

Protected asset	Source of impacts (chapter 2)	Potential impact (chapter 2)	Source of impact (EIA)	Potential impacts (EIA)	Source of impact (licensing text)	Potential impacts (licensing Sext)
Water	Construction (e.g. dredging, pile driving, cable laying)	Suspended sediments in water body, stripes of turbidity, turbidity and smothering of the water	2	2	4	4
	Re-suspension of sediments	Release of nutrients and harmful substances (→ oxygen deficit, germs)	3	3	3	3
	Physical presence	Change of hydrodynamics mainly small scale, local current speeds, minimal on large-scale	2	2	4	4
		Less swell, higher turbulence at water surface → stronger steering of temperature stratification		2	4	4
	<i>Electric cable</i>	<i>Increasing water temperature → release of harmful substances</i>	3	3	4	4
	Indirect effect due to increased biomass	Harming water quality (e.g. oxygen deficit, sulphite pollution)	4	4	4	4
	<i>Increased ship traffic (construction e.g.)</i>	Pollution	3	3	4	4
	Accidents, ship collision	Pollution	2	2	1+	2
	Release of harmful substances due to accidents or from turbines	Pollution	3	3	3	3
Seabed	Construction (e.g. dredging, pile driving, cable laying)	Sediment turbidity, erosion and relocation of sediment, compression of soil, strong disturbance of sediment, changing sediment structure and composition (heterogeneous), morphology	3	3	3	3
		Vibrations		4		3
		Stripes of turbidity		2		3
	Dredging (foundation, cable laying)	Shift of sediments and disturbance of the seabed	3	3	3	3
	Introduction of artificial hard substrate (and demand of space)	Sealing of sea ground	2	2	2	3
		Value of seabed as a habitat decreases		3		4
	Physical presence (due to changing hydrodynamics)	Change of sediment dynamics (erosion and sedimentation), composition and structure, morphology, sediment turbidity, scour pits and tails (→ Release of harmful substances)	2	2	1	1
	<i>Vibration (during operation)</i>	<i>Sediment characteristics</i>	4	4	3	3
	Operating submarine electric cable	Increasing temperature of sediment and pore water	2	2	3	3
		<i>Release of harmful substances (due to increased temperature)</i>		3		3
	Physical presence as safety risk for fishing boats	No fishery prevents seabed from bottom trawling	3	3	4	4
	<i>Increased ship traffic</i>	Pollution	3	3	3	3
	Accidents, ship collision	Pollution	2	2	4	4
	Release of harmful substances due to accidents or from turbines	Pollution	3	3	3	3
<i>Removal (by water jet cutting)</i>	<i>Sediment turbidity</i>	3	3	4	4	
	<i>Pollution by splinter of steel</i>		3		4	
Air and climate	Physical presence	Air circulation (limited to wind farm area)	3	3	4	4
	Increased ship traffic	Emissions	3	3	3	3
	Renewable energy	Reduces emissions	3	3	3	3
	Sediment turbidity, stripes of turbidity	Habitat loss, disturbance of habitat, elimination of benthic species locally (especially filtering), risk of diseases due to germs in water	2	3	3	3
	Re-suspension and relocation of sediments	Endobenthic organisms laid open, epibenthic organisms covered, mortality, damage, habitat loss	2	2	3	3
	Dredging and sediment shift	Elimination and damage of organisms (mechanical pressure, laid open or covered)	3	3	4	4
	Sealing of seabed	Change of benthic community, elimination of benthic species or associations, mortality, habitat loss (due to mechanic pressure)	2	3	3	3

Germany

Benthos	Introduction of artificial hard substrate	New habitat, permanent habitat loss, mortality, new species, shift of community composition, increased biomass and abundance at the piles (→ may compete about food resources)	2	2	3	3
	Physical presence and changing sediment flux, composition, structure and morphology, esp. scour pits (→ Release of harmful substances)	Habitat loss, new species	3	4	3	3
		Released harmful substances from sediment accumulate in organisms	3	4	3	4
	Vibration (during operation)	Habitat loss for sensitive species	4	4	4	4
	Increasing sediment temperature (electric cable)	Alteration of endobenthic community, damage of individuals, non-residential species	2	3	2	3
		Released harmful substances from sediment accumulate in organisms		3		4
	Electromagnetic fields	No clear evidence but could damage individuals, possible responses of cancer (lack of knowledge)	2	2	3	4
	Water quality (e.g. oxygen deficit and germs)	Damage and mortality of organisms	4	4	4	4
	Cooling water and heated water	Damage and mortality of eggs and larvae	4	4	4	4
	Physical presence as safety risk for fishing boats	Higher predatory pressure, protection against bottom trawling	2	2	3	3
	Release of harmful substances due to accidents or from turbines	damage, mortality	3	3	4	4
	Removal of turbines	Pollution by splinter of steel		3		4
Habitat loss, mortality and damage of individuals, change of community composition		3+	4	4	4	
Fish	Sediment turbidity, stripes of turbidity, re-suspension and sedimentation	Damage, dislocation, temporary habitat loss (especially pelagic fish), damage to fish eggs and spawning grounds	2	1	3	3
	Dredging and sediment shift (introduction of cable)	Temporary habitat loss, damage of epibenthic fish species	4	4	4	4
	Sealing of seabed	Permanent habitat loss for epibenthic fish, indirect impact due to impacts on their pray	4	4	4	4
	Physical presence and changing sediment flux, composition, structure and morphology (→ Release of harmful substances)	Habitat loss of some sensitive species	3	3	4	4
		Released harmful substances from sediment accumulate in organisms		4		4
	Introduction of artificial hard substrate	New habitat, attraction of fish and new species, change of community composition, nursery area, protection from predators, availability and diversity of prey organisms changes and increases	2	2	3	3
	Construction noise and vibration (especially while pile driving)	Stress, behavioural effects, injury, mortality from gas embolism, impair sense of hearing, deafness, impair survival, dislocation and temporary habitat loss, masking effect, damage and elimination of fish spawn and larvae	1	1	1	1
	Construction noise and vibration (effects on fish larvae)	Mortality, damage, neg. effect on development	4	4	4	4
	Vibration and noise emission into the water body (during operation)	Habitat loss, dislocation, barrier effect, behavioural effects, stress, masking by noise (pray, enemies, intra-specific)	2	2	2	2
	Light reflection and shading effect (rotor blades)	Not known, but avoidance of some species is possible	2	2	2	3
	Illumination	Attracted by light, beneficial for fish praying by visual perception or avoidance	4	4	4	4
	Increasing temperature in sediment and pore (electric cable)	Could affect some benthic species	4	4	4	4
	Electromagnetic fields	Behavioural and barrier effect (electro-sensitive fish) , on migration and orientation possible but unlikely (gaps of knowledge)	3	3	4	4
	Water quality (e.g. oxygen deficit)	Damage and mortality	4	4	4	4
Cooling water and heated water	Damage or eliminate fish eggs or larvae, possible but very unlikely is shift of community, distribution and density	4	4	4	4	

