

Kinsaley

Local Area Plan

Adopted 13th May 2019



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Appendix 1

Summary of the issues raised in Pre-Draft Consultation



Appendix 1: Pre-Draft Consultation

At the end of May 2018, the Council published a Strategic Issues Paper for Kinsaley entitled 'Having Your Say'. The Paper was intended to generate interest and constructive debate and to assist stakeholders and the public in making a submission/ raising issues for consideration in the LAP.

The pre-draft consultation period on the Strategic Issues Paper ran for a period of 6 weeks, concluding on 13th July 2018. A total of 36 no. submissions were received during this time. The issues raised in the submissions can be summarised under the following headings.

Pedestrian and Cyclist Infrastructure

The ability to move around Kinsaley and to get to other nearby settlements emerged as one of the most significant issues raised through public consultation. The lack of a safe pedestrian/ cycle route to Portmarnock is a key issue for people. Respondents also stated that it should not be necessary to use the car for short journeys either into or around Kinsaley or to Portmarnock and Malahide. The submissions requested the following specific measures be included in the LAP:

- The extension of the footpath on Chapel Road to cover its full length and to enable people to walk to Portmarnock.
- The extension of the footpath on Kinsealy Lane onward from where it currently terminates at Kinsaley Bridge, to connect to Malahide Castle/ Malahide Dart Station.
- Improvement and extension of the existing footpaths along the Malahide Road so that it is not necessary to cross the road multiple times (continuous footpaths on both sides of the road).
- Extension of the existing short section of footpath on Baskin Lane to allow residents further along Baskin Lane to walk into Kinsaley.
- More pedestrian crossings points to enable safe road crossings, especially near the school.

Traffic

The responses to public consultation reflect the concern that exists in the community regarding current traffic levels and movements, as well as the impact that additional residential development will have through increased traffic generation and congestion levels. The villages' position between the airport and Portmarnock/ Malahide as well as between Malahide and Clarehall and the City to the south also results in high levels of through traffic. The following specific suggestions were made:

- Traffic lights required at Chapel Road/ Malahide Road junction.

- Traffic lights required at Malahide Road and Baskin Lane junction.
- Traffic calming measures along Chapel Road are necessary to address speed.
- Possible construction of a roundabout at the Malahide Road/ Chapel Road junction.
- A pedestrian crossing at Baskin Lane.
- Measures to address in/ out traffic from Kinsaley Business Park.

Infrastructure (General)

Concern in relation to infrastructure in the area was highlighted both through written submissions and by attendees at the public consultation/ drop-in session. In particular, there was concern about the extent and capacity of the sewerage system both within Kinsaley and in the surrounding area. Concerns were also raised about flooding on the Chapel Road and Kinsealy Lane. Public lighting also arose as an issue.

Public Transport

Concerns were raised regarding the frequency and capacity of the bus services through Kinsaley. It was also reported that the park and ride at Portmarnock train station has reached capacity.

Dublin Airport

Although some distance outside the LAP boundary, concerns were raised about the impact that the second runway would have on Kinsaley in terms of traffic and aircraft noise.

Village Name

Respondents stated that the village name should be clarified as both forms, Kinsaley and Kinsealy, are used.

Community Infrastructure

A number of the respondents indicated that Kinsaley is lacking community infrastructure. This includes places where people can meet and gather, for example green areas with benches and tables. A lack of amenities for children in the village was also noted.

Retail Facilities

A significant proportion of respondents stated that Kinsaley lacks a village grocery store with people either using the nearby filling station or having to travel by car to either Portmarnock or Malahide for their basic convenience shopping needs. The following specific suggestion was made in this regard:

- Additional retail units and parking across the Malahide Road from the existing St. Olave's development.

Schools

A significant number of children living within the village are attending the Malahide Portmarnock Educate Together National School, which is operating out of the former Teagasc building on

the Malahide Road on a temporary basis. Planning permission for this temporary use will cease on the 9th January 2020. Respondents stated that a long term plan needs to be made for the future educational requirements of children living in the village with some respondents stating that the school should remain in its current location. Concerns were also raised regarding the impact that increasing levels of residential development might have on existing educational facilities.

Trees and Vegetation

It is clear from the submissions received that trees and vegetation are highly valued by the community. Respondents wanted trees to be retained insofar as possible and new planting to be incorporated into development and for the maintenance of hedgerows.

Visual Amenity

Respondents indicated that the village requires more bins and that litter/ dumping can be problematic at times.

Village Character

Respondents valued the rural character of the village and wanted to see future development incorporate a 'rural feel'.

River Sluice

A number of respondents commented that the river has become overgrown and needs to be cleared regularly.

Appendix 2

Preliminary Screening for Strategic Environmental Assessment (SEA) to Environmental Authorities



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1.0 Introduction

1.1 Background

Fingal County Council (FCC) has commenced the preparation of the Draft Kinsaley Local Area Plan (hereafter referred to as the “Draft LAP”). The Draft LAP seeks to establish a framework for the planned, coordinated and sustainable development of the village core and surrounding lands at Kinsaley village.

As set out in the following sections, this report constitutes a preliminary screening of the proposed Draft LAP for the requirement for Strategic Environmental Assessment in accordance with the requirements of Article 14A of the Planning and Development Regulations 2001 (as amended) on the “*determination of need for environmental assessment of local area plan*”.

This Preliminary Screening for SEA will be finalised following receipt of observations and / or submissions, from the Environmental Authorities (as listed in section 1.3.3 of this report).

1.2 Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (SEA) is a process for evaluating, at the earliest possible stage, the likely environmental effects of implementing a plan, in order to ensure that environmental considerations are addressed in an appropriate manner as part of the decision-making process, during the preparation of the plan and prior to its adoption.

SEA derives from European Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment¹. This directive, which is commonly referred to as the ‘SEA Directive’, was transposed into Irish law through:

- The European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, (S.I. No. 435 of 2004) as amended by S.I. 200 of 2011; and
- The Planning and Development (Strategic Environmental Assessment) Regulations 2004, (S.I. No. 436 of 2004) as amended by S.I. 201 of 2011.

The latter regulations apply to land use plans, including local area plans such as that proposed for Kinsaley.

Article 1 of the SEA Directive states:

“The objective of this directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.”

The transposing Regulations require that SEA is mandatory for certain plans and programmes that are above specified thresholds (e.g. County Development Plan with a population or target population greater than 10,000 persons or a Local Area Plan with a population or target population greater than 5,000 persons).

Where plans or programmes fall below or outside of the specified thresholds, ‘screening’ is required to determine whether the making and implementation of a particular plan or programme will, or will not, lead to significant environmental consequences for the area of the plan or programme.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&from=EN>

Screening for the purposes of Strategic Environmental Assessment is defined as “[t]he determination of whether implementation of a P/P [Plan or Programme] would be likely to have significant environmental effects on the environment. The process of deciding whether a P/P [Plan or Programme] requires SEA.” (SEA Park, EPA 2018).²

The screening process is carried out with regard to the “Criteria for determining whether a plan or programme is likely to have significant effects on the environment”, as set out in Schedule 1 of Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended and Schedule 2A of Planning and Development Regulations 2001, as amended.

Where screening determines that implementation of the plan or programme would be likely to have significant environmental effects on the environment, then the plan or programme must be subject to full strategic environmental assessment.

1.3 Screening for Strategic Environmental Assessment

1.3.1 Requirement for Strategic Environmental Assessment

Article 14A of the Planning and Development Regulations 2001, as amended, determines the need for environmental assessment (*i.e.* SEA) of a local area plan. Specifically, Article 14A(1) requires screening for SEA for:

‘a local area plan or an amendment to a local area plan for an area the population or the target population of which is less than 5,000 persons or where the area covered by the local area plan is less than 50 square kilometres’.

This means that SEA is mandatory for local area plans for an area where the population or the target population is greater than 5,000 persons or where the area covered the plan area is more than 50 square kilometres.

However, the draft Kinsaley LAP relates to an area of c.39 hectares (or c.0.4 square kilometres), as well as an existing population of c.340 persons (FCC, 2016) and a target population of c.1800 persons. The target population includes an allowance for the existing permitted total of 182 residential units (*i.e.* 82 units in FCC planning reg. ref. no.: F16A/0511 (ABP ref.: PL06F.248584) and 100 units in FCC planning reg. ref. no.: F16A/0464 (ABP ref.: PL06F.248515)), as well as the proposed development areas set out in the Draft LAP. As the plan area and target population are significantly below the specified thresholds, SEA is not mandatory for proposed Draft Kinsaley LAP.

The proposed Draft LAP for Kinsaley must therefore be subject to screening for SEA taking account of the criteria set out in Schedule 2A of the Planning and Development Regulations 2001, as amended (*or as in* Schedule 1 of S.I. 436 of 2004, as amended).

Article 14A(2) of the Planning and Development Regulations 2001, as amended, states that:

Where a planning authority proposes to prepare or amend a local area plan referred to in sub-article (1), the planning authority shall, prior to giving notice under section 20(3) of the Act, consider whether or not implementation of the local area plan or amended plan would be likely to have significant effects on the environment, taking account of relevant criteria set out in Schedule 2A.

² <http://www.epa.ie/pubs/advice/ea/SEA%20Pack%202018.pdf>

1.3.2 Appropriate Assessment and relationship to Screening for SEA

The EU Habitats Directive (92/43/EEC) requires an ‘Appropriate Assessment’ (AA) to be carried out where a plan or project is likely to have a significant impact on a Natura 2000 site. Natura 2000 sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

The first test is to establish whether appropriate assessment (AA) is required for the particular plan or project. This test is referred to as Screening for AA screening and the purpose is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a Natura 2000 site in view of the site’s conservation objectives.

As set out in Department Circular Letter SEA 1/08 & NPWS 1/08³ (15 February 2008), screening for AA is of relevance to screening for SEA in that **“where following screening, it is found that the draft plan or amendment may have an impact on the conservation status of a Nature 2000 site or that such an impact cannot be ruled out, adopting the precautionary approach:**

- *an appropriate assessment of the plan must be carried out, and*
- *in any case where a strategic environmental assessment (SEA) would not otherwise be required, it must also be carried out.”* (emphasis added).

Hence where the local area plan requires appropriate assessment (AA) it shall also require strategic environmental assessment (SEA).

1.3.3 Consultation with Environmental Authorities

Where Fingal County Council determines that implementation of Kinsaley LAP would not be likely to have significant effects on the environment, the authority shall give notice (as per Article 14A(3)) to the following environmental authorities (as specified in Article 13A(4)):

- (i) the Environmental Protection Agency;
- (ii) the Minister for Housing, Planning and Local Government (*previously the Minister for the Environment, Community and Local Government*);
- (iii) where it appears that the LAP might have significant effects on fisheries or the marine environment, the Minister for Agriculture, Food and the Marine (*previously the Minister for Agriculture, Marine and Food*), and the Minister for Communications, Climate Action and Environment (*previously the Minister for Communications, Marine and Natural Resources*);
- (iv) where it appears that the LAP might have significant effects in relation to the architectural or archaeological heritage or to nature conservation, the Minister for Culture, Heritage and the Gaeltacht (*previously the Minister for Arts, Heritage and Gaeltacht Affairs*); and
- (v) the planning authorities adjoining the area of Fingal County Council – *i.e.* Dublin City Council, Kildare County Council and Meath County Council.

This Preliminary Screening for SEA Report will be forwarded to the above Environmental Authorities for observation and/or submission prior to finalisation of the Screening report.

³ <https://www.npws.ie/sites/default/files/general/circular-sea-01-08.pdf>

2.0 Planning Context

2.1 Kinsaley

The village of Kinsaley (also Kinsealy) is located approximately 1.5 kilometres west of Portmarnock and 2.5 kilometres north of the suburban outskirts of Dublin City. Dublin Airport is located c.3.5 kilometres to the west. The village established around the junction of the R107 Malahide Road and Chapel Road. The Malahide Road facilitates north-south traffic movements, while Chapel Road and Baskin Lane facilitate east-west traffic movements. As a result of its location, the village experiences a significant quantity of through traffic. The nearest rail service is at Station Road, Portmarnock over 1km to the east of the village.

The lands around Kinsaley are largely agricultural in character, combined with the demesne lands of large country houses, including Abbeville (formerly Abbeville) to the northwest and smaller properties such as Emsworth to the southwest, Kinsaley House to the east and Kinsaley Hall to the northeast.

Kinsaley has a strong visual identity and landscape quality formed by the Sluice River, flowing west to east through the village, and by the stone walls and mature trees associated with the nearby Abbeville Demesne. The village core is centred on the parish church, the cottages on Chapel Lane and the relatively recently developed lands at St. Olave's Local Centre and associated residential development.

Recent residential development includes Cooper's Wood north of Chapel Lane and Emsworth Park off Kinsealy Lane. A recently permitted residential development (*i.e.* Kinsealy Woods) is also under construction to the south of Chapel Road.

Kinsealy Business Park to the north of the village provides employment, comprising light industrial units and offices accessed off Kinsealy Lane. Until recently, the Teagasc Research Centre to the south of the village offered a significant level of research-based employment but, following consolidation of the research function into the Teagasc Centre in Blanchardstown, the Kinsealy Centre has ceased operation. Other employment providers are focused on existing retail services along the Malahide Road, including Kinsealy Garden Centre.

2.2 Fingal Development Plan 2017-2023

2.2.1 Fingal Development Plan: Rural Villages / Kinsaley

The Fingal Development Plan 2017-2023 notes that outside of the main urban areas "*the remainder of the County is rural in character and includes the villages of Balscadden, Naul, Garristown, Oldtown, Ballyboghil, Rowlestown, Rivermeade, Coolquay, Ballymadun and **Kinsaley.***" (page 3) (emphasis added).

Table 2.8 of the development plan indicates that there is c.80 hectares of residential capacity lands in "*Other Settlements*", which includes Charlestown & Meakstown, Santry & Ballymun, Balgriffin & Belcamp, Baskin and **Kinsaley**. This equates to 2,791 Potential Residential Units. (page.38) (emphasis added).

In addressing the 4 villages located within the Metropolitan Area of the county, the development plan notes:

*"The future development of Fingal's villages needs careful consideration. In the Metropolitan Area growth in villages such as Coolquay, **Kinsaley**, Rivermeade and Rowlestown will be managed to ensure these centres do not expand rapidly, putting pressure on services and the environment and creating the potential for unsustainable travel patterns."* (page 46) (emphasis added).

The function of Rural Villages (RV), which Kinsaley is predominantly zoned, is stated as:

“These villages vary in function but generally meet the day-to-day needs of the locality and usually offer a mix of commercial and community activity within the village core. Other enterprise, residential, retail, commercial, and community facilities may be provided.” (page 55).

The Statement of Policy for Rural Villages (page 147) is to:

- *Promote attractive and vibrant villages.*
- *Ensure sustainable expansion and development at a level appropriate to and integrated with the existing village.*
- *Meet the socio-economic and civic aspirations of the community, whilst at the same time affording maximum environmental protection.*
- *Preserve the villages' distinctive character, heritage, amenity and local identity.*

The development plan also notes that:

“The RPGs indicate that future growth in commuter villages [which includes Kinsaley] should be curtailed or safeguarded so that they do not act as a catalyst to facilitate continuing expansion of unsustainable growth patterns.” (page 147).

In discussing Kinsaley, the development plan describes the village as follows:

“Functionally, the village can be described as a commuter village under development pressure. Lands within the village boundary are subject to new residential planning permissions with one such development at Cooper’s Wood to the east of Kinsaley Lane.

Local employment exists in the form of Kinsaley Business Park, comprising light industrial units and offices built in the late 80’s and accessed off Kinsaley Lane. Until recently, the Teagasc site to the south of the village offered significant rural based employment but this has ceased since consolidation into the Teagasc Centre in Blanchardstown. Other employment uses are focused on existing retail services along the Malahide Road. Kinsaley has a current population of circa 340 persons.” (page 148).

In discussing Design Criteria for Rural Villages and Rural Clusters, the development plan notes that:

“Village development shall be guided by the adopted Local Area Plans and Village Development Framework Plans.” (page 428).

2.2.2 Fingal Development Plan: Land Use Zoning for Rural Villages / Kinsaley

The vast majority of the Draft LAP lands are identified as ‘RV – Rural Village’ in the Fingal County Development Plan 2017-2023 (refer to Figure 2.1). This land use zoning objective, which notes the requirement for preparation of an “approved Local Area Plan”, seeks to:

“Protect and promote the character of the Rural Village and promote a vibrant community in accordance with an approved Local Area Plan, and the availability of physical and community infrastructure”

Two small areas zoned for CI – Community Infrastructure’ and ‘LC – Local centre’ are located to the north of the junction between R107 Malahide Road and Chapel Lane. In addition the corridor of the Sluice River, which flows west to east through the centre of the lands, is zoned ‘OS – Open Space’. (Refer to Figure 2.1).

The RV – Rural Village land use zoning excludes a small indentation of ‘GB – Greenbelt’ to the south of Kinsaley. It is proposed that this small area be included within the new LAP boundary – but retained as a green corridor between proposed development areas.

