

## **24 Summary of Significant Residual Impacts**

### **24.1 Introduction**

- 24.1.1 Tables 24.1 to 24.10 summarise those impacts remaining after implementation of mitigation as set out in Chapter 23 (Schedule of Environmental Commitments) that would be considered significant in the context of the Environmental Impact (Scotland) Regulations (1999, as amended).
- 24.1.2 No significant (Moderate or greater significance) residual impacts have been identified for Geology, Contaminated Land and Groundwater (Chapter 8) or for the Water Environment (Chapter 9). Significant residual impacts for all other parameters are provided.
- 24.1.3 For Disruption Due to Construction (Chapter 19) temporary impacts on air quality, noise/vibration, landscape and visual would occur, particularly for residents and businesses located in close proximity of the construction compounds. Construction impacts which are permanent (resulting in long term changes that persist once the proposed scheme is operational) are included under the appropriate environmental parameter within Tables 24.1 to Table 24.10.
- 24.1.4 Where the approach and method for assessment does not assign significance (such as for development land where impacts are identified as adverse, neutral or beneficial only), all adverse impacts have been included in the following tables for completeness. It should however be noted that their inclusion does not indicate a particular level of significance.

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## Chapter 24: Summary of Significant Residual Impacts

**Table 24.1: Summary of Significant Residual Impacts – Land Use**

Residual Impact	Mitigation Item (where applicable)	Residual Impact Significance
<b>Residential and Commercial Land</b>		
Loss of commercial land (100%) Deep Sea World overspill car park.	n/a	Moderate/Substantial
Loss of commercial land (18%) Queensferry Hotel.	n/a	Moderate
Loss of commercial land (36%) Scottish Water Dunfermline (WWTW).	n/a	Moderate
Loss of residential land (11%) Inchgarvie House, comprising 10 flats.	n/a	Moderate
Loss of commercial land (23%) Ove Arup and Partners Scotland Ltd.	n/a	Moderate
Loss of commercial land (23%) Scottish Water (South Queensferry WWTW).	n/a	Moderate
<b>Development Land</b>		
<i>Note: all adverse impacts on development land are identified irrespective of the level of impact (refer to paragraph 24.1.3 and to Chapter 7).</i>		
Land-take and changes in amenity on development land HSG2, Springfield Road, South Queensferry.	N1-N4	Adverse
Land-take and changes in amenity on development land ENV6, Springfield Road, South Queensferry.	N1-N4	Adverse
Land-take of development land HSP1, Strategic Housing Allocation, Kirkliston North.	n/a	Adverse
Land-take of development land ECON2, Employment Allocation, Ferry Muir, South Queensferry.	n/a	Adverse
Land-take of development land ECON7, Newbridge North.	n/a	Adverse
Land-take of development land CDA8, Winchburgh Core Development Area.	n/a	Adverse
Changes in amenity of development land Site HSG7, Society Road, South Queensferry.	n/a	Adverse
Changes in amenity of development land HSG6/ECON10, Port Edgar.	n/a	Adverse
<b>Planning Applications</b>		
<i>Note: all adverse impacts on planning applications are identified irrespective of the level of impact (refer to paragraph 24.1.3 and to Chapter 7).</i>		
Land-take of areas with planning applications: <ul style="list-style-type: none"> <li>• Land Adjacent to Queensferry Road, Kirkliston (06/05149/OUT, 08/00031/FUL, 07/04254/FUL)</li> <li>• 2A Kirkliston Road Newbridge (08/00529/REM, 08/02002/REM, 07/04961/REM, 08/00435/REM, 07/04960/REM)</li> <li>• 9 Edinburgh Road, Newbridge (07/01358/REM)</li> <li>• Land around Winchburgh (1012/P/05)</li> <li>• Ferrymuir South Queensferry (09/00490/OUT)</li> </ul>	n/a	Adverse
Land-take and changes in amenity of areas with planning applications (Springfield Road, South Queensferry, HSG2/ ENV6).	N1-N4	Adverse

