

Grangegorman Military Cemetery

Conservation Management Plan

2017-2022



Grangegorman Military Cemetery

Conservation Management Plan

Table of Contents

Acknowledgements	vi
Executive Summary	viii
Chapter 1 – Introduction, background and context setting	2
1.1 Introduction	3
1.2 OPW approach and philosophy	4
1.3 External relationships	5
1.4 Purpose and scope	6
1.5 Management Plan structure	7
1.6 History	8
1.7 Size and location	12
1.8 Cemetery features	12
1.8.1 Built heritage	12
1.8.2 Graves and memorials	13
1.8.3 Trees, shrubs and seasonal bedding	14
1.8.4 Paths	15
1.8.5 Signage and furniture	15
1.8.6 Building for staff and storage	16
1.8.7 Events	16
1.9 Legal context	18
1.9.1 Introduction	18
1.9.2 Current governance	18

1.9.3 Planning and development legislation	18
1.9.4 Dublin City Development Plan 2011-2017	19
1.9.5 Strategic infrastructure	19
1.10 Designations	19
1.10.1 The character of the Cemetery	20
Chapter 2 – Where are we now?	22
2.1 Introduction	23
2.2 The Green Flag Award	23
2.3 A Welcoming Place	24
2.3.1 Welcoming	24
2.3.2 Good and safe access	24
2.3.3 Signage	25
2.3.4 Equal access for all	25
2.3.5 Something for everyone	25
2.4 Healthy, Safe and Secure	26
2.4.1 Safe equipment and facilities	26
2.4.2 Personal security in the Cemetery	27
2.4.3 Dog fouling	27
2.4.4 Appropriate provision of facilities	28
2.4. Quality of facilities	28
2.5 Clean and Well Maintained	28
2.5.1 Litter and waste management	28
2.5.2 Ground maintenance and horticulture	29
2.5.3 Building and infrastructure maintenance	30
2.5.4 Equipment maintenance	31
2.5.5 Memorial maintenance	32
2.6 Sustainability	32

2.6.1 Environmental sustainability	33
2.6.2 Pesticide use	33
2.6.3 Peat use	33
2.6.4 Waste minimisation	34
2.6.5 Arboriculture and woodland management	34
2.6.6 Resource conservation	34
2.7 Conservation and Heritage	34
2.7.1 Conservation of natural features, wild fauna and flora	35
2.7.2 Conservation of landscape features	36
2.7.3 Conservation of building and structures	37
2.7.4 Conservation of memorials	37
2.8 Community Involvement	38
2.8.1 Community involvement in management and development	38
2.8.2 Appropriate provision for community	38
2.9 Marketing	39
2.9.1 Marketing and promotion	39
2.9.2 Provision of appropriate information	40
2.10 Management	40
2.10.1 Implementation of Management Plan	40
Chapter 3 – Where do we want to get to?	42
3.1 Introduction	43
3.2 Vision and objectives for 21 st century	43
3.3 Landscape	44
3.4 Nature and biodiversity	45
3.5 Archaeology, architecture and built heritage	46
3.6 Access and public use	47
3.7 Management	48

3.8 Guidelines for the care of historic graveyards	49
3.8.1 List of works that should be carried out in the Cemetery	49
3.8.2 List of works that should not be carried out in the Cemetery	50
Chapter 4 – How will we get there?	52
4.1 Introduction	53
4.2 Action Plan 2016-2021	53
Chapter 5 – How will we know when we have arrived?	58
5.1 Introduction	59
5.2 Monitoring and evaluation	59
5.2.1 Conservation Management Plan	59
5.2.2 Conservation Management Plan – Action Plan	60
5.2.3 Operational Activities	60
List of Figures	61
List of Images	61
Appendices	62
Appendix 1 – Organisational Chart	63
Appendix 2 – OPW National Historic Properties Countrywide	64
Appendix 3 – Annual Work Programme	65
Appendix 4 – Regulations Governing Permission for Burials	66
Appendix 5 – Grangegorman Cemetery Habitats Draft Report	67

Acknowledgements

The Office of Public Works wishes to express its gratitude to all those who supplied information and data, made submissions, or who helped in any other way in the preparation of this Conservation Management Plan. Text and images courtesy of D. Bermingham, G. Donoghue, P. McDonnell, N. Guihen, and M. Gormley, unless otherwise credited.

Technical and layout assistance was provided by S. Rubalcava Consultants and N. Guihen.

The Grangegorman Military Cemetery Conservation Management Plan has been printed on paper from sustainable sources, and is thus kind to the environment.

©The Office of Public Works 2016



An Roinn Ealaíon, Oidhreacht,
Gnóthaí Réigiúnacha, Tuaithe agus Gaeltachta

Department of Arts, Heritage,
Regional, Rural and Gaeltacht Affairs

Executive Summary

The largest military cemetery in Ireland, Grangegorman Military Cemetery provides a welcoming place of culture, heritage, landscape and tranquillity to local and overseas visitors alike. Overall responsibility for Grangegorman is shared between the Minister of the Department of Public Expenditure and Reform (DPER) and the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs. The Cemetery is managed and cared for through the Office of Public Works, which aims to provide innovative, effective and sustainable shared services to the public.

This is a five-year Conservation Management Plan that sets out standards of care and provides a framework for decision-making over the period 2016-2021. The aims of producing this Plan are to set out a clear vision and comprehensive objectives for Grangegorman, to promote the involvement of the community and local groups, and to establish standards and a framework for monitoring actions in the Cemetery.

In 2015, Grangegorman Military Cemetery received its first Green Flag Award, highlighting its standard of excellence on the international stage. This Conservation Management Plan will provide a means of ensuring that this standard is maintained in the coming years. Success in this area will be evidenced by continued Green Flag status.

Having a clear vision for the future is essential for successful park management. This Plan identifies actions which must be taken both in the long- and short-term in order to maintain the present high standard of Grangegorman, as well as highlighting the resources needed for each action. An Annual Works Plan is also laid out in order to facilitate the work of site-based maintenance staff.

Chapter 1

Introduction, background and context setting



Chapter 1

1.1 Introduction

In 1842, John Claudius Loudon published a book entitled 'On the Laying Out of Cemeteries'. Loudon advocated a more practical approach to cemetery layout, and promoted a formal layout with a grid-like structure, or a garden cemetery. These ideas, along with his promotion of the cemetery as an educational, contemplative and dignified environment, were well received by Victorian society.

The Victorians saw cemeteries not only as a place in which social status could be established, but also as a place to visit, a place in which to reflect and contemplate, and a place in which to stroll – a perfect Sunday afternoon out. The First World War did much to change society's attitude to death, and many of the simple, understated memorials to the victims of the Great War are testimony to this change.

Grangegorman Military Cemetery is situated on Blackhorse Avenue in north Dublin. The Cemetery was opened in 1876 to serve as a graveyard for the soldiers of what was then Marlborough Barracks, now McKee Barracks, and their families. Since up until recently the British Army did not repatriate soldiers killed overseas, the Cemetery contains the remains of soldiers from across the then British Empire who died naturally, were wounded overseas or were killed in action in Ireland. It is the largest military cemetery in Ireland, with mature trees and well maintained lawns creating a reflective atmosphere.

On 1st January 2004 the operational functions of Ireland's built heritage, including St. Stephen's Green, transferred to the Office of Public Works (OPW). The OPW is a central Government Office with responsibilities relating to three main areas: Estate Portfolio Management, Flood Risk Management and Heritage. The OPW has responsibility for the care of 780 heritage sites in Ireland, including national monuments and buildings, historic parks, gardens and designed landscapes.

Mr. Séan Canney TD is the Minister of State at the Department of Finance, with Special Responsibility for the OPW, Public Procurement, and International Banking. The legal entity of the Commissioners of Public Works comprises of Chairman Maurice Buckley, Commissioner John McMahon and Commissioner John Sydenham. The mission statement of the OPW is as follows:

Mission Statement:

The mission of the Office of Public Works is to use our experience and expertise in our mandated areas of operation to provide innovative, effective and sustainable shared services to the public and our clients.

1.2 The OPW approach and philosophy

The approach of the OPW Heritage Services is one of protection, management, and presentation. It has a conservation remit to maintain the built heritage in State care, and an active role in facilitating presentation and public access. The OPW Heritage Services are essentially conservation oriented and indeed conservation driven, with the bulk of their resources dedicated to conservation activities. Although the vast majority of properties in State care are presented to the public without specific visitor facilities such as a guide service, public access to heritage attractions is given high priority and much effort has been made to improve access and information at all built heritage sites.

Millions of Irish and overseas visitors come to our heritage sites every year to learn about Ireland's history and culture. Guide services, interpretive displays and many publications are made available to assist the visitor in this educational process. OPW Heritage Services provide a key contribution to Irish tourism, and through our professional staff we support active research on the flora and fauna of Ireland and assist in the delivery of third level education to horticulture and arboriculture students at many of our parks and gardens.

Matters relating to historic properties are administered centrally. Each site has a local management structure consisting of a manager (Park Superintendent or other), non-established staff and, in the case of larger properties, professional and technical staff. Day to day management of the properties is handled through the local manager, with more general issues such as general correspondence, legal, policy, permissions for use, and budgeting and finance matters being referred to the central administration.

'All our sites are an integral part of Ireland's cultural heritage. We also have a duty to conserve the heritage of buildings and gardens in State care while encouraging the public to visit them'

-OPW



Duke of Kent with OPW and other officials

1.3 External relationships

OPW Heritage Services work with other official agencies and partners who have key roles in promoting Ireland's heritage. These include:

- Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
- Department of the Environment, Community and Local Government
- The Heritage Council
- Fáilte Ireland
- Local Authorities (including Dublin City Council for Grangegorman Military Cemetery)
- Commonwealth War Graves Commission

In addition, we co-operate with a number of parties with an interest in heritage and the environment, including:

- Local history groups and societies
- Archaeological groups
- Academic and cultural institutions
- An Taisce – Green Flags



OPW and CWGC staff inspecting the Cemetery

1.4 Purpose and Scope

The objective of the study is to analyse and understand the ‘essence’ of Grangegorman Military Cemetery, its historic stature and esteem, and its special place in the municipality and nation. This will allow us to establish appropriate policies to enable that very uniqueness to be retained in any future use or development. It will examine how the Cemetery should be presented today in light of this historic and cultural perspective, and will assist in identifying options for the future by providing a framework for decision making.

The purpose of this Management Plan is to provide guidelines, together with a set of specific actions, for the management of Grangegorman for future generations while addressing the needs of the current generation within the context of a National Historic Park. It aims to balance the responsibility to protect, conserve and enhance the unique landscape, environment, ecology, wildlife, built heritage and views of Grangegorman Military Cemetery with active and creative policies to facilitate wider access and increased enjoyment, information, education and opportunities for tranquillity and quiet contemplation now and into the future.

The Plan thus provides a framework for the sustainable management of the Cemetery, including:

- Defining an appropriate conservation philosophy that retains the essence of the Cemetery and prioritises conservation and restoration
- Providing a basis for clearly identifying the vision, objectives and priorities of the Cemetery

- Fostering a better understanding of Grangegorman, including its unique designed landscape value
- Identifying all issues that affect the management and maintenance of Grangegorman and assist with their resolution
- Raising the standard and profile of the Cemetery and OPW Heritage Services, both internally and externally
- Guiding present and future management and ensuring consistent management practices over time, i.e. identifying appropriate and inappropriate uses
- Ensuring ongoing communications with internal and external stakeholders

1.5 Management Plan structure

This plan has been developed using studies undertaken, industry best practice and the Green Flag Award Guidance Manual 'Raising the Standard'. The Plan is structured into five distinct chapters with a series of sub-sections, which provide the following information:

Chapter 1 - Introduction, history and context setting

Chapter 1 provides an introduction and sets the Management Plan in context. It describes the current situation of Grangegorman Military Cemetery – what it is, who manages it, its history to date, what is known about the Cemetery, where it is located and what policies and guidelines govern the way it is managed.

Chapter 2 – Where are we now?

Chapter 2 describes the current situation against the Green Flag criteria, outlining what is currently done to address and meet each of the criteria. It involves a detailed examination of all aspects of the site and the circumstances in which services are provided.

Chapter 3 – Where do we want to get to?

Chapter 3 takes a step back to assess the significance of Grangegorman Military Cemetery, with particular reference to the following headings:

- Landscape
- Nature and biodiversity
- Archaeology
- Architecture and built heritage
- Access and public use
- Management

This analysis presents a summary of the issues to be addressed, as well as highlighting what improvements are needed both to the site itself and the way it is managed. Site objectives are outlined so that they may be further translated into actions in Chapter 4.

Chapter 4 – How will we get there?

Chapter 4 of the Plan sets out a five-year Action Plan that needs to be followed, as well as considering what resources, both financial and staffing, are needed.

Chapter 5 – How will we know when we have arrived?

This final chapter is an important element of the Plan which details how and when the success of the actions and measures will be monitored and reviewed, and when the Plan itself will need to be monitored and updated.

1.6 History

Grangegorman Military Cemetery, the largest military cemetery in Ireland, was founded in 1876. It contains the graves of soldiers from across the British Empire who died of natural causes, injuries, or were killed in action. The nearby Marlborough Barracks, now McKee Barracks, was a place of recuperation for soldiers from the different Commonwealth counties, and those soldiers who passed away were interred in Grangegorman. To reflect the geographical span of the British Empire at the time, specific plots were laid out for soldiers from Canada, New Zealand and Australia. The Cemetery holds the graves of soldiers who served in the following conflicts:

- Crimean War (1854 - 1856)
- World War I (1914 – 1918)
- World War II (1937 – 1945)
- Easter Rising (1916)
- War of Independence (1919 – 1921)



Great War Record Book, illustrated by Harry Clarke

The Cemetery features many religious denominations, including Roman Catholic, Church of Ireland and Wesleyans. Also interred there are children from the Royal Hibernian Military School, now St. Mary's Hospital, in the Phoenix Park.

The military graves from World War I onwards are uniform in style, in neat rows with headstones neatly inscribed with the name, dates and rank of the deceased serviceman.

The Cemetery contains six hundred military burials, including a memorial to the Unknown Soldier. All military burials are still recorded, and the records are kept at the Phoenix Park Superintendent's office.

Notable graves include that of Company Sergeant Major Martin Doyle V.C. MM, who hailed from New Ross in Co. Wexford. He is the only person buried in the Cemetery to have been awarded the Victoria Cross. The Victoria Cross is the highest award for gallantry in combat in the British Forces, and was first awarded during the Crimean War.

Also significant is a headstone bearing an inscription to Margaret and John Naylor. This husband and wife both died of injuries received on the 29th of April 1916. Mrs. Naylor was shot crossing Ringsend Drawbridge in Dublin during the 1916 Rising, while her husband, a Royal Dublin Fusilier, was fatally wounded in France on the same day.



Headstone of Company Sgt.
Major Martin Doyle V.C. MM.