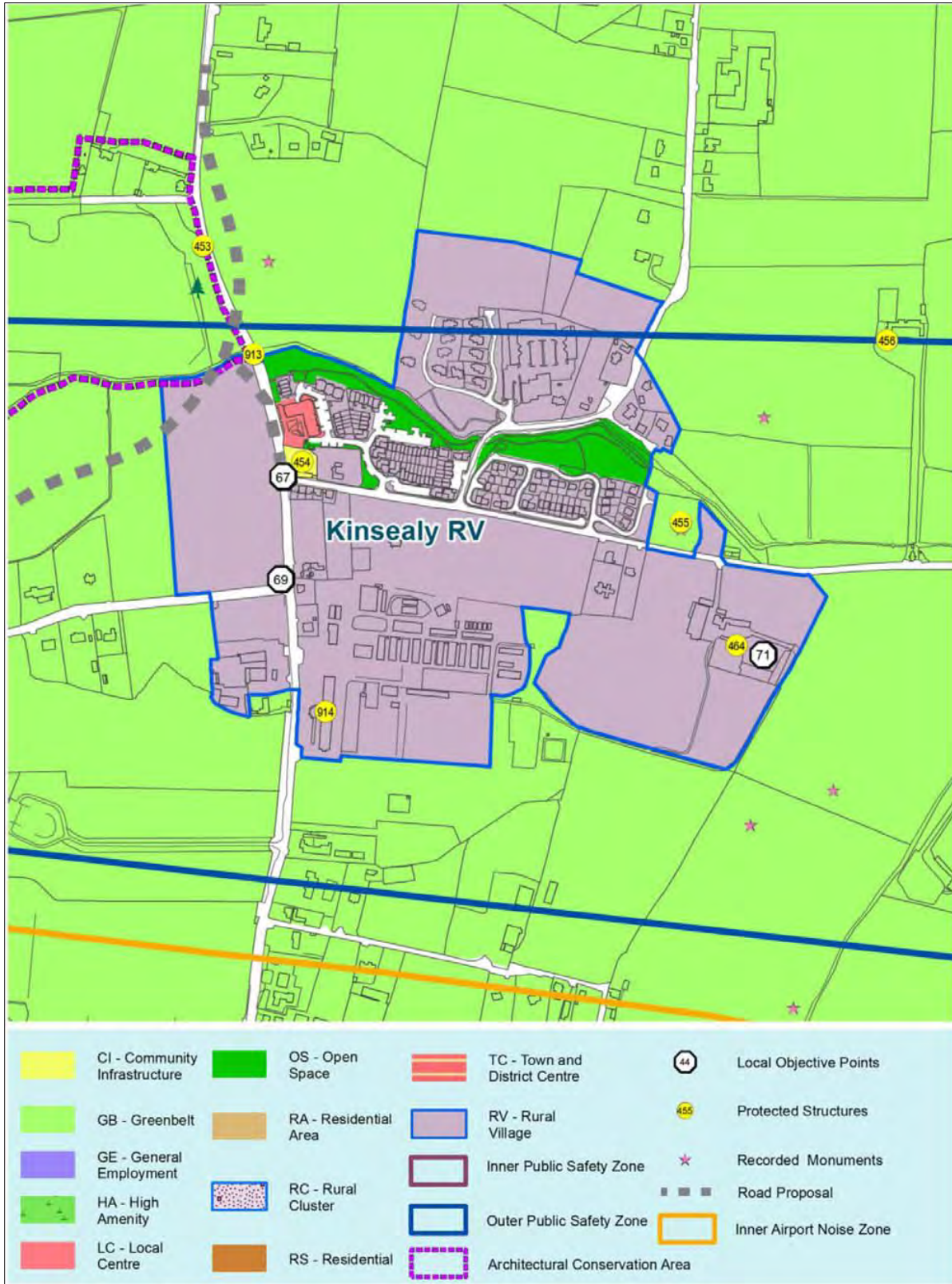


Figure 2.1 Existing land use zoning (Extract from Sheet No. 9 of Fingal Development Plan 2017-2023)

The following map-based local objectives apply to the plan area (refer to numbered white circles on Figure 2.1):

- 67 *Facilitate a traffic impact assessment of the junction of Chapel Lane with the Malahide Road and, subject to an identified need and resources being available, carry out improvement works to same.**
- 69 *Facilitate a traffic impact assessment of the junction of Baskin Lane with the Malahide Road and, subject to an identified need and resources being available, carry out improvement works to same.*
- 71 *That any development of this area will include the integration of the Protected Structure on site (Kinsaley House) within the first phase of development.***

* Traffic impact assessments were subsequently completed for the junction of Chapel Lane and Malahide Road as part of the application processes for two previously permitted residential developments located off Chapel Lane. (FCC planning reg. ref. no.: F16A/0511 & ABP ref.: PL06F.248584, and FCC planning reg. ref. no.: F16A/0464 & ABP ref.: PL06F.248515).

** Permission has subsequently been granted for residential development on the lands around Kinsaley House (FCC planning reg. ref. no.: F16A/0464 & ABP ref.: PL06F.248515).

The Fingal Development Plan includes an objective for a new road connecting from the R139 adjacent to Darndale Park, c.2.5km south of Kinsaley, north to the R107 Malahide Road just to the northwest of the LAP lands (refer to dashed grey line on Figure 2.1). The road alignment shown on the Development Plan is indicative only and subject to future feasibility studies and detailed design. However, this road objective is generally outside of the subject LAP lands.

The LAP lands are located within the Outer Airport Noise Zone associated with Dublin Airport, while a small portion of the northern LAP lands are also located within the Outer Public Safety Zone associated with Dublin Airport (refer to extent of RV – Rural Village lands located north of northernmost blue on Figure 2.1).

2.2.3 Fingal Development Plan: Objectives for Rural Villages / Kinsaley

Fingal Development Plan contains a range of objectives relating to Rural Villages, of which Kinsaley is one. The objectives focus on orderly and sustainable development that maintains the distinctive rural character of the settlement. Strategic Vision objectives and Strategic Policies include:

Strategic Vision (page 7)

- *“Support and protect Fingal’s attractive rural villages and countryside which support agriculture, horticulture, recreation and tourism. Promote vibrant rural villages with a mix of uses, through the creation of a dynamic framework which involves people living, working, and interacting for social and community reasons.*
- *Direct rural generated housing demand to villages and rural clusters and promote the re-use and rehabilitation of existing housing stock in rural areas in preference to new build in order to preserve and enhance the distinct character of rural Fingal.”*

Strategic Policy (page 10)

13. *“Provide viable housing alternatives for the rural community through the promotion of controlled growth of the rural villages and clusters balanced with careful restriction of*

residential development in the countryside and recognising the unique value of the rural communities in Fingal.”

The development plan includes a range of applicable objectives addressing Rural Settlement (e.g. SS07), Sustainable Placemaking (e.g. PM01, PM07), Local Area Plans (e.g. PM13), Mixed Uses and Vitality of Sustainable Communities (e.g. PM35, PM36), Village Settlement Strategy (e.g. RF04, RF05, RF06), Community Infrastructure (e.g. RF07 to RF15), Village Development Framework Plans (VDFPs), (e.g. RF16 to RF18), Rural Transport (e.g. RF69) and Rural Economy and Enterprise (e.g. RF107, RF108 and RF 123).

In relation to Village Development Framework Plans, it is a requirement of **Objective RF18** to:

“Prepare a Local Area Plan and VDFP for each of the villages, where necessary, involving public consultation with the local community, to provide a planning framework for appropriate village development. The LAPs will protect and promote:

- i. Village character through preparation of a Village Development Framework Plan,*
- ii. A sustainable mix of commercial and community activity within an identified village core which includes provision for appropriate sized enterprise, residential, retail, commercial, and community facilities,*
- iii. The water services provision within the village,*
- iv. Community services which allow residents to meet and interact on a social basis, and include churches, community and sports halls, libraries and pubs,*
- v. A mix of housing types and tenure which will appeal to a range of socio-economic groups,*
- vi. Retail activity, consistent with the Fingal Retail Strategy, in the form of village shops which will meet the needs of the local community,*
- vii. A public realm within the village which allows people to circulate, socialise and engage in commercial activity in a manner which balances the needs of all involved,*
- viii. The provision of Green Infrastructure, including natural, archaeological and architectural heritage, and green networks within the village.”*

Fingal Development Plan also includes an extensive range of protective environmental policies and objectives including for:

- Environmental Assessment and Appropriate Assessment (e.g. Strategic Policy 1, Objectives ED88, DMS01, DMS02, DMS163, DMS164, DMS165, etc.),
- Protection of Ecological Corridors and of Natural and Built Heritage (e.g. Strategic Policy 11, Objectives DMS170, DMS171, DMS172, CH45, CH46, etc.),
- provision of adequate Waste Water Infrastructure (e.g. Strategic Policy 17, Objectives WT01, WT02, WT05, etc.),
- Flooding (Strategic Policy 20, Objectives SW02, SW04, etc.),
- Open Space and Green Infrastructure (e.g. Strategic Policy 22, Objectives SS10, SS11, PM51, RF113, and Chapter 8 generally),

In relation to the Sluice River it is a requirement of **Objective DMS170** to:

Protect and enhance the ecological corridors along the following rivers in the County by ensuring that no development takes place, outside urban centres, within a minimum distance of 30m

*from each riverbank: Liffey, Tolka, Pinkeen, Mayne, **Sluice**, Ward, Broadmeadow, Ballyboghil, Corduff, Matt and Delvin (see Green Infrastructure Maps). (page 480) (emphasis added).*

Objective WQ05 of the Development Plan (page 280) sets out a similar riparian protection requirement.

In relation to waste water infrastructure it is a requirement of **Objective WT01** to:

Liaise with and work in conjunction with Irish Water during the lifetime of the plan for the provision, extension and upgrading of waste water collection and treatment systems in all towns and villages of the County to serve existing populations and facilitate sustainable development of the County, in accordance with the requirements of the Settlement Strategy and associated Core Strategy. (page 271).

2.3 The Draft Local Area Plan (LAP)

2.3.1 Vision Statement and Strategic Aims of the LAP

The proposed Vision Statement for the area as set out in the Draft LAP states:

“To enhance and consolidate the village centre whilst ensuring the sustainable expansion of Kinsaley at a level appropriate to and integrated with the existing village in which the housing, socio-economic and civic aspirations of the community are met while retaining its distinctive character and sense of identity and ensuring maximum environmental protection.”

In order to achieve this vision it is proposed that the Draft LAP be underpinned by four strategic aims:

- *“Support the expansion of Kinsaley Village centre as a focal point for the community with an enhanced retail function to serve the needs of existing and future residents.*
- *Support infrastructural investment to ensure safe pedestrian and cyclist movements throughout the village in tandem with enhanced traffic management measures including facilitating the provision of improved pedestrian/cycle access to public transport and local schools.*
- *Protect and enhance the existing natural amenities of Kinsaley together with improving access to established and proposed amenity areas through designated green routes.*
- *Provide for the integrated development of the village and its growing population with the development of new housing delivered in tandem with supporting community and physical infrastructure.”*

2.3.2 The Village Centre

The Village Centre in Kinsaley currently consists of St. Olave’s Local Centre and the adjoining church of St. Nicholas of Myra and the associated Community Centre. While the Local Centre is generally well supported by the local community, public consultation also revealed a desire for an expanded range of services in the Village Core. Therefore, the Draft LAP includes an objective to support the limited expansion of the Village Core to include additional retail space, ideally of a nature and scale suitable for a convenience retailer, as well as additional space that could be used for services such as a locally-focused medical use. The expansion of the Village Centre will be in accordance with Kinsaley’s designated position in the retail hierarchy as a Level 5 Centre as defined in Fingal Development Plan.

2.3.3 Proposed Development Areas

The Draft LAP identifies six Development Areas totalling 20.17 hectares to incorporate existing permitted development and to accommodate further development that will facilitate the consolidation

of the village (refer to Table 2.1 and Figure 2.2). As noted permission already exists for the residential development as set out on Development Area No.6.

Table 2.1: Proposed Development Areas

No.	Development Area	Land Use	Quantum of Proposed Development
1.	Kinsaley Lane Development Area – 2.5 ha.	Residential	30 dwellings
2.	Garden Centre Development Area – 1.3ha	Residential	40 dwellings
3.	Former Teagasc Development Area – 6.4 ha	Residential / Education	185 dwellings 1no. 12-16 classroom school
4.	Malahide Road West Development Area – 4.0 hectares	Mixed-use / Residential / Public Park	500-1,000 sqm of convenience retail floorspace 85 dwellings
5.	Malahide Road East Development Area – 0.6 hectares	Residential	20 dwellings
6.	Kinsaley House Development Area - 6.5 hectares	Residential	123 dwellings and creche (Note: 100 of these units and the crèche are provided for in an extant permission)
Totals (21.3 hectares - including the already permitted development area within Area 6):		Residential Education Retail / Commercial Public Park	483 units* (excluding 100 units already permitted in Area 6) 1 no. school 500 – 1000 sqm. 1 no.,

* An additional 82 residential units are also under construction south of Chapel Road



Figure 2.2: Development Areas identified in the Draft Kinsaley LAP. (Source: FCC, 2018)

In addition to the Development Areas identified in Table 2.1 and Figure 2.2, it is noted that a number of comparatively large sites that currently accommodate single dwellings, either on a stand-alone basis or in small groups, may present for infill redevelopment within the lifetime of the LAP. Proposals on these sites should be considered on their individual merits, but should comply with the requirements of the Fingal Development Plan and be consistent with the prevailing character of the area.

The LAP also includes a small area of Greenbelt (GB) lands, which will be retained as a green corridor between Development Area No. 3 and Development Area No. 6.

Furthermore, lands to the south of the Teagasc landholding, also zoned Green Belt may facilitate a future soccer pitch and associated car parking area. This car park would have the dual function of providing a safe set-down area for both the existing and proposed national schools serving the village.

2.3.4 Relevant Planning History

A significant extent of the area of the LAP lands are already allocated to either existing established residential development or to a recently permitted residential development. In addition to the proposed Development Areas (refer to Figure 2.2), construction has also recently commenced at 'Kinsealy Woods' in relation to a residential development of 82 units and childcare facility on a c.3.65 hectare site located south of Chapel Lane at the centre of the LAP lands (refer to FCC planning reg. ref. no.: F16A/0511 & ABP ref.: PL06F.248584). As this development has already commenced it is not included within the six identified Development Areas. It is noted that the permission includes a condition (No.3) phasing the development based on the availability of public water/waste water services.

In addition, a garden centre is located on part of a 1.3 hectare site to the southwest of the village (*i.e.* Development Area No. 2), and the former Teagasc Kinsealy Research Centre is located on c.6.4 hectares of developed lands to the south of the village centre (*i.e.* Development Area No. 2).

A 10 year permission also exists for residential development of 100 units and a childcare facility on c.6.5 hectares surrounding Kinsaley House, a protected structure (refer to FCC planning reg. ref. no.: F16A/0464 & ABP ref.: PL06F.248515). While already permitted, this development is identified as part of Development Area No. 6 in the Draft LAP. It is noted that the permission includes a condition (No.6) phasing the development based on the availability of public water/waste water services.

Proposed Development Area No. 1 relates to c.2.5 hectares of currently undeveloped / agricultural lands located to the immediate north of Kinsealy Business Park and existing residential development at Emsworth Park.

Planning permission was recently granted to Irish Water for a new Wastewater Pumping Station in Kinsaley as part of the Local Network Reinforcement Project (refer to FCC planning reg. ref. no.: F18A/0041).

2.3.5 Landscape

The Draft LAP lands are located within the designated 'Low Lying Agricultural' landscape character type. This is an area characterised by a mix of pasture and arable farming on low lying land with few protected views or prospects. This low lying character type is dominated by agriculture with a number of settlements and is categorised as being of modest value. However, it contains pockets of important value areas requiring particular attention such as important archaeological monuments and demesnes (*e.g.* the nearby Abbeville House Demesne).

A small area located to the west of the Malahide Road, and which also include Abbeville Demesne, is considered as 'Highly Sensitive Landscape'. The portion of the Draft LAP lands that lie west of the Malahide Road are also located within this landscape.

2.3.6 Natural Heritage

Green infrastructure Map 2 (Sheet 15 of the Fingal Development Plan) highlights the Sluice River as an Ecological Corridor and Abbeville Demesne as a Nature Development Area. European and National designated sites are also highlighted (refer to following sections).

Green infrastructure Map 3 (Sheet 16 of the Fingal Development Plan) indicates that the Sluice River is of Moderate Water Quality Status.

The proposed Draft LAP includes objectives to enhance, manage and protect the ecological network, including the Sluice River and its public corridor, to provide for new and improved open space, parks and recreation and for sustainable water management measures.

2.3.6.1 European designated conservation areas

Seventeen European sites (Natura 2000 sites) are located within 15km of the area of the Draft LAP as set out in Table 2.2 and Figure 2.3. Despite the number of such sites within a 15km radius, the Draft LAP lands are connected hydrologically to only 2 of these sites (*i.e.* Baldoyle cSAC and SPA) via the Sluice River and Mayne River catchments.

