BirdLife Malta feedback to the Grand Harbour Revival Plan

18/03/2026

BirdLife Malta welcomes the Grand Harbour Revival Plan, which aims to enhance the heritage value, public access and promote environmental sustainability. Having reviewed the document, BirdLife Malta would like to provide the following feedback and recommendations for consideration within the plan.

Bird friendly infrastructure

While we support the restoration and redevelopment of disused sites for public use, we take this opportunity to emphasise the importance of ensuring that new infrastructure is designed and implemented in an environmentally responsible manner, integrating eco-conscious principles throughout.

Glass protection against bird strikes

Bird collisions with glass are a major cause of bird mortality, second only to domestic cats. Birds often mistake reflective or transparent glass for open space or vegetation, leading to fatal impacts - even with relatively small windows. This risk affects a wide range of species, including migratory birds, fledglings, and healthy breeding adults, making it particularly harmful at the population level. In recent years, BirdLife Malta has recovered several birds in the Marsa area that were victims of glass strikes, including kingfishers, little bitterns, and moorhens. These findings show that, despite significant urbanisation, the area continues to attract a variety of migratory species - reinforcing the importance of integrating bird-friendly features into both existing structures and new developments.

Integrating bird-friendly design into construction can significantly reduce these risks, often through cost-neutral measures. The type of glass used is critical: mirrored glass is especially hazardous because it reflects surrounding habitats, while tinted or low-reflection glass provides only limited improvement. Effective solutions include the use of patterned (fritted) glass, where even minimal coverage - around 5% of the surface - can prevent most collisions. This works because birds avoid flying through small gaps, following a widely recognised 2x4 rule. Research on human vision shows a striking ability to complete partial images in order to compensate for missing visual information. This linking of visual fragments and filling-in by our brains means it is possible to design patterns on windows that alert birds to a barrier while minimally impacting views out[1].

[1] Sheppard, C. (2012). Resource Guide for Bird-friendly Building Design. American Bird Conservancy. https://abcbirds.org/wp-content/uploads/2015/05/Bird-friendly-Building-Guide_LINKS.pdf.

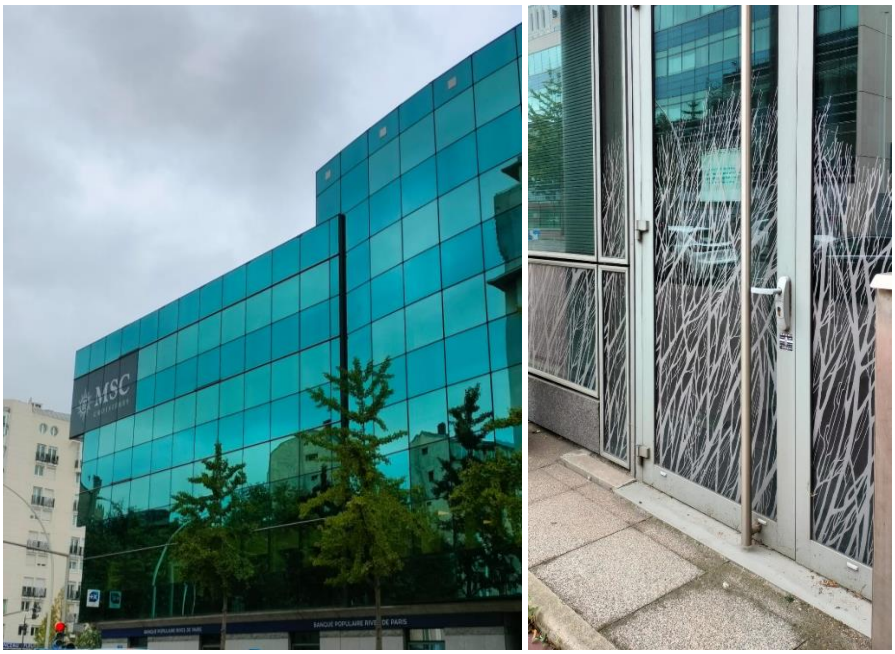

Figure 1: ***Left*** *- Mirrored glass reflection is especially hazardous (Photo: Justine Borg)* ***Right*** *– Pattern on glass reduces bird strikes while maintaining visual amenity (Photo: Justine Borg)*

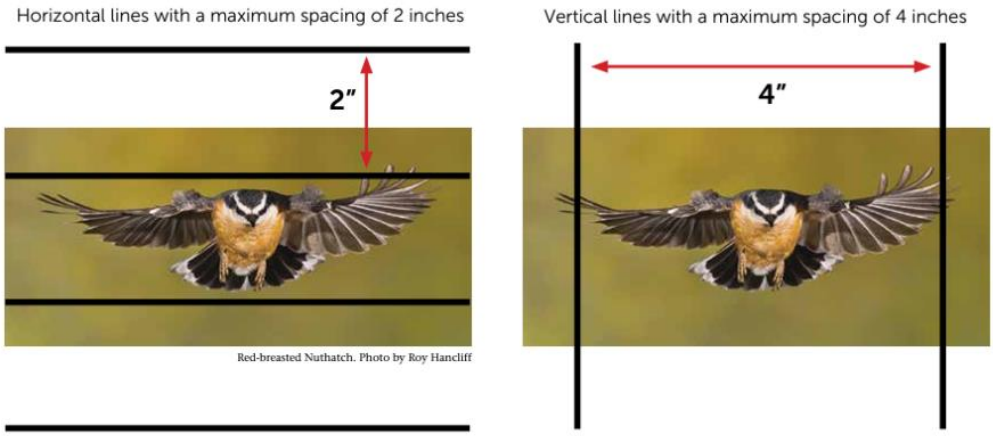

Figure 2: Most birds will not attempt to fly through horizontal spaces less than 2 inches high nor through vertical spaces 4 inches wide or less[1]