Headstone of Unknown
Soldier



Headstone of John
and Margaret Naylor

Approximately 16,000 soldiers serving in the regiments of the British Empire and Dominion armies fought in Dublin during the Easter Rising of 1916. Over 130 of these men were killed over the course of six days of fighting, or later died of wounds sustained that week. Of these, more than seventy were buried at Grangegorman. This number includes eleven men of the 2nd/7th and 2nd/8th Battalions of Nottinghamshire and Derby Regiments, who were mortally wounded during intense fighting in the vicinity of Mount Street Bridge on Wednesday 28th April 1916. The cemetery also contains the graves of seventeen men of the 2nd/6th Battalion of the South Staffordshire Regiment, who clashed with Republican forces in the north inner city on Thursday 27th and Friday 28th April 1916. Numerous Irishmen who were serving in Irish regiments of the British Army, such as the Royal Dublin Fusiliers and the Royal Irish Rifles, were killed fighting their compatriots. They were also laid to rest at Grangegorman.

Also to be found in Grangegorman are the graves of over 140 soldiers and sailors serving with the Commonwealth forces who were drowned when the merchant ship R.M.S. Leinster sank off the coast of Dublin in October 1918. In the years prior to the outbreak of war in

1914, the Leinster served as a packet steam ship ferrying passengers and mail between Britain and Ireland. During the First World War, the ship continued her usual route, but was painted in camouflage, armed with a twelve-pounder gun and carried soldiers and other military personnel along with the civilian passengers and mail. On her final voyage, close to five hundred men and women from the UK and the Commonwealth serving with the British armed forces were on board. More than 330 people lost their lives when the ship sank after being hit by two torpedoes from a German U-boat, shortly before 10am on 10th October 1918.



R.M.S. Leinster

(courtesy of Philip Lecane and the Sinking of the R.M.S. Leinster website collection)

Over 120 soldiers who died while serving with the British Army in Ireland between the outbreak of the Irish War of Independence in January 1919 and the truce of July 1921 are buried at Grangegorman. Some of these men died of wounds sustained on the Western Front and elsewhere during the First World War; others fell victim to the influenza pandemic that swept across Europe in 1918 and 1919. The remainder were killed during the guerrilla campaign waged by the Irish Republic Army in 1920 and 1921.

After 1923, only servicemen and their next of kin could be buried in Grangegorman Military Cemetery.



Figure 1: Location Map of Grangegorman Military Cemetery

1.7 Size and Location

Grangegorman Military Cemetery is located on Blackhorse Avenue in Dublin 7, north of the River Liffey. The boundary wall of the Phoenix Park can be seen directly opposite the entrance gate of the Cemetery. The local area is Ashtown, and residential housing surrounds the Cemetery on three sides. It is the largest military cemetery in Ireland, measuring just under six acres (see Fig. 1).

1.8 Cemetery Features

Grangegorman Military Cemetery is a historic cemetery laid out in the late Victorian style of cemeteries, as described earlier. This section describes some of the features offered to the visitor.

1.8.1 Built heritage

The gate lodge is located at the main entrance and is built in the same style as the boundary wall. The four room building served as a caretaker's lodge in the past, and is currently vacant. In recent years, it has undergone some conservation and maintenance work.

The granite and limestone piers of the gateways in Grangegorman are robust and imposing. The main entrance gate to the Cemetery is known as the 'Funeral Gate'. Removals from nearby Marlborough Barracks would have been transported through the Phoenix Park and entered the Cemetery through this gate. The gate has not been used for this purpose in a long number of years. However, it is still opened for special occasions. Pedestrian entry is via a side gate which remains open from 10am to 4pm.

Located in the entrance area are two standards lights with blue and gold trim. The cemetery is enclosed by a granite and limestone boundary wall.



Gate Lodge

1.8.2 Graves and memorials

There are over 1,100 graves in the Cemetery. Battalion badges are marked on the headstones along with name of the person buried, their rank and date of death. Very few have personal inscriptions.

Some of the graves contain burials which were located to Grangegorman from other cemeteries. There are nine from the grounds of the King George V Hospital, two from the grounds of Trinity College, three from Portobello Cemetery, two from Drogheda (Little Calvary) Cemetery, and one from Oranmore Old Graveyard. In total, there are now 613 burials from World War and twelve from World War II.

World War One casualties are buried throughout the Cemetery, and two are 'known only to God'. The graves reveal some details about those interred. Perhaps the best example is the rows of soldiers all killed on the 10th of October 1918. On that day, the mail boat RMS Leinster was torpedoed as it left Dublin. Many soldiers on board were killed.

Spouses or close family members of those interred may still be buried at Grangegorman, if space remains within the family plot. A Grave Policy, covering burials in Dublin's military cemeteries, is available from the OPW.

A screen Memorial Wall of simple design commemorates those war casualties whose graves lie elsewhere in Ireland and can no longer be maintained. The Wall stands at nearly two metres high and fifteen metres long, and is built of Irish limestone. Since its erection, some names have been removed, as some graved previously considered to be 'unmaintainable' have been reclassified as 'maintainable'.



Memorial Wall

1.8.3 Trees, shrubs and seasonal bedding

The grounds were formally laid out, typical of the late Victorian period, with an interesting collection of ornamental trees. The trees have matured and add considerably to the visual amenity and landscape of the grounds. A comprehensive tree survey was undertaken in 2014, the main features of which are highlighted below:

Tree Species (Common name)	Tree Species (Latin name)	No. of Trees
Lucombe Oak	<i>Quercus hispanica 'lucumbeana'</i>	1
Yew	<i>Taxus baccata</i>	9
Irish Yew	<i>Taxus baccata</i>	14
Holm Oak	<i>Quercus ilex</i>	3
Scots Pine	<i>Pinus sylvestris</i>	2
Western Red Cedar	<i>Thuja plicata</i>	3
Giant Redwood	<i>Sequoiadendron giganteum</i>	3
Sycamore (Variegated)	<i>Acer pseudoplatonus</i>	2
Common Lime	<i>Tilia europaea</i>	2
Arizona Cypress	<i>Cupressus arizonica</i>	1
Austrian Pine	<i>Pinus nigra 'austriaca'</i>	2
Sycamore	<i>Acer pseudoplatanus</i>	3
Nootka Cypress	<i>Chamaecyparis nootkatensis</i>	3
Sweet Chestnut	<i>Castanea sativa</i>	2
Silver Lime (Grafted)	<i>Tilia tomentosa</i>	1
Lawson Cypress	<i>Chamaecyparis lawsoniana</i>	5
Red Chestnut	<i>Aesculus carnea</i>	1
Monterey Cypress	<i>Cupressus macrocarpa</i>	2
Weeping Ash	<i>Fraxinus excelsior 'pendula'</i>	1
Japanese Cedar	<i>Cryptomeria</i>	2
Incense Cedar	<i>Calocedrus decurrens</i>	2
Coast Redwood	<i>Sequoia sempervirens</i>	2
Holly (Variegated)	<i>Ilex aquifolium</i>	1
Deodar Cedar	<i>Cedrus deodara</i>	1
Copper Beech	<i>Fagus sylvatica 'purpurea'</i>	1
Norway maple	<i>Acer platanoides</i>	1

Figure 2: List of species of tree in the Cemetery in 2014

In 2005, the Ambassadors of Turkey, New Zealand and Australia planted a Turkish Hazel close to the Memorial Wall to mark the 90th anniversary of the Gallipoli Landings on 25th April 1915.

The entrance area and main graves section are divided by a hedge comprised mainly of privet, hawthorn and sycamore. As is policy with the CWGC, a standard red floribunda rose and herbaceous perennial is planted immediately at the base of each grave. In addition to the trees and herbaceous borders, some bedding plants in containers provide seasonal colour to the entrance area.



Tree Collection

1.8.4 Paths

The main path, surfaced in tarmacadam gives access to the various areas of the Cemetery, and provides good and easy access to all.

1.8.5 Signage and furniture

Currently, there are no interpretive panels or directional signs within the garden. However, during 2016, work has commenced on the design of interpretive panels for the Cemetery. The panel will be appropriately and sensitively places, and will give information on the various features and history of Grangegorman Military Cemetery.

Other signage is kept to a minimum, in keeping with the Historic National property designation of Grangegorman. Seating is being installed in 2016.

1.8.6 Building for staff and storage

To one side of the entrance, there is a small maintenance building which houses the gardener's kitchen and storage areas. This is a restricted access building only for employees.

1.8.7 Events

Tour guides from the Phoenix Park Visitor Centre conduct weekly guided tours of the Cemetery from March to November. In addition to this, the annual ANZAC Day Commemorations take place every April. This annual event provides an opportunity to commemorate those who lost their lives in the two World Wars, and in particular remembers the Gallipoli Landings of April 1915. Representatives of the Irish government, and the ambassadors of New Zealand, Australia, UK, Turkey, France and Canada may attend the dawn service, along with members of the public.



View of the grounds



Figure 3: Map of Grangegorman Military Cemetery

1.9 Legal Context

1.9.1 Introduction

The management of Grangegorman Military Cemetery must accord with the full range of relevant legislation, including the Planning and Development Act, the Wildlife Act and legislation governing building control, health and safety, and disability.

1.9.2 Current Governance

Overall responsibility for Grangegorman Military Cemetery is shared between the Minister of the Department of Public Expenditure and Reform and the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs. The Minister of Public Expenditure and Reform is responsible for operational policy and manages the Cemetery through the OPW, whilst the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs is responsible for heritage policy, for implementation of the National Monuments Act and is a prescribed body under planning legislation for development affecting architectural and archaeological heritage.

1.9.3 Planning and development legislation

Development in and around Grangegorman Military Cemetery is subject to the requirements of the Planning and Development Acts 2000, as amended. Under this Act, planning permission must be sought from the relevant planning authority, which in the case of Grangegorman is Dublin City Council. Any proposed development must be assessed against the objectives and policies of the relevant authority's statutory Development Plan. The planning authority's decision can be appealed to An Bord Pleanála by a first party or by any third party who has made a valid submission during the planning process.

In making a Development Plan, planning authorities have extensive powers to designate lands for specific objectives and policies, such as Special Amenity Area Orders, Architectural Conservation Areas, Landscape Conservation Areas, and Tree Preservation Orders, in addition to powers for the statutory protection of certain structures and monuments.

Where a proposed development would impact upon the built heritage, the planning authority is obliged to notify a number of prescribed bodies, including the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs, the Heritage Council, An Taisce, the Arts Council, and Fáilte Ireland. In relation to natural heritage, the prescribed bodies are the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs, the Heritage Council, and An Taisce.

Part IV of the Planning and Development Act 2000 deals with architectural heritage. Statutory guidance on the application of Part IV has been published by the Department of the Environment, Heritage and Local Government in 'Architectural Heritage Protection – Guidelines for Planning Authorities' 2004, and reissued by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs in 2011.

1.9.4 Dublin City Development Plan 2011-2017

The Dublin City Development Plan 2011-2017 places a land-use zoning objective on Grangegorman as Zone Z9, ‘to preserve, provide and improve recreational amenity and open space and green networks.’

The plan also states that 'open spaces require protection to meet the recreational and conservational needs of the city' (Section 6.4.3).

1.9.5 Strategic infrastructure

The Planning and Development (Strategic Infrastructure) Act 2006 provides An Bord Pleanála with ‘fast-track’ powers to grant permission for certain infrastructure development which the Bord deems to be of ‘strategic national importance’.

1.10 Designations

Grangegorman Military Cemetery has been managed as a National Historic Park. This designation was given to highlight the historic elements of Grangegorman, but does not confer any legal protection.



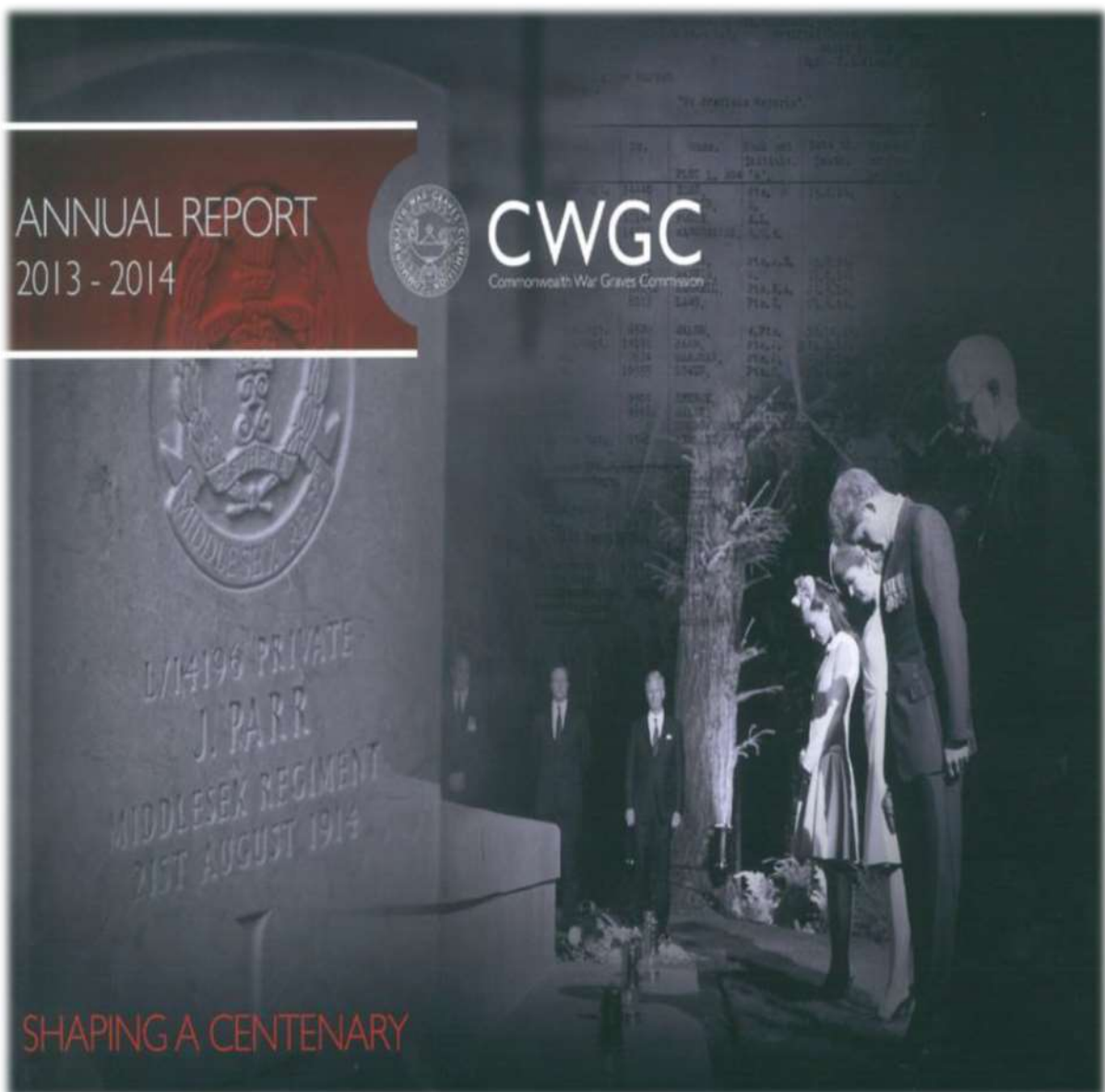
OPW designated National Historic Properties

1.10.1 The character of the Cemetery

The character of a cemetery refers to the appearance and geographical context of each historic graveyard. While Grangegorman Military Cemetery may be considered a 'historic Victorian graveyard', as it was opened prior to the early 20th century, it is more correct to treat it as a 'lawn cemetery'. This differentiation lies in the character of the Cemetery. Lawn cemeteries are usually well maintained, have manicured grass, and are accessible via a network of paths. This distinction is important, as the management principles for the two are quite different. Understanding the character of the Cemetery is therefore important before undertaking maintenance works, so as not to damage the unique heritage aspects of the site. Please see Appendix 4 for the Regulations governing permissions of burials in the Cemetery.

