



Glasgow City Council

Environment and Liveable Neighbourhoods Committee

Report by Executive Director of Neighbourhoods,  
Regeneration and Sustainability

Contact: Denise Hamilton

Ext:

**PARKS LIGHTING REVIEW**

**Purpose of Report:**

To provide committee with an update on the Parks Lighting Review following conclusion of the consultation process.

**Recommendations:**

It is recommended that committee notes the contents of the report and next steps outlined

Ward No(s):

Citywide: ✓

Local member(s) advised: Yes  No  consulted: Yes  No

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### 1. Introduction

- 1.1. At a meeting of full Council held on the 9th December 2021, the following motion, as adjusted, was unanimously approved:

"Council notes the campaign launched by Radio Clyde calling for lighting to be installed along the main routes of Glasgow's parks; notes that this renewed call follows on from experiences during COP26; and notes that this campaign is supported by a wide range of individuals and organisations. Women's safety requires a multi-agency response, which includes cultural and societal change.

Council notes the long-standing work of the Glasgow Violence Against Women's partnership in tackling gender-based violence; and the work of the Social Recovery Taskforce, including a specific workstream focused on gender equality. Council believes that Glasgow's parks play a very significant role in city life; that our parks should always be accessible and safe places.

Council further notes that the climate and ecological emergency requires us to take a considered approach to ensure that the biodiversity of our city's open spaces is protected as appropriate, and that decisions about new lighting installations in green spaces should acknowledge these issues; and that it is therefore important to explore sufficient technological solutions to provide sensitive lighting solutions which keep people safe and promotes the biodiversity in our parks and open spaces.

Council agrees that green spaces vary in character and range of uses, and that there may not be a one size fits all approach to lighting that addresses the needs of citizens. An evidence-led, holistic approach must consider these social and environmental impacts, and how they intersect."

- 1.2. A paper was then brought to Environment, Sustainability and Carbon Reduction Committee (ESCR) on the 7th March 2022, <https://www.glasgow.gov.uk/councillorsandcommittees/submissiondocuments.asp?submissionid=103919> , which set out the intended next steps to advise of the considerations required to carry out an evidence-led approach to assess possible lighting solutions within Glasgow's parks and greenspaces and the intention to carry out engagement and consultation through a series of Place Standard events in 3 pilot parks as detailed in the report. These were:

- Kelvingrove Park
- Cranhill Park
- Queens Park

- 1.3. A subsequent report was presented to the ESCR Committee 22 November 2022, Lighting in Parks Report which provided committee an update on the engagement process undertaken at that point and the intended next steps to be undertaken, which included technical workshops.

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- 1.4 In addition, the motion in relation to a Feminist City, which, as adjusted, was approved at the meeting of Glasgow City Council held 27th October 2022, which, amongst other matters, instructed the Chief Executive to prepare reports that will consider how council policy and practice needs to be adapted to embed gender equality into strategy and decision-making and incorporate women's lived experience into public planning, social and economic policy.

The service recognises that our approach to lighting will need to form part of a wider societal and council family-wide approach to how we secure the safety, access, and indeed full participation, of women and girls within public space.

## 2. Background

- 2.1 In considering an evidence-led approach to lighting solutions within our parks, there are a number of considerations that can be viewed holistically, and as part of a place-based approach. These include but are not limited to; biodiversity, climate emergency, health and wellbeing and safety, as set out within the following:

- The Glasgow Violence Against Women Partnership is a city-wide multiagency partnership concerned with preventing and eradicating all forms of violence against women. The GVAWP has a role in supporting the delivery of Equally Safe, the Scottish Governments strategy to tackle violence against women and girls in Glasgow.
- Parks Vision
- Local Biodiversity Action Plan
- Open Space Strategy
- Glasgow's Climate Plan

## 3. Community and Stakeholder Engagement

Throughout this process, the Service has committed to engaging with a wide range of partners and parks user groups to ensure all views are heard and incorporated where possible. The Service welcomed the range of views shared on all aspects of parks safety. A variety of methods were undertaken and facilitated which are listed below:

### 3.1 Greenspace Scotland Park Managers Forum

The Service has been engaging with industry partners and other Local Authorities in the development of this project. The national greenspace charity, Greenspace Scotland, hosted an information gathering session in May 2022. Attendees heard from the following organisations: YWCA, Leeds University – Report on Women and Girls Safety. Further detail on this work is available here: <https://www.greenspacescotland.org.uk/News/what-makes-a-park-feel-safe> , Arup, and Make Space for Girls.