Germany

	Physical presence as safety risk for fishing boats	Refuge from intense fishing, regeneration area (recovery of stock, natural age structure and more)	2	2	3	3
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage	2	3	4	4
	Removal of turbines	Habitat loss, less food resources	4	4	4	4
Marine mammals	Construction noise (especially pile driving, also boat traffic, cable laying, removal)	Temporary habitat loss, fragmentation, behavioural change, avoidance, temporary or permanent physical damage like hearing damage impair survival, loss of individuals, disturbance of intra-specific communication due to masking by noise therewith reduction of reproduction rate	1	1	1	1
	Vibration and noise emission into the water body (during operation)	Barrier effect to mitigating marine mammals, fragmentation of resting, hunting and reproduction areas, changed behaviour, disturbance and permanent habitat loss possible, masking effect & disturbance of intra-specific communication	1	1	1	1
	Sediment turbidity, stripes of turbidity	Disturbance, disadvantages for praying and orientation	4	4	4	4
	Indirect due to impacts on food resources	Effects of harmful substances (released from sediments) on pray organisms	4	4	4	4
	Physical presence (also illumination)	Fragmentation of interrelated units, obstacle and barrier effect	4	4	4	4
	Shading effect (from rotor blade)	Avoidance behaviour (habitat loss)	4	4	4	4
	Electromagnetic fields	Barrier effect, disturbance of small- and large-scale orientation (gap of knowledge)	4	4	4	4
	Increasing boat and air traffic	Species-specific effects, change of behaviour, stress, avoidance	2	2	4	4
	Physical presence as safety risk for fishing boats	Increasing food resources within wind farm area	4	4	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Damage and mortality of individuals	4	4	4	4
Migrating birds	Noise emission	Avoidance while pile driving expected, for impacts of operational noise no prove (uncertainties)	2	2	3	3
	Visual effects of construction and maintenance	Temporary habitat loss of species sensitive to this impact, avoidance, flying around, reduction of fitness	2	2	3	3
	Physical presence and collision risk	Mortality, especially in nights with poor visibility	1	1	2	1
	Wake of turbines	Damage, mortality	4	4	4	4
	Physical presence and visibility	Barrier effect and fragmentation of migratory routes, avoidance or flying around costs energy and reduces fitness	1	1	2	1
	Facility illumination	Attraction, flying around the facility costs extra energy (mortality possible) and increased collision risk	1	1	3	2
	Increasing boat and air traffic	Habitat loss, loss of feeding and resting area; stress, more flying-off causing reduction of biological fitness	2	2	3	3
		Emissions		3		4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, destruction of feeding and resting areas	4	4	4	4
	Visual effects of construction works	Avoidance, temporary habitat loss (feeding, resting, wintering areas can be affected)	1	1	3	3
	Noise emission (during construction)	Avoidance or flying around costs energy and reduces fitness, habitat loss	3	3	4	3
	Illumination (construction light)	(Species specific reaction) avoidance and habitat loss, attraction and use as resting area	3	3	4	4

Germany

Sea birds	Physical presence and collision risk	Mortality, especially in nights with poor visibility	1	2	3	3
	Wake of turbines	Damage, mortality	4	4	4	4
	Physical presence and visibility	Permanent habitat loss (sensitive species) or change, avoidance behaviour, disturbance of resting, feeding or wintering areas, barrier effect, fragmentation of associated areas (e.g. feeding and resting areas)	1	2	3	2 (esp. Habitat loss)
	Shading effect and light reflection	Avoidance, barrier	3	2	4	4
	Operational noise (air)	Avoidance by some species	2	3	4	4
	Operational noise (water column)	Avoidance	4	4	4	4
	Introduction of artificial hard substrate	Disturbance of feeding, resting, wintering areas, habitat loss	4	3+	3	4
		Indirect beneficial effect due to increased food species availability, attracted by area (probably few birds profit from this)		4		
	Indirect due to impacts on food resources	Reduced food resources	3	3	4	4
		Pollution of food resources and water (due to release of harmful substances)		4		4
	Increasing boat and air traffic	Habitat loss, disturbance of resting, feeding or wintering areas, avoidance, stress, increased flying-off and reduction of biological fitness	1	1	3	3
		Emissions		2		
	Physical presence as safety risk for fishing boats	Higher fish abundance and new species likely, so increasing food availability	3	2	3	3
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss, destruction of feeding and resting areas	4	4	4	4
Bats	Physical presence	Attracted by installation, new habitat, resting and feeding area	3	3	4	4
		Avoidance, habitat loss		4		4
		Barrier effect		4		4
	Ultrasound emission	Disturbance of orientation	4	4	4	4
Physical presence and collision risk	Mortality	2	2	3	3	
Zooplankton	Decreasing food resources (when phytoplankton effected negatively)	Mortality	3	3	4	4
	Shading effect	Avoidance	4	4	4	4
	Increasing ship traffic	Damage and mortality due to pollution	4	4	4	4
	Water quality (e.g. oxygen deficit and germs)	Damage of organisms and mortality	4	4	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4	4	4	4
Phytoplankton	Sediment turbidity, stripes of turbidity, smothering of water	Decreasing light transmission and reduction of photosynthesis, temporary habitat loss	3	3	3	3
	Shading effects	reduction of photosynthesis	4	4	4	4
	Water quality (e.g. oxygen deficit and germs)	Damage, mortality	3	3	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4	4	3	3
Macrophytes	Sediment turbidity, stripes of turbidity, smothering of water	Temporary habitat loss, reduction of photosynthesis	4*	4*	3	3
	Change of sediment composition and flow regimes	Permanent habitat loss, alteration of plant community composition	4*	4*	3	3
	Sealing of seabed	Permanent habitat loss	4*	4*	3	3
	Introduction of artificial hard substrate	alteration of plant community composition, habitat loss or new habitat	4*	3*	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4*	4*	3	3
Human beings	Physical presence as safety risk for fishing boats	No fishing with an effect on the resource fish	4	4	4	4
	Pollution due to accidents and release of harmful substances	Human health (over food chain)	3	3	4	4
	Accidents, increasing risk of ship collision	Human health and life	3	3	4+	4+
	Noise emission while construction	Health	3	4	3	3