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Residual Impact	Mitigation Item (where applicable)	Residual Impact Significance
<b>Agricultural, Sporting and Forestry Interests</b>		
Dundas Estate (Land Ref. 1, 6, 9 and 23) loss of 34.7ha agricultural land of which 13.3ha LCA Class 2, 19.0ha Class 3.1 and 2.4ha woodland. Total land lost equates to 7% of total farmed area.	LU1-LU12	Moderate/ Substantial
Dundas Mains (Land Ref. 3 and 22) loss of 18.4ha agricultural land of which 16.4ha is LCA Class 3.1 land, 0.7ha is LCA class 3.2 and 1.3ha is woodland. Total land lost equates to 32% of total farmed area.	LU2-LU12	Substantial
Overton Grazing (Land Ref. 15) loss of 0.3ha agricultural land of Class 3.1 land. Land lost equates to 18% of total farmed area.	LU1-LU10	Substantial

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**Table 24.2: Summary of Significant Residual Impacts – Terrestrial and Freshwater Ecology**

Residual Impact	Mitigation Item (where applicable)	Residual Impact Significance
Severance of bat commuting routes and foraging areas at Port Edgar Barracks and west of South Queensferry.	TE4, TE6, TE17, TE18, TE19, TE25, TE28, TE39	Significant Adverse
Disturbance to otters from increased light, noise, and vibration from construction activities at the River Almond, Niddry Burn, and Swine Burn.	TE3, TE4, TE15, TE16, TE16, TE18, TE19, TE29, TE30, TE31, TE32	Short term: Significant Adverse
Riparian planting along the new alignment of the Swine Burn will result in a greater diversity of species and habitats than is currently present.	TE34	Significant Positive
The Main Crossing will provide a third structure along which bats may commute between Fife and the Lothians.	n/a	Significant Positive
Improved habitat through inclusion of meanders and bends as part of the Swine Burn realignment, in addition to the provision of riparian planting.	TE34	Significant Positive
Increased cover for freshwater fish provided by the new culvert on the Swine Burn and extensions to existing culverts on the Swine and Niddry Burns.	TE37, TE38, W33, W37	Significant Positive

**Table 24.3: Summary of Significant Residual Impacts – Estuarine Ecology**

Residual Impact	Mitigation Item (where applicable)	Residual Impact Significance
Noise and vibration from the excavation of Beamer Rock affecting migratory, non migratory fish and/or marine mammals. It should be noted that the likelihood of noise and vibration occurring at sufficient level for this impact to occur has been assessed as extremely unlikely as a result of mitigation measures proposed.	EE5, EE7-EE11	Significant Adverse
Adverse impacts on benthic habitats, migratory and non-migratory fish, pinniped populations and estuarine birds should a chemical spill occur during construction or operation in the intertidal or subtidal environment or should an accident during operation discharge large quantities of liquid from the bridge. It should be noted that the risk of such an incident occurring has been assessed as extremely unlikely.	EE1-EE6	Significant Adverse

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**Table 24.4: Summary of Significant Residual Impacts – Landscape**