Chapter 2

Where are we now?



Chapter 2

2.1 Introduction

Through the delivery of resources, the OPW has made a long term commitment to continuous development in the protection, management and presentation of Grangegorman Military Cemetery to the public. This chapter describes and reviews the current situation against the Green Flag criteria, identifying and exploring any issues that exist, as well as what is done to address and meet each of the criteria. This chapter examines all aspects of the site and the circumstances in which the services are currently delivered.

2.2 The Green Flag Award

The Green Flag Award Scheme is a benchmark international standard that recognises and encourages high standards in the management of parks and green spaces. The scheme was launched in 1996, gave its first award in 1997, and was first piloted in Northern Ireland in 2008. The UK, Netherlands, Germany, New Zealand and Australia take part in the Scheme, with 1582 Green Flags awarded in 2015 for high quality parks and green spaces.

In 2014, Dublin City Council, Fingal Country Council and the OPW agreed to pilot the Green Flag Awards scheme in Ireland, putting six parks forward in 2015. All six parks were judged to be of sufficiently high standard, and were awarded Green Flags in July 2015.



Green Flag Award banner

For ease of reference, this section of the Plan will outline the processes and issues that exist within Grangegorman Military Cemetery and what is currently being done to address and meet each of the Green Flag criteria. Each criterion is explained at the beginning of the relevant subsection. The criteria are:

- A Welcoming Place
- Healthy, Safe and Secure
- Well Maintained and Clean
- Sustainable
- Conservation and Heritage
- Community Involvement
- Marketing
- Management

2.3 A Welcoming Place

It is the aim of the OPW to create a positive and inviting atmosphere for all visitors to its parks, gardens and designed landscapes, regardless of the reasons for which they are visiting. The OPW therefore endeavours to ensure that there is

- Good and safe access
- Good signage and information for the Cemetery
- Equal access for all members of the community

2.3.1 Welcoming

The vehicular and pedestrian entrance is of Blackhorse Avenue. The vehicular gate remains closed save for special occasions and staff access, while the pedestrian gate is open daily from 10am to 4pm.

Upon entering, the area is open and uncluttered, allowing visitors clear views into the Cemetery. The central path invites visitors to enter and explore. Also in this area are some seasonal floral containers to provide colour. Two standard lights and the blue gate are attractive features in keeping with the purpose of the area.

2.3.2 Good and safe access

No vehicles are permitted into the entrance area without prior permission. Grounds maintenance vehicles have access to the graveyard in order to facilitate cemetery maintenance.

2.3.3 Signage

The cemetery currently has no interpretation or directional signs. However, an interpretation board giving details with a map explaining the various areas is being designed, and will soon be placed in the entrance area.

2.3.4 Equal access for all

As much as possible, and where feasible, equal access to all sectors of the community is facilitated. There is a network of surfaced paths that provide access to most areas of the cemetery. However, those with limited mobility may have difficulty crossing the grass surfaces due to the irregular ground conditions.

2.3.5 ‘Something for everyone’

It would be inappropriate to provide facilities such as playgrounds on this site. However, within its main function as Ireland’s largest military cemetery, Grangegorman provides the following:

- A well maintained site of historical significance, open to all
- Guided tours
- A space for quiet contemplation
- Green space beside residential areas
- Genealogy resource
- Heritage attraction for tourists
- Trees, shrubs, flowers and wildlife



Entrance gates and piers

2.4 Healthy, safe and secure

Public safety is a major concern for the staff and management of Grangegorman Military Cemetery. In order to achieve this, close working partnerships have been developed between the staff of the Cemetery and the management of external agencies, such as An Garda Síochána. Similarly, under the provisions of the Safety, Health and Welfare Act 2005 and the Safety, Health and Welfare at Work (General Application) Regulations 2007, the Cemetery's management have a duty to ensure that their employees and contractors also have a safe, healthy and secure working environment. Specific measures are continually being developed, reviewed and monitored to ensure that Grangegorman is at all times a healthy, safe and secure place for visitors and staff to spend time in. The following section describes how Grangegorman endeavours to provide:

- Safe equipment and facilities
- A secure place for the community to use and traverse
- A park free from dog fouling
- Appropriate facilities that are comfortable and safe
- Quality facilities

2.4.1 Safe equipment and facilities

Equipment is stored in the maintenance building. It is regularly checked and is serviced on an annual basis. If anything breaks down, a 'tagging out' system is in place. Broken equipment is immediately taken out of service and the maintenance department is alerted to rectify the problem. Gardening and maintenance staff have Safe Pass training and regularly undergo other appropriate training.

The nearby Phoenix Park is responsible for a large number of employees, visitors, contractors and event management on a daily basis. Grangegorman's gardening and

maintenance staffing needs are covered by the Phoenix Park Health and Safety procedures and safety committee.



Staff and stores accommodation building

2.4.2 Personal security in the Cemetery

The gate is opened by the gardener every day at 10am, and is locked at 4pm. The presence of the gardener at all times during opening hours contributes to a safe environment for visitors.



Commonwealth War Graves Commission Headstones

2.4.3 Dog fouling

A Code of Conduct for Dog Owners has recently been introduced for Grangegorman and other OPW historic properties in the Dublin region. It has recently been developed and completed following a period of public consultation. The Code covers not only dog fouling, but also issues such as dogs and wildlife on OPW sites, and areas where dogs are permitted or where they should be on leads. The constables regularly interact with dog owners and walkers in the Cemetery. Bins on site accept dog waste in addition to general litter, and this is clearly stated on the bins. The OPW and the Dublin Society for Prevention of Cruelty to Animals (DSPCA) signed an agreement on the 7th March 2015 supporting the OPW Dog Policy.



Code of Conduct for Dog Owners

2.4.4 Appropriate provision of facilities

Given its primary role, the Cemetery is used by people for walking in a peaceful green space, as a tourist attraction, and for commemorative purposes. Facilities such as toilets and tearooms are not provided, though they are available in the larger nearby sites such as the Phoenix Park.

2.4.5 Quality of facilities

The OPW Regional Architects Office and maintenance section maintain the facilities to ensure their preservation and conservation.

2.5 Clean and well maintained

A number of factors, such as the continued and growing use and popularity of this much-loved site, and the ongoing natural wear and tear to the various features through use and the climate, pose challenges to the maintenance of the Cemetery. Therefore, given the conservation responsibilities of the OPW for this site, the staff and management have detailed practices – Safe Operating Procedures and Yearly Work Programmes – in order to maintain Grangegorman in a manner befitting a national historic property.

To achieve and maintain the high standards of maintenance, a Yearly Work Programme (see Appendix 3) has been developed. This programme, which allows some flexibility, provided a framework for the ongoing monitoring and maintenance required, such as:

- Management of litter and waste
- Maintenance of the grounds using horticultural practices
- Maintenance of buildings and infrastructure, including dealing with graffiti
- Maintenance of equipment in a safe and working condition

2.5.1 Litter and waste management

The cemetery is cleaned every morning. The majority of rubbish is made up of plastic bottles, paper and cans. The rubbish is brought to the main Whitefields Depot nearby in the Phoenix Park.

2.5.2 Ground maintenance and horticulture

Grass is cut on a weekly basis using a Kubota mower. This regime will continue into the winter months, depending on weather and grass mowing conditions. Grass clippings are allowed to naturally decompose. Only the grass in the War Graves area is fertilised.

All areas are maintained by Cemetery staff. In addition to this general maintenance work, every year members of the Commonwealth War Graves Commission (CWGC) prune the roses, plant herbaceous flowers and weed the areas immediately around their gravestones. OPW gardeners are responsible for dead heading the roses and for the grass, including the edges.

A manual, 'The Commonwealth War Graves Commission Horticulture Maintenance Guide', for all Commonwealth graves has been developed and distributed to all relevant sites. This covers weeding, edging, dead-heading, cultivation and the removal of old wreaths. In addition, no herbicides or pesticides are allowed in the areas around the Commonwealth war graves. Weeds are collected and bagged separately from other waste. Unfortunately, there are no composting facilities on site.



OPW staff member maintaining the grounds

In other areas of the Cemetery, a small amount of herbicides is used to help reduce weeds and to maintain a clean soil surface immediately around other gravestones. This use of herbicides helps to maintain weed free zones with limited human resources. As an ongoing practice and on a 'needs-must' basis, areas of grass are re-seeded. This occurs when graves natural subside and form hollows.

From the early days, trees have played a vital role in the design of the Cemetery, have added to people's enjoyments and well-being. In Grangegorman, there are very fine mature specimen trees on site, which contribute to the quiet reflective nature of the Cemetery. However, we recognise that while trees provide us with many benefits, they are living organisms with the potential to cause harm and damage. The OPW prepared a Tree Safety Management Policy in 2014 for historic properties country wide. This included the benefits of trees, the potential risks trees can pose, how and when to survey trees. The policy also aids with site zoning and the hiring of professional tree surgeons through a detailed tender process, should they be required. Tree waste is generally taken away by an external contractor to be recycled in the nearby Whitefields Depot. All trees are surveyed, tagged and monitored on a regular basis.



CWGC Horticulture Maintenance Guide



Rose in bloom

The OPW recognise the increasing threat of damage or harm to people or buildings caused by trees or branches falling during high winds. With this in mind, the OPW have developed and put in place a 'Checklist for Managing Access in High Winds and Storms' to deal with foreseeable emergencies that may occur in windy or stormy conditions.

2.5.3 Building and infrastructure maintenance

When necessary, the maintenance section and the Regional Architects Office will undertake conservation and repair work. In recent years, the Gate Lodge received funding for repairs to the building. In addition, gardeners and general operatives support the ongoing monitoring of buildings and infrastructure.

Graffiti is promptly dealt with by Cemetery staff in one of two ways. Either an OPW maintenance person based in the Phoenix Park will remove the graffiti, or external contractors will be brought in. This quick response has been very useful in keeping anti-social behaviour in check.

Footpaths are cleaned on a daily basis. In particular, during the September-December period, leaf blowers are used to blow leaves onto grass areas in order to minimise the risks of slippery areas/ these leaves are cut with the grass, using a mulching mower to shred them finely enough to decompose easily.

2.5.4 Equipment maintenance

All machinery and equipment is serviced on an annual basis. At any other time, when an issue arises the equipment in question is tagged, removed from service, and sent for repairs.

2.5.5 Memorial maintenance

Memorials should never be cleaned with power washers, sand blasters or with chemical cleaners, as these methods enhance the process of decay and will in the long term speed up the loss of the inscription carved onto the clean memorial. The only safe way to clean a memorial is to wash the stone with water by using a damp cloth and followed by a gentle brushing that will result in the removal of bird droppings and other biological growths that may be obscuring the inscription on the memorial. Try to avoid the removal of lichens and mosses from the surface of a memorial as these organisms can help preserve the surface of a memorial from further deterioration. Do try and maintain the original patina or surface appearance of a memorial as this helps prevent weathering.



Battalion badge

2.6 Sustainability

It is now generally recognised that the way we have been living and developing our economies has had a negative impact upon our natural environment. Worldwide we are witnessing loss of biodiversity, increasing levels of pollution and climate change impacts, amongst other issues. Over the last twenty to twenty-five years, there has been a strong movement towards identifying and implementing a more sustainable way of living and working. This has been encouraged and led by various EU and national policies and regulations.

With this in mind, management and staff of Grangegorman have implemented policies and practices in order to allow the Cemetery to play its role in becoming more sustainable and environmentally friendly. This section outlines how Grangegorman will endeavour to:

- Be more environmentally sustainable
- Reduce and justify its pesticide use

- Reduce peat use
- Continue best practice in arboriculture and woodland management
- Conserve natural resources

2.6.1 Environmental sustainability

While Grangegorman Military Cemetery does not have an environmental policy documented, many of the ongoing practices and procedures are firmly rooted in environmental best practice, which has helped Grangegorman to become more sustainable.

2.6.2 Pesticide use

The EU 2009/128/EC Directive, or Sustainable Use Directive, was transposed into Irish law in 2012. It requires Member States to reduce the use of pesticides (including herbicides) and, where pesticides must be used, to do this in a sustainable manner. The Directive also requires Member States to develop and implement a National Plan enabling the private and public sectors to comply with the various rules. In 2013, the Department of Agriculture published the 'National Action Plan for the Sustainable Use of Pesticides'. The Department of Agriculture states which chemicals may be used. The OPW is working with the National University of Ireland Galway with regard to new policies and risk assessments.

The use of herbicides is kept to a minimum and is only used where absolutely necessary. Organic methods of weed control such as hand weeding and hoeing are used on the Commonwealth Graves to help reduce chemical use. Currently, Roundup and Pistol applications are used to spot-treat weeds on the site. A controlled droplet applicator (CDA) is used to apply herbicides, rather than lance application. This is a safer method from a staff and public perspective, as well as being more environmentally friendly.

2.6.3 Peat use

No peat is used in Grangegorman Military Cemetery.

2.6.4 Waste minimisation

Approximately 90% of grass clippings are allowed to naturally decompose in the grass areas. Tree waste from maintenance work is chipped at the nearby OPW Whitefields site in the

Phoenix Park and recycled, rubbish is removed to the Phoenix Park for disposal on a daily basis. There are no composting facilities on site.

2.6.5 Arboriculture and woodland management

High arboricultural standards are maintained to ensure the integrity of Grangegorman. The Tree Safety Management Policy (2014) promotes best international arboricultural practices to be adopted by OPW and executed on site.

2.6.6 Resource conservation

The two standard lights at the entrance have energy saving bulbs installed. The building used by the gardening staff is heated by storage heating.



Standard lamp

2.7 Conservation and heritage

Grangegorman Military Cemetery's primary role is that of a final resting place for soldiers and their close family members. Its design is that of a 'garden cemetery', a style which was promoted by John Claudius Loudon and which became popular during the Victorian period. The Victorians saw cemeteries not only as a place where one's status could be eternally marked in stone or marble, but also as a place to visit, reflect and contemplate, or to go for a quiet and relaxing walk in a pleasant and peaceful environment.

