Screening Example: Ship-Themed Play Park

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This is a **best-practice example** of a **capital project** screened by the **Sustainability Compass.**

Project

Belfast City Council is redeveloping an outdated urban playpark near a greenway into a new ship-themed playpark. This theme reflects Belfast's rich maritime heritage, playing homage to the nearby Harland & Wolff shipyard. Redevelopment allows reuse of some site features of the old park and improves climate resilience, accessibility and community engagement.

The new park will include climbing structures inspired by historic ships, nature trails, sensory play elements, accessible surfacing, outdoor seating, shade shelters and integrated biodiversity features.

During the design stage the Council used the Sustainability Compass to assess the project. As it is considered a capital project, and the Council is interested in looking at both the environmental and social impact, so they carried out Assessment 2, and selected a climate, environment and social assessment. This project manager, with the support of the council's sustainability team worked together to complete the assessment. The answers to the assessment questions and justifications are provided below.

1. GREENHOUSE GAS

Q: If the project is primarily construction-based, what is the estimated level of carbon emissions for the whole life of the project?

A) Less than 500 metric tonnes

Reasoning: The park uses a low-carbon design by incorporating play equipment and structures made from materials like recycled plastic, reused timber and bound rubber crumb from end-of-life tyres. Through the reuse of site elements, material demand, transport-related emissions and waste is reduced.

Q: What are the greenhouse gas emissions associated with whole life of the project?

B) Carbon dioxide (CO2)

Reasoning: CO2 is the dominant emission, originating from production and transport of materials and machinery used on site.

Q: Will the emissions level increase or decrease throughout the whole life of the project?

C) The emission level will decrease throughout the project.

Reasoning: Operational emissions are nearly zero. Tree planting and natural features will increase carbon sequestration over time.

Q: What strategies are currently being implemented to monitor and track the project's greenhouse gas emissions over time?

C) Periodic self-reporting by the project team on greenhouse gas emissions,
D) Implementation of emission reduction initiatives without monitoring

Reasoning: The playpark is a small-scale, low-impact redevelopment project with no operational emissions post-construction. It therefore does not require extensive GHG-monitoring.

2. ENERGY USE & RENEWABLES

Q: To what extent will this project's whole-life energy supply utilise renewable energy?

A) The project will extensively use renewable energy, with most of its energy being sourced from renewable energy suppliers and technologies

Reasoning: The park does not have significant energy requirements, but renewables are incorporated to supply minor energy needs such as lights and signage which will be powered by roof mounted solar PV.

Q: Will this work increase or decrease renewable energy capacity/usage?

B) This work will enable a minor increase in renewable energy capacity/usage

Reasoning: The lighting and signage will be powered by solar energy which will be produced onsite, e.g. solar panels on top of shelters and in bollards or lampposts. Solar powered lighting reduces the need for grid energy.

Q: What existing energy sources are being integrated into the project's whole-life energy supply?

B) Solar energy

Reasoning: By installing on-site solar panels on top of shading installations, lampposts and play equipment, the playpark can generate clean energy for lighting and possibly feed surplus energy into the grid.

Q: How will the project optimise energy efficiency and reduce overall energy consumption?

A) Implementing energy-efficient appliances and equipment, **B)** Upgrading to LED lighting and using motion sensors for lighting control

Reasoning: The installed lights will be energy efficient and while some lights will be kept on continuously to support security, additional lights will be controlled through motion sensors

3. WASTE MANAGEMENT

Q: How will the project aim to limit waste throughout its whole life cycle?

A) By reducing the amount of waste produced by the project, **B)** By recycling all appropriate waste produced by the project, **C)** By reusing waste materials produced by the project, **D)** By composting wood waste and suitable organic waste.

Reasoning: The playpark is designed with circular economy principles in mind. Surplus material is minimised by ordering components to exact dimensions. existing structures are reduced. All appropriate waste streams are separated during construction and during use. Green waste is composted and wood waste is either repurposed or composted.

