0	0	2	2	0	3	0
	Protected area adjacent to system		4		8	8	0	-3	-6	-4	0	-4	0	0	0	0	-3	-6	-3	-2	0	0	0	-3	-6	0	-3	0	0	-2	-3	-6	0
Conservation	Protected subtidal area		8	4		12	8	-5	-5	-8	0	0	-12	-10	-10	-5	-10	-5	-5	-8	0	-6	-8	-5	-5	0	-5	-4	0	4	-5	0	0
	Protected intertidal area		8	4	12	Г	8	-5	-5	-8	0	-6	-6	-5	-5	-5	-10	-5	-5	-8	0	-6	-8	-5	-5	0	-5	-4	4	-8	-5	0	0
Archaeology	Archaeology/History protected site		2	0	8	8	Г	0	0	-4	0	-4	-8	-6	0	0	-6	0	0	-4	0	0	-4	0	0	0	0	-4	0	0	0	0	0
	Recreational access on water		0	0	-5	-5	0		4	-3	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	3	0	0	8	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		-3	-3	-5	-10	-3	4		-3	0	0	0	0	0	0	-4	0	0	6	0	0	0	0	0	0	0	0	3	-3	0	8	0
	Commercial		-2	-2	-4	-8	-2	-3	-3		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	-2	-2	-2	0	0	0
FloodCoost	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-4	-8	-6	-12	-4	-5	-5	0	0		0	0	0	0	0	10	0	0	0	0	0	0	10	0	0	-4	-4	4	0	5	0
	Channel stabilisation		-8	0	-12	-12	-4	-5	-5	0	0	-6		0	5	10	0	5	5	-4	0	0	0	0	5	0	0	-8	-8	0	0	0	0
	Capital Dredging		-6	-3	-10	-10	-6	-4	-4	0	0	-10	0		8	8	4	4	8	-6	0	0	0	0	4	-8	0	-6	-6	0	0	0	0
Navigation	Maintenance Dredging		-6	-3	-10	-10	0	-4	-4	0	0	-10	0	0		8	4	4	8	-3	0	0	0	0	4	-8	0	-6	-6	0	0	0	0
	Vessel movement		0	-3	-5	-5	0	-4	-4	-3	0	-5	10	8	8		8	8	8	-3	0	0	0	0	0	0	0	-6	-6	0	0	-8	0
	Port land claim (intertidal/subtidal)		-6	-6	-10	-10	-6	-8	-8	0	0	0	0	-4	-4	4		8	8	-3	0	0	3	0	4	0	0	-6	-6	-6	0	-8	0
Ports & Harbours	Port related activity adjacent to system		-6	-6	-5	-5	0	0	-4	0	0	-5	0	-4	-4	8	8		8	0	0	0	3	0	8	0	0	0	-3	-3	0	-8	0
	Port activity on the intertidal/subtidal area		-3	-3	-5	-5	0	-4	-4	-3	0	0	0	-4	-4	4	4	4		-3	0	0	0	0	4	0	0	-6	-6	-3	0	-4	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-4	-4	-8	-8	-4	3	3	-2	0	-4	-4	-6	-3	-3	-3	0	-3		0	0	4	0	3	0	0	4	-2	-2	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-6	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-5	10	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		-2	0	-8	-8	-4	-3	-3	0	0	0	0	0	0	0	-3	0	-3	-2	0	-4		-3	3	0	0	-2	-2	0	0	0	0
	Industrial discharge		-3	-3	-10	-10	-3	-8	-8	0	0	0	0	-4	-8	0	0	0	0	0	0	-5	-3		0	-8	4	-6	-6	-3	-4	-4	0
	Industrial activity adjacent to system		-6	-6	-5	-5	0	-4	-4	-3	0	-5	0	0	0	4	8	8	0	6	0	10	3	8		-4	0	-3	-3	-6	0	-8	0
	Water Abstraction		-3	-3	0	0	0	0	0	0	0	0	0	-4	-4	0	0	0	0	0	0	-5	0	-4	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		-3	-3	-10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	-4	0	4		-3	-3	-3	-4	-4	0
	Commercial (e.g. fish & shellfish)		0	0	-8	-8	-2	0	0	2	0	0	0	-3	-3	0	0	0	-3	-4	0	0	-2	0	0	0	0		-2	0	0	0	0
Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	-4	0	-8	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	-3	-10	-10	0	-8	-8	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	4	0	-8	-4	-6	-6	-3		-4	0
Residential	Housing adjacent to system		-6	-6	0	-5	0	8	4	0	0	-5	0	0	0	0	-8	-8	-4	0	0	0	0	0	-8	0	0	0	0	-3	-4		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

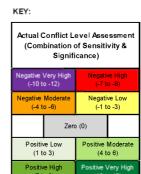
# Actual Conflict Level Assessment (Combination of Sensitivity & Significance) Negative Very High (-10 to -12) Negative Moderate (-4 to -6) Zero (0) Positive Low (1 to 3) Positive High Positive Very High Positive Very High Positive Very High Positive Very High

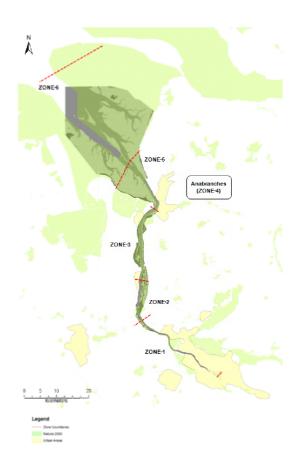


Weser Estuary: Conflict Level Assessment (Zone 3)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)		:	Flood/coast protection			L CONTROLL OF THE CONTROL OF			Ports & Harbours		Infrastructure			Industry			American	Agronine		Biological Extraction			Residential	
Category	WESER ESTUARY (Zone 4): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	Hgh value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gablon/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vessel movement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tida/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			3	5	5	0	6	8	6	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3	0
	Protected area adjacent to system		6		8	8	0	-2	-6	-4	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	-2	0	4	0
Conservation	Protected subtidal area		10	4		12	8	-4	-5	-8	0	0	-12	0	-8	0	0	0	0	0	0	0	0	0	0	0	-6	0	0	4	0	0	0
	Protected intertidal area		10	4	12	Г	8	-4	-5	-8	0	-5	-6	0	4	0	0	0	0	0	0	0	0	0	0	0	-6	0	-4	-8	0	0	0
Archaeology	Archaeology/History protected site		3	0	8	8	П	0	0	-4	0	-3	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recreational access on water		0	0	-4	-4	0		3	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		-4	-3	-5	-10	-3	3		-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	-3	0	6	0
	Commercial		-3	-2	-4	-8	-2	-2	-3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	-2	0	0	0
	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-4	-6	-5	-10	-3	-3	-4	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	-3	0	3	0
	Channel stabilisation		-10	0	-12	-12	-4	-4	-5	0	0	-5		0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	-8	0	0	0	0
	Capital Dredging		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navigation	Maintenance Dredging		-6	-2	-8	-8	0	-2	-3	0	0	-6	0	0		0	0	0	0	0	0	0	0	0	0	-6	0	0	-4	0	0	0	0
	Vessel movement		0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Port activity on the intertidal/subtidal area	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Water Abstraction		-4	-3	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		-5	-4	-12	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5		0	-4	-4	0	4	0
	Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	4	0	-8	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Residential	Housing adjacent to system		-6	4	0	4	0	4	3	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0		0
	Drinking water abstraction		D	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
																																	_