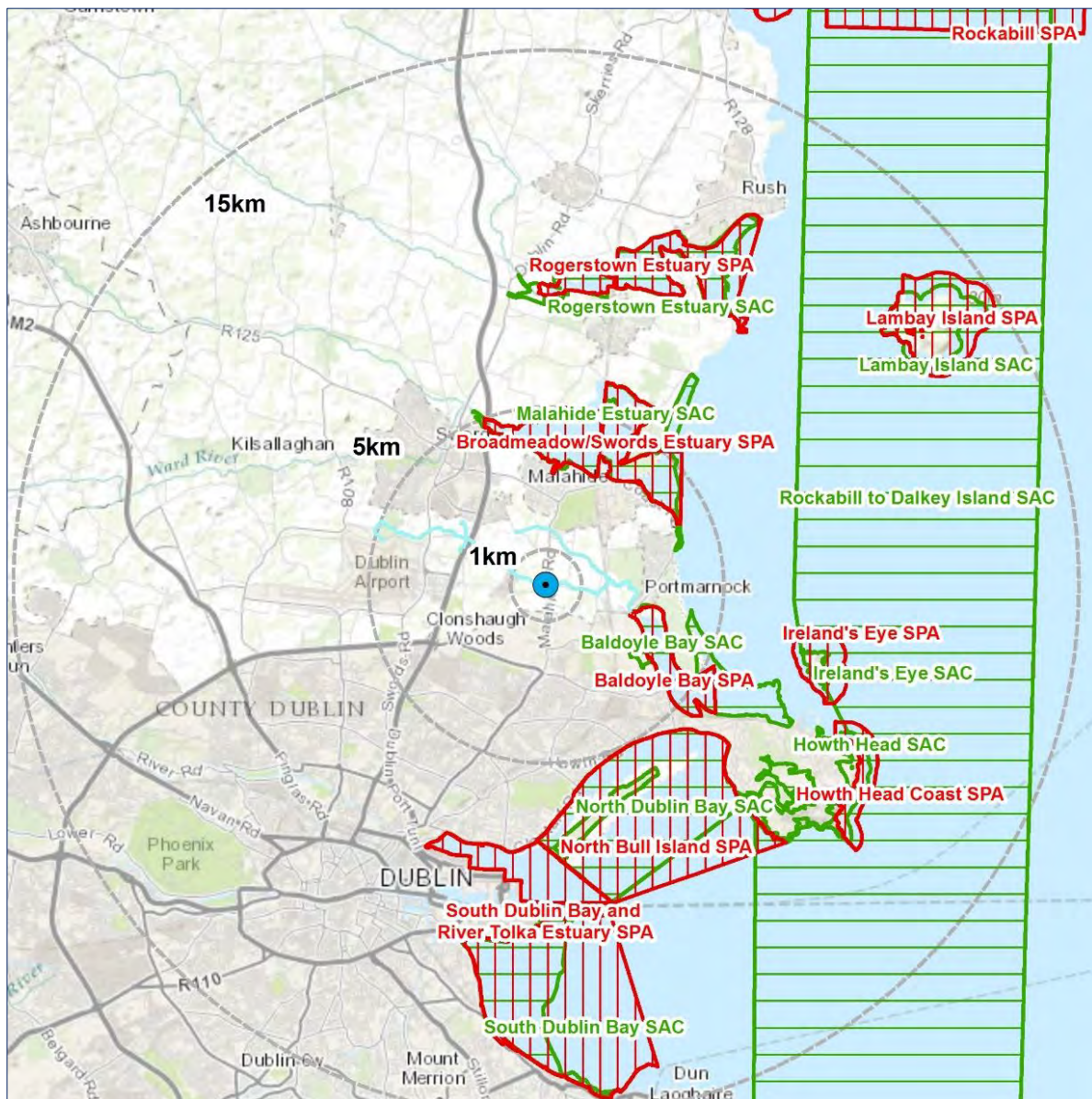


Figure 2.3: European Sites (Source: Screening for Appropriate Assessment, Scott Cawley, 2018)

Table 2.2: European Sites within 15km of Draft LAP

European Site	Site Code	Distance (straight line) to LAP area
Special Areas of Conservation (SAC) / candidate Special Areas of Conservation (cSAC)		
Baldoyle Bay SAC	000199	c.2km to the southeast
Malahide Estuary SAC	000205	c.3km to the north
North Dublin Bay SAC	000206	c.4km to the south
Rockabill to Dalkey Island SAC	003000	c.6km to the east
Ireland's Eye SAC	002193	c.6.5km to the east
Howth Head SAC	000202	c.7km to the southeast
Rogerstown Estuary SAC	000208	c.7.5km to the north
South Dublin Bay SAC	000210	c.9km to the south
Lambay Island SAC	000204	c.11.5km to the northeast
Special Protection Areas (SPA)		
Baldoyle Bay SPA	004016	c.2km to the southeast
Broadmeadow/Swords (Malahide) Estuary SPA	004025	c.3km to the north
North Bull Island SPA	004006	c.4.5km to the south
Ireland's Eye SPA	004117	c.6.5km to the east
South Dublin Bay and River Tolka Estuary SPA	004024	c.7.km to the south
Rogerstown Estuary SPA	004015	c.7.5km to the north
Howth Head Coast SPA	004113	c.8km to the southeast
Lambay Island SPA	004069	c.11.5km to the northeast

2.6.3.2 Other designated conservation areas

The nearest non-European designated site to the Draft LAP lands is the Sluice River Marsh proposed Natural Heritage Area (pNHA Site Code: 001763), which is located approximately 1.1km downstream (c.0.9km straight-line distance) of the Draft LAP lands.

The marsh abuts the Sluice River to the north and is bounded to the west by the Dublin-Belfast railway line. This site, which is hydrology connected to the Draft LAP lands via the Sluice River, is of importance as a relatively intact freshwater marsh, a habitat that is now rare in County Dublin. Some waterfowl from Baldoyle Estuary may use the marsh on occasions. The site is not designated for the Qualifying Interests/Special Conservation Interests of Baldoyle Bay cSAC or SPA.

A second pNHA, Feltrim Hill (Site Code: 001208), located c.0.9km to the northwest is not to be connected to the Draft LAP lands.

2.3.7 Cultural Heritage

There are four structures on the Record of Protected Structures (RPS) of architectural and historical interest within the Draft LAP boundary. These buildings and sites, which are included on the National Inventory of Architectural Heritage are:

- RPS No. 913 – Road Bridge located at Malahide Road, Kinsaley, Co. Dublin. A mid-18th century triple-arch masonry road bridge over the Sluice River.
- RPS No. 454 – St. Nicholas of Myra Church (RC) at Malahide Road (R107), Kinsaley, Malahide, Co. Dublin. This is a mid- 19th Century Catholic Church, tower and school building.
- RPS No. 914 – Malahide/Portmarnock Educate Together National School at Malahide Road, Kinsaley.
- RPS No. 464 – Kinsaley House, Chapel Road, Kinsaley, Malahide, Co. Dublin. An early 18th century five-bay two-storey house.

The following Protected Structures are located just outside the boundary of the Draft LAP:

- RPS No. 455 – Church (in ruins) & Graveyard at Chapel Lane, Kinsaley, Malahide, Co. Dublin. Remains of medieval church within enclosed graveyard.
- RPS No. 452 – Abbeville House an 18th century nine-bay two-storey house, stables, out-buildings & walled garden. Abbeville House and its associated Architectural Conservation Area (ACA) plays an important role in the heritage of Kinsaley.

2.3.8 Infrastructure

2.3.8.1 Traffic and Transportation

No significant new road infrastructure is required as part of the proposed Draft LAP. Improvements to the junction between the Malahide Road and Church Road are already provided for under recent grant of permissions (FCC planning reg. ref. no.: F16A/0511 & ABP ref.: PL06F.248584 and FCC planning reg. ref. no.: F16A/0464 & ABP ref.: PL06F.248515).

The nearest train station is Portmarnock, which is c.1.5km to the east of Kinsaley. This station is well served by trains during the day, with frequent peak hour services. Kinsaley is relatively well served by bus in the peak hours, with two services (No. 42 & 43) operated by Dublin Bus.

There are no dedicated cycle facilities provided within the Kinsaley LAP area. However, Fingal County Council has commissioned a Cycling Feasibility Study for the Kinsaley area. Details of the study have not yet been published – but it is anticipated that a cycling link to Malahide Castle and a cycling link to Portmarnock from the Draft LAP lands will be examined in the study.

The Draft LAP includes proposals for calming of road traffic and objectives for enhanced pedestrian and cycling connectivity and services, including to public transport.

2.3.8.2 Waste Water

The LAP lands are currently served by Connolly Avenue Pumping Station and Floraville Pumping Station which discharge to the Wastewater Treatment Plant at Malahide. The pumping stations are operating at capacity and pumping becomes overloaded during storm events, with resultant discharges without screening to the Sluice River.

Planning permission was recently granted to Irish Water for a new Wastewater Pumping Station in Kinsaley as part of the Local Network Reinforcement Project (refer to FCC planning reg. ref. no.: F18A/0041). The development will increase forward pump capacity from an existing 13 litres/second to approximately 70 litres/second and will provide for significant additional capacity for development within Kinsaley. The development will also provide for 6 hours of emergency storage and is projected to remove the risk of unscreened overflows to the Sluice River.

2.3.8.3 Water Supply

Water Supply for the LAP lands and the surrounding area is provided from the Ballycoolin reservoir supply area. The area in general is well-served with trunk mains which have capacity to cater for additional future growth in the area.

Irish Water's 25 year plan for the Greater Dublin Region includes further enhancement water supply proposals to serve the region.

2.3.8.4 Surface Water, Drainage and Flood Risk

Kinsaley lies within the river catchment of the Sluice River, which enters the sea at the Baldoyle Estuary in Portmarnock. The Sluice River rises to the north of Dublin Airport and flows through Kinsaley into the head of Baldoyle Bay. Downstream of the Kinsaley LAP lands, the river is meandering with embankments constructed before the 1830's to curtail tidal flooding. It has a total catchment area of approximately 17.8km²

Irish Water records indicate two surface water outfalls to the Sluice River, located on Kinsealy Lane and at the St. Olave's Development. Outfalls to the river have also been identified from the Malahide Road, Emsworth Park and Coopers Wood residential housing developments.

The Sluice River and tributaries making up the sub-catchment through Kinsaley, is described in the Fingal Development Plan as having a moderate water quality status as per the EPA River quality standards. A moderate water quality status gives rise to reduced diversity of species and the presence of moderate pollution within the water body.

The LAP lands are bisected by the River Sluice flowing from west to east. This section of the Sluice is fluvially dominated, as such; the most prevalent flood risk to the site is from extreme fluvial inundation events or fluvial events in combination with extreme tidal events. Portions of the LAP lands are indicated to be within flood zones A and B in the OPW FEM-FRAM Study and the OPW PFRA.

The Kinsaley LAP lands are therefore, considered to require a stage 3 detailed flood risk assessment with respect to flooding derived from Fluvial and Tidal sources.

3.0 Assessment of Likely Significant Effects

3.1 Screening for Appropriate Assessment

A separate report has been prepared providing Information for Screening for Appropriate Assessment and as noted at section 1.4 of this report, a relationship exists between the outcome of screening for AA and screening for SEA.

As set out in Table 2.2 of this report 17 European sites (Natura 2000 sites) are located within 15km of the Draft LAP lands. However, it is considered that only 2 of these – Baldoyle Bay SAC (Site Code 000199) and Baldoyle Bay SPA (site Code 004016) have potential connectivity to the Draft LAP lands. Both sites are located c.2km southeast of Kinsaley (see Figure 2.3), and the Draft LAP lands are connected hydrologically to Baldoyle Bay via the River Sluice and Mayne River catchment. Therefore, potential impacts on these European sites could theoretically arise from contaminated surface water run-off generated during construction and operation of development within the Draft LAP lands.

The preliminary AA Screening Report has concluded that:

“Following review of the draft objectives of the LAP against the Conservation Objectives of the relevant European Sites, it was concluded that there is no possibility that the implementation of the LAP could result in any likely significant effects on European Sites on its own or in combination with other plans and programmes.

Therefore, strategic environmental assessment (SEA) is not required for the Draft LAP because of a requirement for appropriate assessment (AA).

3.2 Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been carried out for the LAP lands in accordance with the requirements of the OPW *“The Planning System and Flood Risk Management Guidelines for Planning Authorities”*, 2009. It was determined that the most significant source of flooding within the LAP area is from potential fluvial and tidal inundation from the Sluice River. There are other minor areas of pluvial flooding within the LAP boundary.

The majority of the LAP area is within Flood Zone C, where the probability of flooding from rivers and the sea is low (<1 in 1000 year) and is therefore appropriate for highly vulnerable developments.

The specific flood risk assessment of the six proposed Development Areas within the LAP indicated that Development Areas 1, 2, 3 and 5 are not affected by current and future estimated fluvial or tidal flood risk.

The northern portion of Development Area 4 is impacted by potential fluvial and tidal flooding from the Sluice River. This area is to be maintained free of development and used for riparian setback and open space.

Permission has already been granted for development on Development Area 6. This development was also subject to SRFA during the planning application process.

All Development Areas are still susceptible to flooding from pluvial sources and this risk will be managed through appropriate surface water management strategies incorporating Sustainable Drainage Systems (SuDS). There is no requirement for a Justification test for Development Management on any Development Area.

3.3 Screening for Strategic Environmental Assessment

A screening assessment for likely significant effects has been carried in accordance with the requirements of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004). In so doing the Screening of the Draft Kinsaley Local Area Plan has taken account of the specified criteria for determining the likely significant environmental effects of implementing the Draft LAP as set out in Schedule 1 of SEA Regulations 2004, as amended (or Schedule 2A of the Planning and Development Regulations 2001, as amended).

The screening assessment is presented in the following with reference to the specified criteria.

3.3.1 The characteristics of the plan or programme having regard, in particular, to:

- i. the degree to which the plan sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions, or by allocating resources;*

The Draft Kinsaley LAP sets out a development framework for the planned, co-ordinated and sustainable development of Kinsaley and for the conservation and enhancement of its natural and man-made environment. The Draft LAP provides guidance in the form of policies and objectives for the development of environmental, physical and social infrastructure in a modest and sustainable manner. The Village Development Framework Plan and the LAP Objectives set out the relevant requirements for the development of lands within Development Areas and within the village generally.

Notably, the extent of population expansion is limited and this expansion has already been assessed as part of Fingal Development Plan 2017-2023.

Development as proposed in the Draft LAP is considered to be consistent with the established and emerging profile of such development within Kinsaley village. As such the LAP provides no major divergence from the existing policy provided for by the Development Plan and instead provides greater detail as to the nature and extent of the development envisioned for the LAP lands.

- ii. the degree to which the plan or programme influences other plans, including those in a hierarchy;*

The Draft LAP is prepared being wholly consistent with the Fingal Development Plan and higher level legislation, which has undergone full Strategic Environmental Assessment. The nature and extent of development proposed in the draft LAP is as already established in the development plan and the primary purpose of the draft LAP is to provide further detail and clarity with regard to the intentions of the Planning Authority to give effect to the objectives for Kinsaley.

The Draft LAP is set within the context of Fingal County Development Plan 2017-2023 and will only influence future development within the village of Kinsaley. It does not have a significant influence on additional plans in a hierarchy and it is considered that the plan will not have a significant environmental effect on any other plans.

- iii. the relevance of the plan for the integration of environmental considerations in particular with a view to promoting sustainable development*

The Draft LAP for Kinsaley prepared is in accordance with the provisions of Part II, Chapter II, Sections 18-20 of the Planning and Development Act 2000 (as amended) and therefore, is related to the proper planning and sustainable development of the area. It is also prepared having regard to National, Regional and County level policy documents and in particular to the requirements of the Fingal County Development Plan 2017-2023.

The Fingal Development Plan, which underwent full SEA, integrated environmental considerations into the Plan and concluded that the Plan is based on the principles of sustainable development. The Draft LAP does not in itself propose changes to environmental considerations and seeks to clarify and define intentions and process in relation to the development of Kinsaley in giving effect to the zoning of these lands and the objectives of the Development Plan.

The Draft LAP sets out a strategy for the planned and sustainable development of Kinsaley and for the protection, conservation and enhancement of its natural and man-made environment. The Draft LAP will guide future development by identifying Development Areas for particular uses and for providing a development framework for planning decisions within the village.

iv. environmental problems relevant to the plan or programme;

The Draft LAP is consistent with the objectives of the County Development Plan which has undergone full SEA. The Environmental Report, prepared for the Fingal County Development Plan, concluded that the implementation of the Plan, including the various mitigation measures, would result, in general terms, in a neutral to positive impact on the environment as a whole.

While at present waste water infrastructure in Kinsaley is at times operating near capacity, new proposals by Irish Water to alleviate this situation have been permitted by the planning authority. No other significant environmental problems are identified in relation to the Draft LAP area.

v. The relevance of the plan for the implementation of European Union legislation on the environment (e.g. plans linked to waste management or water protection)

Issues relating to legislation on the environment are provided for in the Fingal County Development Plan 2017-2023. The Draft LAP is consistent with the policies and objectives of the Development Plan which itself was the subject of SEA. The Draft LAP is therefore guided and informed by the relevant European legislation on the environment including; waste management and water protection policies and objectives as set out in the Fingal County Development Plan 2017-2023.

The statutory planning and transportation policy context for the LAP is determined at the national, regional and local policy levels. In particular the planning context for the preparation of the Draft LAP emanates from the current Fingal Development Plan 2017-2023, which guides and informs the implementation of relevant European legislation on the environment including; waste management and water protection policies and objectives.

Therefore, issues relating to EU legislation on the environment are addressed in the County Development Plan as outlined above and the Draft LAP will ensure the continued implementation of these objectives.

3.3.2 Characteristics of the effects and of the area to be affected having regard, in particular to:

i. The probability, duration, frequency and reversibility of the effects;

The land subject to the Draft LAP is currently zoned under the Fingal Development Plan 2017-2023. The Draft LAP does not zone additional lands beyond the extent of development envisaged in the County Development Plan. It is noted that a small tract of zoned greenbelt (GB) land within the Teagasc landholding will be subsumed into the LAP boundary but the lands will retain its GB zoning.

The Draft LAP aims to guide the sustainable development of the Kinsaley area. Its extent is limited to the existing zoned lands and the objectives as set out in the Fingal Development Plan, and further expanded upon in the Draft LAP and Village Development Framework Plan. Planning permission has already been permitted for some of the lands and other lands are subject to existing development. Therefore their development is established and the impacts of same have been considered by Fingal County Council and any mitigations or conditions considered or put in place.

While development will result in permanent change in identified Development Areas, it is not anticipated that adverse environmental effects will arise as a result of the implementation of the Draft LAP.

ii. The cumulative nature of the effects;

The Draft LAP forms part of the overall balanced, development strategy of Fingal County Council, as set out in the Fingal County Development Plan 2017-2023. The Draft LAP is consistent with the policies and objectives of the overarching county-wide policy and as a result will not have a significant cumulative effect on the environment, when taken with other plans and strategies within the county.

