



Glasgow 2014 Commonwealth Games

Environmental Guiding Principles

1. Glasgow 2014 Commonwealth Games Environmental Guiding Principles

The Strategic Environmental Assessment (SEA) process carried out on the 2014 Commonwealth Games Strategy and Framework has identified a broad range of potential positive and negative environmental effects. In response, a number of SEA recommendations have been made – enhancement measures for positive and mitigation measures for negative environmental effects.

These measures have been developed across two distinct levels. Firstly, there are generic or programme wide recommendations that are applicable to most Games related activity. Secondly, technical or project specific recommendations have been developed to address the following: 1) specific technical issues such as noise nuisance mitigation strategies for construction projects and likely survey work that may be required for a given project or action; or 2) Specific projects such as MP14 Saltmarket Public Realm Project, Kelvingrove Bowling Greens Replacement etc.

The **Glasgow 2014 Commonwealth Games Environmental Guiding Principles** (EGPs) have been developed to take account of the generic/ programme-wide SEA recommendations and are intended to represent a good-practice, commonsense approach to environmental planning. As such, it is anticipated that the EGPs can and should be enshrined within all Games related practices and projects as a key mechanism for delivering the SEA recommendations.

If implemented successfully and fully integrated with all Games related projects, the EGPs should inform and guide the approach taken to all Games partner activities, contributing to significant environmental enhancement and minimised environmental impact, in line with the findings and recommendations from the SEA. The EGPs have been developed under the following nine headline titles:

- **EGP1 Improving active travel routes and informal outdoor recreation networks**
- **EGP2 Promoting active & sustainable travel**
- **EGP3 Green network**
- **EGP4 Conserving & enhancing wildlife**
- **EGP5 Flooding & drainage**
- **EGP6 Sensitive receptors**
- **EGP7 Minimising pollution, disturbance & nuisance**
- **EGP8 Sustainable approaches to contaminated land remediation and managing soil erosion and soil sealing**
- **EGP9 Conserving and enhancing landscapes and the historic environment**

The EGPs are outlined in full in the remainder of this document. A summary of each EGP is provided overleaf. As shown in the figure below, we will develop a reporting mechanism for the EGPs and issue these to relevant Games project leads in due course. Feedback on where principles are being addressed and where they are not will help us to identify potential 'gaps' in Games environmental performance which may trigger remedial action or a requirement for additional projects. By default, the effectiveness of the principles will be kept under review as we continue to monitor the significant environmental effects identified through the SEA process.

The EGPs outlined below have been developed by the Glasgow 2014 Commonwealth Games SEA team (GCC – Land and Environmental Services) in conjunction with colleagues from GCC Development and Regeneration Services. Our approach has been to capture as full a range of knowledge and expertise as possible, given time and other constraints. Despite this, the EGPs are not intended to be an exhaustive resource and key information therein (especially information under Section 7. related policy, indicators, guidance and toolkits and Section 8. examples of good-practice, exemplar projects and accepted standards) is intended to provide an initial idea of how environmental planning considerations should be approached.

In any event, project leads should establish an ambitious vision for their project's environmental performance and, as a minimum, relevant industry standards should be

identified and adhered to. The key stakeholders referenced under Section 5 of the EGPs may be able to advise on relevant industry standards and new and emerging environmental legislation and regulation should be kept under review to ensure compliance. This type of flexible, proactive approach should also apply to non-regulatory drivers such as climate change and project leads would be advised to keep abreast of emerging science, policy responses and good-practice.

In addition to the EGPs themselves and the policy, indicators, guidance and toolkits referenced under Section 7 in the EGPs, project leads should have regard to a broad range of plans, programmes and strategies (PPS) produced by Glasgow City Council, The Glasgow and Clyde Valley Strategic Development Planning Authority (GCVSDPA) and the Scottish Government to name but a few. A full list of relevant PPS that have been considered in the SEA is provided in Appendix E of the Environmental Report which can be found at [Glasgow City Council's Glasgow Consult pages](#).

It should be noted that the scope of SEA is very much focused on environmental issues. Although a people, health and access topic was covered in the SEA assessment and the EGPs themselves cover access, outdoor recreation and active travel issues (see EGPs 1 and 2), the focus is very much on environmental issues that can influence health and wellbeing as opposed to health and wellbeing per se. These more socio-economic issues have been covered extensively in other assessments, studies and research such as the [Glasgow 2014 Commonwealth Games Health Impact Assessment](#).

Climate change is notable by its absence as a separate EGP. The climate change focus in the SEA was very much on adaptation which is concerned with reducing the vulnerability of human and natural systems to the likely impacts of climate change. One of the key climate change impacts in Glasgow is the wetter weather we are already experiencing and the associated increased risk of flooding in certain parts of the City. Climate change adaptation and mitigation (reducing emissions of greenhouse gases) measures are woven through all of the EGPs so the development of a standalone principle was considered unnecessary. Key examples are EGP3 on green network and EGP5 on flooding and drainage which promote sustainable responses to flooding combined with an expansion of habitat networks and the enhancement of existing habitat.

2. Summary of EGPs

EGP1. Improving active travel routes and informal outdoor recreation networks

Glasgow has a substantial network of walking and cycling routes that provide good access to work and leisure opportunities, healthcare, friends and family and neighbouring settlements. There is always room for improvement however and the Games raise a fantastic opportunity to improve access for many people in Glasgow, particularly when considered in conjunction with existing projects taking place across the City.

Our commitment is to improve active travel options and access arrangements where improvement is needed. Where relevant, we will ensure that improvements facilitate improved access at a City-wide level and not just in the vicinity of Games venues. We will also consider opportunities for joining up gaps in active travel provision, particularly along key linear routes such as the Clyde and Kelvin Walkways.

EGP2. Promoting active & sustainable travel

The increased uptake of active and sustainable travel modes such as walking, cycling, buses and trains can help deliver many benefits for Glasgow's residents and its environment. Typical examples include the health improvements associated with outdoor exercise and the air quality benefits linked to lower private car usage and decreased traffic congestion. In conjunction with our programme of access improvements, we will promote the use of active and sustainable travel before, during and after the Games.

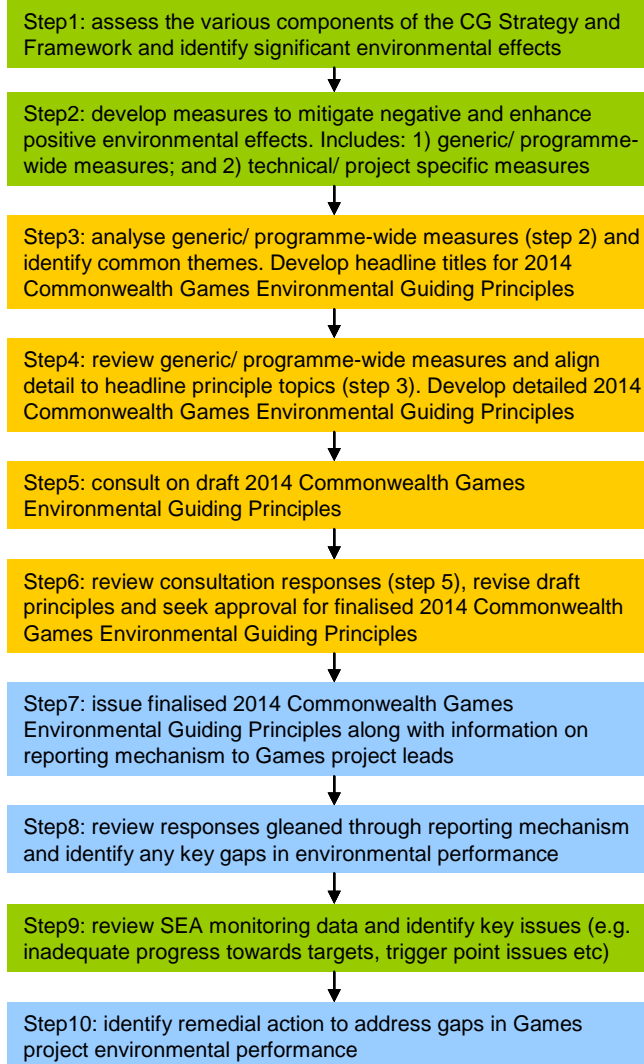
Glasgow 2014 Commonwealth Games Environmental Guiding Principles

Key

SEA

Environmental Guiding Principle development

Environmental Guiding Principle implementation and review



We will promote the Clyde and Kelvin Walkways as key active travel routes and address the question of how to increase their attractiveness as leisure and recreational resources in their own right, along their entire length. Infrastructure measures will also be considered such as ensuring that new and upgraded facilities have adequate provision for storing bikes as well as information on public transport options in the vicinity and journey times using different modes.