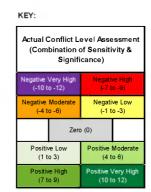




Weser Estuary: Conflict Level Assessment (Zone 4)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Floodicoast protection			Navigation			Ports & Harbours		Infrastructure			Industry				Agrounde		Biological Extraction			Residential	
Category	WESER ESTUARY (Zone 5): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <b>DO NOT</b> populate)	Leave column blank	Hgh value lands cape feature	Protected area adjacent to system	Protected sublidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & interioral	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vessel movement	Port land claim (intertidal/subbdal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shellfsh)	Recreational	Wildfowling	Waste water discharge	Housing adacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			3	5	5	0	8	6	6	0	-5	0	0	0	0	-5	-5	-5	3	0	0	-3	0	-3	0	0	0	3	0	0	4	0
	Protected area adjacent to system		6		8	8	0	-3	-4	-4	0	-4	0	0	0	0	-4	-8	-4	-2	0	0	0	-2	4	0	-3	0	0	0	-3	-6	0
Conservation	Protected subtidal area		10	4		12	8	-5	-4	-8	0	0	-12	-12	-12	-6	-12	-6	-6	-8	0	-4	-8	-4	-4	0	-5	-4	0	0	-5	0	0
	Protected intertidal area		10	4	12		8	-5	-4	-8	0	-6	-6	-6	-6	-6	-12	-6	-6	-8	0	-4	-8	-4	-4	0	-5	-4	4	0	-5	0	0
Archaeology	Archaeology/History protected site		3	0	8	8		0	0	-4	0	-4	-8	-8	0	0	-8	0	0	4	0	0	4	0	0	0	0	4	0	0	0	0	0
	Recreational access on water		0	0	-5	-5	0		3	-3	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	3	0	0	8	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		-3	-2	-4	-8	-2	3		-2	0	0	0	0	0	0	-4	0	0	4	0	0	0	0	0	0	0	0	2	0	0	6	0
	Commercial		-3	-2	-4	-8	-2	-3	-2		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	-2	-2	0	0	0	0
Flood/Coast	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
protection	Flood bank (dyke/gabion/wall)		-5	-8	-6	-12	-4	-5	-4	0	0		0	0	0	0	0	12	0	0	0	0	0	0	8	0	0	-4	-4	0	0	5	0
	Channel stabilisation		-10	0	-12	-12	-4	-5	-4	0	0	-6		0	6	12	0	6	6	-4	0	0	0	0	4	0	0	-8	-8	0	0	0	0
EL. IL	Capital Dredging		-10	-4	-12	-12	-8	-5	-4	0	0	-12	0		12	12	6	6	12	-8	0	0	0	0	4	0	0	-8	-8	0	0	0	0
Navigation	Maintenance Dredging		-10	-4	-12	-12	0	-5	-4	0	0	-12	0	0		12	6	6	12	-4	0	0	0	0	4	0	0	-8	-8	0	0	0	0
	Vessel movement		0	-4	-6	-6	0	-5	-4	-4	0	-6	12	12	12		12	12	12	-4	0	0	0	0	0	0	0	-8	-8	0	0	-10	0
	Port and claim (intertidal/subtidal)		-10	-8	-12	-12	-8	-10	-8	0	0	0	0	-6	-6	6		12	12	-4	0	0	4	0	4	0	0	-8	-8	0	0	-10	0
Ports & Harbours	Port related activity adjacent to system		-10	-8	-6	-6	0	0	-4	0	0	-6	0	-6	-6	12	12		12	0	0	0	4	0	8	0	0	0	-4	0	0	-10	0
	Port activity on the intertidal/subtidal area		-5	-4	-6	-6	0	-5	-4	-4	0	0	0	-6	-6	6	6	6		-4	0	0	0	0	4	0	0	-8	-8	0	0	-5	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-6	-4	-8	-8	-4	3	2	-2	0	-4	-4	-8	-4	-4	-4	0	-4	Г	0	0	-4	0	2	0	0	-4	-2	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-2	4	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		-3	0	-8	-8	-4	-3	-2	0	0	0	0	0	0	0	-4	0	-4	-2	0	-2		-2	2	0	0	-2	-2	0	0	0	0
	Industrial discharge		-3	-2	-8	-8	-2	-6	-4	0	0	0	0	-4	-8	0	0	0	0	0	0	-2	-2		0	0	-3	-4	-4	0	-3	-3	0
	Industrial activity adjacent to system		-6	4	-4	-4	0	-3	-2	-2	0	-4	0	0	0	4	8	8	0	4	0	4	2	4		0	0	-2	-2	0	0	-6	0
	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		-4	-3	-10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	-3	0	0		-3	-3	0	-4	-4	0
	Commercial (e.g. fish & shellfish)		0	0	-8	-8	-2	0	0	2	0	0	0	-4	-4	0	0	0	-4	-4	0	0	-2	0	0	0	0		-2	0	0	0	0
Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	-3	-10	-10	0	-8	-6	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	-3	0	0	4	-6	-6	0		-4	0
Residential	Housing adjacent to system		-8	-6	0	-5	0	8	3	0	0	-5	0	0	0	0	-10	-10	-5	0	0	0	0	0	-6	0	0	0	0	0	-4		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

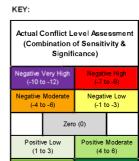




Weser Estuary: Conflict Level Assessment (Zone 5)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection		M. M				Ports & Harbours		Infrastructure			Industry				Agnouture		Biological Extraction			Residential	
Category	WESERESTUARY (Zone 6): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital Dredging	Maintenance Dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tida/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water Abstraction	Agricultural run-off	Commercial (e.g. fish & shelffsh)	Recreational	Wildfowling	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			6	6	6	0	8	8	8	0	-5	0	0	0	0	0	0	0	5	0	0	-4	0	0	0	0	0	4	0	0	4	0
	Protected area adjacent to system		12		12	12	0	-4	-8	-8	0	-5	0	0	0	0	0	0	0	-5	0	0	0	0	0	0	-5	0	0	0	0	-8	0
Conservation	Protected subtidal area		12	6		12	8	-4	-4	-8	0	0	-10	-10	-10	-5	0	0	0	-10	0	0	-8	0	0	0	-5	-5	0	0	0	0	0
	Protected intertidal area		12	6	12	П	8	-4	-4	-8	0	-5	-5	-5	-5	-5	0	0	0	-10	0	0	-8	0	0	0	-5	-5	-4	0	0	0	0
Archaeology	Archaeology/History protected site		4	0	8	8		0	0	-4	0	-3	-6	-6	0	0	0	0	0	-6	0	0	-4	0	0	0	0	-6	0	0	0	0	0
	Recreational access on water		0	0	-4	-4	0		2	-2	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	2	0	0	4	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		-4	-4	-4	-8	-2	2		-2	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	2	0	0	4	0
	Commercial		-4	-4	-4	-8	-2	-2	-2		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	-3	-2	0	0	0	0
Florido	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-5	-10	-5	-10	-3	-3	-3	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	-3	0	0	3	0
	Channel stabilisation		-10	0	-10	-10	-3	-3	-3	0	0	-4		0	4	8	0	0	0	4	0	0	0	0	0	0	0	-8	-6	0	0	0	0
	Capital Dredging		-10	-5	-10	-10	-6	-3	-3	0	0	-8	0		8	8	0	0	0	-8	0	0	0	0	0	0	0	-8	-6	0	0	0	0
Navigation	Maintenance Dredging		-10	-5	-10	-10	0	-3	-3	0	0	-8	0	0		8	0	0	0	4	0	0	0	0	0	0	0	-8	-6	0	0	0	0
	Vessel movement		0	-5	-5	-5	0	-3	-3	-3	0	-4	8	8	8		0	0	0	4	0	0	0	0	0	0	0	-8	-6	0	0	-6	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-10	-10	-10	-10	-6	3	3	-3	0	-4	-4	-8	4	-4	0	0	0		0	0	-6	0	0	0	0	-8	-3	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		-4	0	-8	-8	-4	-2	-2	0	0	0	0	0	0	0	0	0	0	-3	0	0		0	0	0	0	-3	-2	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Water Abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		-5	-5	-10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-4	-3	0	0	-3	0
	Commercial (e.g. fish & shellfish)		0	0	-10	-10	-3	0	0	3	0	0	0	-4	-4	0	0	0	0	-8	0	0	-3	0	0	0	0		-3	0	0	0	0
Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Residential	Housing adjacent to system		-8	-8	0	-4	0	4	2	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	





Weser Estuary: Conflict Level Assessment (Zone 6)

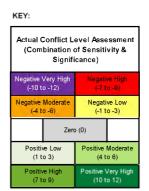




Scheldt - Full conflict matrix output per zone.



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection		:	Navigation			Ports & Harbours		Infrastructure			Industry				Agrouture		Biological Extraction			Residential	
Category	SCHELDT ESTUARY (Zone 1): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabils ation	Capital dredging	Maintenance dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subbidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	TidaVourrert energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			3	0	2	0	0	4	0	-3	0	0	0	0	0	0	-2	0	0	0	0	0	0	-2	0	0	0	0	0	0	-3	0
	Protected area adjacent to system		6		0	0	0	0	0	0	-8	0	0	0	0	0	0	-6	0	0	0	0	0	0	-6	0	0	0	0	0	0	-8	0
Conservation	Protected subtidal area		0	0		4	0	0	0	0	0	0	-4	0	-3	0	0	0	0	-3	0	0	0	-2	0	0	-3	0	-2	0	-4	0	0
	Protected intertidal area		2	0	2		0	-4	-8	0	6	0	4	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	-2	-4	-4	0	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recreational access on water		0	0	-4	-4	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	0	0	-4	0	6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	-4	0	5	0
	Commercial		0	0	-4	-4	0	-6	-6		0	0	0	0	0	0	0	8	0	0	0	0	0	0	4	0	0	0	0	-4	0	0	0
Flood/Coast	Defence set-back		0	-8	3	6	0	0	0	0		0	0	0	0	0	0	-3	0	-4	0	0	0	0	-3	0	0	0	0	0	0	-8	0
protection	Flood bank (dyke/gabion/wall)		0	0	0	0	0	0	0	0	5		0	0	0	0	0	8	0	0	0	0	0	0	8	0	0	0	0	0	0	10	0
	Channel stabilisation		0	0	0	0	0	0	0	12	5	6		0	0	10	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	0	-3	-3	0	0	0	0	0	0	0	0		8	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Vessel movement		0	0	-3	-3	0	-5	0	0	0	0	0	0	0		0	6	0	0	0	0	0	0	0	0	0	0	-3	0	0	-4	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-2	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	-3	-3	0	10	5	10	-4	0	0	0	0	0	0	6	0		0	0	0	0	0	0	0	0	3	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		-2	0	0	0	0	0	-4	0	-3	0	0	0	0	0	0	2	0	0	0	0	0	0		0	0	0	0	0	0	-3	0
Agriculture	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
, giounaio	Agricultural run-off		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-2	0	0
	Wildfowling		0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-2	0	0
	Waste water discharge		0	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	-2		0	0
Residential	Housing adjacent to system		0	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	