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The forum was also attended by several Scottish Local Authorities, who were asked to provide an overview of parks safety issues, lighting, and initiatives within their localities. Details of this session can be accessed online: <https://www.greenspacescotland.org.uk/park-managers-forum-24-may-2022>

### 3.2 Online Survey

During September 2022, a survey was made available for local residents and key stakeholders including a range of equalities groups to give their views on safety and lighting. These were distributed to stakeholders on a geographical basis, as well as being locally advertised for local residents and parks users. Submissions from city-wide residents and stakeholders were also welcomed.

Each park had the following number of responses to each:

- Cranhill Park – 81
- Queens Park – 345
- Kelvingrove Park – 379

Whilst 89% of respondents, across the three parks, feel unsafe or do not visit during darkness, and 85% think increased lighting would make the park safer in darkness, levels of support were lower when asked about specific interventions with:

- 72% supporting lighting at entrances and exits, 69% supporting lighting on main routes only.
- 38% supporting the lighting of play areas.
- Across the 3 parks 25% of respondents were concerned that additional lighting would affect biodiversity and habitats.
- Supplementary narrative responses to the questionnaire highlighted the sheer diversity of views on how this should or shouldn't be done, with nearly as many different suggestions as there were respondents, with workshops then undertaken to gather additional locally specific evidence and build consensus.
- The implemented solution will improve lighting and will not have an adverse impact on biodiversity and habitats within the park.

### 3.3 Place Making Workshops

Greenspace Scotland were also engaged to support a series of Place Standard events in the three pilot parks in November 2022.

The findings of the online questionnaires were shared and discussed at all workshops, examples of other interventions and project carried out elsewhere in similar settings were highlighted and group visits after dusk were facilitated at each park.

These events were held in the evening, with representatives invited from organisations representing those affected by Violence Against Women, those representing other equalities groups, Biodiversity Groups and research organisations, lighting experts, Police Scotland, Ward Members, representatives from Glasgow City Health and Social Care Partnership, Area

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Partnerships, Friends of Parks Groups, representatives of the business community, Glasgow Disability Alliance, and Community Councils.

### 3.4 Technical Workshops

During December 2022 additional studies took place for each of the pilot parks. These were the important next stage in the placemaking process and involved technical specialists and stakeholders that could actively support or lead on recommendations along with community members that attended the Place Evaluation workshops. Technical specialists included lighting, biodiversity, greenspace, and community safety professionals from both external organisations and from Glasgow City Council.

As a Place Standard exercise, the Greenspace Scotland report, attached as Appendix 1, takes all the potential measures from the engagement process, which could be actioned by a range of organisations including NRS, into short, medium, and long term actions. It is therefore important to note that some potential actions may require compromise being reached so that they align with other actions. In addition, potential actions did not require to have a minimum level of proposers to be included. Recommendations from the Workshops have therefore been excerpted within the body of this report in order to provide additional clarity on actions proposed to be delivered by NRS, as opposed to actions which could potentially be delivered by others, and also to provide clarity on actions which can be delivered within existing resources, and those for which additional funding bids could be brought forward in future.

Through our 'business as usual' engagement with parks stakeholders for the three parks, outwith the engagement carried out specifically as part of this exercise, it should be highlighted that lighting has not been identified as a priority for action within the resources available to the various stakeholders.

### 3.5 Energy Use

Lower carbon power sources would be reviewed as part of any detail design; however, it is noted that the majority of our current lighting units are mains electrically powered, and therefore have a carbon footprint linked to that of the wider grid which supplies them. Solar powered units trialled to date across the estate have not demonstrated the levels of performance and resilience required of infrastructure within the public realm. Lower carbon power sources would be reviewed as part of any detail design and officers continue to pursue trials since potential benefits include lower carbon footprint, lower energy bills and lower capital costs or and environmental impacts associated with trenching for cabling.