<b>Residual Impact (Direct Impact unless otherwise stated)</b> <i>Note: WYO = Winter Year of Opening, SFY – Summer, Fifteen Years after Opening</i>	<b>Mitigation Item (where applicable)</b>	<b>Residual Impact Significance</b>
<b>Main Crossing</b>		
<i>Coastal Hill: Ferry Hills (Wooded hill to the west of A90)</i> Introduction of Main Crossing as a new landscape element, introduction of abutment, loss of woodland beneath bridge, disruption of setting of St Margaret's Hope (Admiralty House), shadow and shade.	n/a	Substantial (WYO & SFY)
<i>Maritime: Firth of Forth</i> Introduction of Main Crossing as a new landscape element, including use of Beamer Rock for a central pier support.	n/a	Moderate to Substantial Neutral (WYO & SFY)
<i>Lowland Hill and Valley Farmland: Duddingston (North facing slopes)</i> Introduction of Main Crossing as new landscape element, loss of trees and mature hedgerow under Main Crossing, introduction of abutment, disruption of setting of Inchgarvie House and Lodge, shadow and shade.	n/a	Moderate (WYO & SFY)
<i>Urban Area: North Queensferry (Indirect impact)</i> Introduction of Main Crossing as new landscape element influencing the setting of the settlement.	n/a	Moderate Neutral (WYO & SFY)
<b>Northern Route</b>		
<i>Coastal Flats: North Queensferry</i> Introduction of A90 and slip roads on viaduct, realigned B981 on embankment, roundabout at junction of realigned B981 and Ferry Toll Road and ITS gantries with maintenance lay-bys.	L1-L3, L5-L7, L15-L19	Substantial (WYO) Moderate to Substantial (SFY)
<i>Coastal Hill: Ferry Hills (Wooded hill to the east of A90)</i> Loss of mature woodland, cutting through rock for road realignment, introduction of noise and traffic movement, disruption to setting of St Margaret's Hope (Admiralty House), introduction of ITS gantries with maintenance lay-bys and noise barrier.	L1-L3, L5-L7 L24, L25	Substantial (WYO & SFY)
<b>Southern Route</b>		
<i>Urban Area: South Queensferry</i> Introduction of new junction with embankments southwest of LLCA, realignment of B924 junction with A904 and diversion of n/b traffic to Forth Road Bridge from existing A90 to A904 at Ferry Muir.	L1-L7 L26, L27, L28-L35, L37, L39-L42	Moderate to Substantial (WYO) Moderate (SFY)
<i>Lowland Hill and Valley Farmland: Duddingston</i>		
<i>North facing slopes</i> Introduction of southern route in cutting and at grade, noise barriers in the form of false cuttings and barriers, noise and traffic movement, ITS gantries with maintenance lay-bys, access road to the east of the proposed scheme as it crosses the Echline Fields and SUDS detention basin.	L1-L7 L28-L34	Substantial (WYO) Moderate (SFY)
<i>Undulating farmland</i> Introduction of new Queensferry Junction, ITS gantries with maintenance lay-bys, realignment of A904 at Queensferry Junction,	L1-L7, L35-L42	Substantial (WYO) Moderate to Substantial (SFY)

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Residual Impact (Direct Impact unless otherwise stated) <i>Note: WYO = Winter Year of Opening, SFY – Summer, Fifteen Years after Opening</i>	Mitigation Item (where applicable)	Residual Impact Significance
southern route in cutting and at grade, realignment of B924 junction with A904, creation of bus lane to north of existing A90 on embankment and at grade, realignment of A8000 bridge over A90 and noise and traffic movement.		
<i>South facing slopes</i> Realignment of Swine burn, introduction of slip road on embankment, ITS gantries with maintenance lay-bys, new bridge structure on B9080 and SUDS detention basin.	L1-L7, L43-L45	Moderate (WYO) Slight to Moderate (SFY)
<i>Designed Wooded Landscape: Dundas</i> Introduction of the southern route on embankment, ITS gantries with maintenance lay-bys, noise and traffic movement and creation of bus lane to the A8000 along disused road to south of existing A90 on embankment and at grade.	L1-L7, L46-L53	Substantial (WYO) Moderate/Substantial (SFY)

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**Table 24.5: Summary of Significant Residual Impacts – Visual**

