



Commissioners of
IRISH LIGHTS | Navigation
and Maritime
Services



EMERGENCY NUMBER

If you notice any aid to navigation is not functioning correctly please contact our 24 hour emergency number **01 280 1996**

BLACK HEAD LIGHTHOUSE

WORK PROGRAMME

2024/25



During 2024/25 Irish Lights will be completing engineering works at Black Head Lighthouse, Co. Antrim.

This Factsheet outlines the extent of the works and is being issued as part of a consultation exercise with the local community.

The engineering works planned for Black Head will deliver a better quality, environmentally superior solution which meets modern health and safety requirements, while maintaining the important heritage aspects of the lighthouse and surrounding site.

Irish Lights has recently completed a successful three year trial of a bearing system which will allow retention of the 1st Order rotating lens at Black Head.

The project at Black Head will:

- ✓ Retain the existing rotating lens
- ✓ Change the power system to mains with battery backup
- ✓ Remove mercury and diesel generator from the lighthouse to improve the safety and environmental footprint at the site
- ✓ Replace existing metal halide lamps (400 watt) with LED (90 watt)
- ✓ Reduce the range of the light to 18 miles, as per 2010 and 2015 Aids to Navigation Reviews
- ✓ Retain existing opportunities for alternative use of buildings
- ✓ Reduce cost and maintenance requirements
- ✓ Provide full range standby lanterns

Statutory Approvals and Work Timing

During 2020 Irish Lights will seek any statutory approvals required and will procure the required equipment and materials.

All works will be completed during 2024/25. Local residents will be kept informed of progress with the project.

First Order Lenses and Bearing System

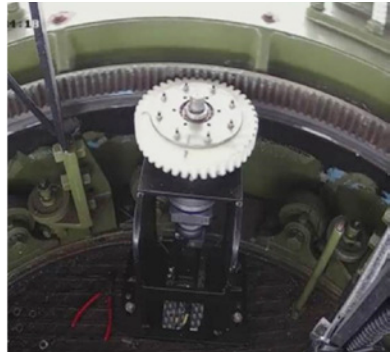
The large First Order Fresnel lens at Black Head is an exceptional work of engineering. As originally designed these lenses, which weigh several tonnes, rotate on a bath containing some 30 litres of mercury.

Today, mercury is recognised as a highly toxic substance. Irish Lights and other Lighthouse Authorities are in the process of removing all mercury from their lighthouses.

From an Aid to Navigation perspective, there are many alternative light sources available. However, from a heritage perspective, Irish Lights has developed a system that allows for the retention of the historic lenses, while still delivering the required safety and environmental benefits.

The mechanical bearing pictured below has been trialled over the last three years and will deliver the reliable service required.

The lens is rotated on the ball bearing race using a specially designed brushless motor. This design will be used on a number of other lighthouse stations with Fresnel lenses where mains electricity is available.



IRISH LIGHTS

BLACK HEAD LIGHTHOUSE



Our Vision – Next Generation Maritime Services

Delivering Next Generation Maritime Services at the interface of navigation, technology, engineering and data management



Our Mission – Safe Navigation at Sea

To be a leading and innovative provider of reliable, efficient and cost effective navigation and maritime services for the safety of all.

BLACK HEAD LIGHTHOUSE KEY DATES

1902	Light and Fog Signal established in Red Tower
1929	Tower colour changed to white
1965	Converted to electric and range increased
1972	Fog Signal discontinued
1975	Lighthouse Keepers withdrawn
1999	Radio Beacon discontinued
2003	Two houses opened for public use operated by Irish Landmark Trust
2016	Third house opened for public use operated by Irish Landmark Trust



FOR FURTHER INFORMATION:

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