The beginnings of the Commonwealth War Graves Commission as we know it now were initiated by Sir Fabian Ware. He took the lead to find a way in ensuring that the graves of soldiers were cared for and remembered. Although too old to serve in World War I, he led a mobile Red Cross unit which recorded and cared for any graves he could find. His work was

rewarded by the War Office and, known as the Graves Registration, was incorporated into the British Army.



Sir Fabian Ware (courtesy of CWGC)

This initiative gained further recognition with the establishment of the Imperial War Graves Commission, supported by a Royal Charter. The War Graves section, along with the graves mentioned earlier, makes this cemetery a valuable heritage site and resource not only for Ireland, but for the international community.

Guided and supported by various legislative and policy tools such as the Planning and Development Acts, Grangegorman Military Cemetery has in the past and will continue to give priority to the conservation of its natural and built heritage features. This is facilitated by the ongoing implementation of existing plans supported by surveys and reports for such features, as well as the development of new plans, again supported by documentation. With this in mind, the staff and management of Grangegorman will:

- Conserve and provide appropriate management for the natural features, wildlife and flora in Grangegorman
- Conserve and provide appropriate management for the landscape features
- Conserve and provide appropriate management for the buildings and structural features

2.7.1 Conservation of natural features, wild fauna and flora

Following a review of the different habitats found in Grangegorman Military Cemetery using Fossitt's 'A Guide to Habitats in Ireland', the following habitats were identified:

- **WD5 – Scattered trees and parkland.** These areas provide shelter and nesting sites for birds such as blackbirds, tits and finches, and habitats for other small mammals and invertebrates
- **WL1 – Hedgerows.** These provide shelter and a food source for birds and invertebrates such as insects and snails
- **BL3 – Buildings and artificial surfaces**

- **BL1 – Stone walls and other stonework.** Though manmade, stone walls and similar structures can provide important habitats for invertebrates, small birds, mosses and lichens.

Trees onsite provide valuable habitats and food sources for wildlife. While no wildlife survey has been completed, there is anecdotal evidence of foxes and a selection of birds including passerines, gulls, pigeons and members of the crow family. It is also likely that small mammals and invertebrates are present, especially with the large open green space of the Phoenix Park nearby.

The tree mix is predominantly of non-native species origin. While native species are of greater benefit to Ireland's wildlife, these trees provide many biodiversity benefits as they provide seeds, berries, nectar, nesting and roosting sites. The native trees present in Grangegorman include the Irish yew and hawthorn.



Swallow

(courtesy of Clive Timmons)



Leisler's Bat

(courtesy of Scott Crawley)

2.7.2 Conservation of landscape features

Landscape features include:

- Trees, which are covered under the OPW's Tree Safety Management Policy
- Vistas and views
- Overall historic landscape design

To continue and improve the appropriate management of these features, various actions have been identified and added to the 2016-2021 Action Plan (see Chapter 4).

2.7.3 Conservation of buildings and stone structures

Buildings and structures in the Cemetery include:

- The gate lodge
- The two standard lights and gates
- Gravestones and other memorials
- The boundary wall

Repair and conservation work has taken place on the gate lodge. A cultural heritage inventory is currently underway for Grangegorman.



Commonwealth War Graves Commission Headstones

2.7.4 Conservation of memorials

Memorials in a graveyard are in a constant state of decay from the natural processes of weathering. It is important therefore to record the location and gather detailed information of every memorial before this data is lost as a result of this natural decaying process. There are several non-impact methods of reading inscriptions. The best method is to use an artificial light source from the side under dark conditions to light the memorial that highlights even the faintest of inscriptions. If this technique does not reveal the inscription, no other will. High impact methods such as chalk rubbing are to be avoided. Rubbings should only be taken once and may only be carried out on memorials whose inscriptions are in good condition.

2.8 Community Involvement

Informal discussion between the management and staff of the Cemetery with the local community provides a platform where needs, wishes and issues are identified, discussed and resolved. Achieving an appropriate balance between the conservation needs of a historic property and delivering the desired community activities and events is vital.

The staff and management of Grangegorman will:

- Facilitate appropriate community involvement
- Continue to provide facilities and events that are inclusive and appropriate for the community and Grangegorman Military Cemetery

2.8.1 Community involvement in management and development

One of the roles of the gardener and ranger is to interact with members of the public. This is a helpful method of receiving feedback and learning of issues affecting users of the Cemetery. In the development of the Code of Conduct for Dog Owners, public participation was invited and encouraged throughout all of OPW's Dublin sites, including Grangegorman.

The development of appropriate initiatives and events has taken place with the involvement of the Commonwealth War Graves Commission.

2.8.2 Appropriate provision for the community

Based on anecdotal evidence, the groups using the Cemetery include, but are not limited to, the following:

- Individuals and groups visiting the graves
- Individuals and groups using the site as a green space
- Individuals and groups using the site for family history research
- Individuals and grounds using the Cemetery as a tourist or visitor attraction
- Individuals and groups visiting the site on an international or national commemorative day, such as ANZAC Day.

Grangegorman hosts an annual Commemoration Day, ANZAC Day. This marks the Gallipoli landings in April 1915, in which the soldiers from a number of countries took part and experienced fatalities. On the commemoration day, representatives of the Irish government, the ambassadors of the countries involved – New Zealand, Australia, UK, Turkey, France and Canada – and the public will attend and partake in the dawn ceremony.

Guided tours of the site take place weekly between March and November. From time to time, other appropriate events are organised., such as Heritage Day etc.

2.9 Marketing

Grangegorman Military Cemetery is one of many properties managed by the OPW. Over its long history, management have developed and implemented policies and procedures to enhance and improve the quality and enjoyment experienced by visitors.

The Management and staff of the cemetery set out to:

- Provide effective promotion of Grangegorman and all its events as a community and tourist resource
- Provide quality information to users

2.9.1 Marketing and promotion

Historic parks and gardens are promoted at a corporate level as ‘a destination that provides a cultural and heritage tourism offering’. The OPW is currently working on the development of an overarching marketing and promotion strategy. This will help maximise the OPW assets and to increase our offering as a tourist destination for the city. Key target audiences for Grangegorman Military Cemetery are local residents, families of the deceased, visitors from outside the immediate area, and tourists.

Overall corporate promotion has improved. However, there are some opportunities to promote the Cemetery that are currently being missed, such as highlighting our weekly guided tours.

Grangegorman Military Cemetery promotes itself through the various avenues:

- Heritage Ireland, a website detailing visitor information on OPW properties
- Commonwealth War Graves Commission website
- Phoenix Park website (www.phoenixpark.ie), Visitor Centre and events brochure
- OPW’s website (www.opw.ie)
- Grangegorman’s website, which launched in April 2015 (opwdublincommemorative.ie)
- Social networking, including Facebook and Twitter
- Weekly guided tours

In addition, upcoming events are advertised using posters in stands located inside the main entrance. With its new increased online presence, Grangegorman Military Cemetery will have more avenues to help promote itself as a community resource, to advertise its various events, and to increase people’s awareness and regard for its offerings.

2.9.2 Provision of appropriate information

There are various products providing further information about Grangegorman, including:

- Interpretive panel located in the Cemetery
- Heritage Ireland website
- Grangegorman's website
- Social networking
- Guided tours

2.10 Management

2.10.1 Implementation of management plan

The present overall high standard of the management and presentation of the Cemetery is critical to its success. The Conservation Management Plan 2016-2021 is linked to the corporate and departmental business plans and objectives, and addresses the range of issues that affect the Grangegorman Military Cemetery, its users and its stakeholders.

A litter free environment is encouraged in Grangegorman. To this end, the OPW is a partner of Leave NO Trace Ireland, an outdoor ethics programme which promotes responsible outdoor recreation through education, research and partnerships.

Chapter 3

Where do we want to get to?



Chapter 3

3.1 Introduction

The objective of the Conservation Management Plan is to identify and understand the significance of Grangegorman Military Cemetery, its historic stature and its special place in the culture and literature of the city and the nation. This chapter will examine how Grangegorman should be presented today in light of its historic and cultural perspective. Site objectives have been developed in order to improve the long-term conservation and sustainable use of Grangegorman.

3.2 Vision and objectives for the 21st century

The long-term vision for Grangegorman Military Cemetery combines its protection, conservation and, where appropriate, restoration as an important and unique historic landscape with the facilitation of appropriate access and use.

The achievement of this vision requires a greater awareness and appreciation of the key qualities of Grangegorman, especially its historic landscape character, together with the provision of adequate resources. For residents of Dublin and visitors to the city, the Cemetery continues to be an extremely valuable recreational amenity, and an area of tranquillity in the busy city centre, as well as an educational and research resource. It will therefore continue to be a place where people go to experience heritage, culture and nature.

In light of the above, the overall **vision** for Grangegorman Military Cemetery is:

‘To protect and conserve the historic landscape character of Grangegorman Military Cemetery, its sense of tranquillity and its natural, built and cultural heritage, while at the same time facilitating and promoting visitor access, education and interpretation. This shall be achieved by following sustainable practices, using both our own resources and those of the planet wisely, with due regard for future generations.’

The following are the strategic objectives guiding the conservation and management of Grangegorman for the 21st century:

1. To protect and conserve its role as Ireland's largest military cemetery and its important role within the Commonwealth War Graves Commission
2. To protect and conserve the historic landscape of Grangegorman Military Cemetery
3. To protect the historic setting of Grangegorman and conserve its archaeological and architectural heritage
4. To achieve a high quality Cemetery that is nationally recognised for its quality and attractiveness
5. To facilitate an appropriate mix of recreational use that maximises visitor enjoyment and protects the landscape and infrastructure of Grangegorman
6. To present Grangegorman Military Cemetery to best advantage, ensuring that its potential to promote cultural tourism is maximised and that visitor understanding and education is enhanced
7. To adopt a sustainable approach in the conservation and management of Grangegorman, with an emphasis on standards of excellence in all areas of work
8. To preserve the peace and tranquillity of the Cemetery
9. To conserve the plant and animal species, along with their habitats, while improving biodiversity
10. To promote the central role that Grangegorman plays in contributing to Dublin's health and wellbeing
11. To liaise and consult with interested and relevant parties, organisations and community groups in the achievement of the above objectives
12. To secure the necessary resources to achieve these objectives

3.3 Landscape

The overall objective in respect of the landscape of Grangegorman Military Cemetery and its setting is to ensure its continuing protection and conservation and, as appropriate, its restoration and enhancement as a place for public recreation and appreciation of designed landscapes and historic cemetery gardens.

Specific objectives include:

- To encourage the planning authorities to have regard for the landscape setting of the Cemetery
- To ensure that trees and plantations continue to thrive in the Cemetery, using species that are appropriate to the setting and soil conditions. Such features are fundamental in creating the landscape character by defining spaces and directing views within Grangegorman. Sustaining the current balance between open space and plantations is essential to the landscape character. The form, structure and species diversity, as well as the character of plantations, will be conserved and new

plantations will be established by sensitive management including felling, remedial work and appropriate replanting

- To conserve the existing topography of the Cemetery, which is integral to the character and quality of the designed landscape, and to ensure that if changed to landform are required, that these reflect and enhance the historic landscape
- To conserve and enhance buildings, structures and memorials that form focal points for views in Grangegorman and give a special sense of place and, where appropriate to the setting, to reinstate those that have been removed
- To ensure that, where any new features, services and amenities in Grangegorman are required, it is essential that they are appropriate and sensitive to its historic character
- To continue to develop educational materials on the historic and designed landscape of Grangegorman Military Cemetery



Commonwealth War Graves Commission Headstones

3.4 Nature and biodiversity

The overall objective is to secure and sustain the biodiversity value of Grangegorman Military Cemetery into the future; to protect key habitats and species, enhance their status and recreate valuable wildlife habitats where appropriate to increase the biodiversity value of the Cemetery and its habitats. It is now widely recognised that cemeteries can be important habitats for wildlife in urban areas.



Tree collection

Specific objectives for biodiversity include:

- To continue to adopt management measures sensitive to biodiversity, to identify areas where such measures would have precedence, and to develop action plans to maximise biodiversity
- To raise awareness of biodiversity
- To protect and enhance the condition of important species of flora and fauna
- To continue researching, developing and monitoring all aspects of biodiversity, in order to support the decision making process in management practices for the overall enhancement of biodiversity
- To adopt the relevant targets and actions of the All Ireland Pollinator Plan 2015-2020:
 - Target 1.2.1: Increase the area of public land that is managed in a pollinator friendly way, Actions A13, A14, A20: Encourage pollinator friendly management of National Parks and Nationally Designated sites (A13), public parks and green spaces (A14), and national monuments and historic properties (A20).
 - Target 1.2.3: Reduce the use of pesticides (insecticides, herbicides, fungicides) on public land, Action A33: Encourage safer application of pesticides.

3.5 Archaeology, architecture and built heritage

The overall objective in respect of the architectural and archaeological heritage of Grangegorman Military Cemetery is to ensure its ongoing protection and conservation.

Specific objectives under this heading include the following:

- To record a comprehensive inventory and audit, with periodic reviews, of the full extent of the archaeological, architectural, engineering and artistic heritage of

Grangegorman, including buildings, monuments, other structures and artefacts, details such as ironwork etc.

- To identify infrastructure and artefacts - including street furniture, fences, railings, etc. – that are inappropriate to the setting of the Cemetery and to seek more appropriate replacements
- To encourage and facilitate further studies of the archaeological, architectural, cultural and artistic heritage – excluding excavations, where appropriate – and to promote a better understanding of the importance and significance of this heritage
- To promote and facilitate high standards of conservation, architectural design, construction and craftsmanship in all developments within the Cemetery
- To ensure that the DoHLG Guidelines for Protection of Architectural Heritage be adopted as best practice for all works in Grangegorman
- To continue liaising with the CWGC on the ongoing management and maintenance of the cemetery

3.6 Access and Public Use

The Cemetery consists of six acres of land, the majority of which is directly accessible to the public for passive recreation and commemoration. It offers a wide variety of visitor experience including landscape, social and cultural history, architecture, nature and biodiversity as outlines in previous sections.

The overall objective is to provide a world-class visitor experience within the setting of a National Historic Park.

Specific objectives relating to access and public use include the following:

- To facilitate an appropriate balance of recreational use and public appreciation that maximises visitor enjoyment and protects the landscape and infrastructure of the Cemetery in a sustainable manner
- To facilitate and encourage greater public understanding of the national and international significance of Grangegorman through continued research, publications and the use of technology
- To ensure that all events demonstrate that they will minimise their carbon footprint within the Cemetery
- To maintain the current high level of access to the Cemetery
- To respect and conserve the layout and distribution of the designed features and facilities
- To promote Grangegorman, including its landscape, natural amenities and wildlife, as a unique passive recreational area for the refreshment of body, mind and soul
- To develop educational and tourist programmes facilitation the interpretation of the significance of the Cemetery in a historic, natural, sociological and landscape context



Children at workshop

3.7 Management

The overall objective is to ensure the highest professional standards in the management and operation of Grangegorman Military Cemetery.