<b>Residual Impact</b> <i>Note: WYO = Winter Year of Opening, SFY – Summer, Fifteen Years after Opening</i>	<b>Mitigation Item (where applicable)</b>	<b>Residual Impact Significance</b>
<b>Main Crossing</b>		
<i>Built Receptors with changes to views</i>		
Clufflat Brae, 4 dwellings, receptor 2.	n/a	Substantial (WYO & SFY)
Clufflat, 2 dwellings, receptor 3.	n/a	Substantial (WYO) Moderate to Substantial (SFY)
Clufflat Brae, 1 dwelling, receptor 116. Clufflat Brae, 1 dwelling, receptor 120. Clufflat Brae, 1 dwelling, receptor 121.	n/a	Moderate (WYO & SFY)
Clufflat Brae, 2 dwellings, receptor 124.	n/a	Moderate Neutral (WYO & SFY)
Society Road, 8 dwellings, receptor 128.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Springfield View, 7 dwellings receptor 131.	n/a	Moderate Neutral (WYO & SFY)
Springfield Crescent, 15 dwellings, receptor 132.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Springfield Lea, 2 dwellings, receptor 135.	n/a	Moderate Neutral (WYO & SFY)
Springfield Lea, 9 dwellings, receptor 136. Springfield Lea, 2 dwellings, receptor 137.	n/a	Substantial Neutral (WYO & SFY)
Port Edgar Yacht Club, pub, receptor 213. Port Edgar Harbour, office, café & sailing school, receptor 214. Port Edgar Harbour, warehouses, receptor 215.	n/a	Moderate Neutral (WYO & SFY)
Port Edgar, Sea Cadet Hall, receptor 216.	n/a	Moderate/Substantial Neutral (WYO & SFY)
The Weddle, 1 dwelling, receptor 347. Butlaw Cottage, 1 dwelling, receptor 348.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Linn Mill, 2 dwellings, receptor 350.	n/a	Substantial (WYO & SFY).
Linn Mill, 1 dwelling, receptor 351.	n/a	Substantial/Severe (WYO & SFY)
Linn Mill, 1 dwelling, receptor 362.	n/a	Substantial (WYO & SFY).
Linn Mill, 1 dwelling, receptor 363.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Linn Mill, 3 dwellings, receptor 363.	n/a	Moderate Neutral (WYO & SFY)
Linn Mill, 1 dwelling, receptor 373.	n/a	Substantial Neutral (WYO & SFY)

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Residual Impact <i>Note: WYO = Winter Year of Opening, SFY – Summer, Fifteen Years after Opening</i>	Mitigation Item (where applicable)	Residual Impact Significance
Linn Mill, 1 dwelling, receptor 374. Linn Mill, 1 dwelling, receptor 375. Linn Mill, 1 dwelling, receptor 377.	n/a	Moderate/Substantial Neutral (WYO & SFY)
The Fisheries, 1 dwelling, receptor 378.	n/a	Substantial Neutral (WYO & SFY)
Inchgarvie Lodge, 1 dwelling, receptor 380.	n/a	Moderate/Substantial (WYO & SFY)
Inchgarvie House, 10 dwellings, receptor 381.	n/a	Severe (WYO & SFY)
Queensferry Hotel, receptor 390.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Ferry Craig House & Tigh-na-grian, 2 dwellings, receptor 391.	n/a	Substantial WYO & SFY)
Craigdhu Cottage, 1 dwelling, receptor 398.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Craigdhu, 1 dwelling, receptor 399.	n/a	Moderate/Substantial Neutral (WYO Moderate Neutral (SFY)
Inchcolm Drive, 4 dwellings, receptor 401. Inchcolm Drive, 7 dwellings, receptor 404. Inchcolm Drive, 2 dwellings, receptor 405. Inchcolm Drive, 3 dwellings, receptor 406. Inchcolm Drive, 3 dwellings, receptor 407 Seaview, 1 dwelling, receptor 410. Andor, Rose Wall, Kintore, Scots Brae & Ferry Lane, 10 dwellings, receptor 411. Inchcolm Drive, Fernbank & Hope View, 3 dwellings, receptor 412. Whitehouse & Braehouse, 2 dwellings, receptor 419. Main Road & The Brae, 3 dwellings, receptor 420. Shoreland & Newhaven House, 3 dwellings, receptor 421. West Sands, 6 dwellings, receptor 422. Beamer Cottage, Spindrift & Davaar, 3 dwellings, receptor 423. Ivy Cottage & High Street, 9 dwellings, receptor 424. Battery Road, 3 dwellings, receptor 430. Linheath & North Craig, 3 dwellings, receptor 431. Office building beneath Forth Rail Bridge, receptor 432. Mount Hooly Crescent, 2 dwellings, receptor 434. Old Kirk Road, 6 dwellings, receptor 442. The Brae, 1 dwelling, receptor 443. Priory Cottage, 1 dwelling, receptor 444. Brock Street, 4 dwellings, receptor 453.	n/a	Moderate Neutral (WYO & SFY)