EGP3. Green network

Glasgow has an extensive green network covering nearly a quarter of the City as well as the largest amount of open space per head of population among Britain's cities. Where appropriate, green network sites should be highly multifunctional – effective sites should support a range of different objectives from biodiversity protection and enhancement through to sustainable drainage, access and outdoor leisure and recreation.

Our commitment is to ensure that Games related green network enhancements deliver fully on this multifunctionality agenda. Where possible, we will ensure that green network projects focusing on access, recreation, landscaping and aesthetic enhancements actively support improvements to the City's habitat network and biodiversity as well. More specifically, we aim to ensure that all Sustainable Drainage System (SuDS) projects are designed to support a range of green network objectives, especially biodiversity protection and enhancement.

EGP4. Conserving & enhancing wildlife

We are committed to the conservation of Glasgow's wildlife and biodiversity. The Commonwealth Games will provide us with an ideal opportunity not only to protect and enhance our existing habitats and open spaces, but also to work towards creating new habitats and connecting them to the City's existing habitat network. In particular, we will consider how Games related development can be used to leverage support for more substantial habitat creation works, contributing to improved ecosystem resilience.

In addition to tangible projects on the ground, the Games will provide a great opportunity to raise awareness of wildlife conservation issues. Where relevant, we will deliver this message by ensuring that Games related environmental community programmes address ecosystem service issues, highlighting the important relationship between wildlife conservation/biodiversity and human well-being. In conjunction with this, we will consider how the scope of these types of project can be broadened out to include habitat management programmes involving volunteers.

EGP5. Flooding & drainage

Due to Glasgow's location and climate, various parts of the city are at some risk from river related flooding, rainwater flooding or both. Climate change predictions mean that these types of problem are likely to become worse in the years to come. We are very conscious of this threat and therefore the need to consider flood risk and drainage capacity issues in the design and implementation of Games infrastructure.

Sustainable drainage and flood risk management is an area that has distinct cross-over with other environmental issues including pollution prevention and control, biodiversity conservation and soil erosion prevention. Where possible, we will explore design solutions that make the most of these beneficial links. When designing SuDS schemes, we will give due consideration to existing habitat, landscape and topographical features, ensuring that our new schemes are fully integrated with these features where possible. Where relevant, we will use SuDS approaches to deal with the point and diffuse source water pollution risks associated with our new facilities, helping to protect river and groundwater quality.

EGP6. Sensitive receptors

Whilst Games related development will deliver a broad range of environmental benefits, there is also potential for adverse issues, particularly in relation to sensitive receptors such as the water environment, habitats and habitat networks, species and certain groups of people in some parts of the City. Where Games related development has potential to negatively impact sensitive receptors, we will work to ensure that such impact is avoided or minimised.

Where habitat disturbance, fragmentation, species isolation or severance is likely, we will work to integrate suitable mitigation measures with project design. We will ensure that all our contractors comply with relevant legislation and guidance to minimise water pollution risks as well as noise, dust and vibration nuisance during construction activities. We will work to ensure that all Games related temporary traffic management measures are designed to minimise traffic congestion. Where possible, we will deploy these measures at non-peak times to minimise disruption to road users.

EGP7. Minimising pollution, disturbance & nuisance

Some aspects of the Games' construction and transport programme may contribute to temporary increases in air and water pollution, species and habitat disturbance and nuisance issues such as noise, dust and vibration. This may affect sensitive receptors including people, protected species and habitats and the water environment. We will endeavour to minimise Games related pollution, disturbance and nuisance impacts. Where possible, we will capitalise on Games related infrastructure improvements to help reduce air pollution and nuisance – by raising awareness of our active and sustainable travel improvements, we aim to encourage people out of their cars and onto bikes, buses and trains.

Consultation with relevant technical stakeholders, both internal and external to the Council, is an important part of our approach to minimising pollution, disturbance and nuisance. Where opportunities remain to inform plans for project design and construction, we will ensure that relevant stakeholders are engaged to advise on the best practicable approaches for minimising these types of impact. Key stakeholders in this regard include GCC's Public Health Group and the GCC Ecology and Biodiversity team.

EGP8. Sustainable approaches to contaminated land remediation and managing soil erosion & soil sealing

Soil is a valuable and important resource, particularly in urban environments where good quality soils and soils that haven't been developed on are at a premium. Soil provides a range of important functions including storage, filtering and transfer of nutrients, providing the basis for food and biomass production and as a support for the preservation of nationally and locally valued habitats and biodiversity. These functions are critical in cities like Glasgow where opportunities for growing food, biomass production and habitat and biodiversity conservation are constrained by a range of other pressures.

It is therefore crucial that we protect what soil resource we have in Glasgow and the Games raises an important opportunity to put this principle into practice. Where relevant, we will consider how aesthetic landscaping and habitat creation and enhancement projects may be used to help address soil erosion issues in vulnerable locations. Where possible, we will minimise soil sealing and new areas of hard standing. At sensitive sites like Cathkin Braes, we will consider strategies for minimising walking and cycling related soil erosion impacts.

9. Conserving and enhancing landscapes & the historic environment

Glasgow has an amazing range of historic buildings, parks, gardens and landscapes that draw visitors from around the world. These also provide the backdrop to development and it is important for new development to work with rather than against the City's historic environment and landscapes. Several Games projects are located in areas with sensitive elements of historic environment. In these areas in particular, it is crucial that the historic environment's sensitivities, vulnerabilities and strong points are considered in the overall design.

We will work to minimise the need for additional Games related signage and street furniture. Where new features are essential, we will use appropriate design and materials that complement the area's historic environment. Where new signs are essential, we will consider opportunities for rationalising new and existing signage requirements to reduce any net increase in signage. In areas of particular landscape importance such as Cathkin Braes, we will endeavour to avoid development that would result in loss of views.

EGP1. Improving active travel routes and informal outdoor recreation networks

1.BACKGROUND INFO:

Glasgow has a substantial network of walking and cycling routes that provide good access to work and leisure opportunities, healthcare, friends and family and neighbouring settlements. There is always room for improvement however, and the Games raises a fantastic opportunity to improve access and informal outdoor recreation opportunities for many people in Glasgow, particularly when considered in conjunction with existing projects taking place across the City

2.EXPLANATION OF EGP1:

Our commitment is to improve active travel options, access arrangements and opportunities for informal outdoor recreation, where improvement is needed. In particular, we will consider how we can improve access to all types of outdoor recreation networks – walking, cycling and water. We will ensure that any improvements delivered facilitate improved access and informal outdoor recreation networks at a City-wide level and not just in the vicinity of Games venues. Where relevant, we will achieve this by:

- Improving access networks (creating and enhancing routes and links)
- Removing barriers to use by increasing accessibility for users of all types and abilities

In addition, and where relevant, we will work to minimise any disruption that Games projects may cause by considering the negative impacts on existing access opportunities, both during and after construction. Where disruption cannot be avoided we will provide alternative routes and communicate changes to stakeholders. In particular, we will:

- Produce an Access Plan for each Games project
- Minimise disruption to existing access routes and areas during and post-construction
- Mitigate any negative impacts on access routes and areas during and post-construction
- Provide notices at construction sites listing dates of disruption, contact details and maps of temporary alternative routes
- Provide directional signage for temporary alternative routes
- Provide regular bulletins to key user groups with information on disruption. This will be via email or appropriate websites.