Given the nature of permitted development in the area and the remainder of zoned lands in the vicinity it is considered that there are unlikely to be any cumulative effects.

Given that the Draft LAP will focus on the principles of sustainable development within a limited geographical area and for limited new development – all of which is guided within a Village Development Framework Plan – where cumulative effects arise on the environment it is anticipated that they will be positive.

iii. The trans-boundary nature of the effects;

The LAP will have no international, national, regional or inter-county transboundary effects.

iv. The risks to human health or the environment (e.g. due to accidents);

No risks to human health or to the environment due to accidents or other considerations in the implementation of the LAP have been identified.

v. The magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected);

The spatial extent of the Draft Kinsaley LAP is approximately 39ha. in area (or 0.39 square kilometres), however, this includes established development areas of the Village as well as a number of recently permitted developments. Six Development Areas, providing primarily residential development at between 15 to 30 units / hectare have been identified on c. 13.75 hectares of the Draft LAP lands. Development Area 6 already includes an extant permission for 100 no. residential units and a creche (FCC planning reg. ref.: F16A/0464).

The population of Kinsaley was recorded as 264 persons in the 2016 census, however, the Development Plan, which uses a slightly different boundary to the census, put the village's population at 340 persons (page 148). Permitted residential development will allow for a further 182 residential units or a population increase of c.455 persons.

The six new Development Areas will realise a further 383 residential units or an additional population of c.958 persons. Therefore the ultimate target population arising from the Draft LAP is considered to be up to c.1800 persons.

The geographical area (c.0.4 sqkm) and target population (c.1800 persons) are significantly below the threshold values of 50sqkm and / or 5,000 persons for mandatory SEA.

Therefore the magnitude and spatial extent of the effects of the Draft LAP are very local to the village and its immediate rural hinterland. The strategic impacts of the proposed scale and extent of development have also been subject to SEA as part of the preparation of the Fingal Development Plan 2017- 2023.

- vi. *The value and vulnerability of the area likely to be affected due to:*
- a) *special natural characteristics or cultural heritage*

Kinsaley is a small village settlement with a distinctive village character. Its surrounding landscape quality is informed by the Sluice River and its valley, and by the general good quality nature of the surrounding agricultural landscape.

The geographical area (c.0.4 sqkm) and target population (c.1800 persons) of the Draft LAP are significantly below the threshold values of 50sqkm and / or 5,000 persons required for mandatory SEA. A significant extent of the lands identified as Development Areas within the Draft LAP are currently either already under some form of development (*e.g.* the Garden Centre, the former Research Centre) or subject to extant permissions for proposed development (development Area No. 6). In addition the Development Areas do not adversely affect any aspects of special natural characteristic or cultural heritage.

European Sites

The nearest European sites with connectivity to the potential LAP lands are Baldoyle Bay SAC and SPA located c.2km southeast of Kinsaley. The LAP lands are connected hydrologically to Baldoyle Bay via the River Sluice and Mayne River catchment. Potential impacts on these European sites could theoretically arise from contaminated surface water run-off generated during construction and operation of development within the potential LAP lands.

C.2.5km to the southeast of the site:

- Baldoyle Bay SPA (004016)
- Baldoyle Bay SAC (000199)

C.3km to the northeast of the site:

- Malahide Estuary SAC (000205)
- Broadmeadow/Swords Estuary SPA (004025)

A significant extent of the lands identified as Development Areas within the Draft LAP are currently either already under some form of development (*e.g.* the Garden Centre, the former Research Centre) or subject to extant permissions for proposed development (*i.e.* Development Area No. 6).

These include two main residential developments listed below:

- Permitted Residential Development (FCC Ref. No. F16A/0511; ABP Ref. PL06F.248584);
- Permitted Residential Development (FCC Ref. No. F16A/0464; ABP Ref. PL06F.248515).

A review of the AA Screening Reports prepared for the 2 above applications concluded that there was no likelihood of any significant effects on any European sites arising from these proposed developments, either alone or in combination with other plans or projects.

In addition, the finding of the Preliminary Screening for Appropriate Assessment (AA) for the Draft Kinsaley LAP is that the implementation of the Plan will not have any effect on European sites either on its own or in combination with other plans and programmes.

Flooding and Surface Water Drainage

No areas proposed for development within the 6 Development Areas are affected by current or future estimated fluvial or tidal flood risks. Any potential risk of flooding from pluvial sources will be managed through appropriate surface water management strategies incorporating Sustainable Drainage Systems (SuDS). It is noted that the proposed Draft LAP will incorporate the existing Fingal Development Plan **Objective WQ05** (page 279):

*“Establish riparian corridors free from new development along all significant watercourses and streams in the County. Ensure a 10 to 15 metre wide riparian buffer strip measured from the top of the bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, **Sluice**, Ward, Broadmeadow, Corduff, Matt and Delvin where a **30m wide riparian buffer strip** from top of bank to either side of all watercourses outside urban centres is required as a minimum.”* (emphasis added).

Objective DMS170 of the Development Plan (page 480) has a similar riparian protection requirement.

It is a requirement of all future developments within the Draft LAP lands to comply with the Greater Dublin Regional Code of Practice for Drainage Works and to address surface water management on site through SuDS measures.

Heritage

There are some sites of Archaeological, Architectural and Cultural Heritage value within and around the village, which include:

National Monuments:

- DU015-002002- Graveyard
- DU015-002001- Church

NIAH:

- Saint Nicholas' Roman Catholic Church
- Kinsaley Bridge
- Kinsaley House

Protected Structures:

- 454: St. Nicholas of Myra Church (RC)
- 455: Church (in ruins) & Graveyard (located just outside subject lands)
- 456: Kinsaley Hall (outside the LAP lands)
- 464: Kinsaley House, Chapel Road, Kinsaley, Malahide, Co. Dublin.
- 914: Malahide/Portmarnock Educate Together National School at Malahide Road.

The Draft LAP identifies the important cultural heritage features within and adjacent to the LAP lands and ensures that proposed development or public realm interventions are approached in a sensitive and appropriate manner.

- *b) exceeded environmental quality standards or limit values,*

It is noted that existing wastewater pumping stations in the Kinsaley area are operating at capacity, and Irish Water have recently received planning permission for a new pumping station which will provide sufficient capacity for all existing and planned development areas. This current constraint is acknowledged in the proposed Draft LAP and the Draft Plan will

include objectives supporting the delivery of the planned infrastructure as well as requirement that any planned development will be subject to a connection agreement with Irish Water, in order to protect all waters in the area.

It is not anticipated that any other environmental quality standards or limit values will be exceeded. All sites identified for development in the Draft LAP, which is consistent with the County Development Plan, will be subject to a statutory planning process which will ensure that no environmental quality standards or limit values are exceeded.

- *c) Intensive land-use,*

The LAP consolidates the development of c.39 hectares of land, the majority of which is either under existing or permitted development. Of this 39ha, only 13.75 hectares is highlighted for redevelopment/new development within Development Areas. These Development Areas are detailed in the Draft LAP and subject to a Village Development Framework Plan, which establishes the proposed nature and scale of development. The sites to be development include for residential densities in the range of 15-30 units / hectare which is appropriate for the character of Kinsaley and not considered as intensive land-use.

vii. The effects on areas or landscapes which have a recognised national, European Union or international protection status

The County Development Plan recognises the importance of sites with national and European designations, and sets out policies and objectives for their protection. The Draft LAP accords fully with those objectives. It is not anticipated that the implementation of the Draft Plan would have any significant adverse impacts on areas of recognised national, European or international protection status.

There are no designated sites, Special Areas of Conservation (SAC) for flora and fauna, Special Protection Areas (SPA) for birds or Natural Heritage Areas (NHA) within the Draft LAP lands. The Sluice River flows into the nearby Baldoyle Estuary SPA and SAC, however, an Appropriate Assessment Screening undertaken on the Draft LAP has found that no significant impacts will arise on designated sites.

4.0 Preliminary Determination under Article 14K

Following careful review and consideration of the environmental issues it has been determined that the aims and objectives of the Draft Kinsaley Local Area Plan will not in themselves result in a significant adverse environmental effects and therefore, the Draft LAP does not require a detailed assessment of their effect upon implementation through the strategic environmental assessment (SEA) process.

This conclusion has been drawn through consideration of the following factors:

- The extent to which the LAP will act as a framework for the future development of the lands.
- The extent of land which is already zoned Rural Village and environmentally assessed under the Fingal Development Plan 2017-2023.
- The extent of the existing zoned lands which is already subject to existing planning permissions and/or under construction.
- The scope and nature of development proposed in the LAP as presented and the need to ensure that all environmental aspects of same are considered.

5.0 Consultation with Environmental Authorities

An important and significant element to the Screening process is consultation with the Environmental Authorities. In accordance with the Planning and Development Regulations 2001, as amended, the Planning Authority will enter into a consultation period and will invite comment/submissions from the relevant environmental authorities (refer to section 1.3.3 of this report).

Any observations or submissions received will be considered in the Final SEA Screening Report.

6.0 Recommendation

It is not anticipated that implementation of the Kinsaley LAP 2018-2024 will have strategic environmental effects and it is considered that strategic environmental assessment is not required. Any potential localised environmental effects arising as a result of specific development carried out within the LAP lands can be appropriately and adequately addressed through the assessment of individual planning applications.

Pursuant to Article 14 A of the Regulations notice will issue to the Environmental Authorities listed in Section 1.3.3 of this report of the Planning Authority position in this matter for their comment prior to final determination.

7.0 References

7.1 European

European Parliament and Council Directive 2001/42/EC of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.

Council Directive Habitats Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

7.2 National

European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004).

Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436 or 2004).

European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011).

Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2004 (S.I. 201 or 2011).

Planning and Development Act 2000, as amended.

Planning and Development Regulations 2001, as amended.

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Appendix 3

Stormwater Management Plan Part 1: Strategic Flood Risk Assessment & Part 2: Sustainable Drainage Systems (SuDS) Strategy



**Kinsaley Local Area Plan
Stormwater Management Plan
Part 1: Strategic Flood Risk Assessment**

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1. INTRODUCTION

1.1 Commission

Roughan & O'Donovan Consulting Engineers (ROD) was commissioned by Fingal County Council (FCC) to prepare a Surface Water Management Plan to supplement the Kinsaley Local Area Plan (LAP). As part of this commission, the Stage I, II and III Flood Risk Assessment for the LAP lands was undertaken. The LAP will set out the local land use and planning policy for the Kinsaley area and provide a strategy for the future planning and sustainable development of the Area.

1.2 Scope

The scope of this report is as follows:

- Provide an assessment/identification of flood risk for the LAP lands in accordance with “*The Planning System and Flood Risk Management – Guidelines for Planning Authorities*” (The Guidelines), 2009, published by the Department for the Environment, Heritage and Local Government and the Office of Public Works (OPW).
- Undertake a Flood Risk Assessment Report assessing the hydrology and hydraulics and determining, modelling and mapping the cause, extents, depths and mechanisms of flooding in the LAP lands, taking into account anticipated future increases in rainfall, river flows and sea level rise as a result of climate change.
- Provide recommendations for future flood risk assessments for proposed developments and planning applications, in accordance with The Guidelines.
- Generate flood depth and extent maps for the 1% & 0.1% AEP fluvial flood events and the 0.5% & 0.1% AEP coastal flood events, (as applicable to the LAP lands). The flood maps consider the Current Climate Scenario as well as the OPWs Mid-Range Future Scenario and the High-End Future climate change scenarios (Climate Change Sectoral Adaptation Plan Flood Risk Management 2015 - 2019).
- Liaison with Consultants completing the Strategic Environmental Assessment (SEA), Appropriate Assessment and Fingal County Council.

1.3 Study Area

1.3.1 Overview

Kinsaley village is located in North County Dublin approximately 2.8km east of the M1 motorway and 3km west of the Irish Sea. The village has a strong visual identity and landscape quality formed by the Sluice River, running west-east through the village, and by the stone walls and mature trees associated with the nearby Abbeville Demesne. The R107 Malahide Road runs north-south to the west of the existing village. Chapel Road runs east-west through the village and forms a junction with the R107 at the Parish Church of St. Nicholas of Myra, a Protected Structure. The village is located mid-way between Malahide to the north and Balgriffin to the south. Refer to Figure 1.1 below.

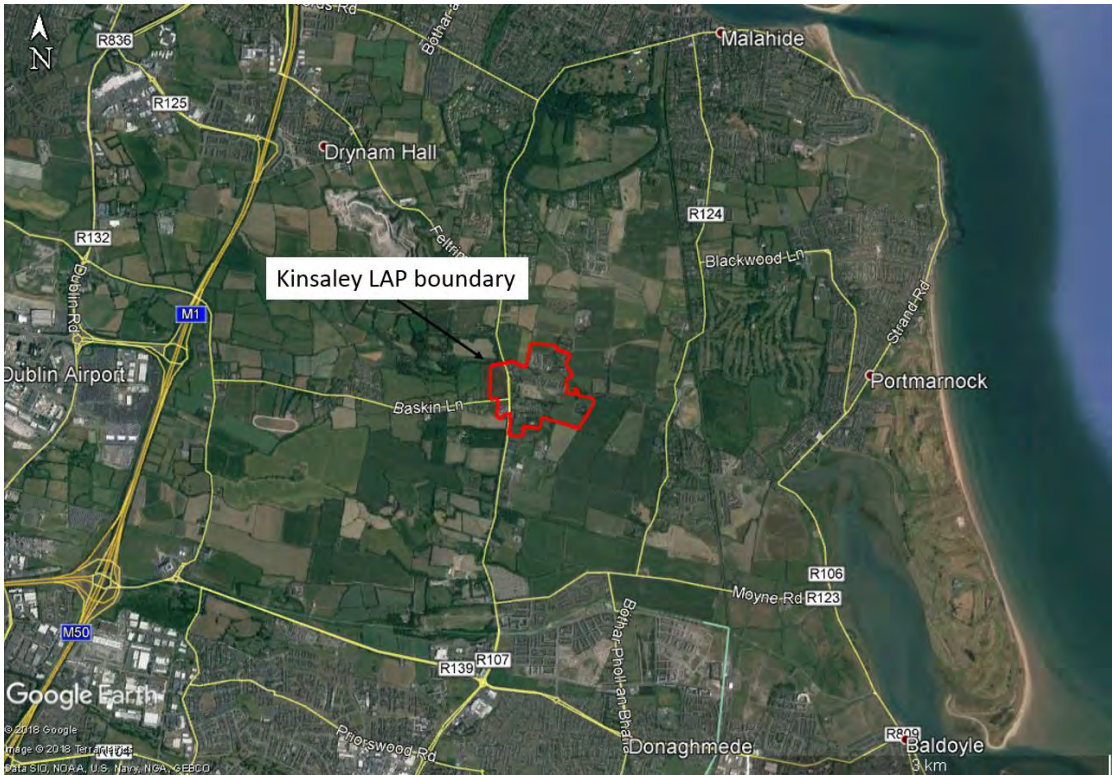


Figure 1.1: Kinsaley LAP Hinterlands

The topography of the LAP lands to the north of the Sluice River generally fall from north to south from a level of approximately 12mOD to 7mOD. The topography of the lands to the south of the Sluice River generally fall from south to north from a level of approximately 21mOD to 7mOD.

1.3.2 Catchment Description

The LAP study area lies within the catchment of the Sluice River and is approximately 3km west of the Baldoyle Estuary, as outlined in Figure 1.2. This river drains to the Baldoyle Estuary prior to discharging to the Irish Sea.

The Sluice River rises to the north of Dublin Airport and flows through Kinsaley into the head of Baldoyle Bay. Downstream of Kinsaley LAP, the River Sluice is meandering with embankments constructed before the 1830's to curtail tidal flooding. It has a total catchment area of approximately 17.8km².

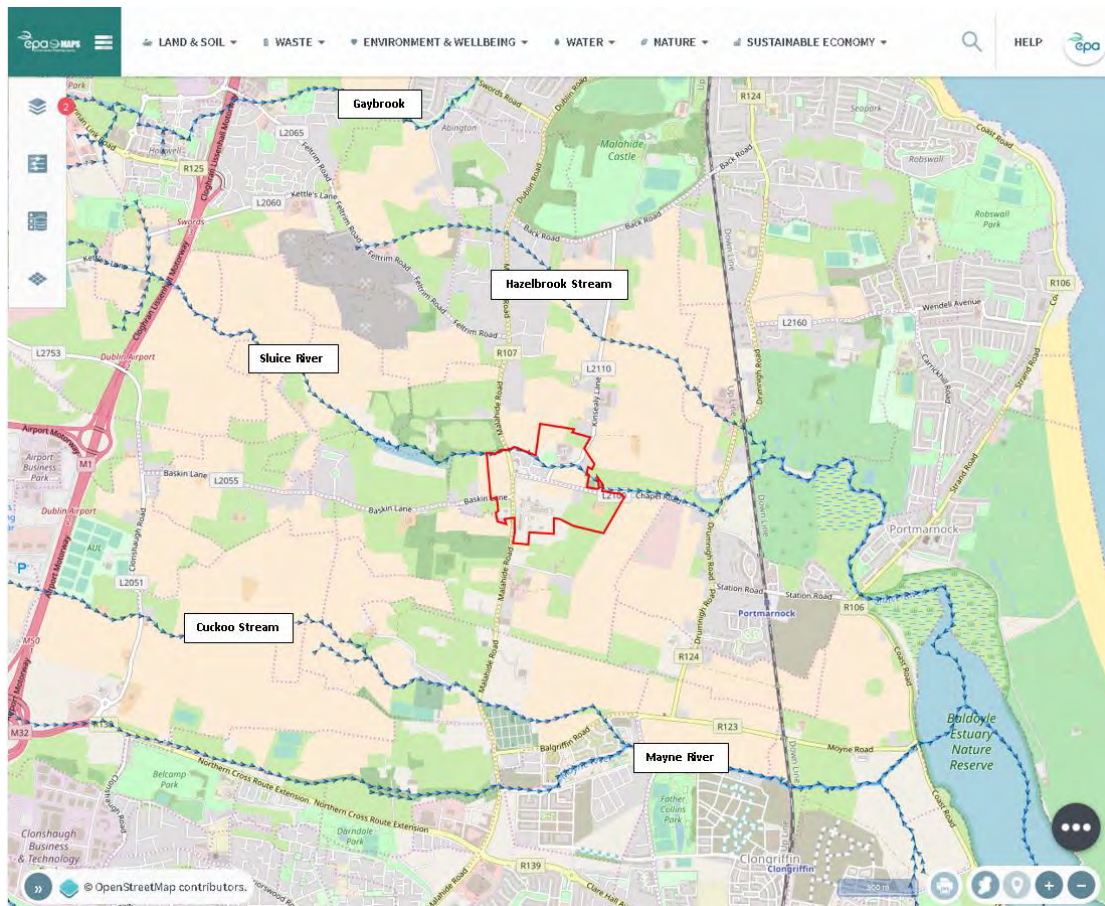


Figure 1.2: Watercourses around the Kinsaley LAP area (EPA Catchments.ie)

Surface Water Drainage Networks

Irish Water records indicate two surface water outfalls to the Sluice River, located on Kinsaley Lane and at the St. Olave’s Development. Outfalls to the river have also been identified from the Malahide Road, Emsworth Park and Coopers Wood residential housing developments.