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Residual Impact <i>Note: WYO = Winter Year of Opening, SFY – Summer, Fifteen Years after Opening</i>	Mitigation Item (where applicable)	Residual Impact Significance
Brock Street, 4 dwellings, receptor 457. Brock Street, 8 dwellings, receptor 458. Brock Street, 8 dwellings, receptor 459. Brock Street, 1 dwelling, receptor 461. Mount Hooly Crescent, 2 dwellings, receptor 480. Northcliff Lodge, 1 dwelling, receptor 481. Brae Cottage, 1 dwelling, receptor 482. Fairwinds & Royal Naval Married Quarters, 3 dwellings, receptor 484. Park View Terrace, 6 dwellings, receptor 508. Cleveland Drive, 1 dwelling, receptor 509. Hillside, 1 dwelling, receptor 662. Castlandhill House, 1 dwelling, receptor 719.		
Inchcolm Drive, 4 dwellings, receptor 402.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Pierhead Buildings & pier building, 5 dwellings, receptor 425.	n/a	Moderate Neutral (WYO & SFY)
Brock Street, 8 dwellings, receptor 456.	n/a	Moderate Neutral (WYO & SFY)
Lifeboat Station, receptor 486.	n/a	Moderate Neutral (WYO & SFY)
St Margaret's Hope Gatelodge, 1 dwelling, receptor 487.	n/a	Substantial/Severe (WYO & SFY)
St Margaret's Hope (Admiralty House) dwelling and office, receptor 644.	n/a	Severe (WYO & SFY)
Lothians View, 9 dwellings, receptor 647.	n/a	Moderate Neutral (WYO & SFY)
Dunfermline Waste Water Treatment Works, receptor 718.	n/a	Moderate Neutral (WYO & SFY)
<i>Outdoor Receptors with changes to views</i>		
Open space between Forth Place and Springfield View, receptor O7.	n/a	Moderate Neutral (WYO & SFY)
Port Edgar Marina, receptor O9.	n/a	Substantial Neutral (WYO & SFY)
Viewpoint on A904, receptor O16.	n/a	Moderate Neutral (WYO & SFY)
Society Point open space, receptor O19. Society Road – Hopetoun House Lodge to Linn Mill, road, footpath, cycleway, equestrian route, receptor R20A.	n/a	Moderate Neutral (WYO & SFY)
Society Road – Linn Mill to Clufflat, road, footpath, cycleway, equestrian route, receptor R20B.	n/a	Substantial Neutral (WYO & SFY)
A90 – Forth Road Bridge, road, footpath, cycleway, receptor R24.	n/a	Substantial Neutral (WYO & SFY)
North Queensferry Pierhead, playground, receptor O28.	n/a	Moderate Neutral (WYO & SFY)
Willie's Well, North Queensferry, community space, O29.	n/a	Moderate Neutral (WYO & SFY)

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<b>Residual Impact</b>	<b>Mitigation Item (where applicable)</b>	<b>Residual Impact Significance</b>
<i>Note: WYO = Winter Year of Opening, SFY – Summer, Fifteen Years after Opening</i>		
North Queensferry Community Centre, ROW, receptor F31. Fife Coastal Path – North Queensferry, ROW, footpath, cycleway, receptor F34D. Bellevue, Main Street, North Queensferry, community space, receptor O35. Town Pier, public space, footpath, receptor F37.		
Queensferry Hotel, public space/ viewpoint, receptor O33.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Recreation area adjacent to lifeboat station, public space, ROW, receptor O39. St Margaret's Marsh, footpath, cycleway, receptor F40A.	n/a	Moderate/Substantial Neutral (WYO & SFY)
Milne Road, Rosyth, road, footpath, cycleway, receptor F47D. New road parallel to Milne Road, road, footpath, cycleway, receptor F48B. New road parallel to Milne Road, road, footpath, cycleway, receptor F48C. Lothians View, road/footpath, receptor F49A. Lothians View, footpath, receptor F49B. North Queensferry hills – east, footpath, receptor F52. Footpaths around Echline Fields, receptor F65B.	n/a	Moderate Neutral (WYO & SFY)
<b>Northern Route</b>		
<i>Built receptors with changes to views</i>		
Whinnyhill Crescent, 6 dwellings, receptor 3-RN.	V1, V2	Substantial (WYO) Moderate (SFY).
Whinnyhill Crescent, 7 dwelling, receptor 4-RN.	V1, V2	Moderate (WYO)
Muckle Hill Park, 1 dwelling, receptor 7-RN. Dunfermline Wynd, 1 dwelling, receptor 11-RN. Dunfermline WWTW, (receptor 19-RN).	V1, V2	Moderate (WYO)
St Margaret's Hope Gatelodge, 1 dwelling, receptor 20-RN.	V1, V2	Substantial/Severe (WYO & SFY)
<i>Outdoor Receptors with changes to views</i>		
Lothians View, road, footpath, receptor F4A-RN. Lothians View, footpath, receptor F4B-RN. Ferry Toll Road, road, footpath, cycleway, receptor C5-RN.	V1, V2	Moderate (WYO)
Ferry Toll Road, road, footpath, cycleway, receptor R6-RN.	V1, V2	Moderate (WYO & SFY)
Ferrytoll Junction and approach roads, road, footpath, cycleway, receptor R7-RN.	V1, V2	Moderate/Substantial (WYO) Moderate (SFY)
B981 to North Queensferry, road, footpath, cycleway, receptor R8-RN.	V1, V2	Moderate/Substantial (WYO & SFY)
St Margaret's Marsh footpath and cycleway, receptor F10B-RN.	V1, V2	Moderate (WYO & SFY)