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Separate waste streams

Q: What strategies are being implemented to minimise waste generation and promote sustainable waste management practices?

A) Implementing a waste segregation programme to separate recyclables from non-recyclables to ensure on-site recycling is optimised, **B)** Focusing on a strong design to cut the amount of waste by using precise specifications and fewer materials in the design, **C)** Ordering efficiently by using exact measurements and avoiding buying excessive materials, **E)** Protecting materials from weather conditions and potential theft and vandalism through appropriate storage methods, **F)** Training staff on good waste management and the specific measures used at the site.

Reasoning: Waste can be reduced through good procurement and contractor practices, as well as good knowledge by construction workers and users of the playpark. These efforts will not only help limit waste but also lower project costs.

Q: How is hazardous waste handled, and what measure are taken to ensure it is handled appropriately?

F) No hazardous waste produced from the project

Reasoning: No hazardous waste is anticipated as the site history suggests no major risk. Any contaminated soils (if found) will be disposed of via a licenced contractor. Play installations and equipment will be kept mostly natural but any paint used will be non-toxic (e.g. low/zero VOC, waterproof and UV resistant acrylic coatings).

Q: Will this project potentially impact natural land and waterways through pollution?

F) No impact

Reasoning: The playpark uses Sustainable Drainage Systems (SuDS) like permeable surfacing and rain gardens. During construction, erosion and sediment control practices will prevent soil runoff into drains or streams. All materials used are specified to be non-toxic, water-safe and low-VOC.

Q: What measures will this project include to decrease the amount of pollution in the natural environment?

A) Using water sprays/sprinklers or fine-mesh nets to control dust and stop it escaping into the natural environment, **B)** Keeping materials secure so they are not washed into the natural environment, **C)** Minimising land disturbance to prevent erosion and run-off, **D)** Keeping on-site roads and footways clean to prevent run-off, **F)** Implementing and monitoring clear waste disposal practices on site

Reasoning: The playpark redevelopment is a low-impact project, but pollution prevention will be a priority during the construction phase. Therefore, measures like water sprays for dust control, material storage under cover, minimum ground disturbance, and a waste management plan will be introduced.

4. BIODIVERSITY & HABITAT

Q: What mandatory habitat and biodiversity surveys and reports will be completed during the planning and approval stage?

D) Preliminary Ecological Appraisal/Habitat Survey, **E)** Protected Species Survey, **F)** Tree Survey

Reasoning: While bigger assessments like an EIA are not mandatory for small-scale developments like this, conducting a PEA, protected species survey and tree survey ensures that wildlife is protected and the project complies with conservation laws. The tree survey supports tree protection and includes recommendations for retention, pruning or felling.

Q: How will the project potentially negatively impact local biodiversity and habitats?

B) Ecological disturbances and stress, reducing the site's capacity to support wildlife

Reasoning: The playpark redevelopment is taking place in an existing urban surrounding that is already modified and disturbed. Any additional ecological disturbance resulting from the construction process will be minimised.

Q: What measures are being implemented to protect native biodiversity and mitigate habitat destruction

A)Protecting wildlife habitats and protected species identified before the project,
C) Enhancing the overall ecological quality, capacity, structure and functioning of the project through nature-based solutions, such as green spaces

Reasoning: The project enhances ecological quality by adding green spaces, wildflower areas, and bird boxes, minimising light pollution, and following sensitive construction practices. Tree protection and retention are prioritised, with only minor, low-risk clearance where necessary.

Q: What measures are being implemented to improve native biodiversity and regenerate natural habitats?

A) Creating natural habitat, such as afforestation, wildflower meadows, Riparian Buffer Zones (RBZ), etc., **C)** Creation of urban green spaces and natural wildlife corridors, **D)** Targeting and removal of invasive species, **E)** Utilising designs and materials that provide habitat and support native wildlife, **F)** Working with a specialist individual or organisation to create a Biodiversity Action Plan to improve native biodiversity through the project.