3.KEY LINKS WITH OTHER EGPs

✓ direct link with related Environmental Guiding Principle

✗ no direct link with other Environmental Guiding Principle

○ partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
N/A	✓	✓	○	○	✓	✗	✗	○

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP1 WITH GAMES PROJECTS:

When improving access networks, have you:

- Considered options for constructing new routes/ links that, ideally, are off-road or separated from vehicular traffic?
- Enhanced existing routes/ links through, for example, re-surfacing, re-grading, widening or improvements to signage and lighting?
- Accounted for maintenance provisions both now and in the future?

When removing barriers to use by increasing accessibility, have you:

- Considered the full range of active travel and recreational users including cyclists, walkers, water users, horse riders and, where appropriate, families, buggy-pushers and school children?
- Considered the full range of users with different abilities e.g. from wheelchair users and those with mobility difficulties to people who are blind or partially sighted?

When producing an Access Plan for each project, have you:

- Noted existing access routes (proposed core paths including water routes, rights of way, designated cycleways, footways and other well used paths) and access areas (areas where the right of responsible access applies i.e. open areas that are used habitually by the public for transit or recreation)?
- Described actions to: 1) protect existing access opportunities where possible; 2) mitigate negative

impacts on access where impact is unavoidable; and 3) enhanced the access network where possible?

When considering how to minimise disruption to existing access routes and areas in the vicinity of your site/ project, during and post-construction, have you:

- Planned works to accommodate existing access opportunities?
- Ensured that temporary closures will be over the minimum time period required to complete the works?
- Ensured that permanent closure of routes takes place only where absolutely necessary?

When mitigating unavoidable impacts on access routes and areas during and post-construction, have you:

- Provided alternative routes where temporary or permanent closure is necessary?
- Communicated information to key user groups?

5.KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- Glasgow City Council (GCC) DRS Development Plan team (Cathy Johnston)
- GCC DRS Outdoor Access Officer (Sue Hilder)
- GCC LES Parks and Environment team, Landscape Design (Rachel Smith)
- Glasgow Life
- Managers of private venues e.g. Hampden Park, Ibrox and Celtic Park
- Glasgow and Clyde Valley Green Network Partnership (Ally Corbett)
- Key user groups
- Local community/ residents groups

6.GAMES PROJECTS THAT EGP1 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:
All projects

Construction phase:
All projects

Implementation phase:
All projects

7.RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow City Plan 2:** ENV10 Access Routes and Core Path Network; DES1 Development Design Principles; DES5 Development and Design Guidance for the River Clyde and Forth and Clyde Canal Corridors; and TRANS5 Providing for Pedestrians and Cycling in New Development
- **Glasgow Core Paths Plan**
- **Glasgow 2014 Clyde Walkway Pilot Management Plan (CWPP)**
- **DEFRA Sustainable Development Indicators 2010:** Indicator No.55 Mobility – (a) *Number of trips per person by mode*; and Indicator No.56 *Getting to school – How children get to school*

8.EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

Connect2: Completing the 'Bridge to Nowhere'.

Smarter Choices, Smarter Places – 'Glasgow East End on the Move': A Scottish Government project where communities across Scotland have been chosen to receive funding to improve the built environment and work on projects that encourage active travel.

EGP2. Promoting active & sustainable travel

1.BACKGROUND INFO:

The increased uptake of active and sustainable travel modes such as walking, cycling, buses and trains can help deliver many benefits for Glasgow's residents and its environment. Typical examples include the health improvements associated with outdoor exercise and the air quality benefits linked to lower private car usage and decreased traffic congestion

2.EXPLANATION OF EGP2:

In conjunction with our programme of active travel and informal outdoor recreation network improvements (EGP1), we will promote the use of active and sustainable travel before, during and after the Games. The Clyde and Kelvin Walkways will be of strategic operational importance during Games time as well as raising a key legacy opportunity. We will promote their use as key active travel routes and address the question of how to increase their attractiveness as leisure and recreational resources in their own right, along their entire length

In addition, we will give serious consideration to the provision of a new strategic green/ active travel route linking the south of the City (Cathkin Braes) and the City centre. Whilst not directly within the geographic scope of the three Games clusters, we will promote the use of other strategic green/ active travel routes in the City e.g. Forth and Clyde Canal Walkway, White Cart Way, Clyde Pedestrian and Cycle Tunnel etc

Finally, we will consider how the use of appropriate new and improved infrastructure can help to promote active and sustainable travel

3.KEY LINKS WITH OTHER EGPs

- ✓ direct link with related Environmental Guiding Principle
- ✗ no direct link with other Environmental Guiding Principle
- partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
✓	N/A	✓	○	○	✓	✗	✗	○

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP2 WITH GAMES PROJECTS:

- Where your project is accessible by the Clyde/ Kelvin Walkways or other key strategic routes, have you:*
- Provided improved, consistent directional signage to these routes in-line with the objectives of Glasgow City Council's emergent 'City Signage Strategy'?
 - Developed appropriate 'off-site' promotional and advisory information to raise awareness of existing provision and any forthcoming improvements e.g. websites, leaflets, Twitter/ Facebook etc?

- For Games venue/ facility projects, have you considered the infrastructure provision improvements that may be necessary to promote active and sustainable travel use including:*
- Showers and visible bike storage?
 - Orientation map boards?
 - Information on public transport options in the vicinity and key journey times using different modes?

- For Games route projects, have you considered the infrastructure improvements that may be necessary to promote active and sustainable travel use including:*
- Benches/ seating?
 - Orientation map boards?
 - Lighting and interpretation e.g. panels, artworks etc?

5.KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- GCC DRS Development Plan team (Cathy Johnston)
- GCC DRS Outdoor Access Officer (Sue Hilder)
- GCC LES City Wide Projects (Andrew Brown)

6.GAMES PROJECTS THAT EGP2 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:	Construction phase:	Implementation phase:
<ul style="list-style-type: none"> • All Games venue/ facility development and upgrade projects • <i>West cluster public realm strategy</i> 	<ul style="list-style-type: none"> • Projects as per those in the planning/ design phase column 	<ul style="list-style-type: none"> • Projects as per those in the planning/ design phase column

- projects: MP1, 2, 3, 4, 5 and 6*
- *South cluster public realm strategy*
projects: MP9 Hampden East Public Realm Enhancements
- *East cluster public realm strategy*
projects: MP14 Saltmarket Public Realm Project, MP12 NCN Route 75 Enhancement Works
- ENV3 Commonwealth Games Arboretum
- ENV2 Glasgow 2014 CWPP

7.RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow City Plan 2:** ENV10 Access Routes and Core Path Network; DES1 Development Design Principles; DES5 Development and Design Guidance for the River Clyde and Forth and Clyde Canal Corridors; and TRANS5 Providing for Pedestrians and Cycling in New Development
- **Glasgow Core Paths Plan**
- **Glasgow 2014 Commonwealth Games Transport Strategic Plan – First Draft**
- **Glasgow 2014 Clyde Walkway Pilot Management Plan**
- **DEFRA Sustainable Development Indicators 2010:** Indicator No.55 Mobility – (a) *Number of trips per person by mode*; and Indicator No.56 Getting to school – *How children get to school*

8.EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

Connect2: Completing the 'Bridge to Nowhere'.

Smarter Choices, Smarter Places – 'Glasgow East End on the Move': A Scottish Government project where communities across Scotland have been chosen to receive funding to improve the built environment and work on projects that encourage active travel.