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St Margaret's Marsh footpath and cycleway, receptor F10C-RN.	V1, V2	Moderate/Substantial (WYO) Moderate (SFY)
<b>Southern Route</b>		
<i>Built receptors with changes to views</i>		
Springfield Lea, 2 dwellings, receptor 1-RS. Springfield Lea, 1 dwellings, receptor 3-RS.	V1, V2	Substantial (WYO) Moderate/Substantial (SFY)
Springfield Lea, 3 dwellings, receptor 2-RS.	V1, V2	Substantial/Severe (WYO) Substantial (SFY)
Springfield Lea, 1 dwellings, receptor 4-RS.	V1, V2	Moderate (WYO)
Springfield Place, 1 dwellings, receptor 9-RS.	V1, V2	Substantial (WYO & SFY)
Springfield Place, 6 dwellings, receptor 10-RS.	V1, V2	Substantial/Severe (WYO) Substantial (SFY)
Springfield Place and Springfield Terrace, 3 dwellings, receptor 12-RS. Springfield Terrace, 8 dwellings, receptor 13-RS.	V1, V2	Moderate/Substantial (WYO) Moderate (SFY)
Springfield Terrace, 2 dwellings, receptor 19-RS. Echline Drive, 2 dwellings, receptor 24-RS. Echline Drive, 4 dwellings, receptor 31-RS.	V1, V2	Moderate (WYO)
Echline Drive, 4 dwellings, receptor 25-RS. Echline Drive, 3 dwellings, receptor 26-RS.	V1, V2	Moderate (WYO & SFY)
Echline Drive, 4 dwellings, receptor 34-RS.	V1, V2	Moderate/Substantial (WYO) Moderate (SFY)
Builyeon Road, 1 dwelling, receptor 35-RS.	V1, V2	Moderate (WYO)
Echline Farmhouse, 1 dwelling, receptor 37-RS.	V1, V2	Substantial (WYO) Moderate/Substantial (SFY)
Echline Drive, 2 dwellings, receptor 39-RS.	V1, V2	Moderate (WYO)
Blue Acre, 1 dwelling, receptor 51-RS.	V1, V2	Substantial (WYO) Moderate (SFY)
Newbigging Lodge, 1 dwelling, receptor 53-RS.	V1, V2	Moderate/Substantial (WYO) Moderate (SFY)