Germany

Visibility	Loss of recreation area	3	4	3	3
------------	-------------------------	---	---	---	---

* Do not exist in the planning area (according to EIS)

** Considered indirect as impacts of removal are similar to impacts of construction

+ cross-reference to other chapter or passage within the EIS

Protected asset	Source of impacts (chapter 2)	Potential impact (chapter 2)	Source of impact (EIA)	Potential impacts (EIA)	Source of impact (licensing text)	Potential impacts (licensing text)
Water	Construction (e.g. dredging, pile driving, cable laying)	Suspended sediments in water body, stripes of turbidity, turbidity and smothering of the water	2	2		
	Re-suspension of sediments	Release of nutrients and harmful substances (→ oxygen deficit, germs)	2	2		
	Physical presence	Change of hydrodynamics mainly small scale, local current speeds, minimal on large-scale	1	1		
		Less swell, higher turbulence at water surface → stronger steering of temperature stratification		2		
	Electric cable	Increasing water temperature → release of harmful substances	1	1		
	Indirect effect due to increased biomass	Harming water quality (e.g. oxygen deficit, sulphite pollution)	4	4		
	Increased ship traffic (construction e.g.)	Pollution	4	4		
	Accidents, ship collision	Pollution	3	3		
Release of harmful substances due to accidents or from turbines	Pollution	3	3			
Seabed	Construction (e.g. dredging, pile driving, cable laying)	Sediment turbidity, erosion and relocation of sediment, compression of soil, strong disturbance of sediment, changing sediment structure and composition (heterogeneous), morphology	2	2		
		Vibrations		4		
		Stripes of turbidity		2		
	Dredging (foundation, cable laying)	Shift of sediments and disturbance of the seabed	2	2		
	Introduction of artificial hard substrate (and demand of space)	Sealing of sea ground	3	3		
		Value of seabed as a habitat decreases		3		
	Physical presence (due to changing hydrodynamics)	Change of sediment dynamics (erosion and sedimentation), composition and structure, morphology, sediment turbidity, scour pits and tails (→ Release of harmful substances)	1	1		
	Vibration (during operation)	Sediment characteristics	4	4		
	Operating submarine electric cable	Increasing temperature of sediment and pore water	2	2		
		Release of harmful substances (due to increased temperature)		2		
	Physical presence as safety risk for fishing boats	No fishery prevents seabed from bottom trawling	4+	4+		
	Increased ship traffic	Pollution	4	4		
	Accidents, ship collision	Pollution	3	3		
Release of harmful substances due to accidents or from turbines	Pollution	3	3			
Removal (by water jet cutting)	Sediment turbidity	3	3			
	Pollution by splinter of steel		4			
Air and climate	Physical presence	Air circulation (limited to wind farm area)	4+	4+		
	Increased ship traffic	Emissions	4+	4+		
	Renewable energy	Reduces emissions	4 (?)	4(?)		
	Sediment turbidity, stripes of turbidity	Habitat loss, disturbance of habitat, elimination of benthic species locally (especially filtering), risk of diseases due to germs in water	2	3		
	Re-suspension and relocation of sediments	Endobenthic organisms laid open, epibenthic organisms covered, mortality, damage, habitat loss	1	2		
	Dredging and sediment shift	Elimination and damage of organisms (mechanical pressure, laid open or covered)	2	2		
	Sealing of seabed	Change of benthic community, elimination of benthic species or associations, mortality, habitat loss (due to mechanic pressure)	3	2		

Netherlands

Benthos	Introduction of artificial hard substrate	New habitat, permanent habitat loss, mortality, new species, shift of community composition, increased biomass and abundance at the piles (→ may compete about food resources)	1	1		
	Physical presence and changing sediment flux, composition, structure and morphology, esp. scour pits (→ Release of harmful substances)	Habitat loss, new species		2		
		Released harmful substances from sediment accumulate in organisms	2	2		
	Vibration (during operation)	Habitat loss for sensitive species	4	4		
	Increasing sediment temperature (electric cable)	Alteration of endobenthic community, damage of individuals, non-residential species	2	2		
		Released harmful substances from sediment accumulate in organisms		2		
	Electromagnetic fields	No clear evidence but could damage individuals, possible responses of cancer (lack of knowledge)	2	2		
	Water quality (e.g. oxygen deficit and germs)	Damage and mortality of organisms	3	3		
	Cooling water and heated water	Damage and mortality of eggs and larvae	4	4		
	Physical presence as safety risk for fishing boats	Higher predatory pressure, protection against bottom trawling	1	1		
Release of harmful substances due to accidents or from turbines	damage, mortality	3	3			
	Removal of turbines	Pollution by splinter of steel		4		
		Habitat loss, mortality and damage of individuals, change of community composition	3	3**		
Fish	Sediment turbidity, stripes of turbidity, re-suspension and sedimentation	Damage, dislocation, temporary habitat loss (especially pelagic fish), damage to fish eggs and spawning grounds	1	1		
	Dredging and sediment shift (introduction of cable)	Temporary habitat loss, damage of epibenthic fish species	2	2		
	Sealing of seabed	Permanent habitat loss for epibenthic fish, indirect impact due to impacts on their pray	3	3		
	Physical presence and changing sediment flux, composition, structure and morphology (→ Release of harmful substances)	Habitat loss of some sensitive species	3+	2		
		Released harmful substances from sediment accumulate in organisms		4		
	Introduction of artificial hard substrate	New habitat, attraction of fish and new species, change of community composition, nursery area, protection from predators, availability and diversity of prey organisms changes and increases	1	1		
	Construction noise and vibration (especially while pile driving)	Stress, behavioural effects, injury, mortality from gas embolism, impair sense of hearing, deafness, impair survival, dislocation and temporary habitat loss, masking effect, damage and elimination of fish spawn and larvae	1	1	2	2
	Construction noise and vibration (effects on fish larvae)	Mortality, damage, neg. effect on development	1	1	2	2
	Vibration and noise emission into the water body (during operation)	Habitat loss, dislocation, barrier effect, behavioural effects, stress, masking by noise (pray, enemies, intra-specific)	1	1		
	Light reflection and shading effect (rotor blades)	Not known, but avoidance of some species is possible	2	2		
	Illumination	Attracted by light, beneficial for fish praying by visual perception or avoidance	2	2		
	Increasing temperature in sediment and pore (electric cable)	Could affect some benthic species	3	2		
	Electromagnetic fields	Behavioural and barrier effect (electro-sensitive fish) , on migration and orientation possible but unlikely (gaps of knowledge)	2	2		
Water quality (e.g. oxygen deficit)	Damage and mortality	3	3			
Cooling water and heated water	Damage or eliminate fish eggs or larvae, possible but very unlikely is shift of community, distribution and density	4	4			