The specific objectives include the following:

- To maintain and support a dedicated team responsible for management and conservation at the Cemetery, working to the objectives and actions as set out in this Conservation Management Plan
- To encourage and promote academic research to achieve the deeper understanding of the Cemetery necessary for its appropriate management
- To strive for the highest standards of environmental sustainable management and ensure that Grangegorman's impact on climate change will be minimised
- To ensure sufficient resources are available for the management of uses and activities, to avoid unsustainable damage to the sensitive historic fabric of the Cemetery
- To establish Grangegorman Military Cemetery as an Irish and international show case for landscape, horticulture and arboriculture in a cemetery context



OPW horticultural staff

3.8 Guidelines for the care of historic graveyards

The care and conservation of historic graveyards and lawn cemeteries should be guided by 'best practice' principles, which may be used as a guiding philosophy when carrying out work on places of cultural and historical significance. The conservation principles most relevant for the care of a historic graveyard are laid out in 'The Burra Charter: The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance 2013'. This document outlines the principles behind conserving and maintaining a place of historical significance without inadvertently destroying its cultural significance. The list of works below, which set out which tasks should and should not be carried out in a historic graveyard, follow international best practice for the care and conservation of historic graveyards. These principles are applied to the care and conservation of Grangegorman Military Cemetery.

3.8.1 List of works that should be carried out in the Cemetery

- Designate dump sites away from the monuments and memorials
- Survey the site, marking in any buildings and all headstones

- Retain healthy trees, choose native species where possible
- Leave all hummocks in the ground, they may mark structural and archaeological features
- Maintain existing pathways
- Maintain boundary walls, banks and hedges
- Wait until the site is cleared to decide on the conservation of structural remains
- Keep all architectural and sculptural fragments, record their position and report their finding to the relevant authorities
- Plan the programme of works carefully, beginning with the least difficult tasks

3.8.2 List of works that should not be carried out in the Cemetery

- Do not start without professional advice and a clear work plan
- Do not try to demolish or remove anything from the site without the approval of the relevant authorities
- Do not dig graves near walls; they can cause structural damage
- Do not attempt unlicensed excavation
- Do not burn off vegetation, or use total spectrum weed killers
- Do not plant wild plants without expert advice
- Do not uproot ivy, trees or gravestones
- Do not use wire brushes or sandblasters
- Do not apply paint to gravestone inscriptions
- Do not repoint any masonry without professional advice
- Do not use ribbon pointing on old boundary walls or buildings
- Do not level off pathways
- Do not use grave slabs for paving
- Do not lay new pathways without consulting an archaeologist
- Do not move grave stones unnecessarily or without archaeological advice and supervision
- Do not burn rubbish on site, close to buildings or memorials. Under the Waste Management Act 1996 (as amended), it is an offence to dispose of waste in a manner which is likely to cause environmental pollution.

Chapter 4

How will we get there?



Chapter 4

4.1 Introduction

This chapter sets out a five-year Action Plan (Fig. 5) to be delivered as part of this Conservation Management Plan, and considers the financial and resource implications of these actions. The actions laid out will support the Green Flag process. It is important that these actions are delivered upon in order to safeguard the integrity of Grangegorman Military Cemetery.

4.2 Action Plan 2016-2021

The delivery of the activities, projects and programmes is required in order to meet public, departmental and site objectives. The actions detailed within this Action Plan have been derived from staff observations, internal advisors and Cemetery management. Feedback from the public is also reflected.

Staff from OPW Heritage Services will implement the actions with the support of the Conservation and Regional Architects, OPW Engineer, Building maintenance Service and external providers.

This Action Plan is a live and flexible document which may be subject to change and improvement as we take account of changing circumstances in the next five years.

Grangegorman Military Cemetery, Five Year Action Plan 2017-2022

This action plan to be read in conjunction with the Grangegorman Military Cemetery Conservation Management Plan

Status	Colour
Completed	Green
Commenced	Yellow
Not commenced	Red

Project	Action	Resources	Timescale	Status
Landscape				
Prepare a Landscape Plan for the Cemetery	Develop a landscape plan that shows: (a) the open space, enclosure, views and vistas that define the character of the Cemetery (b) the landforms, archaeology, historic and cultural features and locations that characterise the Cemetery	To be undertaken in-house when staff resources are available	Ongoing	Yellow
Conserve the arboreal character to reflect the historic design intentions	Prepare tree surveys and undertake a programme of tree planting and maintenance	Internal and external resources	Autumn 2017	Green
Ground reinstatement	Continue reinstatement of grounds as a result of soil settlement	Internal resources	Ongoing as required	Green
Standards of Excellence in grounds maintenance	Continue staff training and upskilling in horticulture, arboriculture, health and safety	As time and resources permit	Ongoing	Green
Nature and biodiversity				
Continue to adopt measures sensitive to biodiversity	Carry out bird survey with BirdWatch Ireland and introduce bird boxes	External resources	Completed	Green
Protect the habitats of appropriate mammals	Undertake bat survey and adopt best practice in protecting sensitive habitats	External and internal resources	To be undertaken in 2017	Yellow
Adopt sensitive measures for bats	Prioritise bat habitats while undertaking tree surgery	Internal staff and tree contractors	Ongoing	Green
Ensure the parkland setting is	Implement events matrix for Grangegorman	Internal resources	Ongoing	Green

maintained free from compaction and damage	Military Cemetery and work closely with all event organisers			
Archaeology, Architecture and Built Heritage				
Prepare inventory and database of Cemetery graves and infrastructure	Design database to record all features of graves and infrastructure	Internal resources	To be undertaken in 2016	
Encourage and facilitate further studies of archaeological, architectural, cultural and artistic heritage to promote a better understanding of the importance and significance of Grangegorman	Commission research on Grangegorman Military Cemetery	Internal and external resources	Completed	
Continue to facilitate high standards of conservation, architectural design, construction and craftsmanship	Repair of headstones Undertake new programme of repairs	Internal Architects Office, external contractors and resources	Ongoing	
Ensure adoption of Guidelines for Protection of Architectural Heritage	Liaise with Principal Conservation Architect and Regional Architect on best practice	Internal resources	Ongoing	
Infrastructure upgrade	Carry out geophysical analysis and, if required, targeted test trenching in advance of any ground disturbance associated with planting, landscaping or development works within the cemetery to mitigate the impacts on any buried archaeological features	External resources	As required	
Infrastructure maintenance	Path repairs and painting of gates	Park staff and Building Maintenance staff	Ongoing as required	
Ensure the historic character of Grangegorman is retained	Ensure adoption of this Conservation Management Plan	Internal resources including the Art Management Office	Ongoing	
Access and Public Use				
Continue to ensure that visitors have a	Ensure that the park is accessible year-round,	Internal resources	Ongoing	

world class experience	during opening hours, for all users free of charge			
Ensure all events are appropriate to the setting of Grangegorman	Implement ESMP guidelines from NHP which prioritise passive recreation and events which respect the finite resources of the Cemetery. Commercial events are not permitted within this high amenity area	Internal resources	Ongoing	
Encourage guiding opportunities within the Cemetery	Facilitate knowledgeable third party guiding opportunities with regard to the historical, military, commemorative and arboricultural character of the Cemetery	External resources	Ongoing	
Public seating	Provide two park benches	Internal resources	Completed	
Disabled parking	Liaise with local authority with regard to the provision of a disabled parking bay in the vicinity of the Cemetery entrance	External resources	To be undertaken in 2017	
Ensure Burial Policy is available	Display Burial Policy	Internal	Ongoing	
Management				
Expands public knowledge and appreciation of Grangegorman Military Cemetery	Develop website for the Cemetery Liaise with the CWC on the development of interpretive panels Develop educational material for primary schools.	Internal and external resources	Completed	
Ensure competent staff and financial resources available	Complete NHP workforce plan, maintain current staffing levels and commitment to financial resources	Internal resources	Ongoing	
Continue to ensure visitor and staff safety	Implement OPW Health and Safety policy	Internal resources	Ongoing	
Adopt best practice standards	Implement actions adopted within this Conservation Management Plan and the Green Flag Standards	Internal and external resources	Ongoing	
Continue liaison	Maintain contact with	Internal and	Ongoing	

with relevant government bodies and local authorities	relevant bodies on matters of mutual interest and concern	external stakeholders		
New signage at entrance	Develop and install sign with opening times for main entrance	Internal and external resources	In planning stage	
Encourage a litter-free environment	Liaise with 'Leave No Trace' organisation in pilot project	Internal and external resources		

Chapter 5

How will we know when we have arrived?



Chapter 5

5.1 Introduction

This Conservation Management Plan 2016-2021 is the first such document developed for Grangegorman Military Cemetery. In practical terms, the Conservation Management Plan will be reviewed on a regular basis and amended over time to take account of changing circumstances and future developments. OPW Heritage Services staff will be responsible for the implementation, delivery and review of this plan under the leadership of the Chief Park Superintendent, the Commissioner and Chairman of the OPW. This will ensure that the Plan remains a valid contemporary document for the effective management and maintenance of Grangegorman. The Senior Management team recognises that the monitoring and review of the Conservation Management Plan is as important as its delivery.

The aims of monitoring and evaluating the Plan are:

- To ensure that operational activities, projects and programmes are being delivered in time and to budget
- To ensure that the vision and objectives within the Plan are being met
- To ensure accountability and ownership
- To review and improve the Conservation Management Plan with ongoing data collection from the users
- To proactively management and measure performance

5.2 Monitoring and evaluation

5.2.1 Conservation Management Plan

The Management Plan will be reviewed annually by the Chief Park Superintendent in consultation with site-based staff, administrative staff and stakeholders to take account of any changes and development within Grangegorman. Feedback from the annual Green Flags Awards inspection will also be fed in and action taken, ensuring continuous improvement. New strategies, policies, research or procedures developed and implemented by the OPW during the life span of the Plan will also be incorporated as appropriate.

5.2.2 Conservation Management Plan – Action Plan

The Chief Park Superintendent will monitor the delivery of projects and activities outlined within the Action Plan during regular site-based team meetings and management meetings with the relevant parties. On an annual basis, the Action Plan will be updated following a complete review of the achievements identified and an assessment of the successes and failures to date.



Horticultural works and grass reinstatement

5.2.3 Operational Activities

Operational routine works will be monitored daily and weekly onsite to ensure that maintenance operational standards are being met. Skilled gardeners ensure that the standards of excellence in horticulture and landscape maintenance are upheld. The gardening staff are proactive and have a ‘can-do’ approach. They patrol the Cemetery daily to interact in a positive way with the local community and visitors. Specialist teams look after the trees and infrastructure.

List of figures

Page No.

Figure 1: Location map of Grangegorman Military Cemetery	11
Figure 2: List of species of trees in Grangegorman Military Cemetery	14
Figure 3: Map of Grangegorman Military Cemetery	17
Figure 4: Five-year Action Plan 2016-2021	53

List of images

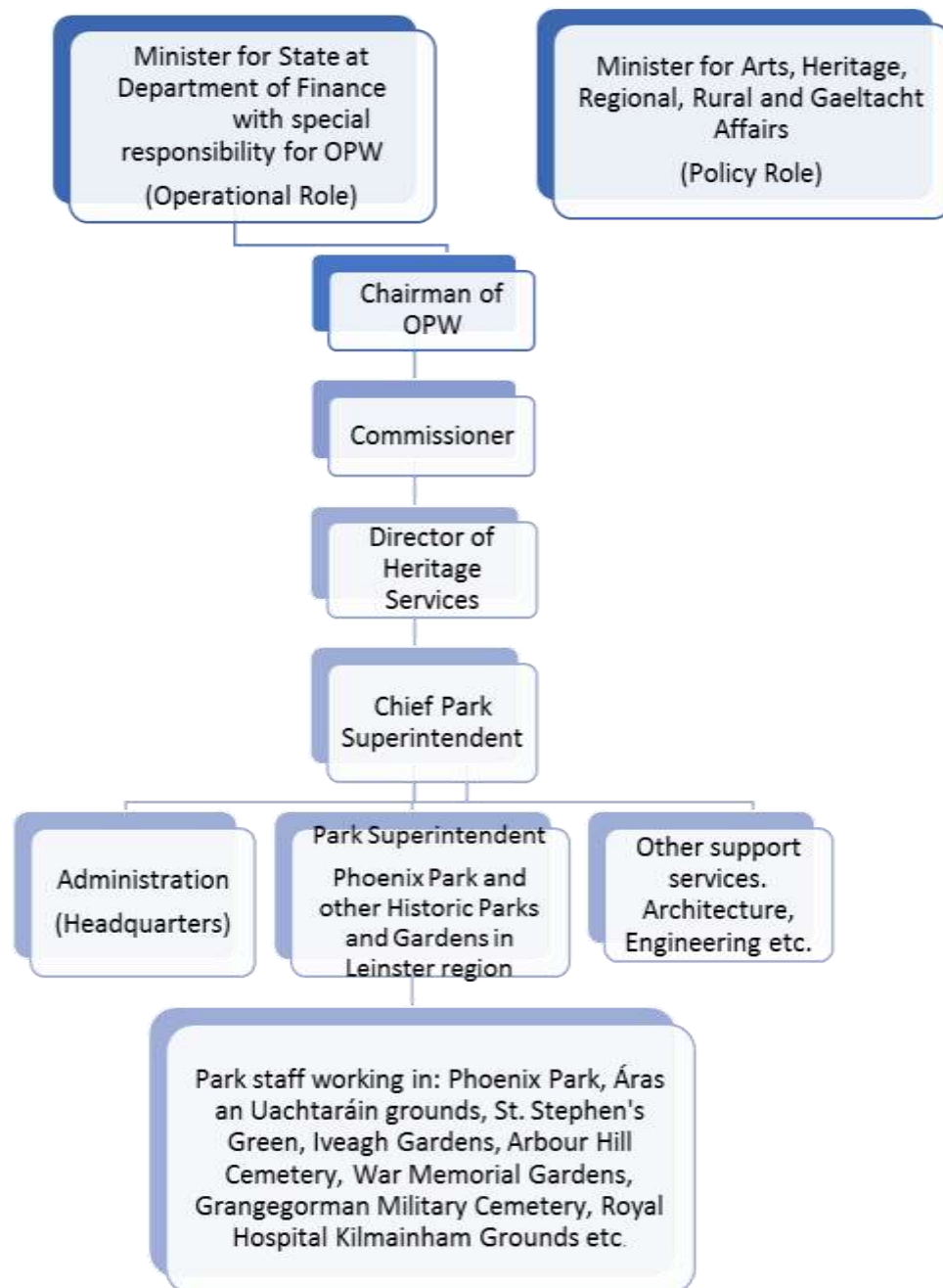
1. Commonwealth War Graves Commission Headstones	Front cover
2. Commonwealth War Graves Commission Headstones	2
3. Duke of Kent with OPW and other officials	4
4. OPW and CWGC staff inspecting the Cemetery	6
5. Great War Record Book, illustrated by Harry Clarke	8
6. Headstone of Company Sgt. Major Martin Doyle V.C. MM.	9
7. Headstone of Unknown Soldier	9
8. Headstone of John and Margaret Naylor	9
9. R.M.S. Leinster	10
10. Gate Lodge	12
11. Memorial Wall	13
12. Tree Collection	15
13. View of the grounds	16
14. OPW designated National Historic Properties	19
15. CWGC Annual Report front cover	22
16. Green Flag Award banner	23
17. Entrance gates and piers	25
18. Staff and stores accommodation building	26
19. Commonwealth War Graves Commission Headstones	27
20. Code of Conduct for Dog Owners	28
21. OPW staff member maintaining the grounds	30
22. CWGC Horticulture Maintenance Guide	31
23. Rose in bloom	31
24. Battalion badge	32
25. Standard lamp	34
26. Sir Fabian Ware	35
27. Swallow	36
28. Leisler's Bat	36
29. Commonwealth War Graves Commission Headstones	37