### 3.6 Biodiversity and Secure by Design Technical Considerations

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Further detail from our engagement with Glasgow University (GU) in relation to the impacts on biodiversity is provided in Appendix 2 - Artificial Lighting Biodiversity Impacts. Within the report it states wildlife are affected broadly in three ways by light pollution.

- “By masking the natural light source that organisms use as a source of information...”
- “By misleading animals to the wrong light source... and then move towards them with the risk of colliding or getting stuck”
- “By distracting animals while they are performing a task.”

The report also suggests three main ways in which impacts on wildlife can be mitigated:

- “Use light only **where** it is strictly needed”
- “Use light only **when** it is strictly needed”
- “Use light of the **right colour temperature**”

Light emitting diodes (LEDs) are preferred since the light emitted is more directional and normally controlled by lenses or sometimes reflectors. The light is produced in a narrow beam. LED is available in a number of colour temperatures. Older installations tend to use ‘cool white’ (blueish colour) at >5700° Kelvin. More recently, 4000°K has become more commonly used. ‘Warm white’ (more yellow/orange colour) at around 3000°K and as low as 2700°K can now be used with little reduction in lumen output. LED typically features no UV component and research indicates that while lower UV components attract fewer invertebrates, warmer colour temperatures with peak wavelengths greater than 550nm (~3000°K) cause less impacts on bats.

The guidance note produced by the Bat Conservation Trust and the Institute of Lighting Professionals notes the following considerations:

- Dark buffer zones can be used as a good way to separate habitats or features from lighting by forming a dark perimeter around them.
- All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component.
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.
- Whilst the use of specialist bollard or low-level downward directional luminaires to retain darkness above are sometimes suggested and can offer benefits to those with visual impairments this often comes at a cost of unacceptable glare, poor illumination efficiency, a high upward light component
- Column heights should be carefully considered to minimise light spill.
- Only luminaires with an upward light ratio of 0% and with good optical control should be used

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- Luminaires should always be mounted on the horizontal, i.e., no upward tilt.
- Baffles, hoods, or louvres can be used to reduce light spill and direct it only to where it is needed. It should be noted that this is often associated with lighting installations which create areas of both light and shade, rather than an installation which instead creates diffuse light in line with Secure by Design considerations.

Depending on the pattern of bat activity across the key features identified on site, it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally, or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use. It is noted that at certain times of year, peak hours for bat commuting and feeding (and therefore times when they are most sensitive to light impacts) can overlap with peak hours for human commuting. Research has indicated that impacts upon commuting bats are still prevalent where lighting is dimmed during the middle of the night at a time when illumination for human use is less necessary.