Reasoning: The playpark will feature native hedgerows, wildflower meadows with educational signage, bug hotels, and solar or green roofs, while also tackling invasive species. The project will contribute to the council's Biodiversity Action Plan.

5. SUSTAINABLE TRANSPORT

Q: What mode of transport is often used by employees for project-related activities?

C) Car sharing, **D)** Electric fleet vehicles, **E)** Public transportation, **F)** Active transport

Reasoning: The Council Transport Policy supports sustainable travel for staff and construction workers, promoting active travel and public transport where possible. For construction work, the Council utilises its electric fleet vehicles and encourages construction workers to car share.

Q: Will the project lead to a net increase in sustainable transportation usage in the local area?

B) Yes, the project will lead to a minor net increase in sustainable transportation usage by developing infrastructure to increase usage and access.

Reasoning: The play park is located in an urban area with surrounding resident areas, therefore travel by foot and bike will be favoured. Nevertheless, additional measures like covered bike stands will encourage travel by bike and signage on foot paths leading to the playpark and on train and bus stations will encourage sustainable travel. Car parking spaces will be limited to discourage car use, although accessible car parking will be available. Bike lanes to access the park will be enhanced. If necessary, an additional bus stop will be introduced to ensure the distance between bus station and park is minimised.

6. LAND USAGE

Q: Will the project cause any form of land degradation?

D) The project will result in land enhancement.

Reasoning: The playpark redevelopment is being delivered on a site that already has limited ecological or soil quality value. The project is designed to restore soil health, enhance drainage with permeable surfaces and native planting, boost biodiversity through flowers and hedgerows, and ensure long-term care via sustainable grounds management.

Q: What measures are being implemented to minimise land degradation and preserve natural habitats during project development?

A)Conducting research to identify sensitive areas and avoid development in ecologically important regions, **B)** Implementing erosion control measures to prevent soil degradation and silt run-off during construction, **C)** Using eco-friendly construction materials and practices to minimise land degradation, **D)** Avoiding the use of heavy machinery/vehicles on environmentally sensitive land, **E)** Utilising soil improvement techniques to mitigate environmental impacts

Reasoning: The project takes a precautionary approach to prevent land degradation and strengthen ecological resilience, with early ecological surveys guiding tree retention and layout design. Best-practice erosion control, eco-friendly materials, restricted vehicle access, ground protection, and soil improvement techniques will be applied throughout construction.

7. CLIMATE ADAPTATION & RESILIENCE

Q: How vulnerable is the project to current and future climate change impacts?

B) The project is moderately vulnerable to current and future climate change impacts

Reasoning: Although the playpark is not located in a high-risk area, it is still vulnerable to climate change and long-term environmental pressures. They will be discussed in the following questions.

Q: Has the project considered climate change risks and hazards at a strategic level?

A) The project has considered climate change risks and hazards at a strategic level

Reasoning: The project has strategically assed climate change risks. A Council resilience checklist covers climate-related physical risks like heat and flooding, and long-term ecological resilience, as well as environmental performance of materials and design. The project is aligned with the Council's Resilience Strategy and it was developed with cross-departmental expertise.

Q: How many of the following climate change risks have been identified as potentially impacting the whole life of the project?

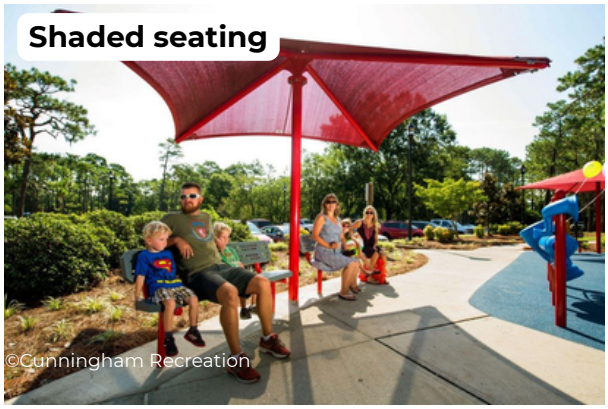
C) 3-5

Reasoning: The park faces moderate risks from surface water flooding, heat stress and drought, and shifting seasonal cycles. They may disrupt plant growth, species interactions, pollinator activity, and the parks usability.