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Ashley Cottages, 2 dwellings, receptor 54-RS.	V1, V2	Substantial (WYO & SFY)
Dundas Home Farm, 5 dwellings, receptor 56-RS.	V1, V2	Substantial/Severe (WYO) Substantial (SFY).
Dundas Home Farm, 3 dwellings, receptor 57-RS.	V1, V2	Substantial (WYO & SFY)
Linn Mill, 4 dwellings, receptor 58-RS.	V1, V2	Moderate (WYO)
Linn Mill, 3 dwellings, receptor 59-RS. Inchgarvie House, 10 dwellings, receptor 61-RS.	V1, V2	Moderate/Substantial (WYO) Moderate (SFY)
Dakota Hotel, receptor 62-RS.	V1, V2	Moderate (WYO & SFY)
Humbie Farm & Wester Humbie, 2 dwellings, receptor 68-RS.	V1, V2	Moderate (WYO)
White Lodge, 1 dwelling, receptor 70-RS.	V1, V2	Moderate/Substantial (WYO)
Kirklands Park Grove, 4 dwellings, receptor 88-RS.	V1, V2	Moderate (WYO)
Dundas Castle (viewing tower only), receptor 92-RS.	V1, V2	Moderate/Substantial (WYO & SFY)
<i>Outdoor Receptors with changes to views</i>		
Western edge of South Queensferry, public space, receptor O1-RS.	V1, V2	Moderate (WYO & SFY)
A904 – Bo'ness Road to A90 Junction, road, footpath, receptor F4B-RS. Builyeon Road, road, footpath, cycleway, receptor C10-RS.	V1, V2	Moderate (WYO & SFY)
Footpaths around Echline Fields, receptor F8A-RS.	V1, V2	Moderate (WYO)

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**Table 24.6: Summary of Significant Residual Impacts – Cultural Heritage**

Residual Impact	Mitigation Item (where applicable)	Residual Impact Significance
Proposed scheme would directly affect site # 426 Beamer Rock Beacon.	CH6	Moderate
Proposed scheme would directly affect site # 1111 Dundas Castle Designed Landscape.	CH9	Moderate
Proposed scheme would change the setting of site # 300 St. Margaret's Hope, including boundary walls, walled garden to south, and archway on drive to north.	CH10	Substantial
Proposed scheme would change the setting of site # 334 Ferry Craig, South Queensferry.	CH10	Moderate
Proposed scheme would change the setting of site # 484 Port Edgar Harbour Barrack Complex.	CH10	Substantial
Proposed scheme would change the setting of site # 532 Inchgarvie House.	CH10	Moderate
Proposed scheme would change the setting of site # 530 Inchgarvie House Lodge.	CH10	Moderate
Proposed scheme would change the setting of site # 1102 St. Margaret's Hope Relict Country Estate.	CH10	Substantial

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**Table 24.7: Summary of Significant Residual Impacts – Air Quality**

Residual Impact	Mitigation Item (where applicable)	Residual Impact Significance
Modelled change for predicted NO <sub>2</sub> concentrations in 2017 at R25 St. Margaret's Hope, North Queensferry. Predicted concentrations are well below objective and limit value.	n/a	Moderate adverse

**Table 24.8: Summary of Significant Residual Impacts – Noise**

Residual Impact	Mitigation Item (where applicable)	Residual Impact Significance
Noise levels from operation of proposed scheme affecting dwellings on Society Road, Clufflat Brae, Springfield Place and Springfield Lea.	N1-N4	Significant adverse effect
Noise levels from operation of proposed scheme affecting Linn Mill/Inchgarvie House community.	N5-N6	Significant adverse effect
Noise levels from operation of proposed scheme affecting the western half of the Echline estate in South Queensferry.	n/a	Significant adverse effect
Improved noise levels along the southern edge of Echline estate (directly facing A904).	n/a	Significant beneficial effect
Improved noise levels for houses in South Queensferry within 300m and to the west of the existing bridge approach road (including the eastern half of the Echline estate).	n/a	Significant beneficial effect
Improved noise levels for the area of South Queensferry to the east of the existing approach road to the Forth Road Bridge bounded by the B924, B907 and A8000.	n/a	Significant beneficial effect
Properties that would potentially qualify for noise insulation under the Noise Insulation (Scotland) Regulations: <ul style="list-style-type: none"> <li>• 9 Mucklehill Park, Inverkeithing, KY11 1BX;</li> <li>• St Margaret's Hope Gatelodge, North Queensferry, KY11 1HP; and</li> <li>• Muriehall House, Winchburgh, EH52 6QN.</li> </ul>	n/a	n/a