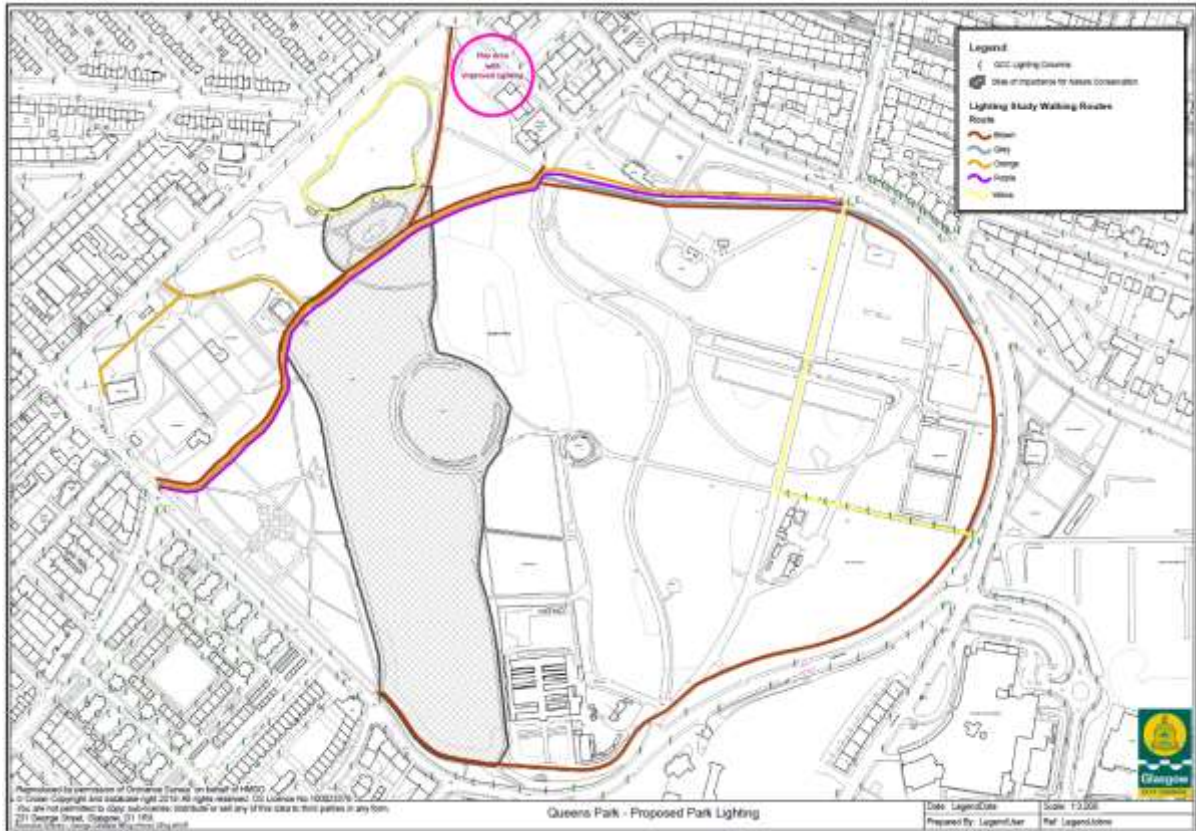
Thus, this approach should not always be seen as a solution (whilst recognising that significant energy savings can be achieved) unless backed up by robust ecological survey and assessment of nightly bat activity.

An Environmental Lighting Impact Assessment is therefore recommended and included within the action plan timescales set out in this report. As part of this exercise, it is therefore recommended that areas of Ancient, Long-Established or Semi-Natural Woodland and Sites of Importance for Nature Conservation are retained as Dark Buffer Zones, and that there would be an assumption against any new lighting installations within these areas. It is recommended that a colour spectrum of 3000k or lower is adopted and acknowledged that this may be less than optimal for facial recognition either in-person and over CCTV, where present.

3.7 The following diagrams represent the routes appraised by each participant group during the Place Standard workshops. Each group were given a colour which is represented below.