Q: What adaptation and mitigation strategies are being implemented to address climate-related challenges and increase resilience?

A) Incorporating green infrastructure and nature-based solutions to enhance climate resilience, **B)** Enhancing energy efficiency measures to reduce greenhouse gas emissions, **C)** Creation of a climate contingency plan to consider current and future climate-related risks, **D)** Emergency response plans to adapt and plan for climate-related risks, such as flood response plans, **E)** Incorporating Circular Economy principles into the project's design, **G)** Re-designing of existing infrastructure to be more climate-resilient, **H)** Improving public transport and active transport infrastructure to ensure residents have adequate and affordable transport access, whilst reducing vehicle traffic.

Reasoning: The project incorporates SuDS and includes shaded seating and play areas, tree planting, light-coloured permeable surfaces, drought-tolerant native planting, and mulch beds to retain soil moisture. Only structurally sound trees are retained and features like sails or signage are rated for wind tolerance. The project prioritises energy efficiency for lighting installations.



Q: Will the project monitor and assess the effectiveness of its climate change adaptation and mitigation measures over time?

B) Yes, the project will conduct basic monitoring and assessment of its adaptation and mitigation measures

Reasoning: The project includes ongoing monitoring led by the Council biodiversity officer, tracking pollinators, native planting success, invasive species, and site resilience. A local 'Friends of the Park' group will support reporting and annual surveys, while council teams monitor storm impacts, material durability, and vegetation survival. The park is designed with flexibility to adapt landscapes and play features to future climate impacts.

Q: How many of the following methods will the project employ to monitor its climate change adaptation and mitigation measures over time?

C) 2

Reasoning: The project will conduct regular climate vulnerability assessments and adaptation audits and use KPIs to track the progress and success of adaptation and mitigation measures (e.g. renewable energy usage; also see prior question).

Q: Are there any contingency plans in place to respond to unforeseen climate-related events and ensure project resilience?

A) Yes, there are comprehensive contingency plans in place to respond to unforeseen climate-related events and ensure project resilience.

Reasoning: Comprehensive contingency plans include the identification of climate-related risks and their potential impacts on the project, the development of multiple scenarios outlining different climate-related events, and the design of a range of adaptive measures that can be implemented in response to specific climate impacts.

8. FOOD

Q: How will the project improve food access to reduce food poverty?

C) The project will improve food access by establishing and providing accessible venues for food sale and distribution, **D)** The project will improve food access by encouraging the use of a mobile app to inform residents about community fridges' locations and food-sharing opportunities

Reasoning: The park provides open, accessible space for small-scale community events, e.g. pop-up food stalls and local produce markets. A weather-proof information board will promote the use of community fridge apps and nearby food-sharing initiatives, which can help residents connect to surplus food distribution networks. Gardens or food-growing elements could be added on in the future.

Q: Question: Will the project result in more or fewer food-growing opportunities for local residents?

B) The project will have no impact on the food-growing opportunities

Reasoning: The redevelopment focuses on play, biodiversity, and accessibility. It does not include designated food-growing spaces such as allotments or community gardens, although these might be possible in the future. Therefore, the project will neither reduce nor expand local food-growing opportunities.

Q: If there are more food-growing opportunities, what kind of opportunities will the project create?

E) N/A

Reasoning: N/A

Q: Question: If there are less food-growing opportunities, what is the cause?

E) N/A

Reasoning: N/A

Q: How will it affect the availability of healthy and affordable retail food?

A) It will increase the availability of healthy and affordable retail food by supplementing local produce in the markets or developing space for shops/markets that sell a diverse range of healthy foods

Reasoning: The playpark will host occasional community events, where local producers and vendors can sell healthy, affordable food. By creating a safe, inviting, and centrally located public space close to residential areas, the park encourages these localised, informal markets.