1.3.3 Environment

There are no Natura 2000 sites located within the study area; however, the Natura 2000 sites Baldoyle Bay (SPA and SAC) are 2.4km east of Kinsaley LAP

Under Article 6(3) of the EU Habitats Directive, an “appropriate assessment” (AA) is required where any plan or project, either alone or ‘in combination’ with other plans or projects, could have an adverse effect on the integrity of a Natura 2000 site.

Natural Heritage Areas (NHAs) are sites of national importance for nature conservation and are afforded protection under planning policy and the Wildlife Acts, 1976-2012. Proposed NHAs (pNHAs) are published sites identified as of similar conservation interest but have not been statutorily proposed or designated. The nearest NHA/pNHAs to the study area are:

- Sluice River Marsh (proposed NHA), ~ 1.5km east of Kinsaley LAP
- Feltrim Hill (proposed NHA), ~1.2km north-west of Kinsaley LAP

Therefore, the management of flood risk within the LAP study area must have regard to potential negative impacts to this environment.

1.4 Proposed Development

The Kinsaley area comprises two main zonings with a further two zonings on small areas in the Fingal Development Plan 2017 – 2023 and these are summarised in *Table 1.1* below.

Table 1.1 Kinsaley Zoning Objectives

Objective	Description	Area
RV - Rural Village	Protect and promote the character of the Rural Village and promote a vibrant community in accordance with an approved Local Area Plan, and the availability of physical and community infrastructure	Majority of Kinsaley village
OS - Open Space	Preserve and provide for open space and recreational amenities	Existing open space within the LAP study area. The riparian corridor either side of the Sluice River is zoned as open space.
CI - Community Infrastructure	Provide for and protect civic, religious, community, education, health care and social infrastructure	Parish Church of St. Nicholas of Myra (Protected Structure)
LC - Local Centre	Protect, provide for and/or improve local centre facilities	Mixed-use facilities in the centre of Kinsaley village

The Fingal Development Plan for the Kinsaley zoning objectives are reproduced in Figure 1.3 below.

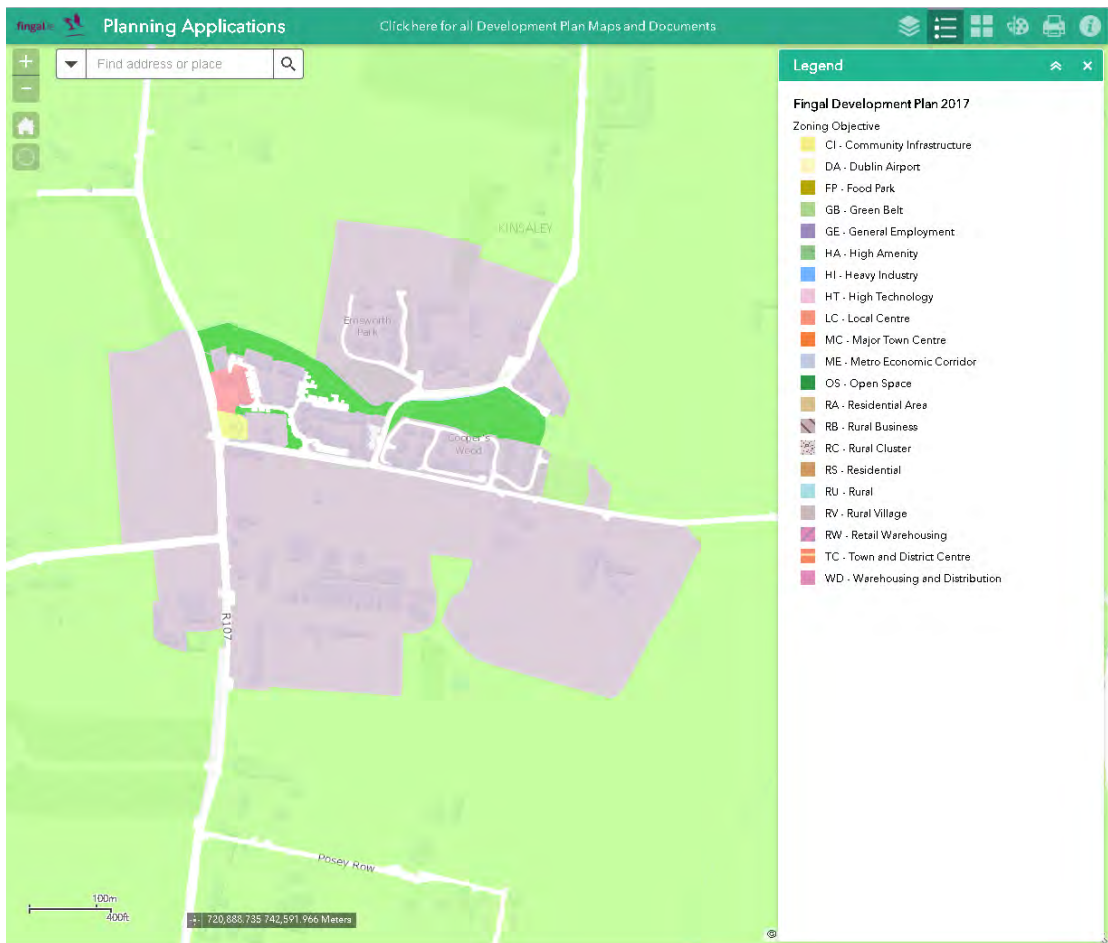


Figure 1.3: Kinsaley Zoning Objectives (Fingal Co Co Development Plan 2017 – 2023)

2. METHODOLOGY

2.1 Introduction

This report has been prepared in accordance with ‘The Planning System and Flood Risk Management Guidelines for Planning Authorities’ herein referred to as ‘The Guidelines’ as published by the Office of Public Works (OPW) and Department of Environment, Heritage and Local Government (DoHGL) in 2009.

2.2 Definition of Flood Risk

Flood risk is a combination of the likelihood of a flood event occurring and the potential consequences arising from that flood event and is then normally expressed in terms of the following relationship:

Flood risk = Likelihood of flooding x Consequences of flooding.

To fully assess flood risk an understanding of where the water comes from (i.e. the source), how and where it flows (i.e. the pathways) and the people and assets affected by it (i.e. the receptors) is required. Figure 2.1 below shows a source-pathway-receptor model reproduced from ‘The Guidelines’.

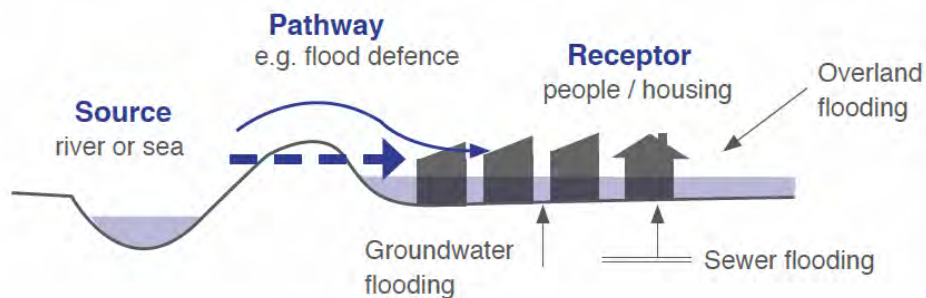


Figure 2.1 Source-Pathway-Receptor Model

The principal sources of flooding are rainfall or higher than normal sea levels. The principal pathways are rivers, drains, sewers, overland flow and river and coastal floodplains. The receptors can include people, their property and the environment. All three elements as well as the vulnerability and exposure of receptors must be examined to determine the potential consequences.

2.3 Likelihood of Flooding

The Guidelines define the likelihood of flooding as the percentage probability of a flood of a given magnitude or severity occurring or being exceeded in any given year. It is generally expressed as a return period or annual exceedance probability (AEP). A 1% AEP flood indicates a flood event that will be equalled or exceeded on average once every hundred years and has a return period of 1 in 100 years. Annual Exceedance Probability is the inverse of return period as shown in Table 2.1 below.

Table 2.1 Correlation between return period and AEP

Return Period (years)	Annual Exceedance Probability (%)
1	100
10	10
50	2
100	1

Return Period (years)	Annual Exceedance Probability (%)
200	0.5
1000	0.1

2.4 Definition of Flood Zones

Flood zones are geographical areas within which the likelihood of flooding is in a particular range and are split into three categories in The Guidelines:

Flood Zone A

Flood Zone A where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding);

Flood Zone B

Flood Zone B where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 and 0.5% or 1 in 200 for coastal flooding);

Flood Zone C

Flood Zone C where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding. Flood Zone C covers all plan areas which are not in zones A or B.

It is important to note that when determining flood zones the presence of flood protection structures should be ignored. This is because areas protected by flood defences still carry a residual risk from overtopping or breach of defences and the fact that there is no guarantee that the defences will be maintained in perpetuity.

2.5 Objectives and Principles of the Planning Guidelines

The principle actions when considering flood risk are set out in the planning guidelines and are summarised below:

- *“Flood hazard and potential risk should be determined at the earliest stage of the planning process...”*
- *“Development should preferentially be located in areas with little or no flood hazard thereby avoiding or minimising the risk...”*
- *“Development should only be permitted in areas at risk of flooding when there are no alternatives, reasonable sites available...”*
- *“Where development is necessary in areas at risk of flooding an appropriate land use should be selected”*
- *A precautionary approach should be applied, where necessary, to reflect uncertainties in flooding datasets and risk assessment techniques...”*
- *“Land required for current and future flood management... should be pro-actively identified...”*
- *“Flood risk to, and arising from, new development should be managed through location, layout and design incorporating Sustainable Drainage Systems (SuDS) and compensation for any loss of floodplain...”*
- *Strategic environmental assessment (SEA) of regional planning guidelines, development plans and local area plans should include flood risk as one of the key environmental criteria...”*

2.6 The Sequential Approach and Justification Test

The Guidelines outline the sequential approach that is to be applied to all levels of the planning process. This approach should also be used in the design and layout of a development and the broad philosophy is shown in Figure 2.2 below. In general, development in areas with a high risk of flooding should be avoided as per the sequential approach. However, this is not always possible as many town and city centres are within flood zones and are targeted for development.



Figure 2.2 Sequential Approach (The Guidelines)

The Justification Test has been designed to rigorously assess the appropriateness, or otherwise, of developments that are being considered in areas of moderate or high flood risk. The test comprises the following two processes.

- The first is the Plan-making Justification Test and is used at the plan preparation and adoption stage where it is intended to zone or otherwise designate land which is at moderate or high risk of flooding.
- The second is the Development Management Justification Test and is used at the planning application stage where it is intended to develop land at moderate or high risk of flooding for uses or development vulnerable to flooding that would generally be inappropriate for that land.

Table 2.2 below illustrates the types of development that would be required to meet the Justification Test.

Table 2.2 Matrix of Vulnerability Versus Flood Zone to Illustrate Appropriate Development and that Required to Meet the Justification Test (The Guidelines)

Vulnerability Class (The Guidelines section 3.5)	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development (including essential infrastructure)	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

3. STAGE 1 - FLOOD RISK IDENTIFICATION

3.1 General

This Flood Risk Identification phase includes a review of the existing information and the identification of any flooding or surface water management issues in the vicinity of the Kinsaley LAP lands that may warrant further investigation.

3.2 Information Sources Consulted

The following information sources were consulted as part of the Flood Risk Identification:

Table 3.1 Information Sources Consulted

Source	Comments
OPW Preliminary Flood Risk Assessment (PFRA) maps	Fluvial, Pluvial, Coastal and Groundwater flooding examined;
OPW Benefitting Land Maps	Available at OPW Drainage District Viewer
OPW National Flood Hazard Mapping	www.floodmaps.ie
Geological Survey of Ireland (GSI) Maps	Utilised multiple data layers available at the GSI Groundwater Data viewer
OSI Historical Maps	OSI 6" and 25" mapping examined
Catchment Flood Risk Assessment and Management Study (CFRAM)	CFRAM mapping is available for Sluice River at fem.cfram.com
Irish Coastal Protection Strategy Study (ICPSS)	No ICPSS maps are not available for LAP lands
Fingal Development Plan 2017-2023	Relevant sections of the Development Plan
Flood Risk Assessment and Management Studies	Fingal East Meath Flood Risk Assessment and Management Study (FEMFRAMS)

3.2.1 Predictive Flood Maps and Flood Hazard Records

(i) OPW Preliminary Flood Risk Assessment

The PFRA is a national screening exercise, to identify the areas where there may be a significant risk associated with flooding (referred to as Areas for Further Assessment or AFA's). As part of the PFRA study, maps of the country were produced showing the indicative fluvial, coastal, pluvial and groundwater flood extents.

Fluvial flooding is indicated along the length of the River Sluice within the Kinsaley LAP lands. The PFRA mapping for the Kinsaley LAP lands shows that Kinsaley is a probable area for further assessment.

It is important to note that these maps have limitations as any local errors in the digital terrain model (DTM) were not filtered out, local channel works were not included, flood defences were excluded and channel structures were not considered.

The *PFRA Maps for the area are reproduced in Appendix A.*

(ii) OPW Drainage Districts

Under the Arterial Drainage Act, 1945 the OPW undertook a number of arterial drainage schemes to improve land for agricultural production. The OPW has a statutory duty to maintain these schemes, which is delivered through their

arterial drainage maintenance programme. The OPW does not have powers to undertake river or channel maintenance other than where these rivers form part of an arterial drainage scheme or flood relief schemes.

The OPW Drainage district maps do not identify lands within Kinsaley as “benefiting lands”, i.e. lands that have benefited from flood alleviation works previously completed under the Arterial Drainage Act, 1945. *The OPW Drainage Districts are reproduced in Appendix B.*

(iii) OPW National Flood Hazard Mapping

The OPW National Flood Hazard Mapping Web Site, www.floodmaps.ie, was examined to identify any recorded flood events within and in the vicinity of the LAP lands.

Recurring flood events have been recorded at Kinsaley Bridge (100m north of junction Chapel Road/Kinsaley Lane).

The OPW Flood Hazard Mapping is reproduced in Appendix C.

(iv) Fingal East Meath Flood Risk Assessment and Management Study (FEM-FRAM Study)

The FEM-FRAM Study was undertaken by FCC in conjunction with project partners Meath County Council and the OPW and is a catchment based flood risk management study of nineteen rivers and streams and their catchments.

The flood extent mapping indicates that areas along the Sluice River within the LAP study area are subject to flooding in the 1% and 0.1% AEP fluvial flood events and 0.5% & 0.1% AEP Tidal Flood events.

The FEM-FRAM Mapping is reproduced in Appendix D.

(i) Secondary Sources of Baseline data

Table 3.2 below lists secondary sources examined to identify areas that may be liable to flooding:

Table 3.2 Secondary Sources of Baseline Data

Source	Data Gathered
GSI Maps	GSI Teagasc subsoils map shows the Kinsaley LAP lands are underlain by BminDW - Deep well drained mineral (Mainly basic), BminPD - Mineral poorly drained (Mainly basic), AlluvMIN – Alluvium (mineral), and BminSW – Shallow well drained mineral (Mainly basic). Soil permeability differs from low to high throughout the LAP lands. The groundwater recharge rates for the LAP lands are indicated to be between 49 and 100 mm/y. No evidence of Karst features have been identified within Kinsaley LAP lands. Refer to Appendix E for GSI maps.
Historical Maps	No areas of the site are labelled as “liable to flooding” or have other indicators of historic flooding. Refer to Appendix F for Historical Maps.

4. FLOOD RISK IDENTIFICATION SUMMARY

In accordance with The Guidelines the sources of flooding within the Kinsaley LAP boundary have been identified. These are summarised in Table 5.1 below.