Another effective approach is to position glass behind external screening elements such as grilles, netting, shutters, or shading devices. These features can be integrated into building design as decorative façades, improving both safety and aesthetics. In addition to reducing bird strikes, such measures can lower solar heat gain and contribute to more sustainable building performance. Overall, incorporating bird-friendly features into architectural design is a practical and impactful way to protect birdlife while maintaining functionality and visual quality.

Figure 3: An architecture which incorporates a mix of decorative grilles and fritted window patterns to reduce bird strikes (Photo: Alan Blakely, 2015)[1]

For further guidelines on bird-friendly glass designs we recommend consulting 'Bird-friendly building with glass and light' published by the Swiss Ornithological Institute[2].

Ecologically sensitive lighting

We would also like to take this opportunity to recommend that any external lighting fixtures be designed in accordance with internationally and nationally recognised guidelines for environmentally sensitive lighting. Designing an ecologically sensitive lighting plan would benefit both wildlife and human health, as such lighting can reduce disturbance and create a calming environment. In this regard, we suggest consulting BirdLife Malta's *Guidelines for Ecologically Responsible Lighting* as well as the Environment and Resources Authority's *Guidelines for the Reduction of Light Pollution in the Maltese Islands*[3].

In general, ecologically-sensitive external luminaires must:

- Be fully downward-facing;
- Be full cut-off fixtures, ensuring an Upward Light Output Ratio (ULOR) of 0%;
- Be limited to the minimum number of fixtures and the lowest possible light intensity; and
- Colour temperature not exceed 2200 K.

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[2] https://www.lbv.de/files/user_upload/Dokumente/Projektreporte_Projektskizzen/Vogelschlag/Glasbroschuere%202023_231114_download_%20E.pdf

[3] https://birdlifemalta.org/wp-content/uploads/2020/07/Guidelines-for-Ecologically-Responsible-Lighting.pdf
https://era.org.mt/wp-content/uploads/2020/06/Guidelines-for-the-Reduction-of-Light-Pollution-in-the-MI-PC-Draft.pdf

Potential for ecological restoration

We wish to highlight an area that presents significant potential for ecological restoration and rehabilitation into a functional green space. In particular, the area located between the Former Tram Station and the Marsa Sports complex corresponds to the mouth of Wied il-Kbir, the largest water catchment in the Maltese Islands. Historical records indicate that this site once supported wetland habitats, including brackish species identified through past ecological studies[4]. Currently a small population of the Grey Wagtail (*Motacilla cinerea*) is known to inhabit and nest in this area, offering great potential for further locally increasing this species with some careful habitat restoration planning.

Although this area is not currently included within the Grand Harbour Revival Plan, it offers considerable opportunities for environmental enhancement, with benefits for both biodiversity and the wider community. Its restoration could contribute to improved ecosystem services, landscape quality, and public amenity, while also recognising its ecological and hydrological significance.

In light of this, we strongly recommend that the plan be revised to incorporate this area, together with appropriate ecological restoration measures and connectivity to the proposed sites. This would help ensure a more integrated, holistic approach that fully reflects environmental considerations alongside urban regeneration objectives.

Mitigating Air Pollution in the Proposed Ferry Hub

The plan proposes the development of a modern ferry hub, which is likely to result in increased air pollution from shipping activities. In this context, it is essential to expand shore-to-ship power facilities to cater for the 'niche cruise liners' indicated in the plan and to promote the electrification of ferries operating from the hub. Emissions from shipping, including sulphur oxides, nitrogen oxides, and ultra-fine particulate matter, pose significant risks to human health and contribute to environmental problems such as acid rain and smog, particularly in coastal and port communities.

Given these impacts, it would be counterproductive to regenerate the area into a destination featuring public squares, gardens, cafés, and cultural amenities while exposing it to elevated levels of pollution. The provision of shore-to-ship power for cruise liners is therefore a necessary measure to reduce emissions while vessels are berthed.

However, if the area is to genuinely serve both residents and visitors, we discourage the proposed intensification of cruise activity and passenger volumes. The cruise industry has well-documented climate and environmental impacts, and further local expansion would undermine the sustainability objectives of the regeneration effort.

[4] Carroll, F. A., Fenech, K., Bonanno, A., Hunt, C. O., Jones, A. M., & Schembri, P. J. (2003). The past environment of the Maltese Islands: the Marsa cores.

Concluding remarks

A successful Grand Harbour Revival Plan should balance urban regeneration with environmental protection. Incorporating bird-friendly glass, screening, and ecologically sensitive lighting will safeguard wildlife and human health. Restoring key areas like the mouth of Wied il-Kbir can enhance biodiversity and public amenity, while electrifying ferries, expanding the shore-to-ship facility and limiting cruise activity will reduce air pollution. A holistic approach that integrates these measures will ensure the plan benefits both nature and the community. Meanwhile, BirdLife Malta remains available to provide further support.