Scheldt Estuary: Conflict Level Assessment (Zone 1)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)		Ī	LIGHT AND A STATE OF THE STATE			Navigation			Ports & Harbours		Infrastructure			Industry			9	e nancial		Biological Extraction			Residential	
Category	SCHELDT ESTUARY (Zone 2): Actual Conflict Level Assessmert per zone (all these cells are completed automatically so DO NOT populate)	Leave column blank	Hgh value landscape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Cepital dredging	Maintenance dredging	Vessel movement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subbidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	TidaVourrert energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			4	0	4	0	0	5	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0	-4	0
	Protected area adjacent to system		8	Г	0	0	0	0	0	0	-6	0	0	0	0	0	0	-6	0	0	0	0	0	0	-6	0	0	0	0	0	0	-8	0
Conservation	Protected subtidal area		0	0		6	0	0	0	0	0	0	-4	0	-3	0	0	0	0	-3	0	0	0	-2	0	0	-3	0	-2	0	4	0	0
	Protected intertidal area		4	0	3		0	4	-10	0	6	0	5	0	0	0	0	0	0	-4	0	0	0	0	0	0	4	0	-3	-6	-6	0	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recreational access on water		0	0	-3	-4	0		0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	0	0	-5	0	5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	-4	0	5	0
	Commercial		0	0	-4	-5	0	-5	-6		0	0	0	0	0	0	0	8	0	0	0	0	0	0	4	0	0	0	0	-4	0	0	0
FI 10 1	Defence set-back		0	-6	2	6	0	0	0	0		0	0	0	0	0	0	-2	0	-3	0	0	0	0	-2	0	0	0	0	0	0	-6	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		0	0	0	0	0	0	0	0	4		0	0	0	0	0	8	0	0	0	0	0	0	8	0	0	0	0	0	0	10	0
	Channel stabilisation		0	0	0	0	0	0	0	12	4	6		0	0	10	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	0	-3	-4	0	0	0	0	0	0	0	0		8	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Vessel movement		0	0	-3	-4	0	-4	0	0	0	0	0	0	0		0	6	0	0	0	0	0	0	0	0	0	0	-3	0	0	-4	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-3	-3	0	0	0	0	0	0	-2	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	-3	-4	0	8	5	10	-3	0	0	0	0	0	0	6	0		0	0	0	0	0	0	0	0	3	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		-3	0	0	0	0	0	-4	0	-2	0	0	0	0	0	0	2	0	0	0	0	0	0		0	0	0	0	0	0	-3	0
0	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	0	0	0	0	6	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-2	0	0
	Wildfowling		0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-2	0	0
	Waste water discharge		0	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	-2		0	0
Residential	Housing adjacent to system		0	0	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

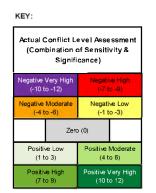
KEY:			
	Conflict Lo bination o Signifi		
Negative 1 (-10 t		Negati (-7 t	
Negative (-4 t	Moderate o -6)		ve Low o -3)
	Zero	(0)	
	e Low o 3)		Moderate o 6)
	re High o 9)	Positive \	/ery High o 12)



Scheldt Estuary: Conflict Level Assessment (Zone 2)



Marine   M		Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			Ħ			Ports & Harbours		Infrastructure			Industry				a nuncial		Biological Extraction			Residential	
Property contains the contains of the contai	Category	Conflict Level Assessment per zone (all these cells are completed	Leave column blank	value landscape		otected subtidal	e	haeology/History protected	ecreational access	the banks	Commercial	fence	Flood bank (dyke/gabion/wall)	annel	Capital dredging	Maintenance dredging	Vessel movement	land claim	related	Port activity on the intertidal/subtidal area	ucture on bed or in water pipes, cables, piers, mar	Tidal/current energy device	Water abstraction		Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	ommercia	Recreational	Wildfowling	Waste water discharge	Housing adjacent to system	Drinking water abstraction
Properties   Pro		Leave row blank																																
Product Material Ma	Landscape	High value landscape feature			5	0	5	0	0	5	0	-4	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0	-4	0
Particular particula		Protected area adjacent to system		10		0	0	0	0	0	0	-10	0	0	0	0	0	0	-8	0	0	0	0	0	0	-8	0	0	0	0	0	0	-10	0
Processory Control of the control	Conservation	Protected subtidal area		0	0		10	0	0	0	0	0	0	-5	0	-4	0	0	0	0	-5	0	0	-4	0	0	0	-4	0	-3	0	-6	0	0
Particular particula		Protected intertidal area		5	0	5		0	-6	-12	0	10	0	6	0	0	0	0	0	0	-6	0	0	0	0	0	0	-5	0	-4	-10	-8	0	0
Purple Contention   Purp	Archaeology	Archaeology/History protected site		0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Control Contro		Recreational access on water		0	0	-5	-6	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Chartest state   1				0	0	0	-6	0	6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	-5	0	5	0
Foreigness of the production o		Commercial		0	0	-5	-6	0	-6	-6		0	0	0	0	0	0	0	8	0	0	0	0	0	0	4	0	0	0	0	-5	0	0	0
Particular   Par	Flood/Coast	Defence set-back		0	-10	4	10	0	0	0	0		0	0	0	0	0	0	-3	0	-5	0	0	0	0	-3	0	0	0	0	0	0	-8	0
Control enclosed personal processes   Control enclosed personal proc		Flood bank (dyke/gabion/wall)		0	0	0	0	0	0	0	0	5		0	0	0	0	0	8	0	0	0	0	0	0	8	0	0	0	0	0	0	10	0
Maintenance analyging   Main		Channel stabilisation		0	0	0	0	0	0	0	12	5	6		0	0	10	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0
Maintenance accepting   0		Capital dredging		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Position of Communication (interdisphase database)  Position of Exemption  Position of Communication (interdisphase database)  Position of Communication  Po	Navigation	Maintenance dredging		0	0	-4	-5	0	0	0	0	0	0	0	0		8	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports A Harbours Port a Marky adjacent to system Port a Marky and posential system Port a Marky and posentia		Vessel movement		0	0	-4	-5	0	-5	0	0	0	0	0	0	0		0	6	0	0	0	0	0	0	0	0	0	0	-3	0	0	-4	0
Post activity on the interdial/subtidial area in what reclaims (a,pipes, caches, piers, marinars)  Infrastructure in the decision (a,pipes, caches, piers, marinars)  Infrastructure in the decision (a,pipes, caches, piers, marinars)  Indistructure in the decision (		Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure   Infr	Ports & Harbours	Port related activity adjacent to system		-3	-4	0	0	0	0	0	0	-3	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0
Tidal/current energy device		Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meter abstraction	Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	-5	-6	0	12	6	12	-5	0	0	0	0	0	0	8	0		0	0	0	0	0	0	0	0	4	0	0	0	0
Industrial discharge		Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
Industrial discharge		Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industrial activity adjacent to system  -3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Industry	Aggregate extraction		0	0	-4	0	0	0	0	0	0	0	-5	0	4	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
Water abstraction		Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Agriculture  Agriculture  Agriculture off  O O O O O O O O O O O O O O O O O O		Industrial activity adjacent to system		-3	0	0	0	0	0	-4	0	-3	0	0	0	0	0	0	2	0	0	0	0	0	0		0	0	0	0	0	0	-3	0
Agricultural run-off		Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Recreational	Agriculture	Agricultural run-off		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
Wildfowling		Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Waste water discharge         0         0         -3         0	Biological Extraction	Recreational		0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-2	0	0
Residential Housing adjacent to system 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Wildfowling		0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-3	0	0
		Waste water discharge		0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	-3		0	0
Drinking water abstraction 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Residential	Housing adjacent to system		0	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0		0
		Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	





Scheldt Estuary: Conflict Level Assessment (Zone 3)