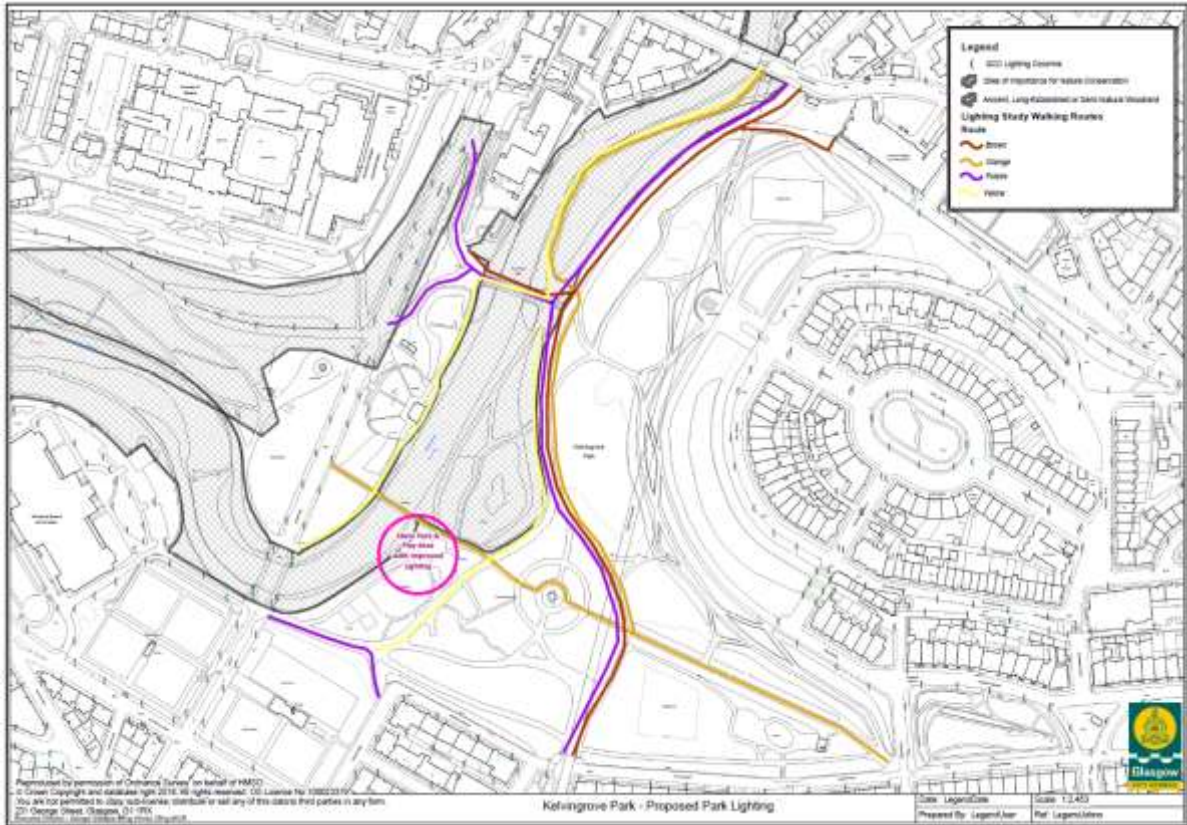
**Queens Park**

Overlaid with appraised routes, highlighting Sites of Importance for Nature Conservation.