30. Minister of State, Northern Ireland Office, UK with British Ambassador to Ireland and OPW Chairman	42
31. Commonwealth War Graves Commission Headstones	45
32. Tree collection	46
33. Children at workshop	48
34. OPW horticultural staff	49
35. Celtic cross	52
36. Spring colour in the Cemetery	58
37. Horticultural works and grass reinstatement	60

List of Appendices

Appendix 1: Organisation Chart	63
Appendix 2: OPW National Historic Properties countrywide	64
Appendix 3: Annual Work Programme	65
Appendix 4: Regulations Governing Permission for Burials	66
Appendix 5: Grangegorman Cemetery Habitats Draft Report	67

Appendix 1: Organisation chart



Appendix 2: OPW National Historic Properties Countrywide

Castletown House and Demesne

Derrynane House and Garden

Farmleigh Estate

Fota Arboretum

Glebe Gallery

Innacullin

Iveagh Gardens

John F. Kennedy Arboretum

Kilkenny Castle and Demesne

Kilmacurragh Arboretum

National Botanic Gardens

Phoenix Park

Rathfarnham Castle

St. Enda's National park

St. Stephen's Green

Arbour Hill Cemetery

Altamont House and Gardens

Grangegorman Military Cemetery

Emo Court

National War Memorial Gardens

Heywood Gardens

Áras an Uachtaráin

Royal Hospital Kilmainham

Annes Grove Gardens

Great Blasket Island and Visitor Centre

Oldbridge House and Demesne

Dublin Castle

Doneraile Court

The Garden of Remembrance

Casino Marino

Appendix 3: Annual Work Programme

Annual Works Programme			
Area	Action	Frequency	Occurrence
Plants			
Trees	Inspection	As needed	
	Maintenance	As needed	
Graves			
CWGC graves	Planting	As needed	
	Rose dead heading	As needed	Summer/autumn
	Rose feeding	Once	
	Weeding	As needed	Throughout year
	Edging	As needed	Throughout year
	Removal of waste	As needed	Throughout year
Graves (other)	Spraying	Once	June
	Re-seeding	As needed	
	Weeding	As needed	
	Removal of waste	As needed	
Grass	Mowing	Weekly	Throughout year
Litter Management			
Paths and grass	Litter picking and recycling	Daily	Throughout year
	Leaf collection		Autumn
Equipment			
	Inspection	Daily	Throughout year
	Servicing	As needed	
Buildings			
	Inspection	Daily	Throughout year
	Maintenance	As needed	
Park Furniture			
Lights, Gates	Inspection	Daily	Throughout year
	Maintenance	As needed	

Appendix 4: Regulations Governing Permission for Burials

1. The Cemetery is the property of the State and is under the control of the Commissioners of Public Works.
2. No person has a right to internment in the Cemetery, but the Commissioners are prepared to consider applications for permission to inter in the Cemetery (1) in a new grave, a person who had service in the British Army prior to the 1st April 1923, and (2) in an existing grave, one near relative of the deceased soldier buried in the grave.
3. All applications for permission for burial must be made at the head office of the Commissioners, and should, where possible, be accompanied by the discharge papers and the death certificate of the deceased soldier, and, in the case of a near relative of a soldier already buried in the Cemetery, by such evidence as will satisfy the Commissioners of the relationship.
4. Burial fees are not charged, but the person or persons having charge of the burial must bear the cost of opening and closing the grave.
5. Graves must be opened and burials must take place at such times as the Cemetery is normally open, i.e. 10am to 4pm from Monday to Friday inclusive, and 10am to 1pm on Saturdays.
6. The Cemetery grounds and the graves are maintained by the Commissioners. The standard of maintenance of the graves is that of the Commonwealth War Graves Commission, viz: flat grass grave clear of weeds, stones, loose soil or rubbish, the turf to be mown from time to time with the sufficient frequency to keep the grass short. The Commissioners also maintain any memorials erected by themselves; they do not accept responsibility for private memorials erected by friends or relatives of deceased soldiers.

Memorial headstone guidelines:

- The base of the headstone must be made of limestone and flush to the ground.
- The headstone must be either:
 - 3in x 15in x 32in
 - 4in x 18in x 36in
- The plot number should be placed on the back of the headstone.

Appendix 5: Grangegorman Cemetery Habitats Draft Report



GRANGEGORMAN MILITARY CEMETERY,

BLACKHORSE AVENUE, DUBLIN 7

HABITATS REPORT

Prepared for the Office of Public Works (OPW)

Project No.	Rev.	Status	Author	Reviewed By	Approved By	Issue Date
160170	01	Draft	KMOC	PS	PS	12/12/16

TABLE OF CONTENTS

1. INTRODUCTION	2
2. METHODOLOGY.....	2
2.1..... Relevant Legislation, Policy & guidelines.....	2
2.2..... Desk study	3
2.3..... Field Survey Methodology	3
3. DESCRIPTION OF EXISTING ENVIRONMENT	4
3.1..... Study Area Overview.....	4
3.2..... Protected Areas	4
3.3..... Records of Protected, Red-Listed and Invasive Flora Species	6
3.4..... Field survey results	8
4. Recommendations for enhancing Ecological Value of Site.....	Error! Bookmark not defined.
REFERENCES.....	14
APPENDIX 1: CRITERIA FOR ECOLOGICAL EVALUATION	15
APPENDIX 2: Records of Rare and Protected Species	1

1. INTRODUCTION

Scott Cawley Ltd. was commissioned by the Office of Public Works to undertake habitat surveys and mapping of Grangegorman Military Cemetery (also referred to hereafter as the 'study area') located on Blackhorse Avenue in Dublin 7 (Approximate Grid Reference: O 12831 35789, see Figure 1 below for location of study area). The main aims of these surveys were to:

- Collect and present records of rare, threatened or protected plant species located either within or in close proximity to Grangegorman Cemetery from a variety of data sources;
- Identify all habitat types located within Grangegorman Cemetery based on plant species present and their level of abundance
- Map all habitat types located within Grangegorman Cemetery; and,
- Establish key areas of ecological importance.



Reference: Orthophotograph from ArcGIS World Imagery © Esri. Sources: Esri, Digital Globe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure 1: Location of study area Grangegorman Military Cemetery on Blackhorse Avenue in Dublin 7, as indicated by the red line boundary.

2. METHODOLOGY

2.1. RELEVANT LEGISLATION, POLICY & GUIDELINES

This report has been prepared in reference to the following policy documents and legislation, where relevant.

National and International Policy and Legislation

- *Wildlife Acts 1976 - 2012* (as amended); hereafter collectively referred to as the Wildlife Acts.
- *European Communities (EC) (Birds and Natural Habitats) Regulations 2011* (S.I. No. 477/2011 (as amended); hereafter referred to as the Birds and Habitats Regulations.
- *EU Habitats Directive 92/43/EEC* (as amended)

- *Flora (Protection) Order, 2015*
- *Actions for Biodiversity 2011 – 2016, Ireland’s National Biodiversity Plan*

Relevant Local Policies and Plans

- *National Biodiversity Plan 2011 – 2016 (Department of Arts, Heritage and the Gaeltacht, 2011)*
- *Dublin City Development Plan 2016-2022 (Dublin City Council, 2016)*
- *Dublin City Biodiversity Action Plan 2015-2020 (Dublin City Council, 2015)*
- *Eastern River Basin District, River Basin Management Plan 2009-2015*
- *Grangegorman Military Cemetery Conservation Management Plan 2016-2021 Draft (OPW, 2016)*

Habitats and Flora Guidelines

- *Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011)*
- *A Guide to Habitats in Ireland (Fossitt, 2000)*
- *Ecological Guidance for Local Authorities and Developers (Scott Cawley, 2013)*
- *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes (NRA, 2009)*

2.2. DESK STUDY

A desk study was undertaken in order to collate available information on flora species in the local environment. The following resources and databases were consulted in the production of this report:

- Data on rare/protected/threatened/invasive species held by the National Parks and Wildlife Service (NPWS) for Irish National Grid 10km square O13 received from NPWS on the 2nd December 2016; and,
- Data on rare/protected/threatened/invasive species held by the online National Biodiversity Data Centre database, available online at <http://www.biodiversityireland.ie> accessed 23rd November 2016.

2.3. FIELD SURVEY METHODOLOGY

2.4.1 Habitats & Flora Survey

Lands located within Grangegorman Military Cemetery were surveyed on the 11th October 2016, in bright, dry conditions. All habitats were classified using the *Guide to Habitats in Ireland* (Fossitt, 2000), recording dominant species, indicator species and/or species of conservation interest; with the Fossitt category codes given in parentheses. Plant nomenclature follows the *New Flora of the British Isles – Third Edition* (Stace, 2010).

2.4.2 Limitations / Data Deficiencies

Hedgerow surveys were undertaken during the sub-optimal survey period (i.e. in October); however this is not considered likely to limit the findings of this habitats assessment as the hedgerows located within the study area were planted and contained a species-poor understorey. Also, it was possible to identify species present by their vegetation features.

The data for species records held by record centres and statutory bodies (such as National Parks and Wildlife Service) is often provided on an *ad-hoc* basis by recorders. These records can only provide an indication of what species might be found in an area; they do not constitute full and complete species lists. Absence of certain species from these sources does not confirm absence of species in the area.

3. DESCRIPTION OF EXISTING ENVIRONMENT

3.1. STUDY AREA OVERVIEW

The Grangegorman Military Cemetery is located on Blackhorse Avenue in Dublin 7 (total area: c. 6 acres, approximate grid reference: O 12831 35789). It is the largest military cemetery in Ireland and was opened in 1876 to serve as a graveyard for soldiers. The cemetery received its first Green Flag Award in 2015, which is an international award for high standards in parks and recreation facilities (OPW, 2016). The study area is located c. 14m north of Phoenix Park and is surrounded by both residential properties with associated gardens and commercial properties to the north-west, north and east. The Western Commuter railway line is located c. 715m west of the study area. The cemetery is located within the Liffey and Dublin Bay Water Framework Directive Catchment. The River Liffey is located c. 1.3km south of the study area, while the River Tolka is located c. 1.7km north and the Royal Canal is located c. 1.4km north. According to Dublin City Council Development Plan 2016-2022, which came into effect on the 21st October 2016, the study area is zoned as '*Amenity/Open Space Lands/Green Network*'. Lands to the north and north-east are zoned as '*Sustainable Residential Neighbourhoods*', while other lands in this region are zoned as '*District Centres (incorporating Key District Centres)*' and '*Institutional and Community*'. Lands directly south of the study area are also zoned as '*Amenity/Open Space Lands/Green Network*'.

3.2. PROTECTED AREAS

Natura 2000 sites (also known as European Sites or more commonly as Special Areas of Conservation and Special Protection Areas) are a European-wide ecological network of special areas of conservation composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, as well as areas for the protection of bird species listed on Annex I of the Directive, regularly occurring populations of migratory species (such as ducks, geese or waders), and areas of international importance for migratory birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.

National Heritage Areas (NHAs) are designations under the Wildlife Acts 1976 & 2000 in order to protect habitats, species or geology of national importance. The boundaries of many of the NHAs in Ireland overlap with Natura 2000 sites. Although many NHA designations are not yet fully in force under this legislation (referred to as '*proposed NHAs*' or pNHAs until such time), they are offered protection in the meantime under planning legislation which requires that planning authorities give recognition to their ecological value.¹

The proposed development site is not designated as an SAC, SPA, NHA or pNHA. There are no European Sites located within 5km of the study area. There are four proposed Natural Heritage Areas (pNHAs) located within 5km of the study area. The closest of which is the Royal Canal [002103], which is located c. 1.3km north of the study area. See Table 1 below for further information on these protected sites and their reasons for designation. See Figure 2 for a map of pNHAs located within 5km of the study area.

¹ Source: NPWS Website. Available online at <https://www.npws.ie/protected-sites/nha> Accessed 23rd November 2016.

Figure 2: Proposed Natural Heritage Areas (pNHAs) within 5km of the Grangegorman Cemetery.