Table 5.1 Possible Sources of Flooding Associated within the Kinsaley LAP lands

Source	Pathway	Receptor	Likelihood	Consequence	Risk
Tidal	River Sluice out of bank	Kinsaley LAP lands	Possible	Medium - The majority of the potential development land areas are distant from river sluice	High - Multiple sources indicate potential Tidal flooding from River Sluice
Fluvial	River Sluice - out of bank		Possible	Medium - The majority of the potential development land areas are distant from river sluice	High - Multiple sources indicate potential fluvial flooding from River Sluice
Surface Water	Overland flow		Possible	Medium – possible pluvial flooding within potential development land areas	Low - If appropriate drainage system incorporating SuDS are adopted in potential development areas and maintained appropriately
Ground Water	Rising levels		Low Possibility	Medium (No indications of previous groundwater flooding)	Low - Due to soil drainage characteristics including moderate soil permeability

The findings of the stage 1 assessment indicate that the lands identified for development within the Kinsaley LAP are at risk of flooding. Therefore, in accordance with The Guidelines, a Stage 2 flood risk assessment should be carried out. This is outlined in Section 5 of this report.

5. STAGE 2 – INITIAL FLOOD RISK ASSESSMENT

5.1 General

A Stage 2 SFRA (initial flood risk assessment) was undertaken to:

- Confirm the sources of flooding that may affect the lands in Kinsaley LAP;
- Appraise the adequacy of existing information as identified by the Stage 1 FRA.

5.2 Sources of Flooding

Flooding from Fluvial & Sea Level Rises / Coastal Flooding

The main source of fluvial flooding is the Sluice River, as identified in the Stage 1 FRA and is discussed in more detail below.

The proposed Kinsaley LAP lands are bisected by the River Sluice flowing from west to east. This section of the Sluice is fluvially dominated, as such; the most prevalent flood risk to the site is from extreme fluvial inundation events or fluvial events in combination with extreme tidal events. Large portions of the LAP lands are indicated to be within flood zones A and B in the OPW FEM-FRAM Study and the OPW PFRA. The Kinsaley LAP lands are therefore considered to require a stage 3 detailed flood risk assessment with respect to flooding derived from Fluvial and Tidal sources.

Surface Water Flooding

Surface water flooding occurs when a local drainage system cannot convey stormwater flows from extreme rainfall events. In such circumstances, rainwater does not drain away through the normal drainage pathways or infiltrate into the ground but instead ponds on or flows over the ground. Surface water flooding is unpredictable as it depends on several factors including ground levels, rainfall and the local drainage network. All future developments within the Kinsaley LAP lands shall incorporate SuDS as described in the Kinsaley LAP Surface Water Management Plan Part 2: Sustainable Drainage Systems (SuDS) Strategy for the purposes of managing flood risk, assisting in the attainment of obligations made under the Water Framework Directive (WFD). The LAP lands do not require a stage 3 detailed flood risk assessment with respect to surface water flooding.

Groundwater Flooding

Ground water flooding is a result of upwelling in occurrences where the water table or confined aquifers rises above the ground surface. This tends to occur after long periods of sustained rainfall and/or very high tides. High volumes of rainfall and subsequent infiltration to ground will result in a rising of the water table. Groundwater flooding tends to occur in low-lying areas, where with additional groundwater flowing towards these zones, the water table can rise to the surface causing groundwater flooding. The sources consulted such as the PFRA mapping show no indication that the lands within the Kinsaley LAP area are subject to groundwater derived flooding. Factors such as soil permeability and drainage characteristics indicates that the risk of groundwater flooding is low. However, there are no GSI records present within the Kinsaley LAP lands showing the level of groundwater tables, thus a stage 3 detailed flood risk assessment with respect to groundwater flooding is not required for future developments.

Pluvial Flood Risk

Pluvial flooding results from heavy rainfall that exceeds ground infiltration capacity or more commonly in Ireland where the ground is already saturated from previous

rainfall events. This causes ponding and flooding at localized depressions. Pluvial flooding is usually caused by changes to the natural flow regime such as the adverse effects of urbanisation. The sources consulted such as the PFRA mapping indicate that the Kinsaley LAP lands are subject to pluvial derived flooding at topographic low points. Pluvial flooding will be managed through the appropriate design and implementation of Sustainable Drainage Systems (SuDS) as part of all future planned development within Kinsaley LAP lands. Therefore, the LAP lands will require a stage 3 flood risk assessment with respect to flooding derived from pluvial sources.

6. STAGE 3 DETAILED FLOOD RISK ASSESSMENT

6.1 Stage 3 Summary

Stages 1 and 2 of the flood risk assessment for the Kinsaley LAP have indicated that the LAP lands are subject to flooding in medium and high probability exceedance events from fluvial, tidal and pluvial sources. A hydraulic model has been prepared to ascertain the effects of extreme pluvial and combination tidal/fluvial events. The combination fluvial/tidal events used as part of the analysis are detailed in Table 6.1 below.

Table 6.1 Combination fluvial/tidal flood events

Simulation	Tidal Return Period (1 in XX year)	Fluvial Return Period (1 in XX year)
Fluvial 1 in 100 Year	5	100
Fluvial 1 in 1000 Year	50	1000
Tidal 1 in 200 Year	200	10
Tidal 1 in 1000 Year	1000	50

The model was developed using Jacobs Flood Modeller software with surveyed topographic and channel cross-sections, LiDAR data and a detailed hydrological assessment of the catchment. Mid-Range Future Scenario (MRFS) and High-End Future Scenario (HEFS) climate change scenarios were simulated as per the OPWs Climate Change Sectoral Adaptation Plan Flood Risk Management 2015 - 2019. Allowances in Flood Parameters for the two climate change scenarios are detailed in table 6.2 below.

Table 6.2 Allowances in Flood Parameters for the Mid-Range and High-End Future Scenarios

Parameter	MRFS	HEFS
Extreme Rainfall Depths	+ 20%	+ 30%
Peak Flood Flows	+ 20%	+ 30%
Mean Sea Level Rise	+ 500 mm	+ 1000 mm
Land Movement	- 0.5 mm / year ¹	- 0.5 mm / year ¹
Urbanisation	<i>No General Allowance – Review on Case-by-Case Basis</i>	<i>No General Allowance – Review on Case-by-Case Basis</i>
Forestation	- 1/6 Tp ²	- 1/3 Tp ² + 10% SPR ³

Note 1: Applicable to the southern part of the country only (Dublin – Galway and south of this)

Note 2: Reduction in the time to peak (Tp) to allow for potential accelerated runoff that may arise as a result of drainage of afforested land

Note 3: Add 10% to the Standard Percentage Runoff (SPR) rate: This allows for temporary increased runoff rates that may arise following felling of forestry.

The findings from the hydraulic model are that critical flooding and flood levels within Kinsaley LAP lands are driven by fluvial flooding with tidal inundation having a lesser though nonetheless significant effect. Flood Extent mapping generated as part of this flood risk assessment is shown in Appendix G and Flood Depth mapping is shown in Appendix H.

Although great care and modern widely-accepted methods have been used in the preparation and interpretation of the hydraulic model, there is inevitably a range of inherent uncertainties and assumptions made during the estimation of design flows and the construction of flood models. The inherent uncertainty necessitates a precautionary approach when interpreting the flood extent and flood depth mapping.

Flood risk is detailed for specific potential development areas within the proposed Kinsaley LAP lands, which is described below.

6.2 Development Land Use Zoning Review

Potential areas of future development within Kinsaley LAP are identified in Figure 6.1 below. This review will look at the development land use zoning for the areas within the proposed Kinsaley LAP and comment on the flood risk in each area. The specific flood risk implications for each of these sites is described in Table 6.3 below.

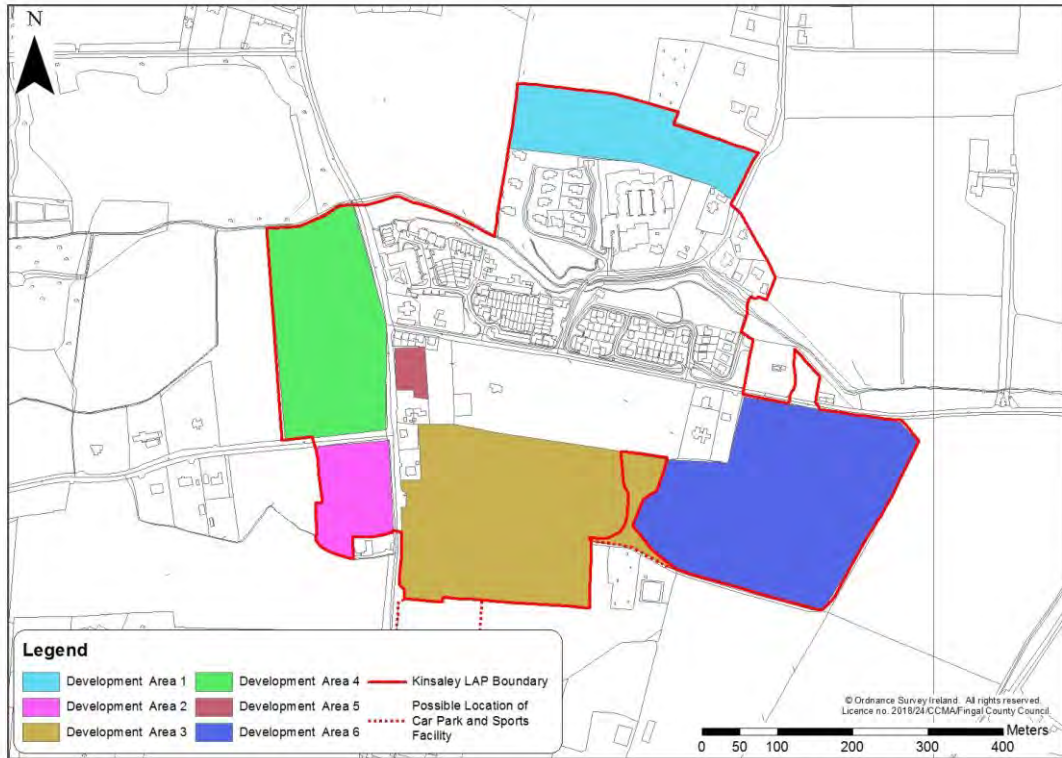


Figure 6.1 Potential Development areas within Kinsaley LAP.

Table 6.3 Potential Development Flood Risk

Development Area	Likely Uses	Comment on Flood Risk	Justification Test for Development Management Required?*
Development Area 1 – Kinsaley Lane Development Area	Residential	Development Area 1 is not affected by current and future estimated fluvial or tidal flood risk. It is still susceptible to flooding from pluvial sources and this risk should be managed through appropriate surface water management strategies incorporating Sustainable Drainage Systems (SuDS).	No
Development Area 2 – Garden Centre Development Area	Retail / Residential	Development Area 2 is not affected by current and future estimated fluvial or tidal flood risk. It is still susceptible to flooding from pluvial sources and this risk should be managed through appropriate surface water management strategies incorporating Sustainable Drainage Systems (SuDS).	No
Development Area 3 – Former Teagasc Development Area	Residential	Development Area 3 is not affected by current and future estimated fluvial or tidal flood risk. It is still susceptible to flooding from pluvial sources and this risk should be managed through appropriate surface water management strategies incorporating Sustainable Drainage Systems (SuDS).	No

Development Area	Likely Uses	Comment on Flood Risk	Justification Test for Development Management Required?*
Development Area 4 – Malahide Road West Development Area	Town Centre Expansion	<p>The northern portion of development Area 4 is impacted by potential fluvial and tidal flooding from the Sluice River. The area is zoned as RV “Protect and promote the character of the Rural Village and promote a vibrant community in accordance with an approved Local Area Plan, and the availability of physical and community infrastructure” in the current Fingal Development Plan.</p> <p>It is recommended that the zoning of lands subject to the 0.1% AEP (HEFS) fluvial flood extent shown in Appendix G Drawing 18.144-05-107 be reviewed in the preparation of the FDP 2023-2029, and the zoning changed to a more appropriate zoning designation. Natural Floodplain Management and floodplain protection/enhancement principles should be implemented in accordance with;</p> <ul style="list-style-type: none"> • <i>Kinsaley LAP Surface Water Management Plan Part 2: Sustainable Drainage Systems (SuDS) Strategy</i> - Section 3.4, • FDP 2017-2023 Chapter 7.2. - Water Services & • FDP 2017-2023 Chapter 9.2 - Biodiversity. 	Yes
Development Area 5 – Malahide Road East Development Area	Residential	Development Area 5 is not affected by current and future estimated fluvial or tidal flood risk. It is still susceptible to flooding from pluvial sources and this risk should be managed through appropriate surface water management strategies incorporating Sustainable Drainage Systems (SuDS).	No
Development Area 6 – Kinsaley House Development Area	Residential	Development has been granted for this area. Refer to FCC planning ref.: F16A/0464 & An Bord Pleanála ref.: PL06F.248515	No
*Refer to Section 5.15 of The Guidelines			

7. FLOOD RISK ASSESSMENT CONCLUSIONS

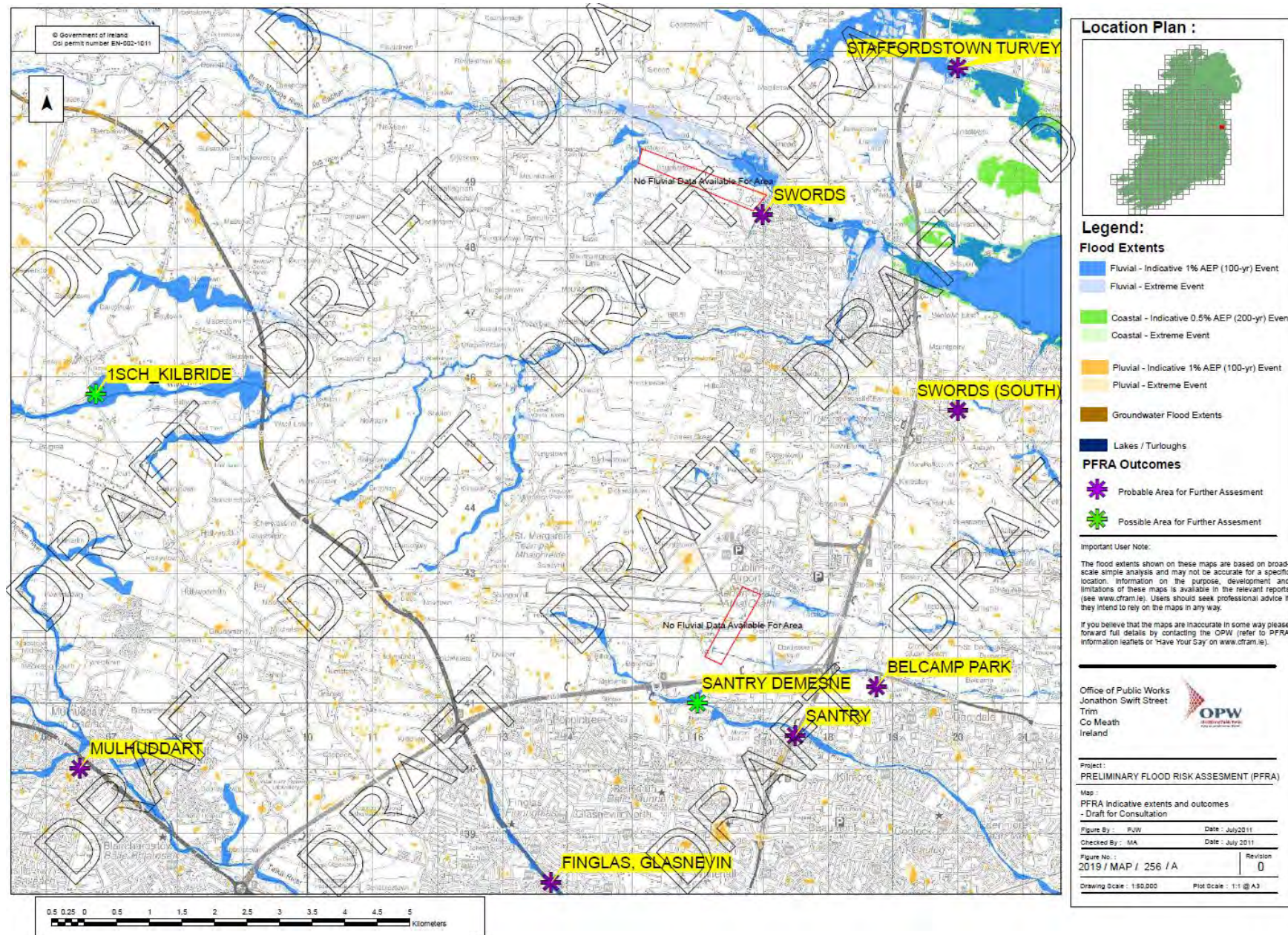
The SFRA for the Kinsaley LAP lands has been carried out in accordance with the requirements of the OPW “The Planning System and Flood Risk Management Guidelines for Planning Authorities”, 2009. It was determined that the most significant source of flooding within the LAP area is from fluvial and tidal inundation from the Sluice River. There are several other minor areas of pluvial flooding within the LAP boundary.