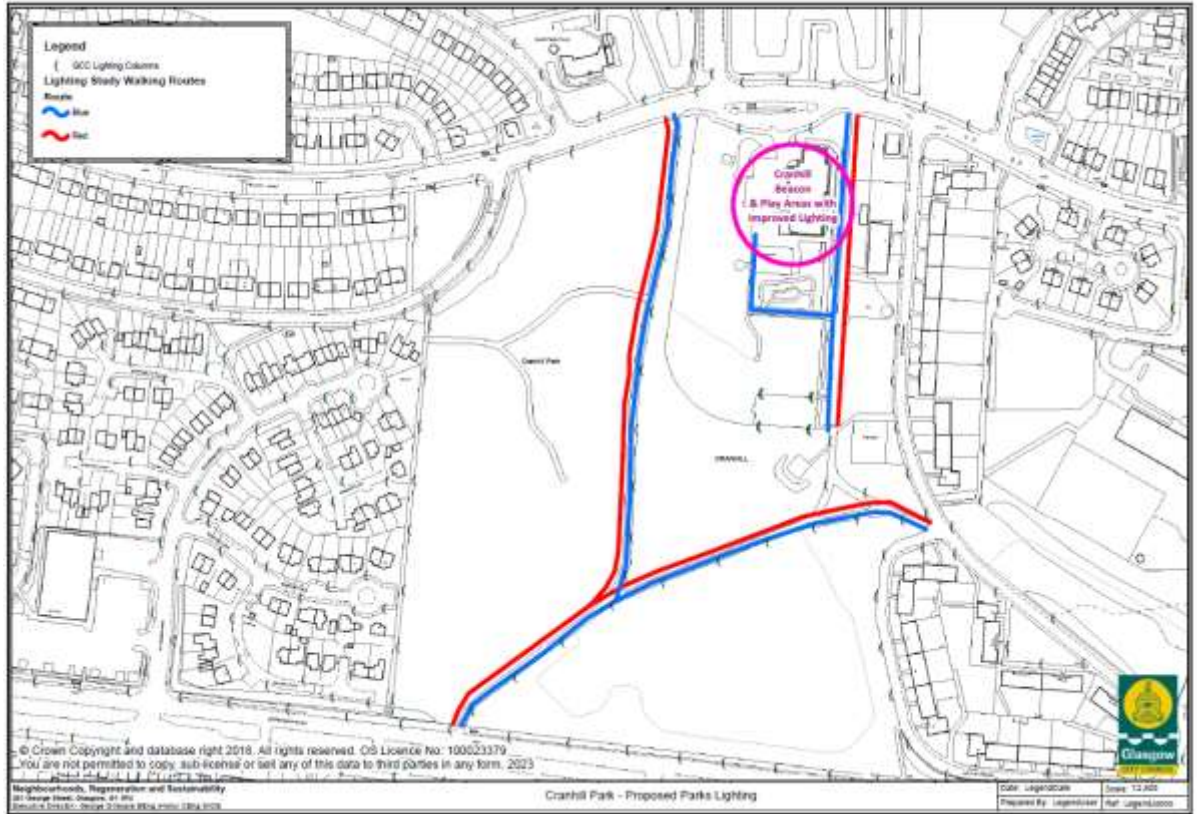
### Kelvingrove Park

Overlaid with appraised routes, highlighting Sites of Importance for Nature Conservation.



### Cranhill Park

Main central routes which are lit and improvements to play area lighting adjacent to the community centre.



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### 4. Early Actions

The following tasks were highlighted within the engagement process and will be addressed through existing resources and revenue budgets outwith the bird nesting season and prior to October 2023.

The following are early actions which will be carried out across all three locations with an emphasis on: plant management – viability in approach, lighting – entry and exit, signage and existing lighting. Other considerations include increased use of reflective materials and modifying existing fencing:

- Identify any areas of non-native shrub planting within 6m of a footpath where these could be cut back or removed (and replaced with pollinator friendly bulbs and/or native woodland understory planting) to enhance biodiversity and secure by design- works planned for September/October 2023.
- Identify any further crown lifting of branches which would improve the effectiveness of the existing lighting units (already completed on Kelvin and Sunlit Way) - works planned for September/October 2023.
- Enhance entrances by addressing any features which make them harder to navigate at night-time- this could include widening of entrances or replacement of intermediate gate/fence panels with drop bollards (with a reflective band and spacing to allow wheelchair access), crown lifting of trees, replacement of non-native shrubs with pollinator friendly bulbs or woodland understory planting, repairs to surfacing and drainage)
- Add a reflective banding to features along main routes (such as bollards, benches, signage poles, gate columns) where this doesn't exist already, and consider additional bollards to fill any gaps) to complement the existing use of bicycle lights, head torches and mobile phone torches by those using the park
- Investigate and trial options for reflective path surfacing, to assist with night-time navigation
- Review any further existing lighting units which could be brought up to current standard
- Review existing signage and map boards- should these offer guidance on night-time routes and should map boards at entrances be located within lit areas (either by new lighting or by moving the map board)

#### 4.1 Additional works Kelvingrove Park

- Some adjustments to the hedge line at the herbaceous border to improve lines of sight as you enter and leave - works planned for September/October 2023.

#### 4.2 Additional Works Queens Park

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- Arrange repairs and any enhancements to the existing lighting infrastructure (in association with any organisations which share responsibility for their maintenance) to bring them to the appropriate standard (for instance, Victoria Road gates, lighting to the path by the depot, lighting to Camphill House/Goals)

### 4.3 Additional Works Cranhill Park

- Consider potential to remove fencing which separates the grounds of the Beacon from the rest of Cranhill Park
- Enhance entrances by addressing any features which make them harder to navigate at night-time- this could include widening, replacement of concrete blocks or intermediate gate/fence panels with drop bollards (with a reflective band and spacing to allow wheelchair access), crown lifting of trees, replacement of non-native shrubs with pollinator friendly bulbs or woodland understory planting, repairs to surfacing and drainage)
- Remove fence at the Western Boundary of the park, since this creates a long pedestrian route bounded by a high fence on both sides, restricting egress routes if a pedestrian encounters a situation, they consider unsafe.