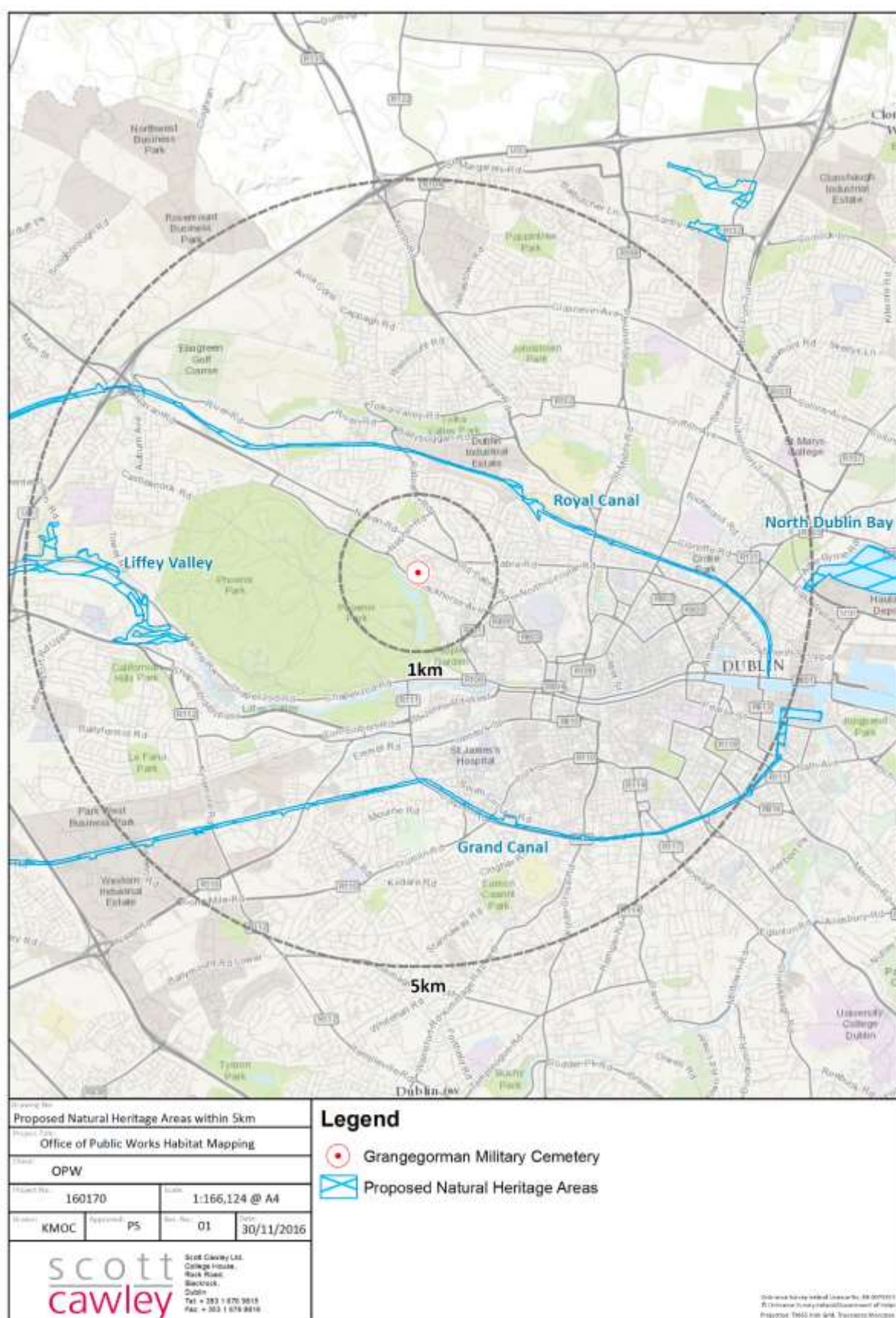


Table 1: Proposed Natural Heritage Area (pNHA) sites within 5km of Grangegorman Cemetery.

Site name and code	Distance from Proposed Development	Reasons for designation ²
Proposed Natural Heritage Areas (pNHAs) within 5km		
Royal Canal pNHA [002103]	Located c. 1.3km north of the study area	<ul style="list-style-type: none"> Rare plants present including Opposite-leaved Pondweed (<i>Groenlandia densa</i>), which is an FPO species, and <i>Tolypella intricata</i>, a rare stonewort which is only found in the Royal Canal in Dublin. Ecological value lies in the diversity of species it supports along its linear habitats.
Grand Canal pNHA [002104]	Located c. 2.5km south of the study area	<ul style="list-style-type: none"> Rare plants present including Opposite-leaved Pondweed (<i>Groenlandia densa</i>), which is an FPO species. Ecological value lies in the diversity of species it supports along its linear habitats.
Liffey Valley pNHA [000128]	Located c. 3.5km west of the study area	<ul style="list-style-type: none"> Threatened species Green Figwort (<i>Scrophularia umbrosa</i>) and Yellow Archangel (<i>Lamium galeobdolon subsp. montanum</i>) is recorded along its banks at a number of stations, as has the rare and legally protected Hairy St. John's-wort (<i>Hypericum hirsutum</i>). It is important for its diversity of habitats within the site, ranging from aquatic to terrestrial.
North Dublin Bay pNHA [000206]	Located c. 4.8km east of the study area	<ul style="list-style-type: none"> It is important site for coastal habitats, such as mudflats, salt meadows and dunes. It is an important site for both wintering and breeding birds and supports a variety of species listed on Annex 1 of the EU Birds Directive.

3.3. RECORDS OF PROTECTED, RED-LISTED AND INVASIVE FLORA SPECIES

NPWS & NBDC

Rare protected plant records held by National Parks & Wildlife Service (NPWS) were requested on the 29th November 2016 for the Irish National Grid Square O13 (10km) and received on the 2nd December 2016. The National Biodiversity Data Centre (NBDC) was also accessed on the 23rd November 2016. These records included invasive plant species located within 2km of the study area. See Appendix 2 for full list of plant species recorded within 2km.

There were no records of protected, red-listed or invasive flora species located within the study area. Five species listed under the Flora (Protection) Order 2015 were previously recorded within 2km of the Grangegorman Cemetery, all of which are considered to be 'Vulnerable' (Curtis & McGough, 2005). None of the habitat types where these species are known occur in were present within the study area, i.e.: sand-dunes and calcareous grassland in the case of Hairy Violet *Viola hirta*; damp grassland in the case of Meadow Barley *Hordeum secalinum*; canals and streams in the case of Opposite-leaved Pondweed *Groenlandia densa*; woody and bushy places in the case of Betony *Stachys officinalis*; and, damp, non-calcareous ground such as stubble fields in the case of the Bryophyte species Crisp Beardless-moss *Weissia longifolia* (Doogue *et al.*, 1998, Parnell & Curtis, 2012, Atherton *et al.*, 2010).

There were recent records (i.e. from 1991 to 2012) of three 'Rare' plant species, two 'Vulnerable' species and one 'Near Threatened' species, none of which are legally protected, within 2km of the study area.

² Information obtained from pNHA Site Synopsis.

Historic plant species records (i.e. from 1833 to 1904) within 2km of the study area included: two 'Extinct' plant species, one 'Regionally Extinct' species, one 'Critically Endangered' species and three 'Rare' species. None of the habitat types where four of these species (based on both recent and historic records) are known to occur in were present within the study area, e.g. sandy hills/ground in the case of Spring Vetch *Vicia lathyroides*; marshes, ditches and some lake margins in the case of Water Violet *Hottonia palustris*; and, wet habitats such as wet woodland and carr in marshes in the case of Showy Feather-moss *Eurhynchium speciosum* (Doogue *et al.*, 1998, Parnell & Curtis, 2012, Atherton *et al.*, 2010). Blue Fleabane *Erigeron acer* has been recorded on walls in Co. Dublin, namely on a wall-top in Finglas/Blanchardstown Road and on a wall by the railway behind Hole-in-the-Wall beach (Doogue *et al.*, 1998). Other habitats where this extremely rare species is typically found include dry pastures, eskers and sandy or gravelly places (Parnell & Curtis, 2012), none of which were present within the study area. Yellow Archangel *Lamium galeobdolon subsp. montanum* is known to occur in woods and hedges (Parnell & Curtis, 2012). Whilst hedgerows were present within the study area, they did not contain native species and had a very limited understorey.

Draft Conservation Management Plan (OPW, 2016)

A tree survey was undertaken in 2014 of the Cemetery. The species identified and number of individual trees recorded are provided below in Table 2 (OPW, 2016).

Table 2: List of tree species in the Cemetery as recorded in 2014 according to the draft Conservation Management Plan (OPW, 2016).

Tree Species (Common name)	Tree Species (Latin name)	No. of Trees
Native Tree Species		
Holly (Variegated)	<i>Ilex aquifolium</i>	1
Irish Yew	<i>Taxus baccata</i>	14
Scots Pine	<i>Pinus sylvestris</i>	2
Yew	<i>T. baccata</i>	9
Non-native Tree Species		
Arizona Cypress	<i>Cupressus arizonica</i>	1
Austrian Pine	<i>Pinus nigra</i> 'Austriaca'	2
Coast Redwood	<i>Sequoia sempervirens</i>	2
Common Lime	<i>Tilia europaea</i>	2
Copper Beech	<i>Fagus sylvatica</i> 'Purpurea'	1
Deodar Cedar	<i>Cedrus deodara</i>	1
Giant Redwood	<i>Sequoiadendron giganteum</i>	3
Holm Oak	<i>Quercus ilex</i>	3
Incense Cedar	<i>Calocedrus decurrens</i>	2
Japanese Cedar	<i>Cryptomeria sp.</i>	2
Lawson Cypress	<i>Chamaecyparis lawsoniana</i>	5
Lucombe Oak	<i>Quercus hispanica</i> 'Lucumbeana'	1
Monterey Cypress	<i>Cupressus macrocarpa</i>	2
Nootka Cypress	<i>Chamaecyparis nootkatensis</i>	3
Norway Maple	<i>Acer platanoides</i>	1
Red Chestnut	<i>Aesculus carnea</i>	1
Silver Lime (Grafted)	<i>Tilia tomentosa</i>	1
Sweet Chestnut	<i>Castanea sativa</i>	2
Sycamore	<i>Acer pseudoplatanus</i>	3
Sycamore (Variegated)	<i>A. pseudoplatanus</i>	2
Weeping Ash	<i>Fraxinus excelsior</i> 'Pendula'	1
Western Red Cedar	<i>Thuja plicata</i>	3

3.4. FIELD SURVEY RESULTS

3.4.1. Habitat and Flora Survey

The following habitat types (following Fossitt 2000) were identified within the proposed development site (see Figure 4 below for habitat map).

- Amenity Grassland (GA2)
- Scattered Trees and Parkland (WD5)
- Hedgerow (WL1)
- Spoil and Bare Ground (ED2)
- Stone Walls and Other Stonework (BL1)
- Building and Artificial Surfaces (BL3)

Amenity Grassland (GA2)

This habitat type was located either side of the entrance into the cemetery in close proximity to the existing gate lodge building and a small maintenance building (see Plate 1 below). In two sections of land where this habitat type was present, there were graves with associated headstones and flowers. Dominant species present included grasses Annual Meadow-grass *Poa annua* and Perennial Rye-grass *Lolium perenne*, and forb species Daisy *Bellis perennis*, Creeping Buttercup *Ranunculus repens* and Dandelion *Taraxacum officinale* agg., all of which are typical of this habitat type. Abundant to frequently-occurring species included Yellow Clover *Trifolium dubium*, Selfheal *Prunella vulgaris* and Ribwort Plantain *Plantago lanceolata*. The sward height of this habitat type was relatively very low and had been recently mown. This habitat was assessed as being of 'Local Ecological Importance (Lower Value)'.



Plate 1 Amenity Grassland (GA2) located within the eastern section of the study area. Photograph taken facing a northerly direction.

Scattered Trees and Parkland (WD5)

The majority of the grounds located within the cemetery consisted of this habitat type (i.e. lands either side of the existing pathway and north of the hedgerow). It was comprised of: scattered mature trees and shrubs that were either stand alone or in small clusters; areas of short-cut grass (with species similar to those outlined above in the habitat type Amenity Grassland GA2) that had been recently mown; and,

rows of graves with associated headstones and flowers, which included Rose species *Rosa sp.* and Montbretia *Crocsmia x crocosmiiflora*. Tree species present included: native evergreen conifers such as Scots Pine *Pinus sylvestris* and Irish Yew *Taxus baccata* and non-native species Giant Redwood *Sequoiadendron giganteum* and Monterey Cypress *Cupressus macrocarpa*; evergreen broadleaved trees such as non-native Holm Oak *Quercus ilex* and native Holly *Ilex aquifolium*; and, broadleaved deciduous trees such as non-natives Weeping Ash *Fraxinus excelsior* 'Pendula', Sycamore *Acer pseudoplatanus*, Common Lime *Tilia europaea* and Sweet Chestnut *Castanea sativa*, and natives Hawthorn *Crataegus monogyna* and Rowan *Sorbus aucuparia*. Some of the tree species present had associated Irish Ivy *Hedera hibernica* growth. This habitat was assessed as being of 'Local Ecological Importance (Lower Value)'.



Plate 2 Scattered Trees and Parkland (WD5) habitat type located across the majority of the study area. Photograph taken facing a south-westerly direction.

Hedgerow (WL1)

There were two hedgerows located within the cemetery in close proximity to the entrance, adjacent to Amenity Grassland (GA2) and Scattered Trees and Parkland (WD5) habitat types. The lengths of each respective hedgerow was c. 46m and 57m. These hedgerows were dominated by Privet species *Ligustrum ovalifolium*, which is commonly planted for hedging in Ireland. Occasionally occurring species included Hawthorn, Brambles *Rubus fruticosus* agg. and Ivy species *Hedera sp.* These hedgerows were evaluated as being of 'Local Ecological Importance (Lower Value)'.



Plate 3 Hedgerows (WL1) located within the proposed development in close proximity to the gate lodge building. Photograph taken facing a north direction.

Spoil and Bare Ground (ED2)

There was a small patch of this habitat type located adjacent to a Lime tree and the boundary wall in the north-eastern section of the study area. There were no plant species present.

Stone Walls and Other Stonework (BL1)

This habitat type consisted of the stone-brick boundary wall located along the periphery of the study area. There were a number of plant species identified growing on this wall in varying abundances. Species identified included those commonly found on walls and rock-crevices, such as fern species Wall-rue *Asplenium ruta-muraria*, Hart's-tongue *A. scolopendrium*, Maidenhair Spleenwort *A. trichomanes* and Common Polypody *Polypodium vulgare*, moss species Silky Wall Feather-moss *Homalothecium sericeum* and herbaceous species Smooth Hawk's-beard *Crepis capillaris*, Stonecrop species *Sedum sp.*, Herb-Robert *Geranium robertianum*, Wall Cotoneaster *Cotoneaster horizontalis*, Ivy-leaved Toadflax *Cymbalaria muralis* Mexican Fleabane *Erigeron karvinskianus* and Adria/Dalmatian Bellflower *Campanula portenschlagiana*. The latter four of which are non-native or recently introduced plant species to Ireland. Wall Cotoneaster was also noted growing on the top of this wall from along the western and eastern boundaries of the study area. These individual plants appeared to have spread from adjacent gardens. This species is categorised as a 'Medium Impact' non-native invasive plant species in Ireland³. Other plant species noted growing on this wall included those typical of disturbed ground or waste-places, such as Petty Spurge *Euphorbia peplus*, Common Groundsel *Senecio vulgaris*, Common Chickweed *Stellaria media*, Smooth Sow-thistle *Sonchus oleraceus* and Yorkshire Fog *Holcus lanatus*. This habitat was assessed as being of 'Local Ecological Importance (Lower Value)'.

³ Invasive species impact risk scores (i.e. High or Medium Impact) developed according to risk analysis undertaken by Invasive Species Ireland (Kelly *et al.* 2013).



Plate 4 Stone Walls and Other Stonework (BL1) located along the study area's periphery adjacent to the habitat type Scattered Trees and Parkland (WD5). Photograph taken facing a northerly direction.

Buildings and Artificial Surfaces (BL3)

This habitat type consisted of: the pathway which stretches from located from the entrance of the cemetery on Blackhorse Avenue to the northern centre of the cemetery; and, the two buildings located within the site (i.e. the gate lodge and small maintenance building). Whilst there were no plant species associated within the two buildings, there were some associated with the pathway; however the percentage cover of these species present did not exceed 50%. A small area, adjacent to the stone wall at the entrance to the cemetery, had patches of the lichen species Mountain/Star-headed/Common *Marchantia polymorpha* growing on it. Overall, this habitat was evaluated as being of 'Local Ecological Importance (Lower Value)'.