Clyde Walkway Pilot Project and Walkway Improvements

EGP3. Green network

1.BACKGROUND INFO:

Glasgow has an extensive green network covering nearly a quarter of the City as well as the largest amount of open space per head of population among Britain's cities. The green network concept is relatively new. One of its key aims is to highlight the relationship between a healthy natural environment and human wellbeing, including economic growth. The physical green network has a range of sub-sets including access networks, habitat networks and open space networks. The physical green network is often considered in terms of **green cores** (e.g. parks and gardens, significant areas of natural/ semi-natural habitat etc), **green links** (e.g. core paths, cycleways, habitat corridors etc) and **green stepping stones** (e.g. small pockets of public open space or natural/ semi-natural habitat)

2.EXPLANATION OF EGP3:

This principle should be applied to all Games operations that will affect existing green network sites or features as well as operations that will result in the creation of new features. It is crucial that any green network creation and enhancement works pursued are also consistent with EGP1 and EGP2

Where opportunities arise, Commonwealth Games works will contribute to the delivery of an enhanced, high quality green network. This will include enhancements across the full range of green network sub-sets, especially access and habitat networks. Improvements will be designed to improve connectivity, particularly between **green cores**, for both people and wildlife

Where appropriate, green network sites should be highly multifunctional – effective sites should support a range of different objectives from biodiversity protection and enhancement through to sustainable drainage, access and outdoor leisure and recreation

At the individual site level, we will ensure that Games related green network enhancements deliver fully on this multifunctionality agenda. Many Games related green network projects have a distinct focus on access, recreation, landscaping and aesthetics. Where this is the case, we will work to ensure that projects deliver improvements to the City's habitat network and biodiversity as well

3.KEY LINKS WITH OTHER EGPs

- ✓ direct link with related Environmental Guiding Principle
- ✗ no direct link with other Environmental Guiding Principle
- partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
✓	✓	N/A	✓	✓	✓	✓	✓	✓

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP3 WITH GAMES PROJECTS:

During the planning/ design phase of your project, have you maximised strategic green network benefit by:

- Planning green network enhancements at a meaningful scale by considering your site's spatial relationship with other green network sites (i.e. with respect to landscape scale processes such as species migration, habitat regeneration and water cycling)?
- Planning for green network enhancement in an integrated manner, by considering the links between your site and its surrounding habitat networks, access routes, green links and green stepping stones?
- Connecting the sites existing/ improved access and habitat networks to wider Glasgow-wide networks?

During the planning/ design phase of your project, have you maximised its beneficial impact on green network connectivity by:

- Removing barriers to movement for both people and wildlife?
- Improving links for people and wildlife both within and across the site?

Have you ensured that green network development/ improvement works on your site are multifunctional by:

- Identifying the full range of opportunities and objectives for green network development on your site?
- Considered the following objectives: biodiversity, access, recreation, SuDS, landscaping and aesthetics

Have you ensured that green network development/ improvement works on your site are supportive of habitat network and biodiversity objectives by:

- Including provision for habitat creation works that allow for a mosaic of habitats and a good variety of features (e.g. hedgerows, woodlands, ponds and wetlands, resting places and boundaries) that will support a wide range of species?

- Ensuring that all works are designed to help species and habitats adapt to climate change by facilitating greater freedom of movement through habitat networks and creating new **green link** and **green stepping stone** features
- Where necessary, putting temporary measures in place during the works on your site to ensure that existing connectivity of habitat networks remains in place during construction

5. KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- GCC DRS Development Plan team (Cathy Johnston and Deirdre Craddock)
- GCC DRS Outdoor Access Officer (Sue Hilder)
- GCC LES Conservation Officer (Dave Garner)
- Glasgow and Clyde Valley Green Network Partnership (Ally Corbett)
- SNH

6. GAMES PROJECTS THAT EGP3 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:	Construction phase:	Implementation phase:
<ul style="list-style-type: none"> • <i>West cluster public realm strategy projects:</i> MP1, 2, 3, 4, 5 and 6 • <i>South cluster public realm strategy projects:</i> MP9 Hampden East Public Realm Enhancements • <i>East cluster public realm strategy projects:</i> MP14 Saltmarket Public Realm Project, MP12 NCN Route 75 Enhancement Works • Kelvingrove Bowling Greens Replacement • Cathkin Braes Glasgow 2014 Mountain Bike Course • ENV1 Castlemilk and Cathkin Braes Commonwealth Community Forests • ENV3 Commonwealth Games Arboretum • ENV2 Glasgow 2014 CWPP 	Projects as per those in the planning/ design phase column, in particular: <ul style="list-style-type: none"> • Kelvingrove Bowling Greens Replacement • Cathkin Braes Glasgow 2014 Mountain Bike Course • ENV3 Commonwealth Games Arboretum 	Projects as per those in the planning/ design phase column

7. RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow City Plan 2:** Part 2, Development Strategy Priorities and Proposals, Biodiversity and Greenspace; ENV3 Development in the Green Belt; ENV6 Biodiversity; ENV7 National, Regional and Local Environmental Designations; ENV8 Trees, Woodland and Hedgerows; DES4 Protecting and Enhancing the City's Natural Environment; ENV10 Access Routes and Core Path Network; DES1 Development Design Principles; and DES5 Development and Design Guidance for the River Clyde and Forth and Clyde Canal Corridors
- **Glasgow Core Paths Plan**
- **GCV Integrated Habitat Network (IHN) Model**
- **Glasgow 2014 Clyde Walkway Pilot Management Plan**
- **Clyde Gateway and Clyde Waterfront Green Network Strategies**
- **DEFRA Sustainable Development Indicators 2010:** Indicator No.21 Biodiversity Conservation (a) *Priority species status* and (b) *priority habitat status*; Indicator No.24 Land use; Indicator No.55 Mobility – (a) *Number of trips per person by mode*; and Indicator No.56 Getting to school – *How children get to school*

8. EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

Glasgow and Clyde Valley Green Network Partnership: Clyde Gateway Green Network Strategy – Bridgeton Cross; Clyde Waterfront Green Network Strategy; Green Network Planning Tools Overview

EGP4. Conserving & enhancing wildlife

1.BACKGROUND INFO:

We are committed to the conservation of Glasgow's wildlife and biodiversity. The Commonwealth Games will provide us with an ideal opportunity not only to protect and enhance our existing habitats and open spaces, but also to work towards creating new habitats and connecting them to the City's existing habitat network, allowing species to flourish.

2.EXPLANATION OF EGP4:

Our overall approach is to ensure that all Commonwealth Games projects support the protection and enhancement of Glasgow's important habitats and species. This includes the diversity of habitats and species as well as their distribution around the City. Additionally, we will work to restore and enhance the ecological potential of Commonwealth Games sites. The approach to integrating this principle with Games projects is split into three key strands:

- **Planning and assessment:** adopting an ecosystems approach when assessing the impact of Games works on habitats and species and developing mitigation and enhancement measures accordingly
- **Enhancement:** identifying a range of opportunities whereby Games projects can work towards the enhancement of habitats and species
- **Protection and legal issues:** ensuring that species and habitats are subject to adequate protection during Games related works, particularly with regard to relevant legal requirements
- **Best-practice:** incorporating a range of biodiversity enhancement and management best-practice to ensure longevity of project outcomes

3.KEY LINKS WITH OTHER EGPs

- ✓ direct link with related Environmental Guiding Principle
- ✗ no direct link with other Environmental Guiding Principle
- partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
○	○	✓	N/A	✓	✓	✓	✓	✗

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP4 WITH GAMES PROJECTS:

During the planning and assessment phases of your project, have you:

- Adopted an ecosystems approach by considering your project's impact on ecosystem structure, composition and process. In particular, have you considered the distribution of habitat patches and corridors in the wider landscape and taken steps to avoid isolating or fragmenting species and habitats and address existing fragmentation issues where opportunities arise?
- Aligned actions 'on the ground' to wider strategic priorities and prescribed actions for biodiversity such as those from the UK Biodiversity Action Plan (BAP), Glasgow Local BAP, Scottish Biodiversity Strategy, Scottish Climate Change Adaptation Strategy and relevant international obligations?
- Used good surveys and assessments to ascertain the presence of protected species and habitats, identify the potential impacts of your project on key features and scope ideas for enhancement?
- Considered the projects direct, indirect and cumulative impacts on habitats and species?
- Developed suitable mitigation measures where negative impacts have been identified including temporary measures such as translocation of threatened species and habitats where necessary?
- Taken a precautionary approach where there is uncertainty?
- Ensured that good management, maintenance and aftercare regimes are put in place for the long term, including provision for monitoring to ensure that the actions are successful and that remedial action can be made if necessary?