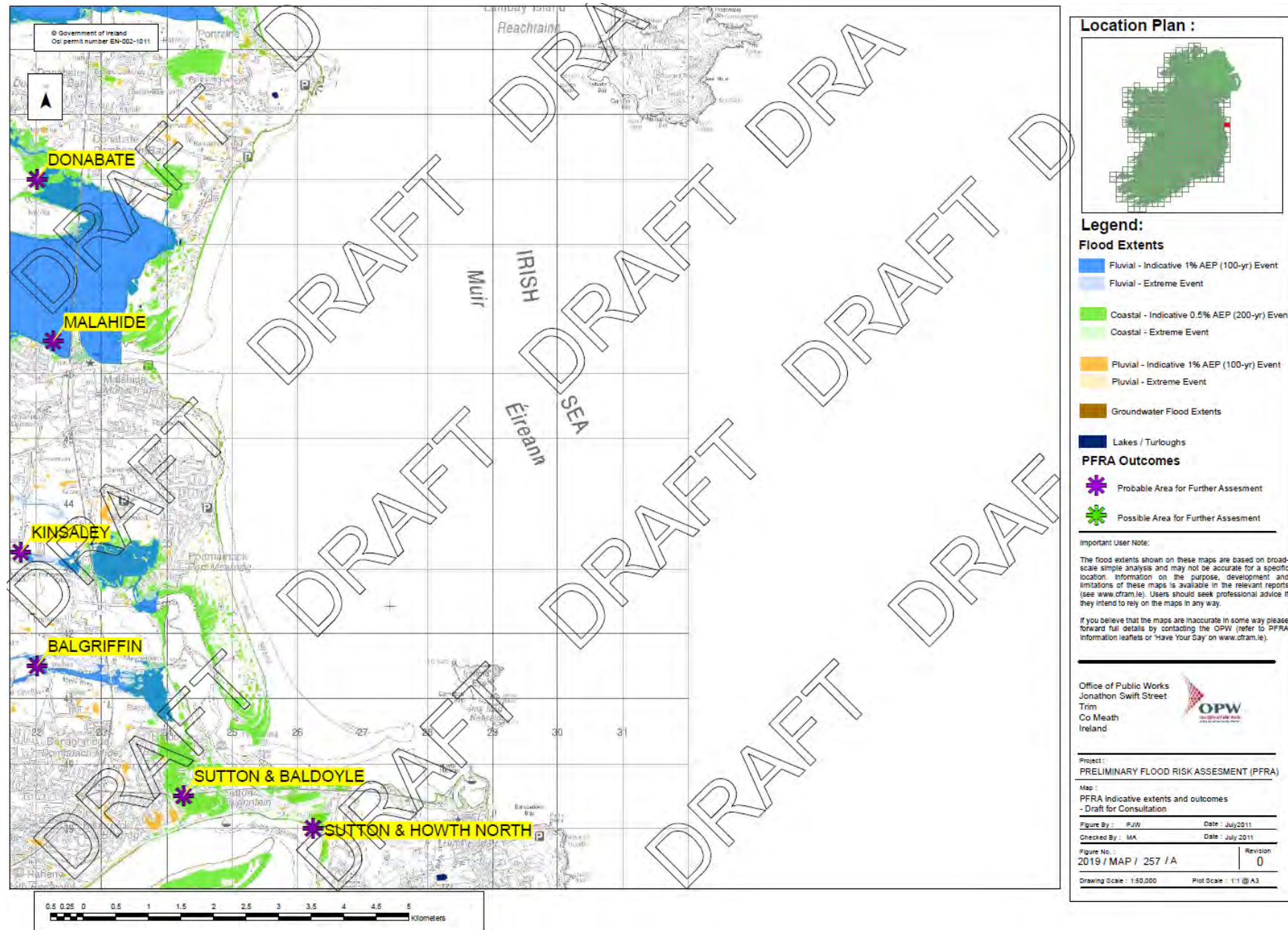
The majority of the LAP area is within Flood Zone C where the probability of flooding from rivers and the sea is low (<1 in 1000 year) and is therefore appropriate for highly vulnerable developments. Section 6.2 details the specific flood risk associated with the six potential development areas identified within Kinsaley LAP.

8. RECOMMENDATIONS

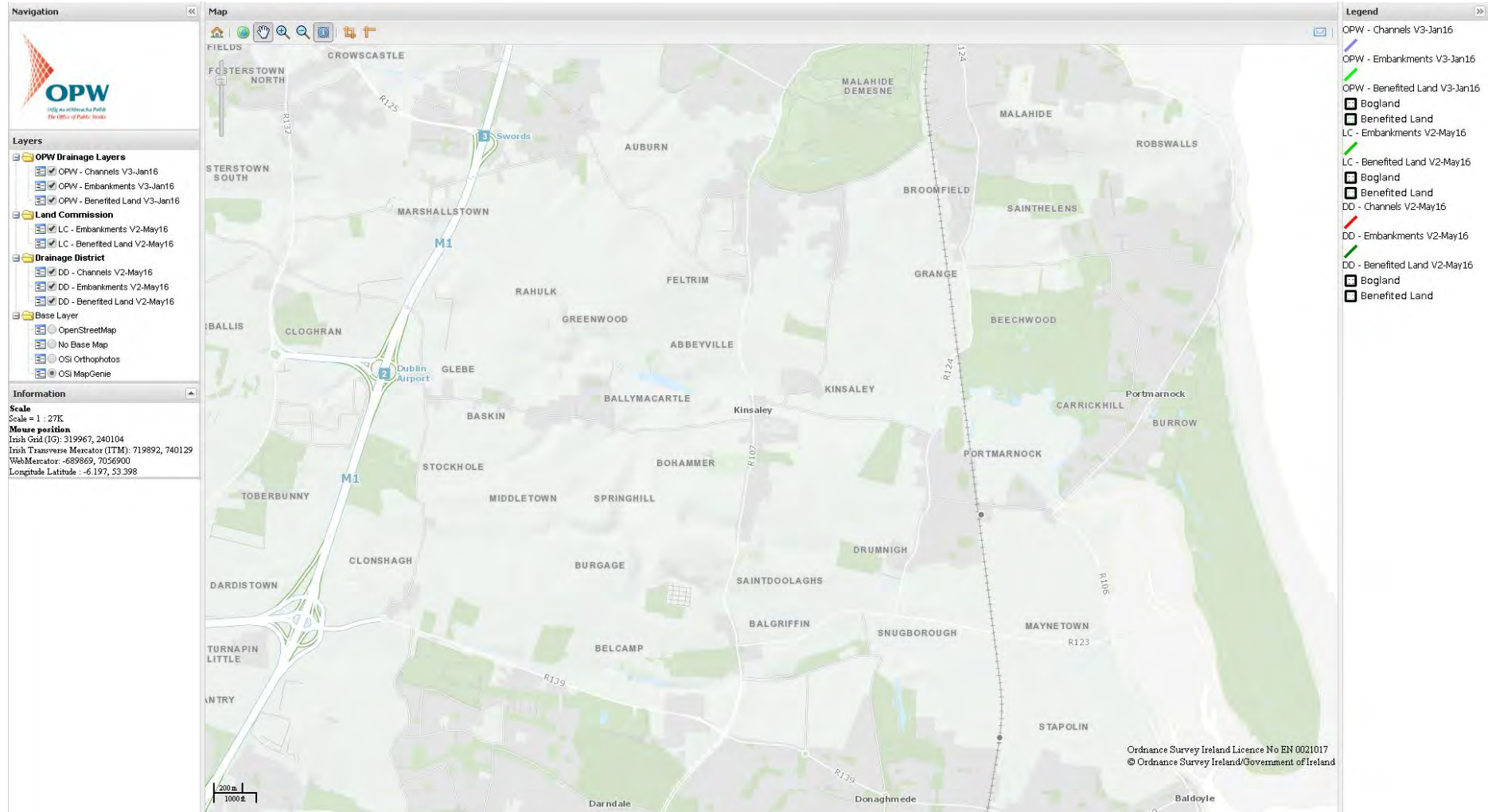
- 1) It is recommended that the drainage channels, watercourses and floodplains within the developed and undeveloped areas of the LAP boundary be maintained and protected by the riparian land owners (both public and private).
- 2) Riparian corridors should be provided in accordance with the requirements of the Fingal Development Plan 2017-2023 to protect and enhance watercourses and their natural regimes including: ecological, biogeochemical and hydromorphological.
- 3) Sustainable Drainage Systems should be incorporated in all new developments and retro-fitting of SuDS should be encouraged within the Kinsaley LAP lands.
- 4) Future developments within Kinsaley LAP should be designed and constructed in accordance with the “Precautionary Principle” detailed in The Guidelines. It is recommended that the flood zoning within the LAP is based on the High-End Future Scenario (HEFS) for climate change, shown in Drawing 18.144-05-107 Appendix G.
- 5) To address the risk of pluvial flooding in new developments in the LAP area, the Kinsaley LAP Surface Water Management Plan Part 2: Sustainable Drainage Systems (SuDS) Strategy should be adopted . This will ensure a consistent approach to the management of flood risk and water quality within Kinsaley LAP. Implementing these measures and complying with the GSDSDS will ensure the risk of flooding downstream of any new developments is minimised.
- 6) Site specific flood risk assessments shall be undertaken for all new developments within Kinsaley LAP in accordance with The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009). Detailed topographical surveys and site development plans should be used to provide a more accurate estimation of the flood extents and aid in deciding the location of various development types.

APPENDIX A PFRA MAPS





APPENDIX B OPW BENEFITTING LAND MAPS



APPENDIX C OPW FLOOD RECORDS

Summary Local Area Report

This Flood Report summarises all flood events within 2.5 kilometres of the map centre.

The map centre is in:

County: Dublin

NGR: O 212 431

This Flood Report has been downloaded from the Web site www.floodmaps.ie. The users should take account of the restrictions and limitations relating to the content and use of this Web site that are explained in the Disclaimer box when entering the site. It is a condition of use of the Web site that you accept the User Declaration and the Disclaimer.



Map Legend	
	Flood Points
	Multiple / Recurring Flood Points
	Areas Flooded
	Hydrometric Stations
	Rivers
	Lakes
	River Catchment Areas
	Land Commission *
	Drainage Districts *
	Benefiting Lands *

* Important: These maps do not indicate flood hazard or flood extent. Their purpose and scope is explained in the Glossary.

Map Scale 1:23,742

8 Results

	1. Dublin City Tidal Feb 2002 County: Dublin Additional Information: Photos (32) Reports (10) Press Archive (27) More Mapped Information	Start Date: 01/Feb/2002 Flood Quality Code:1
	2. Sluice Kinsaley Hall August 1986 County: Dublin Additional Information: Reports (1) More Mapped Information	Start Date: 25/Aug/1986 Flood Quality Code:3
	3. Kinsealy Lane Area Oct 2002 County: Dublin Additional Information: Reports (3) More Mapped Information	Start Date: 20/Oct/2002 Flood Quality Code:2
	4. Mayne Balgriffin Park June 1993 County: Dublin Additional Information: Reports (1) More Mapped Information	Start Date: 11/Jun/1993 Flood Quality Code:3
	5. Sluice River Kinsealy Lane Recurring County: Dublin	Start Date: Flood Quality Code:3

