# **Environmental Impact** Assessment Report Appendix B6 Population and Human Health

**Grangemouth Flood Protection Scheme 2024 Falkirk Council** 



## **Jacobs**

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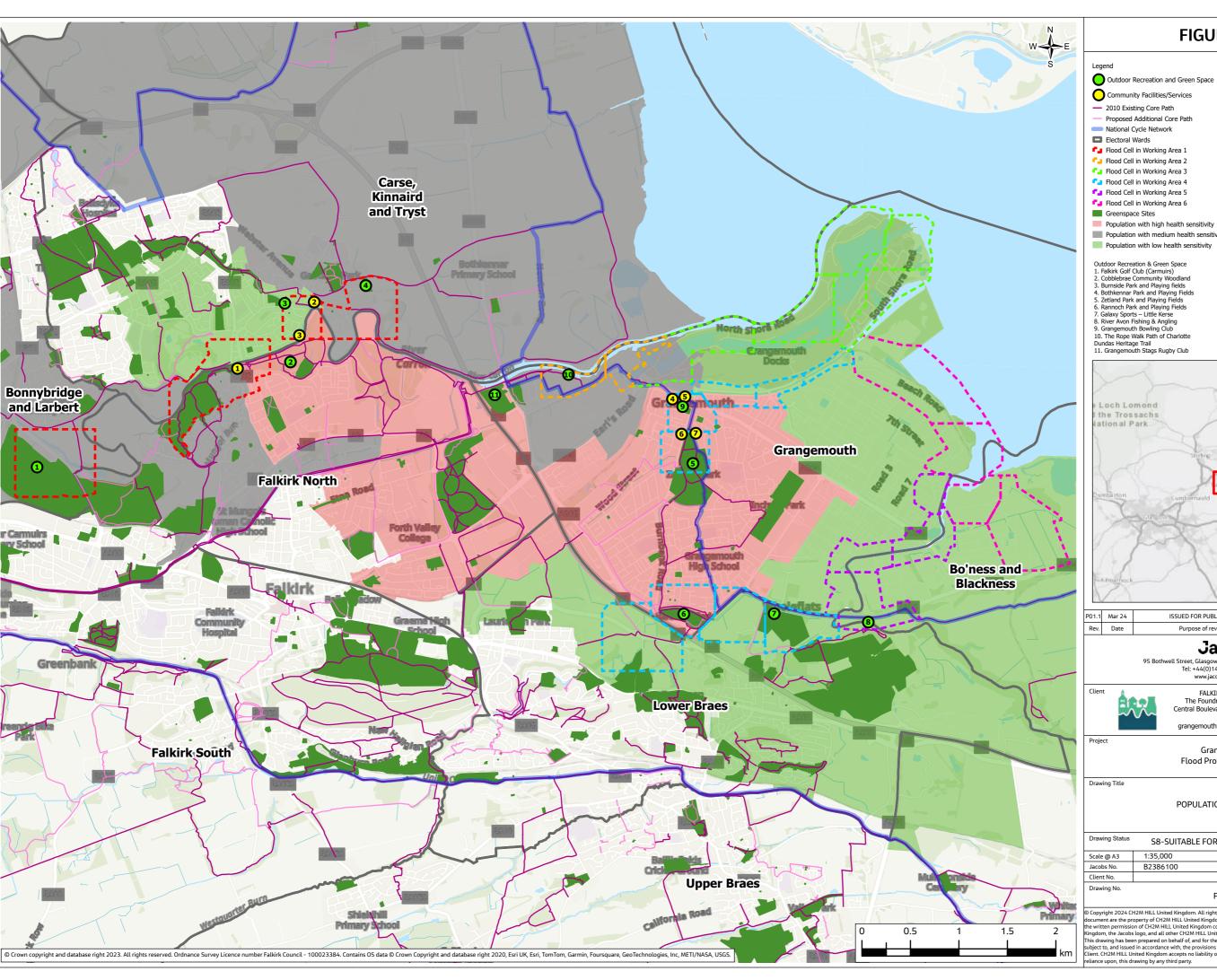
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#### FIGURE B6.1