To ensure that species and habitats are afforded appropriate protection, particularly those that are protected by law, throughout all stages of your project, have you:

- Ensured that measures are in place to protect important species in habitats through all phases of the development? **Note:** this may necessitate the preparation of a species or habitat protection plan
- Taken steps to ensure that all contractors are made aware of the requirements in law to relating to relevant protected species and habitats as well as any arrangements they may have to make regarding licensing or other precautions?
- Taken steps to ensure that all contractors are aware of the need to halt work on site and seek advice from Scottish Natural Heritage (SNH) should important/ protected species be found using the site?
- Considered the sensitivity and vulnerability of species and habitats to impacts such as noise and changes in lighting, their conservation status, legal protection and ecology throughout all stages of your

project's development?

To ensure that your project enhances species, habitats and their diversity and distribution, have you:

- Ensured that projects focusing on wider objectives such as access, recreation and landscaping also support biodiversity enhancement as well?
- Ensured that, where relevant, your project enhances the ecological potential of aspects of the built and natural environment that form an important part of wider habitat networks including the built environment, landscaped areas and open spaces? **Note:** this may include the incorporation of bat/ swift nesting boxes, utilising green roofs/ walls and incorporating SuDS
- Identified opportunities whereby your project can enhance habitats and create new niches for species in both the built environment and the natural landscape? **Note:** these sorts of works should aim to enhance ecosystem resilience to a range of pressures as well as restoring and improving the ecological potential of sites for a broad range of habitats and species

To ensure the longevity of biodiversity outcomes from your project, have you:

- Ensured that all works incorporate best-practice measures for habitat and species conservation and management as well as achieving a high standard of delivery?
- Considered how to build capacity for further enhancement works as well as opportunities for securing support for future enhancement works? **Note:** this may include volunteer habitat management
- Sought opportunities to raise public awareness and understanding of wildlife conservation issues through Games related environmental community programmes? **Note:** this should address ecosystem service issues by highlighting the relationship between the natural environment and human well-being

5. KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- GCC DRS Development Plan team (Cathy Johnston and Deirdre Craddock)
- GCC LES Conservation Officer (Dave Garner)
- Glasgow and Clyde Valley Green Network Partnership (Ally Corbett)
- SNH
- Relevant local interest/ friends of groups

6. GAMES PROJECTS THAT EGP4 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:

All projects though the following are likely to be of particular relevance:

- Scotstoun Squash Centre
- Kelvingrove Bowling Greens Replacement
- Cathkin Braes Glasgow 2014 Mountain Bike Course
- MP4 Kelvin Walkway Enhancement
- MP12 NCN Route 75 Enhancement Works
- VAR2 Kelvingrove Complex Access Route Enhancements
- VAR8 Glasgow Green Access Route Enhancements
- VAR9 Tollcross Leisure Centre Access Route Enhancements
- ENV1 Castlemilk and Cathkin Braes Commonwealth Community Forests Project
- ENV2 Glasgow 2014 CWPP
- ENV3 Commonwealth Games Arboretum

Construction phase:

Projects as per those in the planning/ design phase column

Implementation

phase:

Projects as per those in the planning/ design phase column

7. RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow City Plan 2:** Part 2, Development Strategy Priorities and Proposals, Biodiversity and Greenspace; ENV3 Development in the Green Belt; ENV6 Biodiversity; ENV7 National, Regional and Local Environmental Designations; ENV8 Trees, Woodland and Hedgerows; ENV17 Protecting the Water Environment; DES2 Sustainable Design and Construction; and DES4 Protecting and Enhancing the City's Natural Environment

-
- **Glasgow Local Biodiversity Action Plan (LBAP)**
 - **Glasgow Environment Strategy and Action Plan**
 - **GCV Integrated Habitat Network (IHN) Model**
 - **Glasgow 2014 Clyde Walkway Pilot Management Plan**
 - **Clyde Gateway and Clyde Waterfront Green Network Strategies**
 - **DEFRA Sustainable Development Indicators 2010:** Indicator No.21 Biodiversity Conservation (a) *Priority species status* and (b) *priority habitat status*; Indicator No.24 Land use; Indicator No. 28 Ecological impacts of air pollution; and Indicator No.30 River Quality (a) Rivers of good biological quality and (b) Rivers of good chemical quality
-

8.EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

2014 Commonwealth Games: Cathkin Braes Mountain Bike Course

EGP5. Flooding and Drainage

1.BACKGROUND INFO:

Due to Glasgow's location and climate, various parts of the City are at some risk of river related flooding, rainwater flooding, tidal flooding or all three. Climate change predictions mean that these types of problem are likely to become worse in the years to come. For example, severe weather conditions to the south and west of the Firth of Clyde have potential to cause a surge that may run upstream as far as Glasgow. If this were to coincide with a high tide, there is potential for the water level to rise above the level of the City Centre's quay walls.

The sewerage capacity in certain parts of the City acts as a constraint to development, particularly in the north and east, any many parts of the drainage infrastructure are Victorian in nature. The infrastructure is made up of complex interconnected networks of sewers, gullies, burns and culverts, and served by four major wastewater treatment works - all of which discharge treated final effluent into the River Clyde. Through the current and planned work of the Metropolitan Glasgow Strategic Drainage Partnership (MGSDP), Glasgow's flooding and drainage infrastructure is being substantially modernised. This includes plans for significant usage of surface water management which will help to reduce pressure on the City's more conventional, underground pipe drainage infrastructure

2.EXPLANATION OF EGP5:

Sustainable drainage and flood risk management is an area that has distinct cross-over with other environmental issues including pollution prevention and control, biodiversity conservation and soil erosion prevention.

Where possible, we will explore design solutions that make the most of these beneficial links. During the development of surface water management schemes/ plans and during the design of SuDS schemes, we will give due consideration to existing habitat, landscape and topographical features, ensuring that our new schemes are fully integrated with these features where possible.

Where possible, we will approach our drainage and flooding infrastructure needs through the use of SuDS and other types of regional and local surface water management schemes. This will help to reduce pressure on existing 'below the ground' drainage infrastructure, reduce the likelihood of discharge from combined sewer overflows (CSOs) during heavy rain and help to protect and enhance water quality.

3.KEY LINKS WITH OTHER EGPs

- ✓ direct link with related Environmental Guiding Principle
- ✗ no direct link with other Environmental Guiding Principle
- partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
✓	○	✓	✓	N/A	✓	✓	✓	○

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP5 WITH GAMES PROJECTS:

During the planning and assessment phases of your project, have you:

- Identified whether your development is located within, or adjacent to, a functional flood plain?
- Undertaken a more detailed Flood Risk Assessment (FRA) and/ or Drainage Impact Assessment (DIA) where necessary?
- Ensured that your project design has:
 - Contributed towards minimising flood risk?
 - Avoided any increased flooding risk which would affect people, properties and wildlife either within the development site, or outwith the site as a consequence of development?
 - Addressed the cumulative impact on infrastructure capacity of incremental growth of impermeable surfaces by not increasing the quantity and rate of surface run-off from any site?
- Considered the opportunities for new access provision that a SuDS scheme might raise?

During the detailed design phase of your project, have you:

- Explicitly considered the flood pattern across your site (e.g. flood plains and channels) and used this to inform landscape design and the definition of various landscape areas?