### 4.4 Proposed Routes for Lighting

The following areas have been highlighted through the engagement process as locations where improvement is sought. NRS will develop further proposals for each while also taking cognisance of biodiversity through the commissioning of environmental impact assessments for the areas suggested.

It should be noted that whilst specifications for lighting installations may vary, an assumption of £3000 per lighting column should be made when considering any new lighting routes, with an estimated costs for capital works set out in 4.4 across all three areas is around £310,000.

Routes identified within this section are considered to be ones where it is likely that carefully selected lighting units could deliver active travel and year-round children's play without having a measurable negative impact on biodiversity. Further routes, over and above these, were appraised by workshop attendees, which either cross or run alongside areas designated for their biodiversity, and where it is considered that the various changes associated with providing a lit route meeting Secure By Design standards would be likely to have some level of adverse effect on biodiversity. Should capital funding be identified for new lighting along such routes, it is considered that a Lighting Impact Assessment could accompany the associated planning application for these works, to allow the relative benefits and impacts of any proposal to be formally considered.

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Kelvingrove Park Estimated, subject to detailed design, at £109,000

- Lighting route which runs to the north of the tennis courts, and any associated reduction or replacement of non-native shrub or hedgerow, and replacement with native or pollinator-friendly low growing species.
- Yellow route- Lighting of route from La Belle Place entrance along herbaceous border but adjusted so it goes past play area to Kelvin Way without going through SINC.
- Lighting (on a timer) of the main Play Area and Skatepark, and any associated footpath lighting to connect it to Kelvin Way, associated with enhancements to the play area itself (Potentially funded via Play Renewal Programme)

Queens Park Estimated, subject to detailed design, at £170,000

- Yellow Route- Feature Lighting around main pond, on a timer linked to that serving Balvicar Play Area, and additional seating, to support use of this area by those using take-away café facilities in and near the park.
- Yellow route- Connect existing lighting near depot, and existing gateway lighting at Victoria Road.
- Orange route- section which connects Langside Halls to lit route at Goals/Camphill House.
- Lighting (on a timer) of Balvicar Play Area (potentially funded via Play Area Renewal Programme)

Cranhill Park Estimated, subject to detailed design, at £31,000

- Enhancements to MPGC including potential to remove any features which obscure visibility in and out of this area and a no dog's sign installed (it should be noted that this is currently managed from the centre, rather than being on the same circuit as the rest of the external lighting around the Beacon).
- Any supplementary lighting (on a timer) of the main play area at the Beacon and any associated footpath lighting to connect to Bellrock St.
- Recommendation that as part of enhancements to the main Play Area, provision for wheeled sports and younger children's play (currently provided as a pre-cast bowl, halfpipe, and rails adjacent to Crowlin Avenue, and as a younger children's play area accessed from Crowlin Avenue) is moved to the main play area at the Beacon, so that these facilities benefit from the existing lighting within this area, and (once re-opened) the informal supervision provided by the operation of the Beacon itself. The resulting space is to be converted to events area/s since this was raised as something the park would benefit from
- Improvements made to all park entrances.

## 5 Next Steps

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The Service acknowledges the public interest surrounding this topic and the expectations of our citizens in how we manage our parks and open space in conjunction with the range of parks safety issues highlighted throughout this process. In addition to the early actions to be carried out and the proposed lighting interventions highlighted in section 4 the following will also be taken forward.

### 5.1 Place Standard Tool

Following the place evaluation work undertaken, the Service has been grateful for the range of views expressed from participants and stakeholders in informing future planning and management of our parks. The Service will continue to build on the experiences of this exercise, as well as utilising the Place Standard tool as a basis for implementing future parks lighting and safety interventions. We would envisage involving our Friends of Parks and other community groups in this process. A process of evaluation of requests will be developed to allow projects to be prioritised with the resources available.