	Category		Landspape		Conservation		Archaeology		Access (e.g. Disturbance)			Tiood/coast protection		Mayorabou	TO SO			Ports & Harbours		nfrastructure			Industry						Biological Extraction			Residential	
Category	SCHELDT ESTUARY (Zone 4): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DO NOT populate)	Leave column blank	Hgh value landscape feature	Protected area adacent to system	Protected subbidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilis ation	Capital diedging	Mantenance dredging	Wessel movement	Port land claim (intertidal/sublidal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tida/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural nun-off	Commercial (e.g. fish & shellfish)	Recreational	Wildfowling	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																		-														
Landscape	High value landscape teature			5	0	5	0	0	5	0	-5	0	0	0	0	0	0	-4	0	0	0	0	0	0	-4	0	0	0	0	0	0	-5	0
	Protected area adjacent to system		10		0	0	0	0	0	0	12	0	0	0	0	0	0	-10	0	0	0	0	0	0	-10	0	0	0	0	0	0	-12	0
Conservation	Protected subtidal area		0	0		12	0	0	0	0	0	0	-6	-8	-5	0	-8	0	0	-5	0	0	-5	-5	0	0	-4	0	-4	0	-8	0	0
	Protected intertidal area		5	0	6		0	-6	-12	0	12	0	6	-4	0	0	-8	0	-8	-5	0	0	0	0	0	0	-4	0	-4	-8	-8	0	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recreational access on water		0	0	-6	-6	0		0	0	0	0	0	0	0	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	0	0	-6	0	6		0	0	0	0	0	0	0	-4	0	-8	0	0	0	0	0	0	0	0	0	4	-4	0	6	0
Distance,	Commercial		0	0	-6	-6	0	-6	-6		0	0	0	0	0	0	0	10	8	0	0	0	0	0	5	0	0	0	0	-4	0	0	0
	Detence set-back		0	10	6	12	0	0	0	0		0	0	0	0	0	-8	-5	-8	-5	0	0	0	0	-5	0	0	0	0	0	0	-12	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		0	0	0	0	0	0	0	0	6		0	0	0	0	0	10	0	0	0	0	0	0	10	0	0	0	0	0	0	12	0
	Channel stabilisation		0	0	0	0	0	0	0	12	6	6		0	0	12	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	0	-8	4	0	0	0	0	0	4	0		3	8	0	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	0	-5	-5	0	0	0	0	0	0	0	0		10	0	8	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Vessel movement		0	0	-6	-6	0	-6	0	0	0	0	0	0	0		0	10	8	0	0	0	0	0	0	0	0	0	-4	0	0	-6	0
	Port land claim (intertidal/subtidal)		-6	-4	-4	-8	0	0	-4	0	0	0	0	0	0	0		3	4	0	0	0	0	0	0	0	0	0	0	-2	0	0	0
Ports & Harbours	Port related activity adjacent to system		-4	-5	0	0	0	0	0	0	-5	0	0	0	0	0	3		3	0	0	0	0	0	0	0	0	0	0	0	0	-5	0
	Port activity on the intertidal/subtidal area		-3	0	0	-8	0	0	4	0	-8	0	0	0	0	0	2	3		0	0	0	0	0	0	0	0	0	0	-2	0	0	0
Infrastructure	Infrastructure on bed or in water column		0	0	-5	-5	0	10	5	10	-5	0	0	-3	0	0	0	8	6		0	0	0	0	0	0	0	0	3	0	0	0	0
	(e.g. pipes, cables, piers, marinas)  Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	3	0	0	0	0	0	-2	0	0
Industry	Aggregate extraction		0	0	-5	0	0	0	0	0	0	0	-5	3	4	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		4	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		-4	0	0	0	0	0	-5	0	-5	0	0	0	0	0	3	4	3	0	0	0	0	0		0	0	0	0	0	0	-5	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-2	0	0
	Wildfowling		0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-2	0	0
	Waste water discharge		0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	4	-2		0	0
Residential	Housing adjacent to system		0	0	0	0	0	0	0	0	-6	0	0	0	0	0	-4	-5	0	0	0	0	0	0	-5	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

KEY:
Actual Confl (Combinat

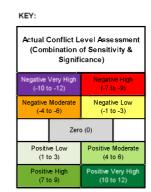
	Conflict Lobination of Signification	of Sensiti	
Negative \( (-10 t)		Negati (-7 t	
Negative (-4 to	2-140-14-14-01	Negati (-1 t	ve Low o -3)
	Zero	0)	
	ve Low o 3)		Moderate o 6)
	e High o 9)	Positive \	



Scheldt Estuary: Conflict Level Assessment (Zone 4)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			2000			Ports & Harbours		Infrastructure			Industry				Agnounce		Biological Extraction			Residential	
Category	SCHELDT ESTUARY (Zone 5): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DO NOT populate)	Leave column blank	High value landscape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stablisation	Cepital dredging	Maintenance dredging	Vessel movement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/sutkidal area	Infrastructure on bed or in water column (e.g. pipes, cattles, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shelffsh)	Recreational	Wildowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			2	0	4	0	0	4	0	-2	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0	-2	0
	Protected area adjacent to system		4		0	0	0	0	0	0	-4	0	0	0	0	0	0	-6	0	0	0	0	0	0	-6	0	0	0	0	0	0	-4	0
Conservation	Protected subtidal area		0	0		12	0	0	0	0	0	0	-6	-12	-6	0	-8	0	0	-5	0	0	-6	-5	0	0	-6	0	-4	0	0	0	0
	Protected intertidal area		4	0	6		0	-5	-12	0	8	0	6	-6	0	0	-8	0	-8	-5	0	0	0	0	0	0	-6	0	-4	0	0	0	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recreational access on water		0	0	-5	-5	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	0	0	-6	0	5		0	0	0	0	0	0	0	-4	0	-8	0	0	0	0	0	0	0	0	0	4	0	0	4	0
	Commercial		0	0	-6	-6	0	-5	-6		0	0	0	0	0	0	0	10	8	0	0	0	0	0	5	0	0	0	0	0	0	0	0
Flood/Coast	Defence set-back		0	-4	4	8	0	0	0	0		0	0	0	0	0	-4	-3	-4	-3	0	0	0	0	-3	0	0	0	0	0	0	4	0
protection	Flood bank (dyke/gabion/wall)		0	0	0	0	0	0	0	0	4		0	0	0	0	0	10	0	0	0	0	0	0	10	0	0	0	0	0	0	8	0
	Channel stabilisation		0	0	0	0	0	0	0	12	4	6		0	0	12	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	0	-12	-6	0	0	0	0	0	-6	0		6	12	0	10	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	0	-6	-6	0	0	0	0	0	0	0	0		12	0	10	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Vessel movement		0	0	-6	-6	0	-5	0	0	0	0	0	0	0		0	10	8	0	0	0	0	0	0	0	0	0	-4	0	0	-4	0
	Port land claim (intertidal/subtidal)		-4	-2	-4	-8	0	0	-4	0	0	0	0	0	0	0		3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-3	-3	0	0	0	0	0	0	-3	0	0	0	0	0	3		3	0	0	0	0	0	0	0	0	0	0	0	0	-3	0
	Port activity on the intertidal/subtidal area		-2	0	0	-8	0	0	-4	0	-4	0	0	0	0	0	2	3		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	-5	-5	0	8	5	10	-3	0	0	-5	0	0	0	8	6		0	0	0	0	0	0	0	0	3	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	4	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	-6	0	0	0	0	0	0	0	-6	6	6	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		4	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		-3	0	0	0	0	0	-5	0	-3	0	0	0	0	0	3	4	3	0	0	0	0	0		0	0	0	0	0	0	-3	0
Agriculture	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	0	0	0	0	6	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Residential	Housing adjacent to system		0	0	0	0	0	0	0	0	-2	0	0	0	0	0	-2	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

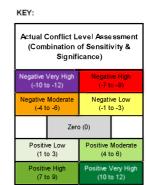




Scheldt Estuary: Conflict Level Assessment (Zone 5)