Outdoor Recreation and Green Space

Community Facilities/Services

- 2010 Existing Core Path

Proposed Additional Core Path

National Cycle Network

Flood Cell in Working Area 1

Flood Cell in Working Area 3

Flood Cell in Working Area 4

Flood Cell in Working Area 5

Population with medium health sensitivity

Population with low health sensitivity

Dundas Heritage Trail

11. Grangemouth Stags Rugby Club

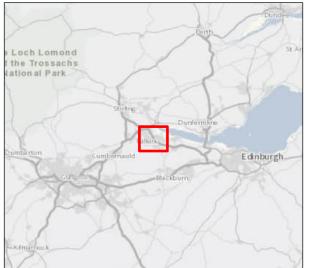
Community Facilities/Services

Dawson Community Church
 Carronshore Community Centre

3. Carrondale Nursing/Care Home

Grangemouth Library
 Bo'ness Medical Practice

6. Abbotsgrange Parish Church7. Sacred Heart Catholic Church



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Grangemouth Flood Protection Scheme

POPULATION AND HEALTH

SHEET 1 OF 1

S8-SUITABLE FOR STATUTORY CONSENT				
Scale @ A3	1:35,000	DO NOT SCALE		
Jacobs No.	B2386100			
Client No.				

Figure B6.1

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#### Tables B6.1 - B6.4: Assessment Criteria

Table B6.1: Sensitivity Criteria for Health and Community Resources

Sensitivity/	Population Health Sensitivity Criteria <sup>1,</sup>	Community Resource value Criteria <sup>2</sup>		
Value	2	Community Resource value Criteria-		
High	<ul> <li>High levels of deprivation (including pockets of deprivation);</li> <li>reliance on resources shared (between the population and the project);</li> <li>existing wide inequalities between the most and least healthy;</li> <li>a community whose outlook is predominantly anxiety or concern;</li> <li>people who are prevented from undertaking daily activities;</li> <li>dependents;</li> <li>people with very poor health status; and/or</li> <li>people with a very low capacity to adapt.</li> </ul>	<ul> <li>Core Paths, footways, cycleways and local roads that provide a means of active travel to local destinations, or the main route for local journeys by car.</li> <li>National or regional trails and public rights of way that are well connected, provide good access to the countryside or other popular recreational destinations, are likely to be well-used by the community and for which there is limited alternative provision.</li> <li>Key community facilities, services and routes regularly used by vulnerable groups such as the elderly, school children and people with disabilities or by the majority of the community (where no alternatives exist). Examples of such facilities would include schools, primary healthcare facilities, places of worship and cemeteries.</li> <li>Recreational facilities and land of importance to the local community including open space, sports and recreational buildings and land including playing fields and children's playgrounds.</li> </ul>		
Medium	<ul> <li>Moderate levels of deprivation;</li> <li>few alternatives to shared resources;</li> <li>existing widening inequalities between the most and least healthy;</li> <li>a community whose outlook is predominantly uncertainty with some concern;</li> <li>people who are highly limited from undertaking daily activities; people providing or requiring a lot of care;</li> <li>people with poor health status; and/or</li> <li>people with a limited capacity to adapt.</li> </ul>	<ul> <li>Public rights of way and other routes, as well as informal green space, which are used mainly for informal recreational purposes (for example dog walking) but for which alternative routes and sites can be used.</li> <li>Key community facilities that provide local services, employment and/or meeting points for neighbourhoods within the local community such as community centres, public houses, convenience stores, allotments and post offices.</li> <li>Private properties and land use (commercial, residential and recreational) that do not provide public facilities or key community services. It is considered that these properties would be of medium value since the do not directly support the general community, although the value they bring may support the local economy.</li> </ul>		
Low	<ul> <li>Low levels of deprivation;</li> <li>many alternatives to shared resources;</li> <li>existing narrowing inequalities between the most and least healthy;</li> <li>a community whose outlook is predominantly ambivalence with some concern;</li> <li>people who are slightly limited from undertaking daily activities;</li> </ul>	Routes which have fallen into disuse, such as through past severance, or which are scarcely used because they do not currently offer a meaningful route for either utility or recreational purposes. Whilst these routes would not be sensitive in terms of disruption from the scheme, they may present opportunities for enhancement if existing barriers or poor amenity can be overcome through the proposals.		



Sensitivity/ Value	Population Health Sensitivity Criteria <sup>1,</sup>	Community Resource value Criteria <sup>2</sup>
	<ul> <li>people providing or requiring some care;</li> <li>people with fair health status; and/or</li> <li>people with a high capacity to adapt.</li> </ul>	<ul> <li>Land allocated for development. It is considered that this land is of low sensitivity since proposed development is yet to be incorporated into the community. Whilst the scheme would affect individual developers, there may be opportunity to compensate or alter proposals to accommodate the scheme.</li> </ul>
Very low	<ul> <li>Very low levels of deprivation;</li> <li>no shared resources; existing narrow inequalities between the most and least healthy;</li> <li>Existing narrow inequalities between the most and least healthy;</li> <li>people who are not limited from undertaking daily activities;</li> <li>people who are independent (not a carer or dependent);</li> <li>people with good health status; and/or</li> <li>people with a very high capacity to adapt.</li> </ul>	Informal routes such as desire lines or land such as derelict sites that may attract use but which are not designed for public use.