- Included the requirement for SuDS provision for all new developments?
- Considered how a new SuDS scheme can be designed to support a wide range of objectives including biodiversity, habitat networks and access?
- Ensured your development (if relevant) is connected to the public sewerage system?
- If your development is located within a medium to high flood risk area have you ensured that your development has used water resistant materials?
- Ensured that you have consulted up to date flood mapping associated with new developments and associated infrastructure/ connections?
- Consulted with Glasgow City Council's Flood Risk Management Team to ensure their perspective and advice has been considered?
- Consulted with SEPA's Scotland River Basin Management Plan team?
- Investigated opportunities to de-culvert any water courses within the development area as part of a wider strategy for flood risk prevention and surface water management?
- Where relevant, have you considered the need to ensure the long term maintenance of all flood defences and flood prevention schemes associated with your development?

5. KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- GCC DRS Flood Risk Management Team (David Hay and/ or Bill Douglas)
- SEPA River Basin Management Plan Clyde Area Advisory Group (Julia MacPherson)
- Scottish Water

6. GAMES PROJECTS THAT EGP5 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:

All projects though the following are likely to be of particular relevance:

- Kelvingrove Bowling Greens Replacement
- MP4 Kelvin Walkway Enhancement
- MP12 NCN Route 75 Enhancement Works
- VAR8 Glasgow Green Access Route Enhancements
- ENV2 Glasgow 2014 CWPP
- ENV3 Commonwealth Games Arboretum

Construction phase:

Projects as per those in the planning/ design phase column

Implementation phase:

Projects as per those in the planning/ design phase column

7. RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow City Plan 2:** Part 2, Development Strategy Priorities and Proposals: Biodiversity and Greenspace; Water Supply; Drainage and Sewerage; Metropolitan Growth Corridor – Clyde Waterfront, Clyde Gateway; Part 3, Development Policies and Design Guidance: ENV4 Sustainable Urban Drainage Systems (SUDS); ENV5 Flood Prevention and Land Drainage; ENV17 Protecting the Water Environment: Part 4, Development Guides, DG/ ENV5 Broad Environmental Mitigation Measures; DG/ ENV6 The River Clyde Flood Management Strategy Development Guide; DEV11 Green Space; DEV12 Green Belt
- **Glasgow Local Biodiversity Action Plan (LBAP)**
- **Glasgow Environment Strategy and Action Plan**
- **Clyde Gateway and Clyde Waterfront Green Network Strategies**
- **GCV Integrated Habitat Network (IHN) Model**
- **Metropolitan Glasgow Strategic Drainage Partnership:** working brief/ objectives, Development Plan, Implementation Plan and relevant projects
- **River Clyde Flood Management Strategy, River Corridor Supplementary Development Guide**
- **Scottish Planning Policy:** flooding and drainage
- **Planning Advice Note (PAN) 69:** Planning and Building Standards Advice on Flooding
- **DEFRA Sustainable Development Indicators 2010:** Indicator No.31 Flooding

8. EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

2014 Commonwealth Games Athletes' Village (see [Glasgow 2014 Ltd](#))
Clyde Gateway: South Dalmarnock Masterplan; Shawfield Masterplan

EGP6. Sensitive Receptors

1.BACKGROUND INFO:

Whilst Games related development will deliver a broad range of environmental benefits, there is also potential for adverse issues, particularly in relation to sensitive receptors such as the water environment, habitats, species (including migratory species or those of poor conservation status), the historic environment and certain groups of people Such as the elderly

2.EXPLANATION OF EGP6:

The potential for conflicts with sensitive receptors as well as cumulative impacts will be identified at an early stage in project planning. Where Games related development has potential to negatively affect one or more sensitive receptors, we will work to ensure that such impact is avoided. Where this is not possible, measures to mitigate or ameliorate these will be put in place. We recognise that dependant on its nature, a specific receptor will have different sensitivities (e.g. light, noise, recreational disturbance etc) and different responses to stress. We will ensure that this variability is factored into our response.

Often because of their sensitivities, wildlife and habitats are subject to legal protection. Where habitat disturbance, fragmentation or severance is likely, we will work to integrate suitable mitigation measures with project design. We will ensure that all our contractors comply with relevant legislation and guidance to minimise water pollution risks as well as noise, dust and vibration nuisance during construction activities. We will work to ensure that all Games related temporary traffic management measures are designed to minimise traffic congestion. Where possible, we will deploy these measures at non-peak times to minimise disruption to road users.

3.KEY LINKS WITH OTHER EGPs

- ✓ direct link with related Environmental Guiding Principle
- ✗ no direct link with other Environmental Guiding Principle
- partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
✓	○	✓	✓	✓	N/A	✓	✓	✓

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP6 WITH GAMES PROJECTS:

At a suitably early stage during the planning and assessment phases of your project, have you:

- Identified the potentially sensitive receptors of relevance to each stage or phase of your development, including any outside the site boundary that could also be affected?
- Identified sources of change or disturbance that have potential to negatively impact sensitive receptors identified as per the above?
- Ensured that any existing access or active travel routes on or adjacent to your site have been treated as a sensitive receptor and severance/ disruption issues mitigated where relevant?

At a suitably early stage during the detailed design phase of your project, have you:

- Taking account of each individual receptor's particular sensitivities, used careful design to avoid/ minimise any potential conflicts with individual sensitive receptors (including where they are mobile) and put effective mitigation measures in place?
- Where sensitive receptors are present on your site, have you put in place a protection plan or method statement to guide operations and workers on site?
- Considered the following types of mitigation measure: temporary/ permanent buffer zones, screening, the creation of wildlife refuge areas and directing actions away from sensitive receptors including habitats/ species, people etc?
- Planned the timing of your proposed works to minimise potential impacts on sensitive receptors (based on an understanding of when they are likely to be on or near your site e.g. breeding birds)?

During the procurement stages of your project, have you:

- Ensured that all prospective contractors have the necessary policies and systems in place to comply with relevant legislation, best-practice guidance and industry standards? (See Scottish NetRegs below for details)
- Considered the legal requirements, best-practice guidance and industry standards relating to pollution, dust, noise, lighting and vibration? (See Scottish NetRegs below for details)

- Recognised that for some species, disturbance is a legal issue that needs to be taken into account when carrying out certain operations (See Scottish NetRegs below for details)

In relation to natural environment sensitive receptors, have you:

- Undertaken relevant surveys for protected species (e.g. otters, badgers and bats) and habitats during an appropriate stage of your development?
- Obtained the relevant licenses, where appropriate, to undertake works where protected species may be affected?
- Ensured that your development will not result in degradation of habitat quality, isolation of species or the severance or removal of existing habitat networks?
- Ensured that your development, during both construction and operational phases, will not contribute to increased point or diffuse source water pollution that could negatively the quality of surface water or groundwater bodies?

In relation people, have you:

- Adhered to the key considerations set out in EGP7 to avoid excessive noise, dust and nuisance that might affect the quality of life of people living and working adjacent to your site?
- Ensured that your development does not negatively affect existing recreational areas and/ or access to these areas?
- Ensured that any related temporary traffic management measures are deployed at non-peak times where possible and designed in such a way as to minimise traffic congestion?
- Ensured that any related temporary traffic management measures have been designed in such a way as to minimise disruption to active travellers as well as road users?