Netherlands

	Physical presence as safety risk for fishing boats	Refuge from intense fishing, regeneration area (recovery of stock, natural age structure and more)	1	1		
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage	3	3		
	Removal of turbines	Habitat loss, less food resources	3	3		
Marine mammals	Construction noise (especially pile driving, also boat traffic, cable laying, removal)	Temporary habitat loss, fragmentation, behavioural change, avoidance, temporary or permanent physical damage like hearing damage impair survival, loss of individuals, disturbance of intra-specific communication due to masking by noise therewith reduction of reproduction rate	1	1	1	1
	Vibration and noise emission into the water body (during operation)	Barrier effect to mitigating marine mammals, fragmentation of resting, hunting and reproduction areas, changed behaviour, disturbance and permanent habitat loss possible, masking effect & disturbance of intra-specific communication	1	1		
	Sediment turbidity, stripes of turbidity	Disturbance, disadvantages for praying and orientation	3	3		
	Indirect due to impacts on food resources	Effects of harmful substances (released from sediments) on pray organisms	3	3	2	2
	Physical presence (also illumination)	Fragmentation of interrelated units, obstacle and barrier effect	3	3		
	Shading effect (from rotor blade)	Avoidance behaviour (habitat loss)	3	4		
	Electromagnetic fields	Barrier effect, disturbance of small- and large-scale orientation (gap of knowledge)	2	2		
	Increasing boat and air traffic	Species-specific effects, change of behaviour, stress, avoidance	3	3		
	Physical presence as safety risk for fishing boats	Increasing food resources within wind farm area	3	3		
	Release of harmful substances due to accidents, ship collision or from turbines	Damage and mortality of individuals	4	4		
Migrating birds	Noise emission	Avoidance while pile driving expected, for impacts of operational noise no prove (uncertainties)	2	2		
	Visual effects of construction and maintenance	Temporary habitat loss of species sensitive to this impact, avoidance, flying around, reduction of fitness	2	2		
	Physical presence and collision risk	Mortality, especially in nights with poor visibility	1	1	2	2
	Wake of turbines	Damage, mortality	2	2		
	Physical presence and visibility	Barrier effect and fragmentation of migratory routes, avoidance or flying around costs energy and reduces fitness	1	1		
	Facility illumination	Attraction, flying around the facility costs extra energy (mortality possible) and increased collision risk	1	1		
	Increasing boat and air traffic	Habitat loss, loss of feeding and resting area; stress, more flying-off causing reduction of biological fitness	3	3		
		Emissions		4		
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, destruction of feeding and resting areas	4	4		
	Visual effects of construction works	Avoidance, temporary habitat loss (feeding, resting, wintering areas can be affected)	2	2		
	Noise emission (during construction)	Avoidance or flying around costs energy and reduces fitness, habitat loss	2	2		
	Illumination (construction light)	(Species specific reaction) avoidance and habitat loss, attraction and use as resting area	3	3		
	Physical presence and collision risk	Mortality, especially in nights with poor visibility	1	2	2	2
	Wake of turbines	Damage, mortality	2	2		

Netherlands

Sea birds	Physical presence and visibility	Permanent habitat loss (sensitive species) or change, avoidance behaviour, disturbance of resting, feeding or wintering areas, barrier effect, fragmentation of associated areas (e.g. feeding and resting areas)	1	1	2	2	
	Shading effect and light reflection	Avoidance, barrier	1	1			
	Operational noise (air)	Avoidance by some species	3	3			
	Operational noise (water column)	Avoidance	3	3			
	Introduction of artificial hard substrate	Disturbance of feeding, resting, wintering areas, habitat loss		2			
		Indirect beneficial effect due to increased food species availability, attracted by area (probably few birds profit from this)		2			
	Indirect due to impacts on food resources	Reduced food resources		4		2	
		Pollution of food resources and water (due to release of harmful substances)		3	3	2	4
	Increasing boat and air traffic	Habitat loss, disturbance of resting, feeding or wintering areas, avoidance, stress, increased flying-off and reduction of biological fitness		3	3		
		Emissions			4		
Physical presence as safety risk for fishing boats	Higher fish abundance and new species likely, so increasing food availability		4	4			
Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss, destruction of feeding and resting areas		4	4			
Bats	Physical presence	Attracted by installation, new habitat, resting and feeding area	4	4			
		Avoidance, habitat loss		4			
		Barrier effect		4			
	Ultrasound emission	Disturbance of orientation	4	4			
	Physical presence and collision risk	Mortality	4	4			
Zooplankton	Decreasing food resources (when phytoplankton effected negatively)	Mortality	4	4			
	Shading effect	Avoidance	4	4			
	Increasing ship traffic	Damage and mortality due to pollution	4	4			
	Water quality (e.g. oxygen deficit and germs)	Damage of organisms and mortality	4	4			
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4	4			
Phytoplankton	Sediment turbidity, stripes of turbidity, smothering of water	Decreasing light transmission and reduction of photosynthesis, temporary habitat loss	3	3			
	Shading effects	reduction of photosynthesis	4	4			
	Water quality (e.g. oxygen deficit and germs)	Damage, mortality	4	4			
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4	4			
Macrophytes	Sediment turbidity, stripes of turbidity, smothering of water	Temporary habitat loss, reduction of photosynthesis	4	4			
	Change of sediment composition and flow regimes	Permanent habitat loss, alteration of plant community composition	4	4			
	Sealing of seabed	Permanent habitat loss	4	4			
	Introduction of artificial hard substrate	alteration of plant community composition, habitat loss or new habitat	4	4			
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4	4			
Human beings	Physical presence as safety risk for fishing boats	No fishing with an effect on the resource fish	4	4			
	Pollution due to accidents and release of harmful substances	Human health (over food chain)	4	4			
	Accidents, increasing risk of ship collision	Human health and life	4	4			
	Noise emission while construction	Health	4	4			
	Visibility	Loss of recreation area	4	4			

** Considered indirect as impacts of removal are similar to impacts of construction

* Do not exist in the planning area (according to EIS)