<sup>&</sup>lt;sup>2</sup> These are indicative criteria (judgement based on most relevant criteria - some criteria will span categories)

Table B6.2: Magnitude Criteria for Health Impacts and Impacts on Community Resources

Level	Criteria for Magnitude of Health Impact <sup>1, 2, 3</sup>	Criteria for Magnitude of Impacts on Community Resources <sup>3</sup>
High	<ul> <li>High exposure or scale;</li> <li>long-term duration;</li> <li>continuous frequency;</li> <li>severity predominantly related to mortality or changes in morbidity (physical or mental health) for very severe illness/injury outcomes;</li> <li>majority of population affected;</li> <li>permanent change; and/or</li> <li>substantial service quality implications.</li> </ul>	<ul> <li>(Adverse) Permanent loss of a route or access to an extent sufficient to deter most people from making active travel journeys. In some cases, this could lead to a change in the location of centres of activity or to a permanent loss of access to certain facilities for a particular community. Those who do make journeys on foot or by bicycle will experience considerable hindrance.</li> <li>(Adverse) Loss of community resource to an extent likely to result in a permanent change to the demographics of a community such as residential profile, employment opportunities or the range of services available to the community is severely compromised.</li> <li>(Beneficial) Substantial improvement to the pedestrian, cyclist and equestrian infrastructure within the study area through provision of new routes connecting communities and services where none previously existed or substantial relief from existing severance through removal of busy traffic conditions from a community.</li> </ul>
Medium	<ul> <li>Low exposure or medium scale;</li> <li>medium-term duration;</li> <li>frequent events;</li> <li>severity predominantly related to moderate changes in morbidity or major change in quality-of-life;</li> </ul>	<ul> <li>(Adverse) Degradation of community infrastructure through a reduction in amenity or increase in journey length to the extent that some people are deterred from using it (including making active travel journeys).</li> <li>(Adverse) Temporary or permanent loss or land-take from community facilities or local property</li> </ul>



Level	Criteria for Magnitude of Health Impact <sup>1, 2, 3</sup>	Criteria for Magnitude of Impacts on Community Resources <sup>3</sup>			
	<ul> <li>large minority of population affected;</li> <li>gradual reversal; and/or</li> <li>small service quality implications.</li> </ul>	resulting in a reduction in amenity that would dissuade, or reduce the use or the availability of, services offered.  • (Beneficial) Some improvement to the community resource within the study area through upgrading of existing facilities likely to increase use, or provide relief from existing severance within a community.			
Low	<ul> <li>Very low exposure or small scale;</li> <li>short-term duration;</li> <li>occasional events;</li> <li>severity predominantly related to minor change in morbidity or moderate change in quality-oflife;</li> <li>small minority of population affected; and/or</li> <li>rapid reversal.</li> </ul>	(Adverse) Limited loss or degradation of community resources and property to an extent that is not likely to affect patterns of movement, demographics or use within the community but where the amenity, and/or range of services offered to the community area are slightly reduced.      (Beneficial) Limited improvement to existing community facilities within the study area such as an isolated improvement to local access or enhancement of an existing community facility that improves amenity.			
Negligible	<ul> <li>Negligible exposure or scale;</li> <li>very short-term duration;</li> <li>one-off frequency; severity predominantly relates to a minor change in quality-of-life;</li> <li>very few people affected;</li> <li>immediate reversal once activity complete; and/or</li> <li>no service quality implication.</li> </ul>	No appreciable permanent alteration to community resources or local property. Existing infrastructure is maintained or replaced with equivalent provision.			