9. HEALTH & WELLBEING

Q: How will the project increase the physical and mental well-being of local residents and employees?

A) The project will increase local well-being by positively impacting the local environment and increasing ecosystem services, **C)** The project will increase local well-being by creating more community spaces/hubs and schemes for residents to socialise, exercise, access food & utilities and promote their businesses.

Reasoning: The project provides residents of all ages and backgrounds with opportunities to be physically active through play and walking trails, enjoy natural and biodiverse settings that promote mental health while learning about and connecting with nature, socialise and build community ties in safe and welcoming outdoor spaces, and access sensory areas for neurodivergent and older users.

10. EDUCATION & ENGAGEMENT

Q: How will the project impact education places/access and vocational training opportunities for residents in your local area?

A) The project will enhance education places by building vocational training centres or educational spaces in the local area, **B)** The project will improve access to education by creating/improving infrastructure that will reduce barriers affecting disadvantaged groups access

Reasoning: The park integrates interpretive signage, eco-learning trails, and interactive biodiversity features to support learning outside the classroom. Local schools can use the park for nature-based learning. Improved cycling and walking access increases safe routes to school and community groups may offer workshops or volunteering in planting and maintenance.

Q: Will the project utilise workshops and public information points to engage the community?

A) Yes, the project will extensively utilise workshops and public information points to engage the community.

Reasoning: The project includes community co-design workshops during planning and will continue to engage residents through public information boards explaining biodiversity and climate adaptation features, and seasonal workshops on nature sustainability and wellbeing.

11. LOCAL ECONOMY & CAREERS

Q: How will the project increase or decrease employment opportunities for residents?

C)The project will increase employment opportunities by creating short-term jobs, hiring local people for construction, transport, and other fixed-term roles.

Reasoning: Since the playpark does not require any employees after the construction phase, it does not provide major employment opportunities. However, construction and landscaping jobs will be contracted with social value clauses that require the hiring of local ethical labour where possible.

Q: How will the project enhance the local economy and benefit SMEs?

E) The project will enhance the local economy through improved public transport access and green transport infrastructure (greenways, bike lanes), resulting in more people having access to and spending their money in local businesses

Reasoning: The project includes an improvement of green transport infrastructure that will improve access. As public parks are known to improve footfall and spending in communities, nearby shops and cafes will benefit from increased visitors. The space also becomes a low-cost venue for local start-ups, food vendors, and craft stalls if the Council decides to use it for events.

Q: How will the project provide internships, apprenticeships, or placement opportunities that may increase local people's career prospects?

D) The project will not provide any means to increase local people's career prospects

Reasoning: The playpark could provide educational opportunities for the local community or environmental groups to offer volunteering and workshops related to biodiversity. Through partnerships with local schools, the playpark may create learning opportunities for young people interested in conservation.

12. EQUITY

Q: To what extent does the project commit to avoiding all forms of discrimination, promoting equality (e.g., age, gender, disability, sexuality), and supporting equality of opportunity, good relations, and targeted actions for Section 75 groups?

A) The project fully commits to avoiding all forms of discriminatory practices, ensuring equality and diversity.

Reasoning: The park was designed with inclusive principles, featuring DDA-compliant access, step-free surfaces, and play equipment for diverse physical and sensory abilities. It also includes fitness elements for all ages, community information boards, and spaces that foster social inclusion and a welcoming environment for all.

Summary

As a result of the assessment, the project received a report highlighting positive short-term and long-term impacts (see figure below). Due to the small scale of the project, most impacts are limited or short-term. Overall, there is a positive contribution to the environment, society and economy and no negative impacts were indicated.

The project can be seen as a starting point and more features can be added at a later stage, such as community gardens, a broader range of events and a fixed food stand. These findings can be used to support the playpark development and to communicate to both the Council and local communities that the project will bring significant benefits.