+ cross-reference to other chapter or passage within the EIS

EIA

Protected asset	Source of impacts (chapter 2)	Potential impact (chapter 2)	Source of impact DE	Potential impacts DE	Source of impact NL	Potential impacts NL	
Water	Construction (e.g. dredging, pile driving, cable laying)	Suspended sediments in water body, stripes of turbidity, turbidity and smothering of the water	2	2	2	2	
	Re-suspension of sediments	Release of nutrients and harmful substances (→ oxygen deficit, germs)	3	3	2	2	
	Physical presence	Change of hydrodynamics mainly small scale, local current speeds, minimal on large-scale			2		1
		Less swell, higher turbulence at water surface → stronger steering of temperature stratification	2	2	1	2	
	Electric cable	Increasing water temperature → release of harmful substances	3	3	1	1	
	Indirect effect due to increased biomass	Harming water quality (e.g. oxygen deficit, sulphite pollution)	4	4	4	4	
	Increased ship traffic (construction e.g.)	Pollution	3	3	4	4	
	Accidents, ship collision	Pollution	2	2	3	3	
	Release of harmful substances due to accidents or from turbines	Pollution	3	3	3	3	
Seabed	Construction (e.g. dredging, pile driving, cable laying)	Sediment turbidity, erosion and relocation of sediment, compression of soil, strong disturbance of sediment, changing sediment structure and composition (heterogeneous), morphology				2	
		Vibrations		4		4	
		Stripes of turbidity	3	2	2	2	
	Dredging (foundation, cable laying)	Shift of sediments and disturbance of the seabed	3	3	2	2	
	Introduction of artificial hard substrate (and demand of space)	Sealing of sea ground		2		3	
		Value of seabed as a habitat decreases	2	3	3	3	
	Physical presence (due to changing hydrodynamics)	Change of sediment dynamics (erosion and sedimentation), composition and structure, morphology, sediment turbidity, scour pits and tails (→ Release of harmful substances)	2	2	1	1	
	Vibration (during operation)	Sediment characteristics	4	4	4	4	
	Operating submarine electric cable	Increasing temperature of sediment and pore water			2	2	
		Release of harmful substances (due to increased temperature)	2	3	2	2	
	Physical presence as safety risk for fishing boats	No fishery prevents seabed from bottom trawling	3	3	4(+)	4(+)	
	Increased ship traffic	Pollution	3	3	4	4	
	Accidents, ship collision	Pollution	2	2	3	3	
	Release of harmful substances due to accidents or from turbines	Pollution	3	3	3	3	
Removal (by water jet cutting)	Sediment turbidity			3	3		
	Pollution by splinter of steel	3	3	3	4		
Air and climate	Physical presence	Air circulation (limited to wind farm area)	3	3	4+	4+	
	Increased ship traffic	Emissions	3	3	4+	4+	
	Renewable energy	Reduces emissions	3	3	4	4	
Benthos	Sediment turbidity, stripes of turbidity	Habitat loss, disturbance of habitat, elimination of benthic species locally (especially filtering), risk of diseases due to germs in water	2	3	2	3	
	Re-suspension and relocation of sediments	Endobenthic organisms laid open, epibenthic organisms covered, mortality, damage, habitat loss	2	2	1	2	
	Dredging and sediment shift	Elimination and damage of organisms (mechanical pressure, laid open or covered)	3	3	2	2	
	Sealing of seabed	Change of benthic community, elimination of benthic species or associations, mortality, habitat loss (due to mechanic pressure)	2	3	3	2	
	Introduction of artificial hard substrate	New habitat, permanent habitat loss, mortality, new species, shift of community composition, increased biomass and abundance at the piles (→ may compete about food resources)	2	2	1	1	
	Physical presence and changing sediment flux, composition, structure and morphology, esp. scour pits (→ Release of harmful substances)	Habitat loss, new species			4	2	
		Released harmful substances from sediment accumulate in organisms	3	4	2	2	
Vibration (during operation)	Habitat loss for sensitive species	4	4	4	4		

EIA

	Increasing sediment temperature (electric cable)	Alteration of endobenthic community, damage of individuals, non-residential species		3		2	
		Released harmful substances from sediment accumulate in organisms	2	3	2	2	
	Electromagnetic fields	No clear evidence but could damage individuals, possible responses of cancer (lack of knowledge)	2	2	2	2	
	Water quality (e.g. oxygen deficit and germs)	Damage and mortality of organisms	4	4	3	3	
	Cooling water and heated water	Damage and mortality of eggs and larvae	4	4	4	4	
	Physical presence as safety risk for fishing boats	Higher predatory pressure, protection against bottom trawling	2	2	1	1	
	Release of harmful substances due to accidents or from turbines	damage, mortality	3	3	3	3	
	Removal of turbines	Pollution by splinter of steel		3		4	
		Habitat loss, mortality and damage of individuals, change of community composition	3+	4	3	3**	
Fish	Sediment turbidity, stripes of turbidity, re-suspension and sedimentation	Damage, dislocation, temporary habitat loss (especially pelagic fish), damage to fish eggs and spawning grounds	2	1	1	1	
	Dredging and sediment shift (introduction of cable)	Temporary habitat loss, damage of epibenthic fish species	4	4	2	2	
	Sealing of seabed	Permanent habitat loss for epibenthic fish, indirect impact due to impacts on their pray	4	4	3	3	
	Physical presence and changing sediment flux, composition, structure and morphology (→ Release of harmful substances)	Habitat loss of some sensitive species			3		2
		Released harmful substances from sediment accumulate in organisms		3	4	3+	4
	Introduction of artificial hard substrate	New habitat, attraction of fish and new species, change of community composition, nursery area, protection from predators, availability and diversity of prey organisms changes and increases	2	2	1	1	
	Construction noise and vibration (especially while pile driving)	Stress, behavioural effects, injury, mortality from gas embolism, impair sense of hearing, deafness, impair survival, dislocation and temporary habitat loss, masking effect, damage and elimination of fish spawn and larvae	1	1	1	1	
	Construction noise and vibration (effects on fish larvae)	Mortality, damage, neg. effect on development	4	4	1	1	
	Vibration and noise emission into the water body (during operation)	Habitat loss, dislocation, barrier effect, behavioural effects, stress, masking by noise (pray, enemies, intra-specific)	2	2	1	1	
	Light reflection and shading effect (rotor blades)	Not known, but avoidance of some species is possible	2	2	2	2	
	Illumination	Attracted by light, beneficial for fish praying by visual perception or avoidance	4	4	2	2	
	Increasing temperature in sediment and pore water (electric cable)	Could affect some benthic species	4	4	3	3	
	Electromagnetic fields	Behavioural and barrier effect (electro-sensitive fish) , on migration and orientation possible but unlikely (gaps of knowledge)	3	3	2	2	
	Water quality (e.g. oxygen deficit)	Damage and mortality	4	4	3	3	
	Cooling water and heated water	Damage or eliminate fish eggs or larvae, possible but very unlikely is shift of community, distribution and density	4	4	4	4	
	Physical presence as safety risk for fishing boats	Refuge from intense fishing, regeneration area (recovery of stock, natural age structure and more)	2	2	1	1	
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage	2	3	3	3	
Removal of turbines	Habitat loss, less food resources	4	4	3	3		
	Construction noise (especially pile driving, also boat traffic, cable laying, removal)	Temporary habitat loss, fragmentation, behavioural change, avoidance, temporary or permanent physical damage like hearing damage impair survival, loss of individuals, disturbance of intra-specific communication due to masking by noise therewith reduction of reproduction rate	1	1	1	1	
	Vibration and noise emission into the water body (during operation)	Barrier effect to mitigating marine mammals, fragmentation of resting, hunting and reproduction areas, changed behaviour, disturbance and permanent habitat loss possible, masking effect & disturbance of intra-specific communication	1	1	1	1	