Table B6.3: Indicative guide to assessing the scale of an effect on human health

Increase or		Number of people likely to be affected				
decrease in risk, or benefit, to health and well-	General*	< 10	10 to < 100	100 to < 1,000	1,000 to < 10,000	> 10,000
being	Disadvantaged*			10 to < 100	100 to < 1,000	> 1,000
Very Small		N	VS	VS - S	S	S - M
Small		VS	VS - S	S	S - M	М
Modest		S	S - M	М	М	M - L
Large		S - M	М	M - L	L	L - VL
Very large (e.g. a risk to health completely, or nearly completely, eliminated)		М	M - L	L	L - VL	VL

N = negligible; VS = very small; S = small; M = medium; L = large; and VL = very large

<sup>&</sup>lt;sup>1</sup>Adapted from Pyper et al 2022. <sup>2</sup>These criteria can be used to describe positive or negative health impacts

<sup>&</sup>lt;sup>3</sup>These are indicative criteria (judgement based on most relevant criteria - some criteria will span categories)

<sup>\*</sup> General = Not in 20% most deprived areas in SIMD

<sup>\*\*</sup>Disadvantaged = Within 20% most deprived areas in SIMD



Table B6.4 Criteria for Significance Reasoning for Health Impacts

ignificance Indicative criteria*  evel  Major The narrative explains that this is significant for public health because (sappropriate):	
significant) appropriate):	elect as
Changes, due to the project, have substantial effect on the ability to only the substantial effect on the substantial effect of t	
health policy and/or the ability to narrow health inequalities, including	
referencing relevant policy and effect size, and as informed by consu	ltation themes
<ul> <li>among stakeholders, which may show mixed views.</li> <li>Change, due to the project, could result in a regulatory threshold or second result in a regulatory threshold result in a regulatory threshold or second result in a regulatory threshold or second result in a regulatory threshold result in a regulatory thr</li></ul>	statuton, standard
being crossed (if applicable).	statutory stariuaru
<ul> <li>There is likely to be a substantial change in the health baseline of the</li> </ul>	nonulation
including as evidenced by the effect size and scientific literature show	
causal relationship between changes that would result from the projection	
health outcomes.	
<ul> <li>In addition, health priorities for the relevant study area are of specific</li> </ul>	c relevance to the
determinant of health or population group affected by the project.	
Moderate The narrative explains that this is significant for public health because (s	elect as
significant) appropriate):	1.12
Changes, due to the project, have an influential effect on the ability to partial policy and (or the ability to partial health policy and (or the ability to partial health inequalities, including the ability to partial health inequalities.)	
health policy and/or the ability to narrow health inequalities, including referencing relevant policy and effect size, and as informed by consu	
among stakeholders, which may show mixed views.	ittation themes
Change, due to the project, could result in a regulatory threshold or second result in a regulatory threshold result in a regulatory threshold or second result in a regulatory threshold result in a reg	statutory standard
being approached (if applicable).	ota ta to ty ota . Taa. a
There is likely to be a small change in the health baseline of the population.	ulation, including as
evidenced by the effect size and scientific literature showing there is	a clear relationship
between changes that would result from the project and changes to	
In addition, health priorities for the relevant study area are of genera	l relevance to the
determinant of health or population group affected by the project.	(l+
Ainor (not The narrative explains that this is not significant for public health because ignificant) appropriate):	se (select as
Changes, due to the project, have a marginal effect on the ability to describe the description of the second	deliver current
health policy and/or the ability to narrow health inequalities, including	
effect size of limited policy influence and/or that no relevant consult	
emerge among stakeholders.	
Change, due to the project, would be well within a regulatory threshold.	_
standard (if applicable); but could result in a guideline being crossed	
There is likely to be a slight change in the health baseline of the pop	
evidenced by the effect size and/or scientific literature showing there	
suggestive relationship between changes that would result from the changes to health outcomes.	project and
<ul> <li>In addition, health priorities for the relevant study area are of low rele</li> </ul>	evance to the
determinant of health or population group affected by the project.	evance to the
Negligible (not • The narrative explains that this is not significant for public health because of the significant for the signific	cause (select as
ignificant) appropriate):	,
Changes, due to the project, are not related to the ability to deliver or	
and/or the ability to narrow health inequalities, including as evidence	
lack of relevant policy, and as informed by the project having no resp	oonses on this issue
among stakeholders.	
Change, due to the project, would not affect a regulatory threshold, so or guideling (if applicable).	statutory standard
<ul><li>or guideline (if applicable).</li><li>There is likely to be a very limited change in the health baseline of the</li></ul>	ne nonulation
including as evidenced by the effect size and/or scientific literature s	
unsupported relationship between changes that would result from the	
changes to health outcomes.	- 1 1
<ul> <li>In addition, health priorities for the relevant study area are not relevant.</li> </ul>	ant to the
determinant of health or population group affected by the project.	

<sup>\*</sup>Judgement based on most relevant criteria, it is likely in any given analysis that some criteria will span categories. Adapted from Pyper et al. (2022).