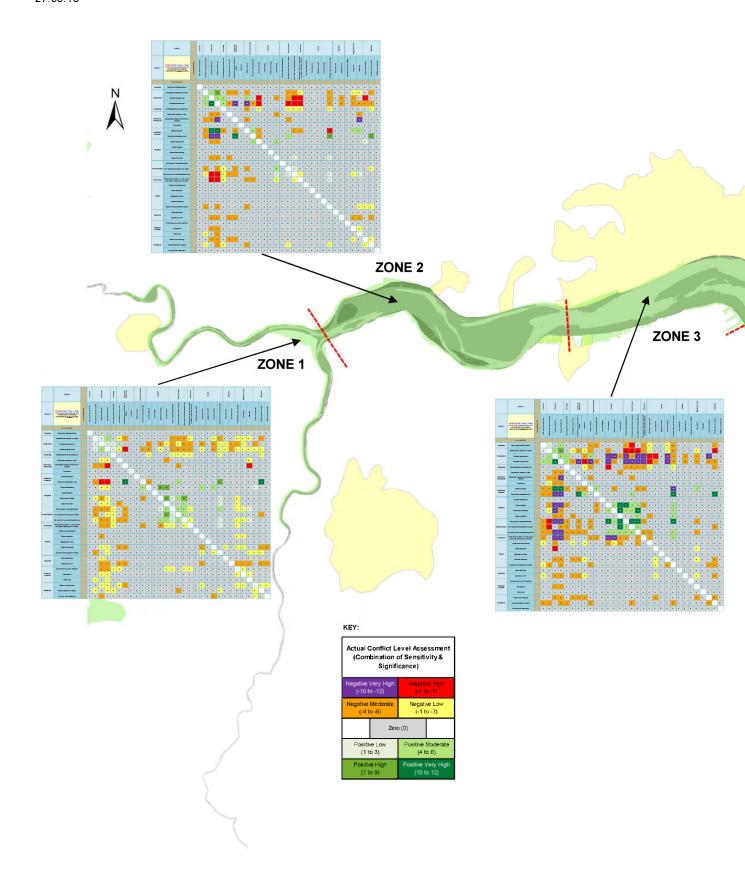


	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			Navigation			Ports & Harbours		Infrastructure			Industry				anno de la companya d		Biological Extraction			Residential	
Category	SCHELDT ESTUARY (Zone 6): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value landscape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/well)	Channel stabilisation	Capital dredging	Maintenance dredging	Vessel movement	Port land claim (intertidal/subbdal)	Port related activity adjacent to system	Port activity on the intertidal/sulcidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shalfish)	Recreational	Wildowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			0	0	4	0	0	4	0	0	0	0	0	0	0	0	-2	0	0	0	0	0	0	-2	0	0	0	0	0	0	-3	0
	Protected area adjacent to system		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conservation	Protected subtidal area		0	0		12	0	0	0	0	0	0	-5	-12	-6	0	0	0	0	-5	0	0	-5	0	0	0	-6	-4	-4	0	0	0	0
	Protected intertidal area		4	0	6		0	-5	-12	0	0	0	5	-6	0	0	0	0	0	-5	0	0	0	0	0	0	-6	-4	-4	0	0	0	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Recreational access on water		0	0	-5	-5	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	0	0	-6	0	5		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	5	0
	Commercial		0	0	-6	-6	0	-5	-6		0	0	0	0	0	0	0	8	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
Flood/Coast	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
protection	Flood bank (dyke/gabion/wall)		0	0	0	0	0	0	0	0	0		0	0	0	0	0	8	0	0	0	0	0	0	8	0	0	0	0	0	0	10	0
	Channel stabilisation		0	0	0	0	0	0	0	10	0	5		0	0	10	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	0	-12	-6	0	0	0	0	0	-6	0		6	12	0	8	0	0	0	0	0	0	0	0	0	-4	0	0	0	0	0
Navigation	Maintenance dredging		0	0	-6	-6	0	0	0	0	0	0	0	0		12	0	8	0	0	0	0	0	0	0	0	0	-4	0	0	0	0	0
	Vessel movement		0	0	-6	-6	0	-5	0	0	0	0	0	0	0		0	8	0	0	0	0	0	0	0	0	0	-4	4	0	0	-5	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	2	0	0	0	-3	0
	Port activity on the intertidal/subtidal area		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	-5	-5	0	8	5	10	0	0	0	-5	0	0	0	6	0		0	0	0	0	0	0	0	-3	3	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	2	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	-5	0	0	0	0	0	0	0	-4	5	5	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		-2	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0		0	0	0	0	0	0	-3	0
Agriculture	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0
	Commercial (e.g. fish & shellfish)		0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	0	0	0	0	6	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
Residential	Housing adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	0	0	0	-3	0	0	0	0	0	0		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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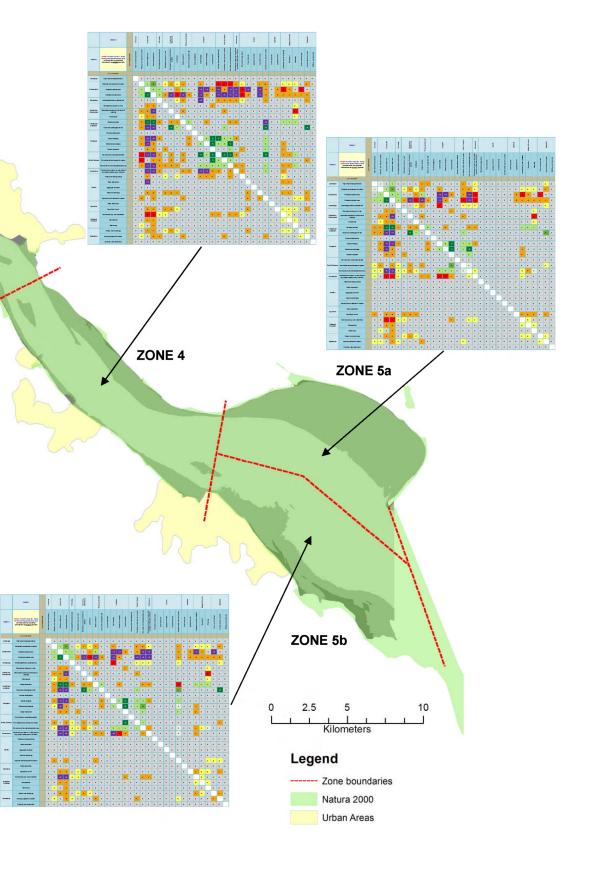


Scheldt Estuary: Conflict Level Assessment (Zone 6)



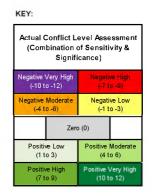
Humber - Full conflict matrix output per zone.

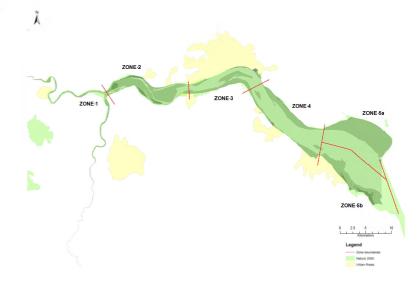






	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			Navigation			Ports & Harbours		Infrastructure			Industry				Agriculture		Biological Extraction			Residential	
Category	HUMBER ESTUARY (Zone 1): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <b>DONOT</b> populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational acues on the banks & Interior	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stablisation	Capital dredging	Maintenance dredging	Vesselmovement	Port land claim (intertidal/subbdal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shelffsh)	Recreational	Wildfowling	Waste water discharge	Housing agacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Protected area adjacent to system		0		2	4	0	-3	-4	0	0	0	0	0	0	0	4	-6	-6	-2	0	0	0	-3	-4	0	0	-2	-2	-2	0	-6	0
Conservation	Protected subtidal area		0	2		2	2	0	0	0	0	0	-6	0	-6	-3	-4	-3	-6	-4	0	-6	0	-6	-2	-2	4	4	-2	0	-4	0	0
	Protected intertidal area		0	2	4		2	-3	-8	0	0	-4	-6	0	-3	0	-4	-6	-6	-4	0	-3	0	-6	-2	-2	4	-2	-2	-2	-2	-3	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	0	0	0	-3	0	0	0	-2	-3	-3	-2	0	0	0	0	-2	0	0	0	0	0	0	-3	0
	Recreational access on water		0	0	-3	-3	0		0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	4	-4	-8	0	0		0	0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	-8	0	0	0
	Commercial		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FI - 1/0 1	Defence set-back		0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		0	4	-8	-8	0	0	12	0	0		-5	0	0	0	0	5	0	0	0	0	0	0	8	0	0	0	0	0	0	10	0
	Channel stabilisation		0	0	-3	-3	0	0	0	0	0	5	_	0	8	8	0	0	0	0	0	4	0	4	0	0	0	0	0	0	3	0	0
	Capital dredging		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	-3	-6	-3	0	0	0	0	0	-5	0	0		8	3	4	8	0	0	0	0	0	3	0	0	-3	0	0	0	0	0
	Vessel movement		0	0	-3	-3	0	-4	0	0	0	0	0	0	0		0	0	4	0	0	0	0	0	3	0	0	-3	0	0	0	0	0
	Port land claim (intertidal/subtidal)		0	-4	-4	-4	-2	0	-4	0	0	0	0	0	3	6		6	6	-2	0	0	0	0	4	0	0	-2	-2	2	0	0	0
Ports& Harbou	rs Port related activity adjacent to system		0	-6	0	-3	-3	0	-5	0	0	0	0	0	0	8	3		4	0	0	0	0	0	0	0	0	0	0	0	0	-4	0
	Port activity on the intertidal/subtidal area	a	0	-3	-6	-6	-3	-4	-5	0	0	0	0	0	4	4	3	4		-3	0	0	0	0	3	0	0	-3	-3	3	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	1	0	0	-4	-4	-2	0	0	0	0	-4	0	0	-6	-3	-2	0	-3		0	0	0	0	2	0	0	-2	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	-3	-3	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	-3	-3	0	-4	-5	0	0	0	0	0	0	0	0	0	0	0	0	-	0		0	-3	0	-3	-3	0	0	-4	-6
	Industrial activity adjacent to system		0	-4	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	-3		0	0	0	0	-2	-2	-3	0
	Water abstraction		0	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	0	-4	-4	0	-5	-6	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0		-4	а	-4	0	-5	-4
	Commercial (e.g. fish & shellfish)		0	0	-4	-4	-2	-3	0	0	0	0	0	0	0	-3	-2	0	-3	-2	0	0	0	0	0	0	0		-2	0	0	0	0
Biological Extraction	Recreational		0	0	-2	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2		-2	0	0	0
	Wildfowling		0	-2	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-2	-2	0	-3	4	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	0	0	-2	-2	0		-3	-2
Residential	Housing adjacent to system		0	-3	0	-3	-3	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	-3	0	0	0	0	0	-3		0
	Drinking water abstraction		0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	0	0	0	0	0	0	-2	0	
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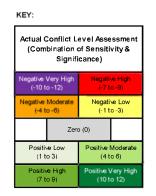