5.KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- DRS Development Plan team (Cathy Johnston and Deirdre Craddock)
- Glasgow City Council Outdoor Access Officer (Sue Hilder)
- GCC LES Conservation Officer (Dave Garner)
- Glasgow City Council Parks and Environment team, Landscape Design (Rachel Smith)
- Glasgow Life
- Managers of private venues e.g. Hampden Park, Ibrox and Celtic Park
- Key user groups (e.g. cyclists, walkers etc)
- Community/ residents groups in the affected areas

6.GAMES PROJECTS THAT EGP6 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:	Construction phase:	Implementation phase:
All projects	All projects	All projects

7.RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow City Plan 2:** Part 2, Development Strategy Priorities and Proposals, Biodiversity and Greenspace; ENV3 Development in the Green Belt; ENV6 Biodiversity; ENV7 National, Regional and Local Environmental Designations; ENV8 Trees, Woodland and Hedgerows; ENV17 Protecting the Water Environment; DES2 Sustainable Design and Construction; and DES4 Protecting and Enhancing the City's Natural Environment; ENV10 Access Routes and Core Path Network; DES1 Development Design Principles; DES5 Development and Design Guidance for the River Clyde and Forth and Clyde Canal Corridors; and TRANS5 Providing for Pedestrians and Cycling in New Development
- **Glasgow Core Paths Plan**
- **Glasgow Local Biodiversity Action Plan (LBAP)**
- **Glasgow Environment Strategy and Action Plan**
- **GCV Integrated Habitat Network (IHN) Model**
- **Glasgow 2014 Clyde Walkway Pilot Management Plan (CWPP)**
- **DEFRA Sustainable Development Indicators 2010:** Indicator No.55 Mobility – (a) *Number of trips per person by mode*; and Indicator No.56 Getting to school – *How children get to school*; Indicator No.21 Biodiversity Conservation (a) *Priority species status* and (b) *priority habitat status*; Indicator No.24 Land use; Indicator No. 28 Ecological impacts of air pollution; and Indicator No.30 River Quality (a) Rivers of good biological quality and (b) Rivers of good chemical quality
- **Scottish NetRegs:** <http://www.netregs.gov.uk/netregs/legislation/current/63570.aspx>

8.EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

2014 Commonwealth Games: Kelvingrove Bowling Greens Replacement; Athletes' Village Site Remediation; NISA/ Sir Chris Hoy Velodrome

EGP7. Minimising pollution, disturbance and nuisance

1.BACKGROUND INFO:

Some aspects of the Games' construction and transport programme may contribute to temporary increases in air and water pollution, species and habitat disturbance and nuisance issues such as noise, dust and vibration. This may affect sensitive receptors as per the issues covered in EGP6

2.EXPLANATION OF EGP7:

Where possible, pollution, disturbance and nuisance related to or created by Games works will be minimised or mitigated as far as possible. This includes those that may lead to any direct, indirect or cumulative impacts on sensitive receptors.

In addition, consultation with relevant technical stakeholders, both internal and external to the Council, is an important part of our approach to minimising pollution, disturbance and nuisance. Where opportunities remain to inform plans for project design and construction, we will ensure that relevant stakeholders are engaged to give advice on the best practicable approaches for minimising these types of impact.

3.KEY LINKS WITH OTHER EGPs

✓ direct link with related Environmental Guiding Principle

✗ no direct link with other Environmental Guiding Principle

○ partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
✓	○	✓	✓	✓	✓	N/A	✓	○

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP7 WITH GAMES PROJECTS:

When planning the construction phase of your project, have you:

- At an early stage, identified all potential sources and risks associated with pollution, disturbance and noise that could affect sensitive receptors (see EGP6) and/ or cause a significant cumulative effect?
- Where sources and risks of pollution etc have been identified, have you put in place suitable mitigation measures (including good design, adoption of best-practice and achieving relevant standards)?
- Ensured that contractors comply with relevant legislation and guidelines to minimise noise, dust and vibration nuisance? E.g. conducting noisy operations at appropriate times of the day.
- Ensured that temporary traffic management measures are designed to minimise traffic congestion? E.g. using side streets for site access; and deploying temporary traffic management measures during non-peak travel times across various timescales, i.e. morning and evening rush hours within a 24-hour timeframe, summer break during a one year timeframe etc.
- Ensured that relevant stakeholders (GCC Public Health Unit) are engaged to advise on the best practicable approach to minimising construction related air pollution and noise impacts.
- Considered the need for extra air quality monitoring during construction activities?
- Ensured that residents and users of adjacent amenities are pre-warned of any potentially noisy operations.

5.KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- GCC LES Public Health Group
- DRS Development Plan team (Cathy Johnston and Deirdre Craddock)
- GCC DRS Outdoor Access Officer (Sue Hilder)
- GCC LES Conservation Officer (Dave Garner)
- Community Council groups
- Key user groups (e.g. cyclists, walkers etc)
- Community/ residents groups in the affected areas
- SEPA
- SNH

6.GAMES PROJECTS THAT EGP7 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:

All projects though the following are likely to be of particular relevance:

- All Games Projects have the potential to cause pollution, disturbance or nuisance

Construction phase:

Projects as per those in the planning/ design phase column

Implementation phase:

Projects as per those in the planning/ design phase column

7.RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow 2014 Commonwealth Games Transport Strategic Plan – First Draft**
- **Glasgow City Plan 2:** Part 2, Development Strategy Priorities and Proposals, Biodiversity and Greenspace; ENV3 Development in the Green Belt; ENV6 Biodiversity; ENV7 National, Regional and Local Environmental Designations; DES2 Sustainable Design and Construction
- **SEPA Guidance:** WA-RM-02 Regulation of Engineering Activities; WA-SG-29: Good Practice Guide – Construction Methods; WAT-SG-31: SEPA Special Requirements for Civil Engineering Contracts for the Prevention of Pollution v02; WAT-PS-06-08: Policy and Supporting Guidance on Provision of Waste Water Drainage in Settlements; WAT-SG-05: Point Source Discharge Constituents; WAT-SG-39:Point Source Regime Definitions; WAT-SG-53: Environmental Standards for Surface Waters; WAT-SG-57: Toxicity Screening for Discharges
- **National Legislation:** Environmental Protection Act 1990; Control of Pollution Act 1974 40 Part III; Control of Noise (Codes of Practice for Construction and Open Sites) (Scotland) Order 2002 SSI 104; Noise Emission in the Environment by Equipment for Use Outdoors Regulations 2001 SI 1701; Noise Emission in the Environment by Equipment for Use Outdoors (Amendment) Regulations 2001 SI 3958; Emission in the Environment by Equipment for Use Outdoors (Amendment) Regulations 2005 SI 3525; Road Vehicles (Construction and Use) (Amendment) Regulations 2010 SI 312

8.EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

2014 Commonwealth Games: Athletes' Village Site Remediation

EGP8. Sustainable approaches to contaminated land remediation and managing soil erosion and soil sealing

1.BACKGROUND INFO:

Soil is a valuable and important resource, particularly in urban environments where good quality soils and soils that haven't been developed on are at a premium. Soil provides a range of important functions including storage, filtering and transfer of nutrients, providing the basis for food and biomass production and as a support for the preservation of nationally and locally valued habitats and biodiversity.

These functions are critical in cities like Glasgow where opportunities for growing food, biomass production and habitat and biodiversity conservation are constrained by a range of other pressures. It is therefore crucial that we protect what soil resource we have in Glasgow and the Games raises an important opportunity to put this principle into practice.

Additionally, Glasgow has numerous pockets of potentially contaminated land. These are sites where owing to their previous industrial uses and underlying geology, there is a risk that soils have become contaminated with a range of substances. This is a particularly important problem in the East end of the City where many of Glasgow's former heavy industries were located and much of the Games related development is taking place.

2.EXPLANATION OF EGP8:

We will demonstrate an understanding of how the construction, operation and future uses of the Games venues, infrastructure and Village affect the soil environment, and demonstrate that actions have been put into place to ensure its protection and enhancement.

Where relevant, we will consider how aesthetic landscaping and habitat creation and enhancement projects may be used to help address soil erosion issues in vulnerable locations. Where possible, we will minimise soil sealing and new areas of hard standing. At sensitive sites like Cathkin Braes, we will consider strategies for minimising walking and cycling related soil erosion impacts.

Cleaning up contaminated land can deliver many sustainability benefits by reusing existing sites for new development as well as protecting humans, plants and animals from potentially dangerous contaminants. Where significant land contamination issues exist, we will ensure that the remediation strategy used is the most sustainable option given constraints. Where possible, we will use onsite remediation techniques to minimise the waste and carbon impact associated with soil excavation, transportation and disposal.