### 5.2 Funding

It should be noted that no ringfenced funding has been identified by Glasgow City Council for parks lighting, and therefore any funding for works identified in 4.4 will require to be identified from wider sources available for local projects. This may include external grants or funding available via Area Partnerships

Due to the overall lack of consensus on any particular lighting route within each pilot park, Parks Development will progress with the routes identified and look to move toward the next stage i.e., costing, Environmental Impact Assessment, once funding opportunities are identified.

A related example to this approach is that of Castlemilk Park, where existing lighting infrastructure requires full replacement on a well-used section of walkway. Working alongside Cassiltoun Housing Association and local community partners, Glasgow City Council Parks Development is supporting a funding bid to Paths for All for the replacement of lighting columns within the park. As well as replacing existing lighting infrastructure, the scheme aims to promote health and wellbeing within the park through increased footfall and perception of safety within the park. Linn Area Partnership is considering supporting this project.

It should also be noted that community organisations can consider applications to the Area Partnership Infrastructure Fund, or other external organisations for consideration on any lighting proposals for parks they wish to take forward. NRS Parks Development are available to assist in the development of any project from its initiation to completion.

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Parks Development would propose to now engage with local stakeholders for the 3 pilot parks to offer any officers support for bids they may wish to take forward in support of 4.4 and would propose to update this committee on outcomes from this engagement as part of future reports setting out progress in relation to the Parks Vision.

### 6 Policy and Resource Implications

#### Resource Implications:

*Financial:* Section 3 of the report sets out recommended actions which be undertaken from within existing resources, and also sets out potential future projects for which funding bids could be developed.

*Legal:* The report raises no legal issues

*Personnel:* The report raises no new personnel issues

*Procurement:* Any works will be procured via existing frameworks

#### Equality and Socio-Economic Impacts:

*Does the proposal support the Council's Equality outcomes 2021-25? Please specify.* Yes – Supports outcome 4

*What are the potential Equality impacts as a result Of this report?* Potential positive impact

*Please highlight if the policy/proposal will help impact on address socio-economic disadvantage* Placemaking initiative which supports active travel will have the potential to positively those experiencing socio-economic disadvantage, who may have less access to car

#### Climate Impacts:

*Does the proposal support any Climate Plan actions? Please specify:* Not at present

*What are the potential* Lower carbon power sources would be

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*climate impacts as a result  
however,  
of this proposal*

reviewed as part of any detail design,

It is noted that the majority of our current  
Lighting units are mains electrically  
powered

*Will the proposal contribute  
To Glasgow's net zero carbon  
Target?*

None

**Privacy and Data Protection  
Impact:**

None

**Council Strategic Plan:**

Specify which Grand Challenge 1 mission 3:  
Improve the health and wellbeing of our local  
communities  
Work with partners to promote and support  
people in Glasgow to achieve improved physical,  
mental and emotional health and wellbeing.

Grand challenge 2 Mission 3 Raise attainment  
amongst Glasgow's children and young people  
Support play and outdoor education.

Grand challenge 3 Mission 1: Deliver sustainable  
transport and travel aligned with the city region  
Deliver the city's Active Travel Strategy, working  
towards delivery of a comprehensive City  
Network of active travel infrastructure to support  
modal shift.

Grand Challenge 3 Mission 2: Become a net zero  
carbon city by 2030  
Continue to improve the heat and energy  
efficiency of the council's property assets,  
ensuring high standards in new buildings and  
completing retrofit, where viable throughout the  
existing estate

Increase the number of designated Local Nature  
Reserves in the city in collaboration with  
communities and support the development of a  
green network of areas managed for biodiversity

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across the city.

Deliver place-based interventions and key local regeneration projects.

Grand Challenge 4 Mission 2

Review the Violence Against Women's Partnership, including sector funding and communications strategy, and support actions to effectively prevent and respond to violence.

Embed gender equality into council impact assessments, budgets, data collecting and strategies, including, but not limited to, the new City Development Plan. Ensure approaches are intersectional and incorporate women's lived experience.

## **7 Recommendations**

- 7.1 It is recommended that committee notes the contents of the report and next steps proposed