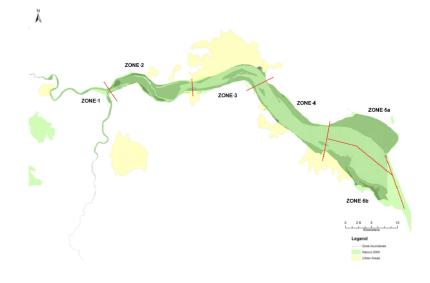


Humber Estuary: Conflict Level Assessment (Zone 1)



Part		Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Long-spirit serongon.			Navigation			Ports & Harbours		Infrastructure			Industry			Anatica ille soc	Amount		Biological Extraction			Residential	
Propose proper	Category	Conflict Level Assessment per zone (all these cells are completed	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital dredging	Mairtenance dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shellfsh)	Recreational	Wildfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
Proposition		Leave row blank																																
Process of the content of the cont	Landscape	High value landscape feature			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property information and state   1		Protected area adjacent to system		0		4	8	0	-4	-4	0	-4	0	0	0	0	0	0	-4	-4	-2	0	0	0	0	-4	0	0	0	-2	-3	0	-4	0
Part	Conservation	Protected subtidal area		0	4		6	5	0	0	0	6	0	-8	0	0	-5	0	-4	-8	-8	0	0	0	0	-4	0	-6	0	-4	0	-8	0	0
Minimate of the state of the		Protected intertidal area		0	4	12		5	-6	-12	0	-12	-6	-8	0	0	0	0	-8	-8	-8	0	0	0	0	-4	0	-6	0	-4	-5	-4	-4	0
Property state   Prop	Archaeology	Archaeology/History protected site		0	0	0	0		0	0	0	-5	0	-3	0	0	0	0	-3	-3	-3	0	0	0	0	-3	0	0	0	0	0	0	-3	0
Commonities		Recreational access on water		0	0	-6	-6	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0
Commentation   1				0	-4	-6	-12	0	0		0	-6	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	-10	0	0	0
Professional Processional Regularization of the column (please) processional Regularization (please) processional Regularization (please) processional Regulari				0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Principle in Provide introduction in the province in the provi	Fi1/0	Defence set-back		0	-4	12	12	-5	0	-6	0		6	-4	0	0	0	0	0	-4	-4	0	0	0	0	-8	0	0	0	4	5	0	0	0
Capital designing	protection	Flood bank (dyke/gabion/wall)		0	-4	-12	-12	0	0	12	0	0		-4	0	0	0	0	4	0	0	0	0	0	0	8	0	0	0	0	0	0	8	0
Make America shedging  Wassed Important Published Shedging  Wassed Important Shedging  Wassed Importan		Channel stabilis ation		0	0	-4	-4	0	0	0	0	0	4		0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
More information series (assigned property of the content of the c		Capital dredging		0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pert saried commonmentals labelically 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Navigation	Maintenance dredging		0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pert selection of Pert related a civity aging ceret to system  Pert selective of the interdish backed area  O 4 0 4 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Vessel movement		0	0	-5	-5	0	-5	0	0	0	0	0	0	0		0	0	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0
Post activity on the intential foolididal area in the structure on bed of in water column (e.g. pipes, cables, piers, marries)    Post activity on the intential foolididal area in the structure on bed of in water column (e.g. pipes, cables, piers, marries)   Post activity on the intential foolididal area in the structure on bed of in water column (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity on the intential foolidation (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. pipes, cables, piers, marries)   Post activity of the intention (e.g. piers, cables, piers, marries)   Post activity of the intention of the intent		Port and claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infestivative (e.g.)pies, cubes, per, maintain (e.g.)pies, cubes,	Ports & Harbours	Port related activity adjacent to system		0	-4	0	-4	-3	0	-4	0	-4	0	0	0	0	6	0		2	0	0	0	0	0	0	0	0	0	0	0	0	-2	0
Tidal/current energy devices  O O O O O O O O O O O O O O O O O O O		Port activity on the intertidal/subtidal area		0	-2	-8	-8	-3	-4	-4	0	0	0	0	0	0	3	0	2		-2	0	0	0	0	2	0	0	0	-2	3	0	0	0
Midestrate tenergy desired	Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	-8	-8	-3	0	0	0	-4	-4	0	0	0	-3	0	0	-2		0	0	0	0	2	0	0	0	0	0	0	0	0
Industry   Aggregate extraction   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
Hedustrial discharge   D   D   D   D   D   D   D   D   D		Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Mode of the properties of th	Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
Agriculture         Water abstraction         0<		Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Agriculture Agricultural run-off  0 0 0 -6 -6 0 0 -6 -6 0 0 0 0 0 0 0 0 0		Industrial activity adjacent to system		0	-4	0	-4	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	-3	-2	-2	0
Agricultural run-off O O G-6 G-6 O G-6 G-6 O O O O O O O O O O O O O O O O O O O		Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Biological Extraction	Agriculture	Agricultural run-off		0	0	-6	-6	0	-6	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	-4	-5	0	-4	0
Extraction   Wildfowling		Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Viaste water discharge	Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-3	0	0	0
Residential Housing adjacent to system 0 -2 0 -4 -3 0 0 0 -4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Wildfowling		0	-3	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
		Waste water discharge		0	0	-4	-4	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0		-2	0
Drinking water abstraction 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Residential	Housing adjacent to system		0	-2	0	-4	-3	0	0	0	-4	0	0	0	0	0	0	-2	0	0	0	0	0	0	-2	0	0	0	0	0	-2		0
		Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