3.KEY LINKS WITH OTHER EGPs

✓ direct link with related Environmental Guiding Principle

✗ no direct link with other Environmental Guiding Principle

○ partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
✓	○	✓	✓	✓	✓	✓	N/A	○

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP8 WITH GAMES PROJECTS:

Where significant contaminated land issues exist, have you:

- Ensured that the remediation strategy used is the most sustainable option given constraints?
- Where possible, used onsite soil remediation techniques to minimise the waste and carbon impact associated with soil excavation, transportation and disposal?
- Where possible, adopted a remediation strategy that maintains, as far as possible, the ecological potential of the site (e.g. preservation of seed banks, organic matter, soil structure and soil processes)?

Where this is a risk that your project may contribute to soil sealing/ erosion, have you:

- Ensured that soil has been given equal consideration to the other environmental media?
- Considered the soil related impacts of your project on wider ecosystem function (e.g. infiltration of rainwater, maintenance of soil resources, providing the basis for food and biomass production etc)?
- Considered the use of soft landscaping and/ or habitat creation to help address soil erosion issues?
- Considered the impact of your project on existing seed banks?

5.KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- GCC DRS Land Remediation Team (David Hay and/ or Bill Croxford)
- GCC LES Conservation Officer (Dave Garner)
- SEPA

6.GAMES PROJECTS THAT EGP8 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:
All projects

Construction phase:
All projects

Implementation phase:
All projects

7.RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow City Plan 2:** DG/ ENV 5: Broad Environmental Mitigation Measures
- **The Scottish Soil Framework:** sets out the vision for soil protection in Scotland, and formally acknowledges the important services that soils provide to society.

8.EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

2014 Commonwealth Games: Athletes' Village Soil Cleaning

EGP9. Conserving and enhancing landscapes & the historic environment

1.BACKGROUND INFO:

Glasgow is renowned as having one of the finest concentrations of Victorian architecture in Great Britain. Patterns of settlement within the City often mean that views from within the urban area are an important feature of the landscape within the City. Open greenspaces provide the City with attractive open views within the urban sprawl, and are valuable leisure and amenity sites that contribute towards the health and well-being of its people. They are also closely connected to the surrounding built environment, not only with contemporary historic buildings.

Furthermore, Glasgow has a rich archaeological heritage, derived mainly from its ecclesiastical and industrial history. The principal areas of archaeological significance are in the City Centre, High Street, along the River Clyde (including Govan) and around the Forth & Clyde Canal and Antonine Wall.

2.EXPLANATION OF EGP9:

Glasgow's historic buildings, parks, gardens and landscapes provide the backdrop to development. Accordingly, it is important that new development works with rather than against the City's historic environment and landscapes. Several Games projects are located in areas with sensitive elements of historic environment. In these areas in particular, it is crucial that the historic environment's sensitivities, vulnerabilities and strong points are considered in the overall design.

We will work to ensure that all Games related projects are designed in such a way as to avoid or mitigate any potential conflicts with sensitive aspects of the City's historic environment and landscapes (including sensitive and cultural landscapes). Furthermore, we will ensure that Games projects protect and enhance the City's historic environment to a high standard.

3.KEY LINKS WITH OTHER EGPs

- ✓ direct link with related Environmental Guiding Principle
- ✗ no direct link with other Environmental Guiding Principle
- partial link with other related Environmental Guiding Principle

EGP1	EGP2	EGP3	EGP4	EGP5	EGP6	EGP7	EGP8	EGP9
✓	✓	✓	✓	✓	✓	✓	✓	N/A

4.KEY CONSIDERATIONS WHEN INTEGRATING EGP9 WITH GAMES PROJECTS:

During the planning/ design stage of your project, have you identified potential conflicts with the historic environment by:

- Basing your proposals on a sound understanding of the historic environment, informed by research and visual assessments where necessary?
- Identifying potential historic environment/ landscape sensitivities, conflicts and risks at an early stage?
- Minimising the need for additional Games related signage and street furniture?
- Where new signage and street furniture is essential, used appropriate design and materials that complement the area's historic environment?
- Where new signs are essential, identified opportunities for rationalising new and existing signage requirements to reduce any net increase in signage?
- Avoiding development that would result in loss of views in areas of particular landscape importance?

During the planning/ design phase of your project, have you maximised historic environment and related benefits by:

- Using good design to integrate proposals with the historic, geological and cultural landscape environment?
- Where relevant, ensuring that landscape enhancements (e.g. restoration and/ or planting of hedgerows) provide a range of additional benefits such as increasing the extent of habitat networks?
- Planning historic environment enhancements at a meaningful scale by considering your site's spatial relationship with the surrounding built and buried historic environment (i.e. with respect to historic character, potential buried archaeological remains etc)?

- Planning for historic environment enhancement in an integrated manner, by considering the links between your site and the surrounding historic environment?
- Connecting the sites existing/ improved access to wider to the rest of the Glasgow's built and historic environment?

During the planning/ design phase of your project, have you maximised its beneficial impact on the historic environment by:

- Removing existing structures that are detrimental to the area's historic character?
- Used designs and materials that are appropriate and enhance the area's historic character?

Have you ensured that historic environment improvement works on your site are supportive of the conservation and enhancement of landscape/ historic environment objectives by:

- Ensuring your design uses good quality materials that have been discussed with and approved by the appropriate stakeholders?
- Taking cognisance of the potential for buried archaeological remains where ground disturbance works are required?
- Ensuring that the works do not have an adverse effect on the structure or setting of historic structures?

5.KEY STAKEHOLDERS YOU MAY WISH TO CONSULT/ INFORM:

- GCC DRS Development Plan team (Katie Dargie)
- West of Scotland Archaeology Service
- Historic Scotland
- Glasgow City Heritage Trust

6.GAMES PROJECTS THAT EGP9 IS PARTICULARLY RELEVANT TO DURING:

Planning/ design phase:

- *West cluster public realm strategy projects:* MP1, 2, 3, 4, 5 and 6
- *East cluster public realm strategy projects:* MP14 Saltmarket Public Realm Project, MP12 NCN Route 75 Enhancement Works
- Kelvingrove Bowling Greens Replacement
- ENV2 Glasgow 2014 CWPP

Construction phase:

Projects as per those in the planning/ design phase column, in particular:

- Kelvingrove Bowling Greens Replacement
- *West cluster public realm strategy projects:* MP1, 2, 3, 4, 5 and 6
- *East cluster public realm strategy projects:* MP14 Saltmarket Public Realm Project

Implementation phase:

Projects as per those in the planning/ design phase column

7.RELATED POLICY, INDICATORS, GUIDANCE AND TOOLKITS:

- **Glasgow City Plan 2:** Part 2, Development Strategy Priorities and Proposals, Heritage and the Built Environment; DEV11 Green Space; DEV12 Green Belt; ENV13 Ancient Monuments and Scheduled Ancient Monuments; ENV14 Sites of Archaeological Importance; ENV16 The Antonine Wall; DG/ ENV4 Development Affecting Environmental Policy Designations; DG/ ENV5 Broad Environmental Mitigation Measures; DG/ ENV6 The River Clyde Flood Management Strategy Development Guide
- **Glasgow City Council Conservation Area Appraisals:** Central, Glasgow West, Park, Scotstoun, Parkhead Cross, Walmer Crescent, Carmunnock
- **Procedural Guidance for Archaeology and Development:** West of Scotland Archaeology Service

8.EXAMPLES OF GOOD-PRACTICE, EXEMPLAR PROJECTS AND ACCEPTED STANDARDS:

- **Bridgeton Cross Improvements:** Clyde Gateway
- **Govan Cross Regeneration Project:** Clyde Waterfront
- **2014 Commonwealth Games:** Kelvingrove Bowling Greens Replacement