EIA

Marine mammals	Sediment turbidity, stripes of turbidity	Disturbance, disadvantages for praying and orientation	4	4	3	3
	Indirect due to impacts on food resources	Effects of harmful substances (released from sediments) on pray organisms	4	4	3	3
	Physical presence (also illumination)	Fragmentation of interrelated units, obstacle and barrier effect	4	4	3	3
	Shading effect (from rotor blade)	Avoidance behaviour (habitat loss)	4	4	3	4
	Electromagnetic fields	Barrier effect, disturbance of small- and large-scale orientation (gap of knowledge)	4	4	2	2
	Increasing boat and air traffic	Species-specific effects, change of behaviour, stress, avoidance	2	2	3	3
	Physical presence as safety risk for fishing boats	Increasing food resources within wind farm area	4	4	3	3
	Release of harmful substances due to accidents, ship collision or from turbines	Damage and mortality of individuals	4	4	4	4
Migrating birds	Noise emission	Avoidance while pile driving expected, for impacts of operational noise no prove (uncertainties)	2	2	2	2
	Visual effects of construction and maintenance	Temporary habitat loss of species sensitive to this impact, avoidance, flying around, reduction of fitness	2	2	2	2
	Physical presence and collision risk	Mortality, especially in nights with poor visibility	1	1	1	1
	Wake of turbines	Damage, mortality. Reduce fitness	4	4	2	2
	Physical presence and visibility	Barrier effect and fragmentation of migratory routes, avoidance or flying around costs energy and reduces fitness	1	1	1	1
	Facility illumination	Attraction, flying around the facility costs extra energy (mortality possible) and increased collision risk	1	1	1	1
	Increasing boat and air traffic	Habitat loss, loss of feeding and resting area; stress, more flying-off causing reduction of biological fitness	2	2	3	3
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, destruction of feeding and resting areas	4	4	4	4
Sea birds	Visual effects of construction works	Avoidance, temporary habitat loss (feeding, resting, wintering areas can be affected)	1	1	2	2
	Noise emission (during construction)	Avoidance or flying around costs energy and reduces fitness, habitat loss	3	3	2	2
	Illumination (construction light)	(Species specific reaction) avoidance and habitat loss, attraction and use as resting area	3	3	3	3
	Physical presence and collision risk	Mortality, especially in nights with poor visibility	1	2	1	2
	Wake of turbines	Damage, mortality, reduce fitness	4	4	2	2
	Physical presence and visibility	Permanent habitat loss (sensitive species) or change, avoidance behaviour, disturbance of resting, feeding or wintering areas, barrier effect, fragmentation of associated areas (e.g. feeding and resting areas)	1	2	1	1
	Shading effect and light reflection	Avoidance, barrier	3	2	1	1
	Operational noise (air)	Avoidance by some species	2	3	3	3
	Operational noise (water column)	Avoidance	4	4	3	3
	Introduction of artificial hard substrate	Disturbance of feeding, resting, wintering areas, habitat loss	3+			2
		Indirect beneficial effect due to increased food species availability, attracted by area (probably few birds profit from this)	4	4	2	2
	Indirect due to impacts on food resources	Reduced food resources		3		4
		Pollution of food resources and water (due to release of harmful substances)	3	4	3	3
	Increasing boat and air traffic	Habitat loss, disturbance of resting, feeding or wintering areas, avoidance, stress, increased flying-off and reduction of biological fitness		1		3
Emissions		1	2	3	4	
Physical presence as safety risk for fishing boats	Higher fish abundance and new species likely, so increasing food availability	3	2	4	4	
Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss, destruction of feeding and resting areas	4	4	4	4	
Physical presence	Attracted by installation, new habitat, resting and feeding area		3		4	

EIA

Bats	Avoidance, habitat loss			4		4
	Barrier effect		3	4	4	4
	Ultrasound emission	Disturbance of orientation	4	4	4	4
	Physical presence and collision risk	Mortality	2	2	4	4
Zooplankton	Decreasing food resources (when phytoplankton effected negatively)	Mortality	3	3	4	4
	Shading effect	Avoidance	4	4	4	4
	Increasing ship traffic	Damage and mortality due to pollution	4	4	4	4
	Water quality (e.g. oxygen deficit and germs)	Damage of organisms and mortality	4	4	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4	4	4	4
Phytoplankton	Sediment turbidity, stripes of turbidity, smothering of water	Decreasing light transmission and reduction of photosynthesis, temporary habitat loss	3	3	3	3
	Shading effects	reduction of photosynthesis	4	4	4	4
	Water quality (e.g. oxygen deficit and germs)	Damage, mortality	3	3	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4	4	4	4
Macrophytes	Sediment turbidity, stripes of turbidity, smothering of water	Temporary habitat loss, reduction of photosynthesis	4*	4*	4	4
	Change of sediment composition and flow regimes	Permanent habitat loss, alteration of plant community composition	4*	4*	4	4
	Sealing of seabed	Permanent habitat loss	4*	4*	4	4
	Introduction of artificial hard substrate	alteration of plant community composition, habitat loss or new habitat	4*	3*	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4*	4*	4	4
Human beings	Physical presence as safety risk for fishing boats	No fishing with an effect on the resource fish	4	4	4	4
	Pollution due to accidents and release of harmful substances	Human health (over food chain)	3	3	4	4
	Accidents, increasing risk of ship collision	Human health and life	3	3	4	4
	Noise emission while construction	Health	3	4	4	4
	Visibility	Loss of recreation area	3	4	4	4

** Considered indirect as impacts of removal are similar to impacts of construction

* Do not exist in the planning area (according to EIS)