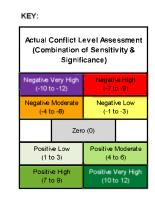


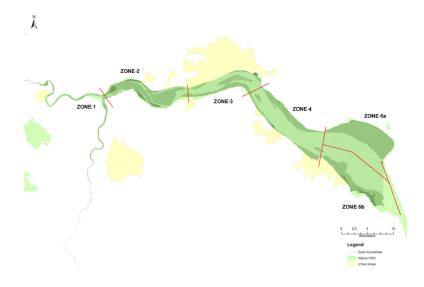


Humber Estuary: Conflict Level Assessment (Zone 2)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			navigeson			Ports & Harbours		Infrastructure			Industry			di di	Agnouture		Biological Extraction			Residential	
Category	HUMBER ESTUARY (Zone 3): Actual Conflict Level Assessment per zone (all these cells are completed automatically so <u>DO NOT</u> populate)	Leave column blank	High value landscape feature	Protected area adjacent to system	Protected subtidal area	Protected intertidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & infertidal	Commercial	Defence set-back	Flood bank (dyka/gabion/wall)	Channel stabilisation	Capital dredging	Mairtenance dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subtidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marrias)	Tidal/current energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shelfsh)	Recreational	Wildfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value lands cape feature			2	0	4	0	0	0	0	-4	-4	0	0	0	0	-4	-8	0	-4	-2	0	0	-3	-6	0	0	0	0	0	0	-4	0
	Protected area adjacent to system		2		4	8	0	-3	-4	-2	-4	0	0	-4	0	0	-8	-8	-8	-4	-2	0	0	-3	-6	0	0	0	-2	0	0	-8	0
Conservation	Protected subtidal area		0	4		6	4	0	0	-4	6	0	0	-12	-10	-6	-12	-6	-12	-12	-8	-8	0	-10	-5	0	-5	0	-4	0	-12	0	0
	Protected intertidal area		4	4	12		4	-5	-12	-8	-12	-6	0	-12	-5	0	-12	-12	-12	-12	-8	-4	0	-10	-5	0	-5	0	-4	0	-6	-6	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	-2	-4	0	0	-8	0	0	-4	-4	-4	-4	-2	0	0	0	-3	0	0	0	0	0	0	-4	0
	Recreational access on water		0	0	-5	-5	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-4	-6	-12	0	0		0	-6	0	0	0	0	0	0	-6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.00.00	Commercial		0	-2	-4	-4	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Defence set-back		-4	-4	12	12	-4	0	-6	-4		6	0	0	-5	0	0	0	-6	-6	0	0	0	0	-10	0	0	0	4	0	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-4	-4	-12	-12	0	0	12	4	0		0	0	0	0	0	6	0	0	0	0	0	0	10	0	0	0	0	0	0	12	0
	Channel stabilisation		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	-4	-12	-12	-4	0	0	0	0	-6	0		5	12	12	6	6	-6	0	0	0	0	5	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	-3	-10	-5	0	0	0	0	0	-5	0	5		10	5	5	10	0	0	0	0	0	4	0	0	0	0	0	0	0	0
	Vessel movement		0	0	-6	-6	0	-5	0	0	0	0	0	0	0		0	0	6	0	-4	0	0	0	5	0	0	0	0	0	0	0	0
	Port land claim (intertidal/subtidal)		-4	-8	-12	-12	-4	0	-6	0	-6	0	0	12	5	12		12	12	-6	0	0	0	0	10	0	0	0	-4	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-4	-8	0	-6	-4	0	-6	0	-6	0	0	0	0	12	6		6	0	0	0	0	0	0	0	0	0	0	0	0	-6	0
	Port activity on the intertidal/subtidal area		-4	-4	-12	-12	-4	-5	-6	-4	0	0	0	6	5	6	6	6		-6	-4	0	0	0	5	0	0	0	-4	0	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-4	0	-12	-12	-4	0	0	0	-6	-6	0	-12	-10	-6	-6	0	-6		-4	0	0	0	5	0	0	0	0	0	0	0	0
	Tidal/current energy device		-2	0	-4	0	0	-3	0	-2	0	0	0	-4	-3	-4	0	0	-4	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	-8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	-2	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	-5	-5	0	-4	-5	-3	0	0	0	0	0	0	0	0	0	0	0	-3	0		0	0	0	0	-3	0	0	-5	0
	Industrial activity adjacent to system		-3	-6	0	-5	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	-3	0	-4		0	0	0	0	0	-5	-5	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		-3	0	-5	-5	0	-4	-5	-3	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	0		0	-3	0	0	-5	0
	Commercial (e.g. fish & shellfish)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0
2. action	Wildfowling		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-6	-6	0	-5	-6	-4	0	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	-4	0		-6	0
Residential	Housing adjacent to system		-4	-4	0	-6	-4	0	0	0	-6	0	0	0	0	0	0	-6	0	0	0	0	0	0	-5	0	0	0	0	0	-6		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



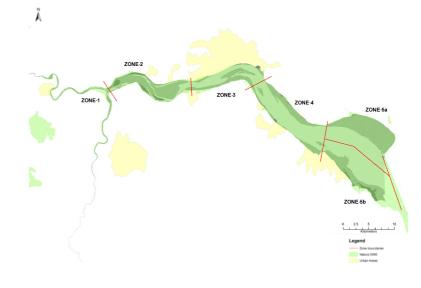


Humber Estuary: Conflict Level Assessment (Zone 3)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				Ports & Harbours		Infrastructure			Industry				a name		Biological Extraction			Residential	
Category	HUMBER ESTUARY (Zone 4): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DO NOT populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabils ation	Capital dredging	Maintenance dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subbidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	TidaVourrert energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shellfsh)	Recreational	Wildowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Protected area adjacent to system		0		4	8	0	-3	-4	-2	-4	0	0	-4	0	0	-8	-8	-8	-4	-2	0	0	-4	-6	0	0	-2	-2	-2	0	-6	0
Conservation	Protected subtidal area		0	4		6	5	0	0	-4	6	0	0	-12	-12	-6	-12	-6	-12	-12	-8	-12	0	-12	-5	0	-5	-8	-4	0	-8	0	0
	Protected intertidal area		0	4	12		5	-5	-12	-8	-12	-6	0	-12	-6	0	-12	-12	-12	-12	-8	-6	0	-12	-5	0	-5	-4	-4	4	4	-5	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	-3	-5	0	0	-10	0	0	-5	-5	-5	-5	-3	0	0	0	-4	0	0	0	0	0	0	-4	0
	Recreational access on water		0	0	-5	-5	0		0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-4	-6	-12	0	0		0	-6	0	0	0	0	0	0	-6	0	0	0	0	0	0	0	0	0	0	0	-8	0	0	0
	Commercial		0	-2	-4	-4	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0
Fl4/0	Defence set-back		0	-4	12	12	-5	0	-6	-4		6	0	0	-6	0	0	0	-6	-6	0	0	0	0	-10	0	0	4	4	4	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		0	4	-12	-12	0	0	12	4	0		0	0	0	0	0	6	0	0	0	0	0	0	10	0	0	0	0	0	0	10	0
	Channel stabilisation		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	-4	-12	-12	-5	0	0	0	0	-6	0		6	12	12	6	6	-6	0	0	0	0	5	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	-4	-12	-6	0	0	0	0	0	-6	0	6		12	6	6	12	0	0	0	0	0	5	0	0	-4	0	0	0	0	0
	Vessel movement		0	0	-6	-6	0	-5	0	0	0	0	0	0	0		0	0	6	0	-4	0	0	0	5	0	0	-4	0	0	0	0	0
	Port land claim (intertidal/subtidal)		0	-8	-12	-12	-5	0	-6	0	-6	0	0	12	6	12		12	12	-6	0	0	0	0	10	0	0	-4	-4	4	0	0	0
Ports& Harbours	Port related activity adjacent to system		0	-8	0	-6	-5	0	-6	0	-6	0	0	0	0	12	6		6	0	0	0	0	0	0	0	0	0	0	0	0	-5	0
	Port activity on the intertidal/subtidal area		0	-4	-12	-12	-5	-5	-6	-4	0	0	0	6	6	6	6	6		-6	-4	0	0	0	5	0	0	-4	-4	4	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	-12	-12	-5	0	0	0	-6	-6	0	-12	-12	-6	-6	0	-6	Г	-4	0	0	0	5	0	0	-4	0	0	0	0	0
	Tidal/current energy device		0	0	4	0	0	-3	0	-2	0	0	0	-4	-4	-4	0	0	-4	0		0	0	0	0	0	0	-2	0	0	0	0	0
	Water abstraction		0	0	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	-4	-4	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	-6	-6	0	-5	-6	-4	0	0	0	0	0	0	0	0	0	0	0	-6	0		0	0	0	-4	-4	0	0	-5	0
	Industrial activity adjacent to system		0	-6	0	-5	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	-5	0	-5		0	0	0	0	-3	-3	-4	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	0	-5	-5	0	-4	-5	-3	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0		-3	-3	-3	0	4	0
	Commercial (e.g. fish & shellfish)		0	0	-8	-8	-3	-3	0	0	0	0	0	0	0	-4	-4	0	-4	-4	-2	0	0	0	0	0	0		-2	0	0	0	0
Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2		-2	0	0	0
	Wildfowling		0	-2	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-4	-4	0	-3	-4	-2	0	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	0	0	-2	-2	0		-3	0
Residential	Housing adjacent to system		0	-3	0	-5	-4	0	0	0	-5	0	0	0	0	0	0	-5	0	0	0	0	0	0	-4	0	0	0	0	0	-3		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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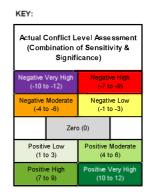
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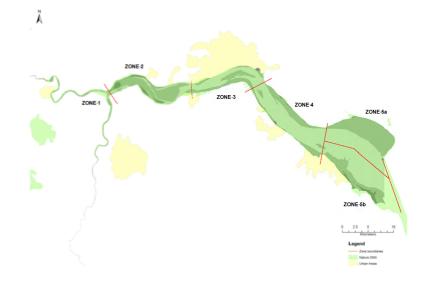