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### Chapter 24: Summary of Significant Residual Impacts

**Table 24.9: Summary of Significant Residual Impacts – Pedestrians, Cyclists, Equestrians and Community Effects**

Residual Impact	Mitigation Item (where applicable)	Residual Impact Significance
Core Path 22 (ii) would be lost due to the realignment of the B981, however, the realigned B981 would include a footpath on the west side and a cycleway on the east side, resulting in changes to journey length and amenity value.	P2, P3	Moderate
Core Path 24 changes in amenity value.	n/a	Moderate beneficial
Forth Road Bridge (Local Path 31 / National Cycle Route 1) changes in amenity value.	n/a	Substantial beneficial
Local Paths 46 would be crossed by the proposed scheme in 4 locations and sections of these paths would be lost, resulting in changes to journey length and amenity value.	P4, P7, P9	Moderate
Local Path 69 changes in amenity value.	n/a	Moderate beneficial
Local Path 76 changes in amenity value.	n/a	Moderate beneficial
Local Path 77 changes in amenity value.	n/a	Moderate beneficial

**Table 24.10: Summary of Significant Residual Impacts – Vehicle Travellers**

Residual Impact	Mitigation Item (where applicable)	Residual Impact <i>Magnitude and Significance for Vehicle Travellers not assessed. Impacts considered as % and type of view.</i>
<p>North of the Firth of Forth, views for vehicle travellers would remain similar to those from the existing A90, with steep rock cuttings, which channel views towards the approach to the Main Crossing.</p> <p>Views for travellers on the Main Crossing would also be similar to those from the Forth Road Bridge, with scenic, panoramic views across the Firth of Forth.</p> <p>However, the existing suburban views from the existing A90, south of the Forth Road Bridge, would be replaced by a range of more open, attractive views from the southern route, across rolling farmland and into the designed wooded landscape of Dundas.</p> <p>Overall, the proposed scheme would improve views for drivers and provide a stimulating and scenic journey.</p>	VT1	<p><i>A90 Admiralty Junction to Ferrytoll Junction (online) and Ferrytoll Junction to Scotstoun (offline)</i></p> <p>Open View 25.1% (WYO)            Open View 14.3% (SFY)            Intermittent View 42.1% (WYO)            Intermittent View 47.2% (SFY)            Restricted View 6.6% (WYO)            Restricted View 10.2% (SFY)            No view 26.2% (WYO)            No view 28.3% (SFY)</p>

# Forth Replacement Crossing

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## Chapter 24: Summary of Significant Residual Impacts

Residual Impact	Mitigation Item (where applicable)	Residual Impact <i>Magnitude and Significance for Vehicle Travellers not assessed. Impacts considered as % and type of view.</i>
		<p><i>M9 Spur to M9 Junction 1A slip roads (offline)</i></p> <p>Open View 87% (WYO) Open View 28.8% (SFY) Intermittent View 3% (WYO) Intermittent View 23.2% (SFY) Restricted View 10% (WYO) Restricted View 48% (SFY)</p> <p><i>M9 (online)</i></p> <p>Open View 57.5% (WYO) Open View 53.2% (SFY) Intermittent View 25.3% (WYO) Intermittent View 13% (SFY) Restricted View 5.4% (WYO) Restricted View 22% (SFY) No view 11.8% (WYO) No view 11.8% (SFY)</p>
<p>Driver stress over the majority of the network in the vicinity of the proposed scheme would either remain the same or increase in the Do-Something scenario (i.e. with the proposed scheme in place) compared to the Do-Minimum (i.e. without the proposed scheme) due to increased future traffic volumes using the same number of available lanes, with overall High driver stress predicted for vehicle travellers to the north of the proposed Queensferry Junction and generally Moderate driver stress to the south.</p>	<p>n/a</p>	<p>Driver stress would increase in the southbound direction in the following sections:</p> <ul style="list-style-type: none"> <li>• Masterton – Admiralty;</li> <li>• Admiralty – Ferrytoll; and</li> <li>• M9 Spur.</li> </ul> <p>All other sections and directions retain the same level of driver stress in the Do-Something as in the Do-Minimum.</p>