+ cross-reference to other chapter or passage within the EIS

Protected asset	Source of impacts (chapter 2)	Potential impact (chapter 2)	Source of impact DE	Potential impacts DE	Source of impact NL	Potential impacts NL		
Water	Construction (e.g. dredging, pile driving, cable laying)	Suspended sediments in water body, stripes of turbidity, turbidity and smothering of the water	4	4	4	4		
	Re-suspension of sediments	Release of nutrients and harmful substances (→ oxygen deficit, germs)	3	3	4	4		
	Physical presence	Change of hydrodynamics mainly small scale, local current speeds, minimal on large-scale	4	4	4	4		
		Less swell, higher turbulence at water surface → stronger steering of temperature stratification	4	4	4	4		
	Electric cable	Increasing water temperature → release of harmful substances	4	4	4	4		
	Indirect effect due to increased biomass	Harming water quality (e.g. oxygen deficit, sulphite pollution)	4	4	4	4		
	Increased ship traffic (construction e.g.)	Pollution	4	4	4	4		
	Accidents, ship collision	Pollution	1+	2	4	4		
Release of harmful substances due to accidents or from turbines	Pollution	3	3	4	4			
Seabed	Construction (e.g. dredging, pile driving, cable laying)	Sediment turbidity, erosion and relocation of sediment, compression of soil, strong disturbance of sediment structure and composition (heterogeneous), morphology	3	3	4	4		
		Vibrations		3			4	4
		Stripes of turbidity		3			4	4
	Dredging (foundation, cable laying)	Shift of sediments and disturbance of the seabed	3	3	4	4		
		Introduction of artificial hard substrate (and demand of space)	Sealing of sea ground	2	3	4	4	
	Value of seabed as a habitat decreases		4		4	4		
	Physical presence (due to changing hydrodynamics)	Change of sediment dynamics (erosion and sedimentation), composition and structure, morphology, sediment turbidity, scour pits and tails (→ Release of harmful substances)	1	1	4	4		
	Vibration (during operation)	Sediment characteristics	3	3	4	4		
	Operating submarine electric cable	Increasing temperature of sediment and pore water	3	3	4	4		
		Release of harmful substances (due to increased temperature)		3	4	4		
	Physical presence as safety risk for fishing boats	No fishery prevents seabed from bottom trawling	4	4	4	4		
	Increased ship traffic	Pollution	3	3	4	4		
	Accidents, ship collision	Pollution	4	4	4	4		
Release of harmful substances due to accidents or from turbines	Pollution	3	3	4	4			
Removal (by water jet cutting)	Sediment turbidity	4	4	4	4			
	Pollution by splinter of steel		4	4	4			
Air and climate	Physical presence	Air circulation (limited to wind farm area)	4	4	4	4		
	Increased ship traffic	Emissions	3	3	4	4		
	Renewable energy	Reduces emissions	3	3	4	4		
	Sediment turbidity, stripes of turbidity	Habitat loss, disturbance of habitat, elimination of benthic species locally (especially filtering), risk of diseases due to germs in water	3	3	4	4		
	Re-suspension and relocation of sediments	Endobenthic organisms laid open, epibenthic organisms covered, mortality, damage, habitat loss	3	3	4	4		
	Dredging and sediment shift	Elimination and damage of organisms (mechanical pressure, laid open or covered)	4	4	4	4		
	Sealing of seabed	Change of benthic community, elimination of benthic species or associations, mortality, habitat loss (due to mechanic pressure)	3	3	4	4		
	Introduction of artificial hard substrate	New habitat, permanent habitat loss, mortality, new species, shift of community composition, increased biomass and abundance at the piles (→ may compete about food resources)	3	3	4	4		
	Physical presence and changing	Habitat loss, new species		3	4	4		

Licensing text

Benthos	sediment flux, composition, structure and morphology, esp. scour pits (→	Released harmful substances from sediment accumulate in organisms	3	4	4	4
	Vibration (during operation)	Habitat loss for sensitive species	4	4	4	4
	Increasing sediment temperature (electric cable)	Alteration of endobenthic community, damage of individuals, non-residential species	2	3	4	4
		Released harmful substances from sediment accumulate in organisms		4	4	4
	Electromagnetic fields	No clear evidence but could damage individuals, possible responses of cancer (lack of knowledge)	3	4	4	4
	Water quality (e.g. oxygen deficit and germs)	Damage and mortality of organisms	4	4	4	4
	Cooling water and heated water	Damage and mortality of eggs and larvae	4	4	4	4
	Physical presence as safety risk for fishing boats	Higher predatory pressure, protection against bottom trawling	3	3	4	4
	Release of harmful substances due to accidents or from turbines	damage, mortality	4	4	4	4
	Removal of turbines	Pollution by splinter of steel	4	4	4	4
Habitat loss, mortality and damage of individuals, change of community composition		4		4	4	
Fish	Sediment turbidity, stripes of turbidity, re-suspension and sedimentation	Damage, dislocation, temporary habitat loss (especially pelagic fish), damage to fish eggs and spawning grounds	3	3	4	4
	Dredging and sediment shift (introduction of cable)	Temporary habitat loss, damage of epibenthic fish species	4	4	4	4
	Sealing of seabed	Permanent habitat loss for epibenthic fish, indirect impact due to impacts on their pray	4	4	4	4
	Physical presence and changing sediment flux, composition, structure and morphology (→ Release of harmful substances)	Habitat loss of some sensitive species	4	4	4	4
		Released harmful substances from sediment accumulate in organisms		4	4	4
	Introduction of artificial hard substrate	New habitat, attraction of fish and new species, change of community composition, nursery area, protection from predators, availability and diversity of prey organisms changes and increases	3	3	4	4
	Construction noise and vibration (especially while pile driving)	Stress, behavioural effects, injury, mortality from gas embolism, impair sense of hearing, deafness, impair survival, dislocation and temporary habitat loss, masking effect, damage and elimination of fish spawn and larvae	1	1	2	2
	Construction noise and vibration (effects on fish larvae)	Mortality, damage, neg. effect on development	4	4	2	2
	Vibration and noise emission into the water body (during operation)	Habitat loss, dislocation, barrier effect, behavioural effects, stress, masking by noise (pray, enemies, intra-specific)	2	2	4	4
	Light reflection and shading effect (rotor blades)	Not known, but avoidance of some species is possible	2	3	4	4
	Illumination	Attracted by light, beneficial for fish praying by visual perception or avoidance	4	4	4	4
	Increasing temperature in sediment and pore (electric cable)	Could affect some benthic species	4	4	4	4
	Electromagnetic fields	Behavioural and barrier effect (electro-sensitive fish) , on migration and orientation possible but unlikely (gaps of knowledge)	4	4	4	4
	Water quality (e.g. oxygen deficit)	Damage and mortality	4	4	4	4
	Cooling water and heated water	Damage or eliminate fish eggs or larvae, possible but very unlikely is shift of community, distribution and density	4	4	4	4
	Physical presence as safety risk for fishing boats	Refuge from intense fishing, regeneration area (recovery of stock, natural age structure and more)	3	3	4	4
Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage	4	4	4	4	
Removal of turbines	Habitat loss, less food resources	4	4	4	4	