Humber Estuary: Conflict Level Assessment (Zone 4)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection			E OBBO			Ports & Harbours		Infrastructure			Industry			Americality	a name		Biological Extraction			Residential	
Category	HUMBER ESTUARY (Zone 5a): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DO NOT populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabils ation	Capital dredging	Maintenance dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/sutkidal area	Infrastructure on bed or in water column (e.g. pipes, catles, piers, marinas)	TidaVourrent energy device	Water abstraction	Aggregate extraction	Industrial discharge	Industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shellfsh)	Recreational	Wildfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			2	0	4	0	0	0	0	-4	-4	0	0	0	0	0	-4	0	-2	0	0	0	0	0	0	0	0	0	0	0	-2	0
	Protected area adjacent to system		2		4	8	0	-2	-4	-2	-4	0	0	-4	0	0	0	-4	-6	-2	0	0	0	0	0	0	0	-2	-3	-2	0	-4	0
Conservation	Protected subtidal area		0	4		6	4	0	0	-4	6	0	0	-12	-12	-6	0	-4	-10	-8	0	0	0	0	0	0	-6	-8	-5	0	-8	0	0
	Protected intertidal area		4	4	12		4	-4	-12	-8	-12	-6	0	-12	-6	0	0	-8	-10	-8	0	0	0	0	0	0	-6	-4	-5	4	-4	-4	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	-2	-4	0	0	-8	0	0	0	-2	-3	-2	0	0	0	0	0	0	0	0	0	0	0	-2	0
	Recreational access on water		0	0	4	-4	0		0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-4	-6	-12	0	0		0	-6	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	-8	0	0	0
	Commercial		0	-2	-4	-4	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0
FI 110 1	Defence set-back		4	-4	12	12	4	0	-6	-4		6	0	0	-6	0	0	0	-5	-4	0	0	0	0	0	0	0	4	5	4	0	0	0
Flood/Coast protection	Flood bank (dyke/gabion/wall)		-4	-4	-12	-12	0	0	12	4	0		0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
	Channel stabilisation		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	-4	-12	-12	4	0	0	0	0	-6	0		6	12	0	4	5	-4	0	0	0	0	0	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	-4	-12	-6	0	0	0	0	0	-6	0	6		12	0	4	10	0	0	0	0	0	0	0	0	-4	0	0	0	0	0
	Vessel movement		0	0	-6	-6	0	-4	0	0	0	0	0	0	0		0	0	5	0	0	0	0	0	0	0	0	-4	0	0	0	0	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		-2	-4	0	-4	-2	0	-4	0	4	0	0	0	0	8	0		3	0	0	0	0	0	0	0	0	0	0	0	0	-2	0
	Port activity on the intertidal/subtidal area		-3	-3	-10	-10	-3	-3	-5	-3	0	0	0	5	5	5	0	3		-3	0	0	0	0	0	0	0	-3	-4	3	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		-2	0	-8	-8	-2	0	0	0	-4	-4	0	-8	-8	-4	0	0	-3		0	0	0	0	0	0	0	-2	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		4	0	-6	-6	0	-4	-6	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-4	-5	4	0	4	0
	Commercial (e.g. fish & shellfish)		0	0	-8	-8	-2	-2	0	0	0	0	0	0	0	-4	0	0	-3	-2	0	0	0	0	0	0	0		-3	0	0	0	0
Biological Extraction	Recreational		0	0	-5	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3		-3	0	0	0
	Wildfowling		0	-2	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-4	-4	0	-2	-4	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	-3	0		-2	0
Residential	Housing adjacent to system		-2	-2	0	-4	-2	0	0	0	4	0	0	0	0	0	0	-2	0	0	0	0	0	0	0	0	0	0	0	0	-2		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

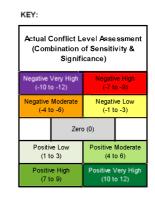


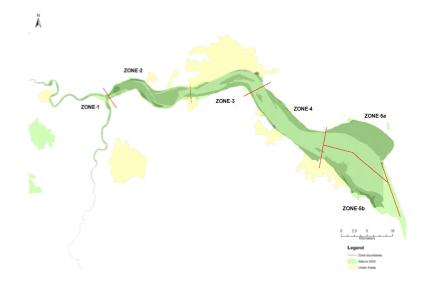


Humber Estuary: Conflict Level Assessment (Zone 5a)



	Category		Landscape		Conservation		Archaeology		Access (e.g. Disturbance)			Flood/coast protection						Ports & Harbours		Infrastructure			Industry			Americality	a name in the same		Biological Extraction			Residential	
Category	HUMBER ESTUARY (Zone 5b): Actual Conflict Level Assessment per zone (all these cells are completed automatically so DO NOT populate)	Leave column blank	High value lands cape feature	Protected area adjacent to system	Protected subtidal area	Protected intentidal area	Archaeology/History protected site	Recreational access on water	Recreational access on the banks & intertidal	Commercial	Defence set-back	Flood bank (dyke/gabion/wall)	Channel stabilisation	Capital dredging	Maintenance dredging	Vesselmovement	Port land claim (intertidal/subtidal)	Port related activity adjacent to system	Port activity on the intertidal/subbidal area	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)	TidaVcurrert energy device	Water abstraction	Aggregate extraction	Industrial discharge	industrial activity adjacent to system	Water abstraction	Agricultural run-off	Commercial (e.g. fish & shellfsh)	Recreational	Wildfowing	Waste water discharge	Housing adjacent to system	Drinking water abstraction
	Leave row blank																																
Landscape	High value landscape feature			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Protected area adjacent to system		0		4	8	0	-2	-4	-2	-4	0	0	-4	0	0	0	-6	-6	-3	0	0	0	0	-4	0	0	-3	-2	-2	0	-6	0
Conservation	Protected subtidal area		0	4		6	4	0	0	-4	6	0	0	-12	-10	-6	0	-5	-10	-10	0	0	0	0	-4	0	-5	-10	-4	0	-10	0	0
	Protected intertidal area		0	4	12		4	-4	-12	-8	-12	-6	0	-12	-5	0	0	-10	-10	-10	0	0	0	0	-4	0	-5	-5	-4	-4	-5	-5	0
Archaeology	Archaeology/History protected site		0	0	0	0		0	0	-2	-4	0	0	-8	0	0	0	-3	-3	-3	0	0	0	0	-2	0	0	0	0	0	0	-3	0
	Recreational access on water		0	0	-4	-4	0		0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0
Access (e.g. Disturbance)	Recreational access on the banks & intertidal		0	-4	-6	-12	0	0		0	-6	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	-8	0	0	0
	Commercial		0	-2	-4	-4	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0	0
Flood/Coast	Defence set-back		0	-4	12	12	-4	0	-6	-4		6	0	0	-5	0	0	0	-5	-5	0	0	0	0	-8	0	0	5	4	4	0	0	0
protection	Flood bank (dyke/gabion/wall)		0	-4	-12	-12	0	0	12	4	0		0	0	0	0	0	5	0	0	0	0	0	0	8	0	0	0	0	0	0	10	0
	Channel stabilisation		0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Capital dredging		0	-4	-12	-12	-4	0	0	0	0	-6	0		5	12	0	5	5	-5	0	0	0	0	4	0	0	0	0	0	0	0	0
Navigation	Maintenance dredging		0	-3	-10	-5	0	0	0	0	0	-5	0	5		10	0	4	8	0	0	0	0	0	3	0	0	-4	0	0	0	0	0
	Vessel movement		0	0	-6	-6	0	-4	0	0	0	0	0	0	0		0	0	5	0	0	0	0	0	4	0	0	-5	0	0	0	0	0
	Port land claim (intertidal/subtidal)		0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ports & Harbours	Port related activity adjacent to system		0	-6	0	-5	-3	0	-5	0	-5	0	0	0	0	10	0		4	0	0	0	0	0	0	0	0	0	0	0	0	-4	0
	Port activity on the intertidal/subtidal area		0	-3	-10	-10	-3	-3	-5	-3	0	0	0	5	4	5	0	4		-4	0	0	0	0	3	0	0	-4	-3	3	0	0	0
Infrastructure	Infrastructure on bed or in water column (e.g. pipes, cables, piers, marinas)		0	0	-10	-10	-3	0	0	0	-5	-5	0	-10	-8	-5	0	0	-4	Г	0	0	0	0	3	0	0	-4	0	0	0	0	0
	Tidal/current energy device		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
Industry	Aggregate extraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
	Industrial discharge		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
	Industrial activity adjacent to system		0	-4	0	-4	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	-2	-3	-3	0
Acmi as slever	Water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0
Agriculture	Agricultural run-off		0	0	-5	-5	0	-3	-5	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		-4	-3	-3	0	-4	0
	Commercial (e.g. fish & shellfish)		0	0	-10	-10	-3	-3	0	0	0	0	0	0	0	-5	0	0	-4	-4	0	0	0	0	0	0	0		-3	0	0	0	0
Biological Extraction	Recreational		0	0	-4	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3		-2	0	0	0
	Wildfowling		0	-2	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
	Waste water discharge		0	0	-5	-5	0	-3	-5	-3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	-3	0		-4	0
Residential	Housing adjacent to system		0	-3	0	-5	-3	0	0	0	-5	0	0	0	0	0	0	-4	0	0	0	0	0	0	-3	0	0	0	0	0	-4		0
	Drinking water abstraction		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	





Humber Estuary: Conflict Level Assessment (Zone 5b)