3.4.2. Notable and Rare Flora

No protected, Red Data Book (Curtis & McGough, 2005) or rare flora species were recorded on or adjacent to the proposed development site.

3.4.3. Invasive Flora

The non-native invasive species Wall Cotoneaster was recorded growing on top of the wall along the western and eastern boundaries of the study area. It appeared to have spread from adjacent gardens. This species is categorised as a 'Medium Impact' non-native invasive plant species in Ireland⁴.

⁴ Invasive species impact risk scores (i.e. High or Medium Impact) developed according to risk analysis undertaken by Invasive Species Ireland (Kelly *et al.* 2013).



3.4.4. Ecological Importance of Study Area

Breeding Birds

A number of habitat types (i.e. Scattered Trees and Parkland (WD5) and Hedgerows (WL1)) located within the study area would provide suitable breeding bird habitat for a variety of small passerine bird species commonly found in urban gardens, such as Robin *Erithacus rubecula* and Blackbird *Turdus merula*. Similarly the berries and seeds of plants associated with these habitat types would provide suitable foraging material for these bird species, as would the fruits and seeds of plant species associated with the Stone Walls and Other Stonework (BL1) habitat type (i.e. Wall Cotoneaster and Smooth Hawk's-beard).

Bats

A number of the mature trees located within the study area may contain suitable features for bats to roost in, such as dense Ivy cover, flaking bark and cracked or broken-off limbs. It is possible that bats may forage for insects along the hedgerows and/or at the mature trees located within the study area. However considering the close proximity of very suitable roosting and foraging habitat in Phoenix Park, the overall size of the study area and the surrounding urban environment to the north-west, north and east, it is unlikely that there is a high level of bat activity within the study area.

Other Mammals

Some small mammals, such as Hedgehogs *Erinaceus europaeus*, may use the site for foraging or as a resting place. Due to the function of the study area as a cemetery, there is a generally low level of human disturbance across the study area enhancing its suitability for small mammals to forage and rest in.

Invertebrates

Some plants growing within the study area would provide suitable sources of pollen and/or nectar for a variety of invertebrates. These include the Rose species, Hawthorn and Common Lime.

REFERENCES

- Atherton, I., Bosanquet, S. and Lawley, M. (2010)** *Mosses and Liverworts of Britain and Ireland: a field guide*. Published by British Bryological Society.
- Curtis, T.G.F. and McGough, H.N. (1988, updated 2005)** *Irish Red Data Book: 1. Vascular Plants*. Wildlife Service Ireland, Stationery Office, Dublin.
- Doogue, D., Nash, D., Parnell, J., Reynolds, S. and Wyse Jackson, P. (1998)** *Flora of County Dublin by the Dublin Naturalists' Field Club*.
- Dublin City Council (2016)** *Dublin City Development Plan 2016-2022*.
- Dublin City Council (2015)** *Biodiversity Action Plan 2015-2020*.
- Fossitt, J. (2000)** *Guide to Habitats in Ireland*. The Heritage Council
- Heritage Council (2011)** *Best Practice Guidance for Habitat Survey and Mapping*.
- Kelly, J., O'Flynn, C., and Maguire, C. (2013)** *Risk Analysis and Prioritisation for invasive and non-native species in Ireland and Northern Ireland*. A report prepared for the Northern Ireland Environment Agency and National Parks and Wildlife Service as part of Invasive Species Ireland.
- National Roads Authority (2009)** *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes*.
- Parnell, J. and Curtis, T. (2012)** *Webb's An Irish Flora*. Eighth Edition. Cork University Press, Cork, Ireland.
- The Office of Public Works (2016)**. *Grangegorman Military Cemetery Conservation Management Plan 2016-2021 Conservation Management Plan Draft*.
- Stace, C. (2010)**. *New Flora of the British Isles Third Edition*. Cambridge University Press, United Kingdom.

APPENDIX 1: CRITERIA FOR ECOLOGICAL EVALUATION

Ecological Valuation Criteria
<p>International Importance:</p> <ul style="list-style-type: none"> • 'European Site' including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation. • Proposed Special Protection Area (pSPA). • Site that fulfils the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended). • Features essential to maintaining the coherence of the Natura 2000 Network.⁵ • Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive. • Resident or regularly occurring populations (assessed to be important at the national level)⁶ of the following: <ul style="list-style-type: none"> ○ Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and / or ○ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive. • Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971). • World Heritage Site (Convention for the Protection of World Cultural & Natural Heritage, 1972). • Biosphere Reserve (UNESCO Man & The Biosphere Programme). • Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979). • Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979). • Biogenetic Reserve under the Council of Europe. • European Diploma Site under the Council of Europe. • Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 293 of 1988).⁷
<p>National Importance:</p> <ul style="list-style-type: none"> • Site designated or proposed as a Natural Heritage Area (NHA). • Statutory Nature Reserve. • Refuge for Fauna and Flora protected under the Wildlife Acts. • National Park. • Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve; Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park. • Resident or regularly occurring populations (assessed to be important at the national level)⁸ of the following: <ul style="list-style-type: none"> ○ Species protected under the Wildlife Acts; and/or ○ Species listed on the relevant Red Data list. • Site containing 'viable areas'⁹ of the habitat types listed in Annex I of the Habitats Directive.

⁵ See Articles 3 and 10 of the Habitats Directive.

⁶ It is suggested that, in general, 1% of the national population of such species qualifies as an internationally important population. However, a smaller population may qualify as internationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

⁷ Note that such waters are designated based on these waters' capabilities of supporting salmon (*Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus*) and whitefish (*Coregonus*).

⁸ It is suggested that, in general, 1% of the national population of such species qualifies as a nationally important population. However, a smaller population may qualify as nationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

⁹ A 'viable area' is defined as an area of a habitat that, given the particular characteristics of that habitat, was of a sufficient size and shape, such that its integrity (in terms of species composition, and ecological processes and function) would be maintained in the face of stochastic change (for example, as a result of climatic variation).

Ecological Valuation Criteria
<p>County Importance:</p> <ul style="list-style-type: none"> • Area of Special Amenity.¹⁰ • Area subject to a Tree Preservation Order. • Area of High Amenity, or equivalent, designated under the County Development Plan. • Resident or regularly occurring populations (assessed to be important at the County level)¹¹ of the following: <ul style="list-style-type: none"> ○ Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; ○ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive; ○ Species protected under the Wildlife Acts; and/or ○ Species listed on the relevant Red Data list. • Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance. • County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local Biodiversity Action Plan (BAP) if this has been prepared. • Sites containing semi-natural habitat types with high biodiversity in a county context and a high degree of naturalness, or populations of species that are uncommon within the county. • Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.
<p>Local Importance (higher value):</p> <ul style="list-style-type: none"> • Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP, if this has been prepared; • Resident or regularly occurring populations (assessed to be important at the Local level)¹² of the following: <ul style="list-style-type: none"> ○ Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; ○ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive; ○ Species protected under the Wildlife Acts; and/or ○ Species listed on the relevant Red Data list. • Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality; • Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value.
<p>Local Importance (lower value):</p> <ul style="list-style-type: none"> • Sites containing small areas of semi-natural habitat that are of some local importance for wildlife; • Sites or features containing non-native species that are of some importance in maintaining habitat links.

¹⁰ It should be noted that whilst areas such as Areas of Special Amenity, areas subject to a Tree Preservation Order and Areas of High Amenity are often designated on the basis of their ecological value, they may also be designated for other reasons, such as their amenity or recreational value. Therefore, it should not be automatically assumed that such sites are of County importance from an ecological perspective.

¹¹ It is suggested that, in general, 1% of the County population of such species qualifies as a County important population. However, a smaller population may qualify as County importance where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

¹² It is suggested that, in general, 1% of the local population of such species qualifies as a locally important population. However, a smaller population may qualify as locally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

The hedgerow evaluation criteria shown in table below have been adapted from various sources, including the '*Ecological criteria for evaluation of hedgerows*' (NRA guidance), UKBAP priority habitat description and the Hedgerow Regulations 1997 (England and Wales).

A hedgerow is defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less than 20m wide. Any bank, wall, ditch or tree within 2m of the centre of the hedgerow is considered to be part of the hedgerow habitat, as is herbaceous vegetation within 2m of the centre of the hedgerow.

APPENDIX 2: RECORDS OF RARE AND PROTECTED SPECIES

Records of Protected, Rare, other Notable and Invasive Flora Species ¹³ within 2km				
Common Name	Scientific Name	Protection ¹⁴	Red-Listing Status ¹⁵	Nearest Location (Year if known)
Protected, Rare or Other Notable Flora Species				
Bald Brome	<i>Bromus racemosus</i>	-	Rare	Located c. 2km north-east of the study area in Glasnevin (within 10km ² Square O13 in 1833)
Betony	<i>Stachys officinalis</i>	FPO	Vulnerable	Located c. 2km south-west of the study area in Phoenix Park (2012).
Blue Fleabane	<i>Erigeron acer</i>	-	Vulnerable	Located c. 670m north of the study area in Dunsinea, Cabragh (within 10km ² Square O13 in 1991)
Corncockle	<i>Agrostemma githago</i>	-	Extinct	Located c. 2km north-east of the study area in Glasnevin (within 10km ² Square O13 in 1827)
Cornflower	<i>Centaurea cyanus</i>	-	Extinct	Located c. 2km north-east of the study area in Glasnevin (within 10km ² Square O13 in 1827)
Crisp Beardless-moss	<i>Weissia longifolia</i>	FPO	Vulnerable	Located c. 1.9km north-east of the study area in Glasnevin Botanic Garden (1872).
Hairy Violet	<i>Viola hirta</i>	FPO	Vulnerable	Located c. 2km south-west of the study area in Phoenix Park (2012).
Henbane	<i>Hyoscyamus niger</i>	-	Rare	Located c. 2km south of the study area in Kilmainham (within 10km ² Square O13 in 1882)
Lance-leaved Pottia	<i>Tortula lanceola</i>	-	Critically Endangered	Located c. 1.9km north-east of the study area in Glasnevin Botanic Garden (1872).
Meadow Barley	<i>Hordeum secalinum</i>	FPO	Vulnerable	Located in Phoenix Park (precision 10km, 2007).
Opposite-leaved Pondweed	<i>Groenlandia densa</i>	FPO	Vulnerable	Located c. 1.1km north-east of the study area within BSBI tetrad O13N (precision 2km, 1987-1999).
Sharp-leaved Fluellen	<i>Kickxia elatine</i>	-	Vulnerable	Located c. 2km north-east of the study area in Glasnevin (within 10km ² Square O13 in 1991)
Showy Feather-moss	<i>Eurhynchium speciosum</i>	-	Near Threatened	Located in Phoenix Park c. 55m south of the study area (Precision 10km, 1988-1993).
Spiral Chalk-moss	<i>Pterygoneurum lamellatum</i>	-	Regionally Extinct	Located c. 1.9km north-east of the study area in Glasnevin (1875).
Spring Vetch	<i>Vicia lathyroides</i>	-	Rare	Located c. 2km south-west of the study area in Phoenix Park (2012).
Water Violet	<i>Hottonia palustris</i>	-	Rare	Located c. 1.1km north-east of the study area in BSBI tetrad O13N (1987-1999).
Wild Clary	<i>Salvia verbenaca</i>	-	Rare	Located in Phoenix Park (within 10km ² Square O13 in 1904)
Yellow Archangel	<i>Lamiastrum galeobdolon subsp. montanum</i>	-	Rare	Located c. 1.4km north of the study area in the Tolka Valley Cardiffsbridge (2012).
Invasive Flora Species				
Bohemian Knotweed	<i>Fallopia japonica x sachalinensis = F. x bohemica</i>	n/a	High Impact Invasive Species	Located c. 1.8km north-east of the study area on the banks of the Royal Canal (2012).
Butterfly-bush	<i>Buddleja davidii</i>	n/a	Medium Impact	Located c. 690m south of the study area in

¹³ Data from a combination of the following sources; NPWS Research Branch Records, www.npws.ie and NBDC online maps <http://maps.biodiversityireland.ie> Data is quoted as obtained from these sources.

¹⁴ FPO = Flora Protection Order

¹⁵ Vascular Flora from the Irish Red Data Book 1 Vascular Plants (Curtis & McGough 2005); Bryophytes Red List from Lockhart *et al.* 2012; Invasive non-native species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011; and invasive species impact risk scores (i.e. High or Medium Impact) developed according to risk analysis undertaken by Invasive Species Ireland (Kelly *et al.* 2013).

Records of Protected, Rare, other Notable and Invasive Flora Species ¹³ within 2km				
Common Name	Scientific Name	Protection ¹⁴	Red-Listing Status ¹⁵	Nearest Location (Year if known)
			Invasive Species	Phoenix Park (2012, resolution of record is 1km ²)
Canadian Fleabane	<i>Conyza canadensis</i>	n/a	Medium Impact Invasive Species	Located c. 725m south-east of the study area in Phoenix Park (2012, resolution of record is 1km ²)
Canadian Waterweed	<i>Elodea canadensis</i>	n/a	High Impact Invasive Species	Located within the BSBI 2km square O13H (1987-1999) and c. 1.9km west of the proposed development site in Phoenix Park (2012)
Cherry Laurel	<i>Prunus laurocerasus</i>	n/a	High Impact Invasive Species	Located c. 1.9km west of the study area in Phoenix Park (2012)
Curly Leaved Waterweed	<i>Lagarosiphon major</i>	n/a	High Impact Invasive Species	Located c. 1.7km south of the study area within War Memorial Park, Islandbridge (1999)
Giant Hogweed	<i>Heracleum mantegazzianum</i>	n/a	Third Schedule/ High Impact Invasive Species	Located c. 870m south-east of the study area in lands near Garda Headquarters at Phoenix Park (1987)
Giant Knotweed	<i>Fallopia sachalinensis</i>	n/a	High Impact Invasive Species	Located c. 1.4km south of the study area on the bank of the River Liffey at Islandbridge (2010)
Holm Oak	<i>Quercus ilex</i>	n/a	Medium Impact Invasive Species	Located c. 1.8km west of the study area in Phoenix Park (2012)
Indian Balsam	<i>Impatiens glandulifera</i>	n/a	High Impact Invasive Species	Located adjacent c. 1.3km south of the study area along the River Liffey at Islandbridge (2009)
Japanese Knotweed	<i>Fallopia japonica</i>	n/a	Third Schedule/ High Impact Invasive Species	Located c. 195m east of the study area at Cabra Library (2012) and c. 55m south of the study area in Phoenix Park (2012) (1km ² precision).
New Zealand Pigmyweed	<i>Crassula helmsii</i>	n/a	High Impact Invasive Species	Located c. 1.6km north-east of the study area in the National Botanic Gardens (1990), resolution of 1km ² .
Rhododendron	<i>Rhododendron ponticum</i>	n/a	High Impact Invasive Species	Located c. 1.7km south of the study area within Massy's Wood (2004)
Water Fern	<i>Azolla filiculoides</i>	n/a	Medium Impact Invasive Species	Located c. 1.6km north-east in Glasnevin (1992)