Licensing text

Marine mammals	Construction noise (especially pile driving, also boat traffic, cable laying, removal)	Temporary habitat loss, fragmentation, behavioural change, avoidance, temporary or permanent physical damage like hearing damage impair survival, loss of individuals, disturbance of intra-specific communication due to masking by noise therewith reduction of reproduction rate	1	1	1	1
	Vibration and noise emission into the water body (during operation)	Barrier effect to mitigating marine mammals, fragmentation of resting, hunting and reproduction areas, changed behaviour, disturbance and permanent habitat loss possible, masking effect & disturbance of intra-specific communication	1	1	4	4
	Sediment turbidity, stripes of turbidity	Disturbance, disadvantages for praying and orientation	4	4	4	4
	Indirect due to impacts on food resources	Effects of harmful substances (released from sediments) on pray organisms	4	4	2	2
	Physical presence (also illumination)	Fragmentation of interrelated units, obstacle and barrier effect	4	4	4	4
	Shading effect (from rotor blade)	Avoidance behaviour (habitat loss)	4	4	4	4
	Electromagnetic fields	Barrier effect, disturbance of small- and large-scale orientation (gap of knowledge)	4	4	4	4
	Increasing boat and air traffic	Species-specific effects, change of behaviour, stress, avoidance	4	4	4	4
Migrating birds	Physical presence as safety risk for fishing boats	Increasing food resources within wind farm area	4	4	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Damage and mortality of individuals	4	4	4	4
	Noise emission	Avoidance while pile driving expected, for impacts of operational noise no prove (uncertainties)	3	3	4	4
	Visual effects of construction and maintenance	Temporary habitat loss of species sensitive to this impact, avoidance, flying around, reduction of fitness	3	3	4	4
	Physical presence and collision risk	Mortality, especially in nights with poor visibility	2	1	2	2
	Wake of turbines	Damage, mortality	4	4	4	4
	Physical presence and visibility	Barrier effect and fragmentation of migratory routes, avoidance or flying around costs energy and reduces fitness	2	1	4	4
	Facility illumination	Attraction, flying around the facility costs extra energy (mortality possible) and increased collision risk	3	2	4	4
Sea birds	Increasing boat and air traffic	Habitat loss, loss of feeding and resting area; stress, more flying-off causing reduction of biological fitness	3	3	4	4
	Emissions			4	4	
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, destruction of feeding and resting areas	4	4	4	4
	Visual effects of construction works	Avoidance, temporary habitat loss (feeding, resting, wintering areas can be affected)	3	3	4	4
	Noise emission (during construction)	Avoidance or flying around costs energy and reduces fitness, habitat loss	4	3	4	4
	Illumination (construction light)	(Species specific reaction) avoidance and habitat loss, attraction and use as resting area	4	4	4	4
	Physical presence and collision risk	Mortality, especially in nights with poor visibility	3	3	2	2
	Wake of turbines	Damage, mortality	4	4	4	4
Sea birds	Physical presence and visibility	Permanent habitat loss (sensitive species) or change, avoidance behaviour, disturbance of resting, feeding or wintering areas, barrier effect, fragmentation of associated areas (e.g. feeding and resting areas)	3	2 (esp. Habitat loss)	2	2
	Shading effect and light reflection	Avoidance, barrier	4	4	4	4
	Operational noise (air)	Avoidance by some species	4	4	4	4
	Operational noise (water column)	Avoidance	4	4	4	4

Licensing text

Sea birds	Introduction of artificial hard substrate	Disturbance of feeding, resting, wintering areas, habitat loss	3	4	4	4
		Indirect beneficial effect due to increased food species availability, attracted by area (probably few birds profit from this)		3	4	4
	Indirect due to impacts on food resources	Reduced food resources	4	4	2	2
		Pollution of food resources and water (due to release of harmful substances)		4		4
	Increasing boat and air traffic	Habitat loss, disturbance of resting, feeding or wintering areas, avoidance, stress, increased flying-off and reduction of biological fitness	3	3	4	4
		Emissions		4	4	4
	Physical presence as safety risk for fishing boats	Higher fish abundance and new species likely, so increasing food availability	3	3	4	4
Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss, destruction of feeding and resting areas	4	4	4	4	
Bats	Physical presence	Attracted by installation, new habitat, resting and feeding area	4	4	4	4
		Avoidance, habitat loss		4	4	4
		Barrier effect		4	4	4
	Ultrasound emission	Disturbance of orientation	4	4	4	4
Physical presence and collision risk	Mortality	3	3	4	4	
Zooplankton	Decreasing food resources (when phytoplankton effected negatively)	Mortality	4	4	4	4
	Shading effect	Avoidance	4	4	4	4
	Increasing ship traffic	Damage and mortality due to pollution	4	4	4	4
	Water quality (e.g. oxygen deficit and germs)	Damage of organisms and mortality	4	4	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	4	4	4	4
Phytoplankton	Sediment turbidity, stripes of turbidity, smothering of water	Decreasing light transmission and reduction of photosynthesis, temporary habitat loss	3	3	4	4
	Shading effects	reduction of photosynthesis	4	4	4	4
	Water quality (e.g. oxygen deficit and germs)	Damage, mortality	4	4	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	3	3	4	4
Macrophytes	Sediment turbidity, stripes of turbidity, smothering of water	Temporary habitat loss, reduction of photosynthesis	3	3	4	4
	Change of sediment composition and flow regimes	Permanent habitat loss, alteration of plant community composition	3	3	4	4
	Sealing of seabed	Permanent habitat loss	3	3	4	4
	Introduction of artificial hard substrate	alteration of plant community composition, habitat loss or new habitat	4	4	4	4
	Release of harmful substances due to accidents, ship collision or from turbines	Mortality, damage, habitat loss	3	3	4	4
Human beings	Physical presence as safety risk for fishing boats	No fishing with an effect on the resource fish	4	4	4	4
	Pollution due to accidents and release of harmful substances	Human health (over food chain)	4	4	4	4
	Accidents, increasing risk of ship collision	Human health and life	4+	4+	4	4
	Noise emission while construction	Health	3	3	4	4
	Visibility	Loss of recreation area	3	3	4	4

* Do not exist in the planning area (according to EIS)

** Considered indirect as impacts of removal are similar to impacts of construction

+ cross-reference to other chapter or passage within the EIS