Additional Information: Reports (2) More Mapped Information



6. Sluice River Strand Road Portmarnock Recurring
County: Dublin

Start Date:
Flood Quality Code:3

Additional Information: Reports (4) More Mapped Information



7. Stockhole Lane (near Airport) Recurring
County: Dublin

Start Date:
Flood Quality Code:4

Additional Information: Reports (1) More Mapped Information

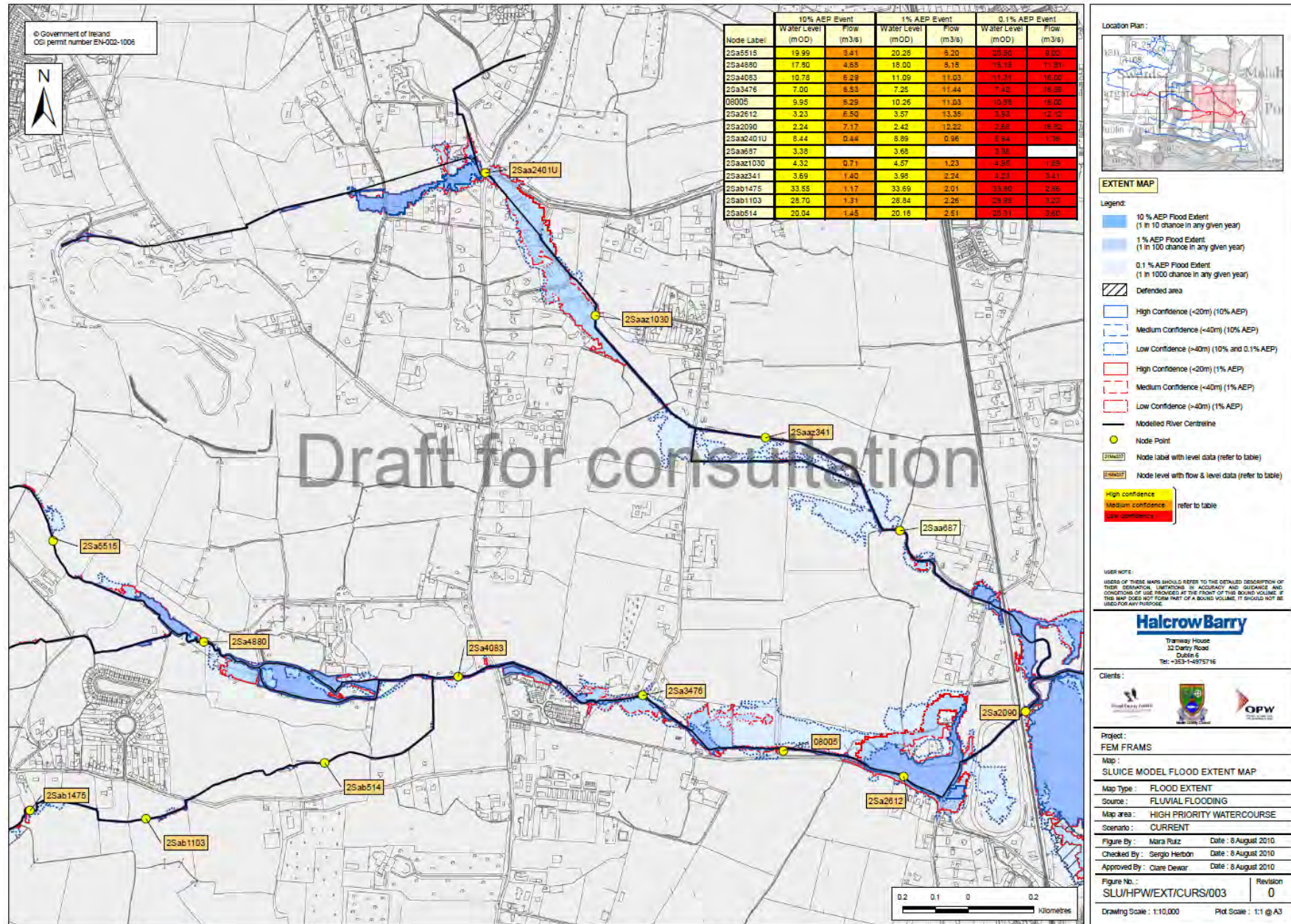


8. Streamstown to Malahide Road Dublin Undated
County: Dublin

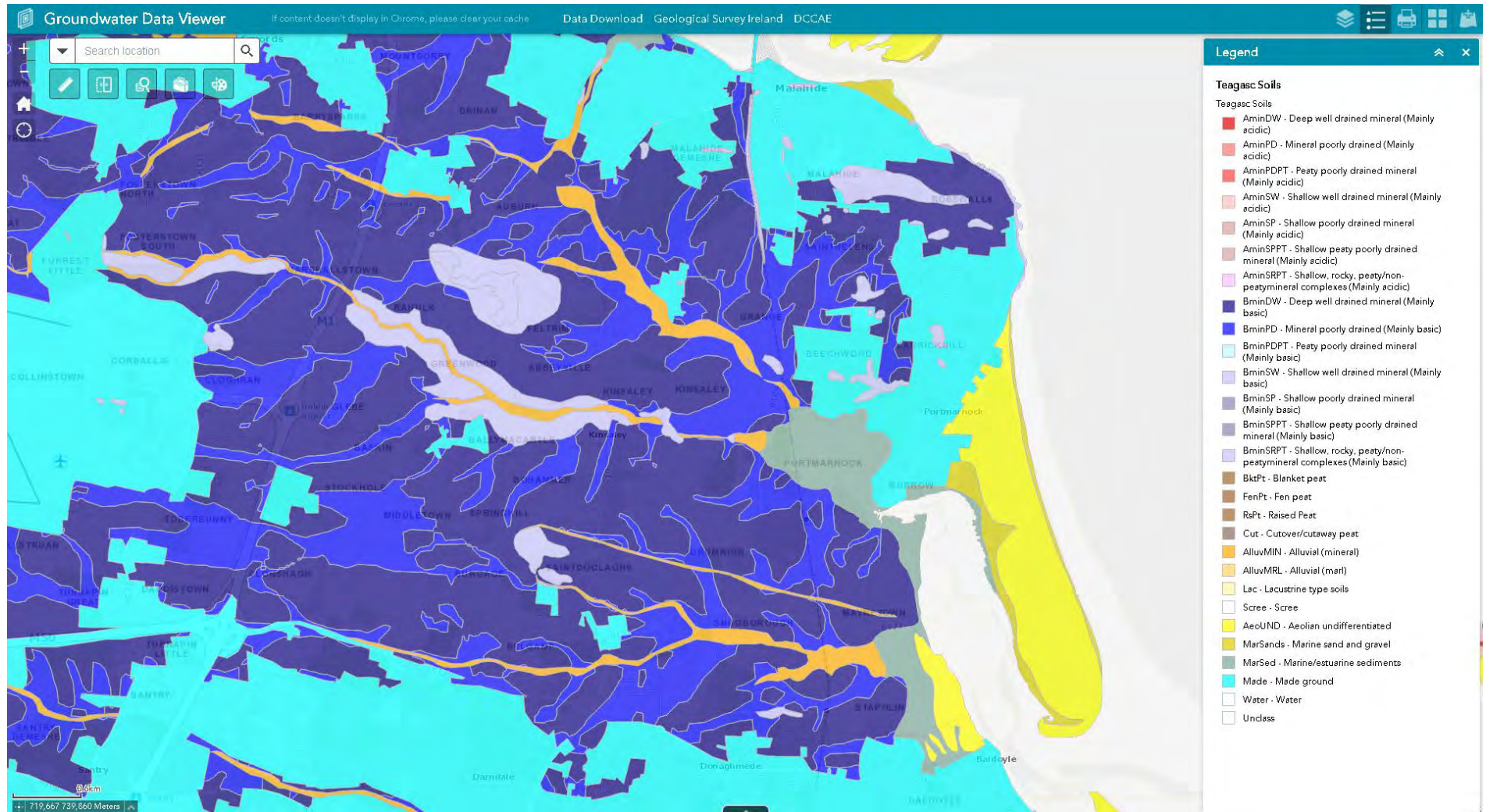
Start Date:
Flood Quality Code:4

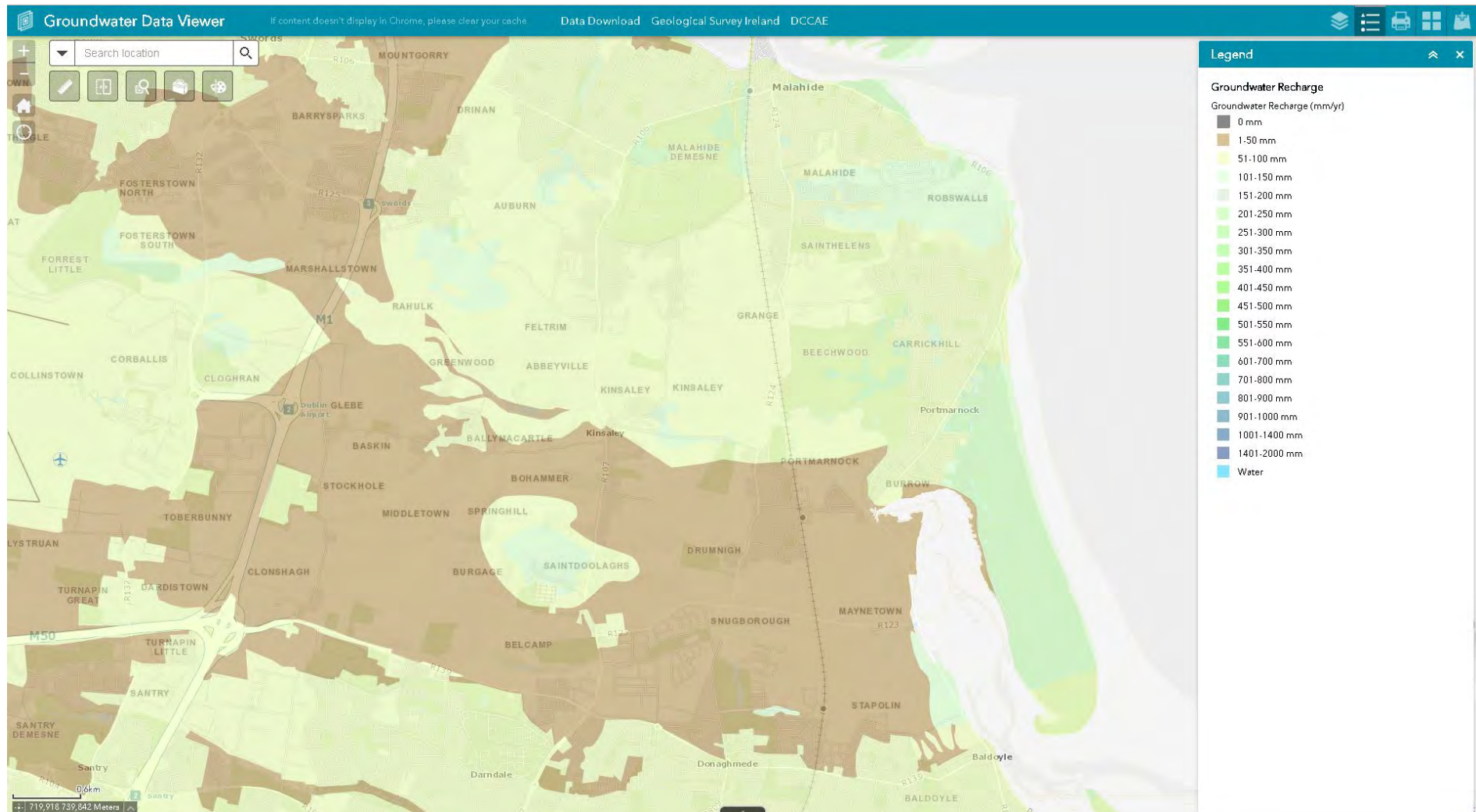
Additional Information: Reports (1) More Mapped Information

APPENDIX D
FINGAL AND EAST MEATH FLOOD RISK ASSESMSNST AND
MANAGEMENT STUDY – FLOOD MAPPING



APPENDIX E
GEOLOGICAL SURVEY OF IRELAND (GSI) MAPS

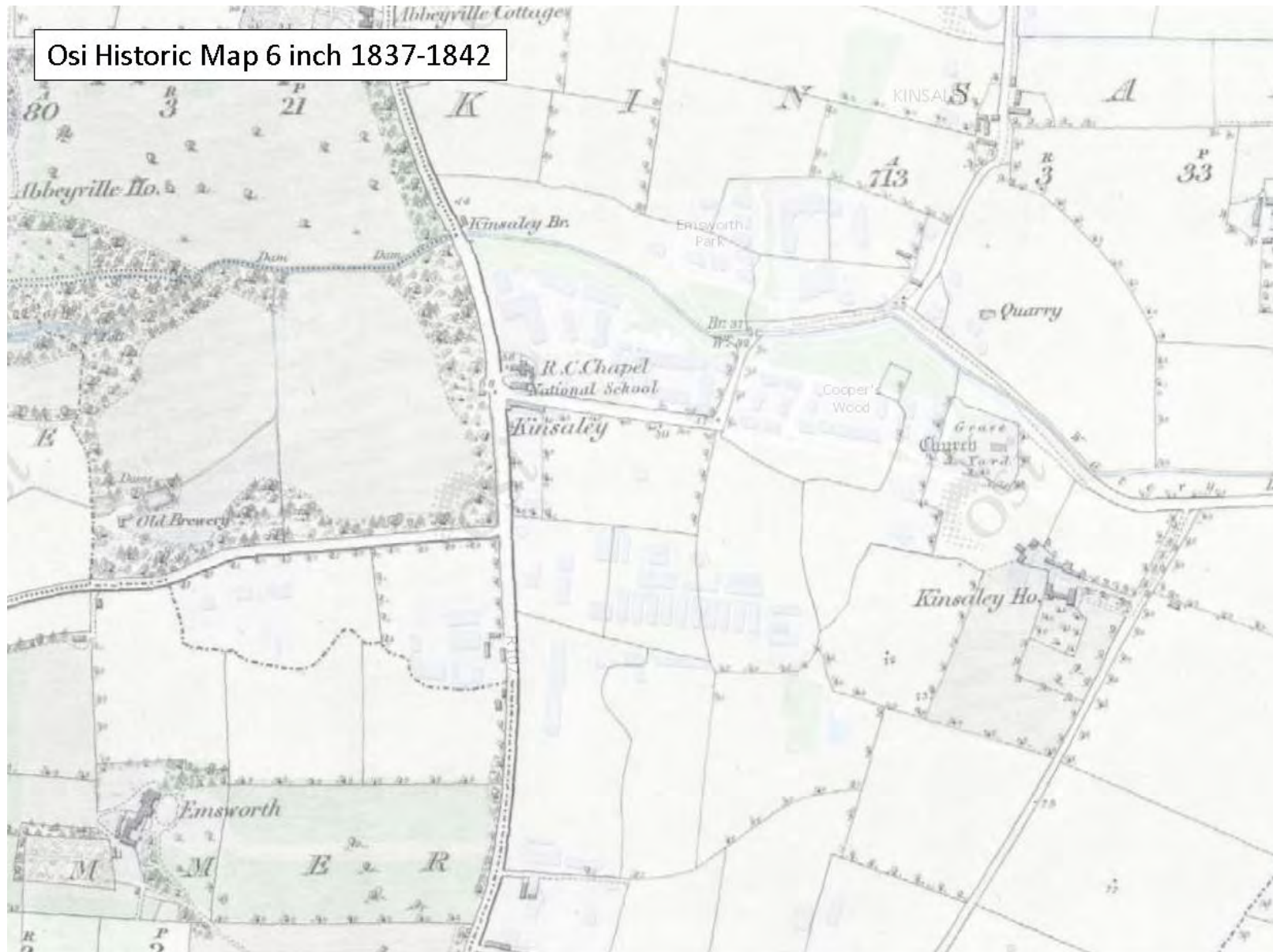




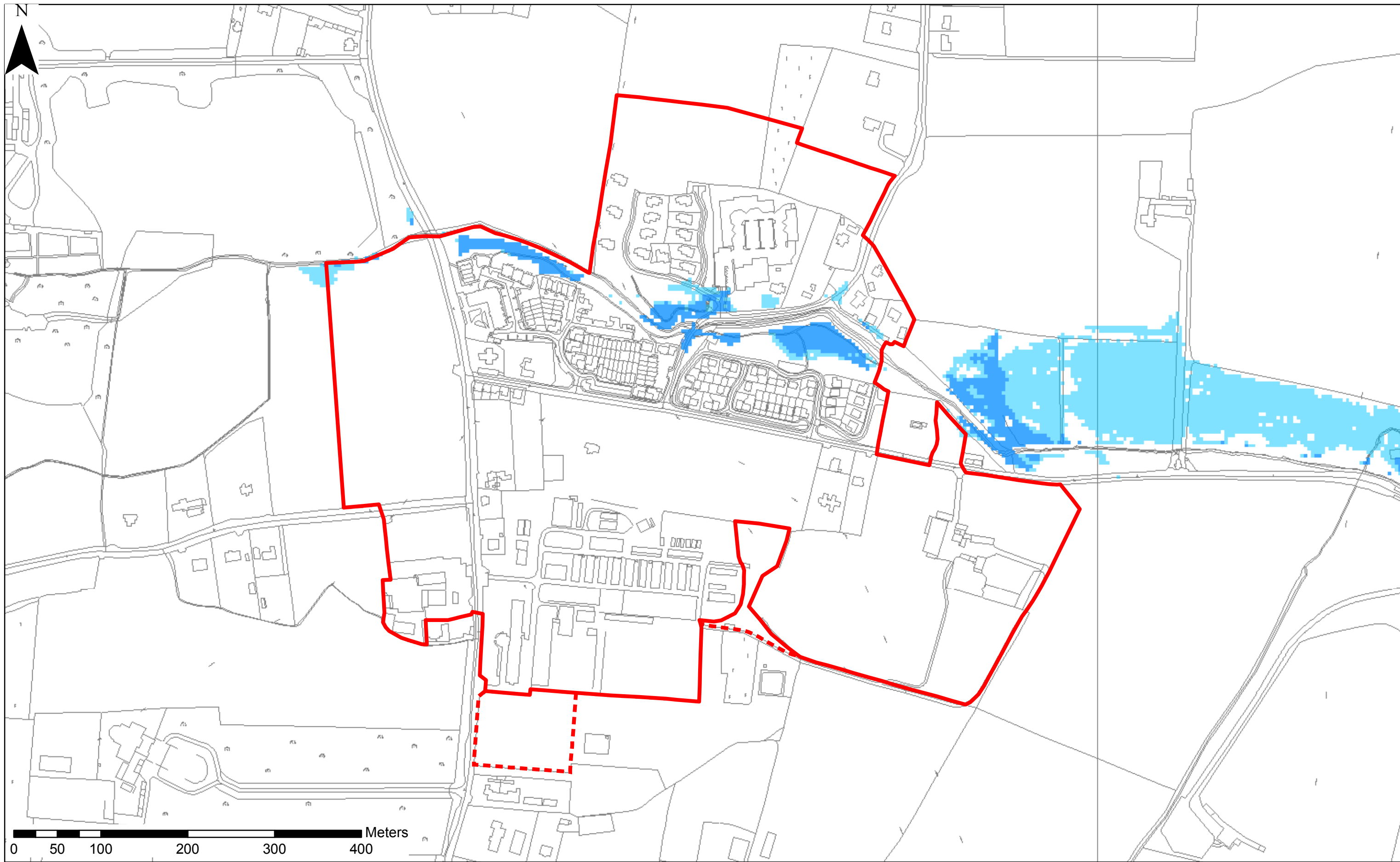
APPENDIX F OSI HISTORICAL MAPS

Osi Historic Map 25 inch 1888-1913





APPENDIX G
STRATEGIC FOOD RISK ASSESSMENT FLOOD EXTENT MAPPING



Legend

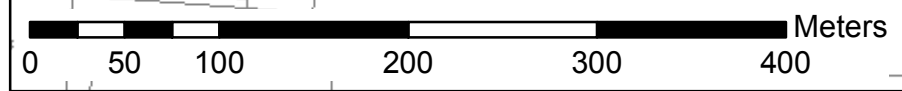
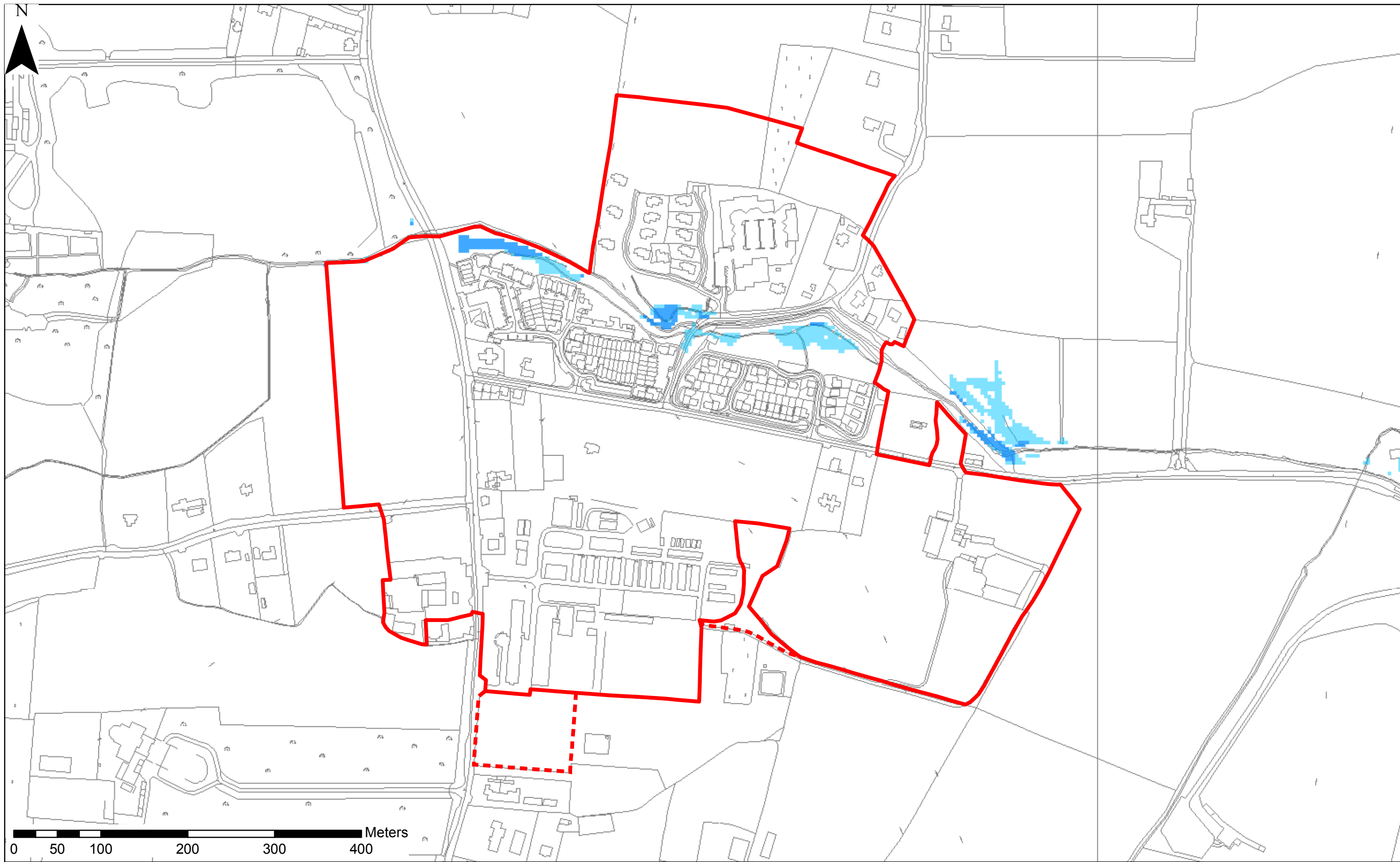
- Kinsalee LAP - 1 in 100 Year Fluvial Event - Current Scenario
- Kinsalee LAP - 1 in 1000 Year Fluvial Event - Current Scenario
- Kinsalee LAP Boundary
- Possible Location of Car Park and Sports Facility





No.	Revision	Stage	Date	By	Chk'd	App'd
F01	Final Flood Extents		05/12/2018	BP	JPR	JPR
F03	Draft Final Flood Extents		26/10/2018	BP	JPR	JPR
F02	Draft Final Flood Extents		04/10/2018	BP	JPR	JPR
F01	Draft Final Flood Extents		01/10/2018	WV	JPR	JPR
F02	Minor Revisions		14/02/2019	BP	JPR	JPR
PRELIMINARY APPROVAL TENDER CONSTRUCTION						

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 ROUGHAN & O'DONOVAN
 Consulting Engineers
 Civil - Structural - Transportation - Environmental

Arena House, Arena Road,
 Sandyford, Dublin 18.
 Tel : +353 1 294 0800
 Fax : +353 1 294 0820
 e-mail : info@rod.ie
 Website : www.rod.ie

Project Title			
KINSALEE SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Fluvial Flood Extents (Current Scenario)			
Drawn:	WV	Job No:	18.144
Scale:	1:4,000 (@ A3)	Date:	28/09/2018
Drawing No:	18.144-05-101	Rev:	F02



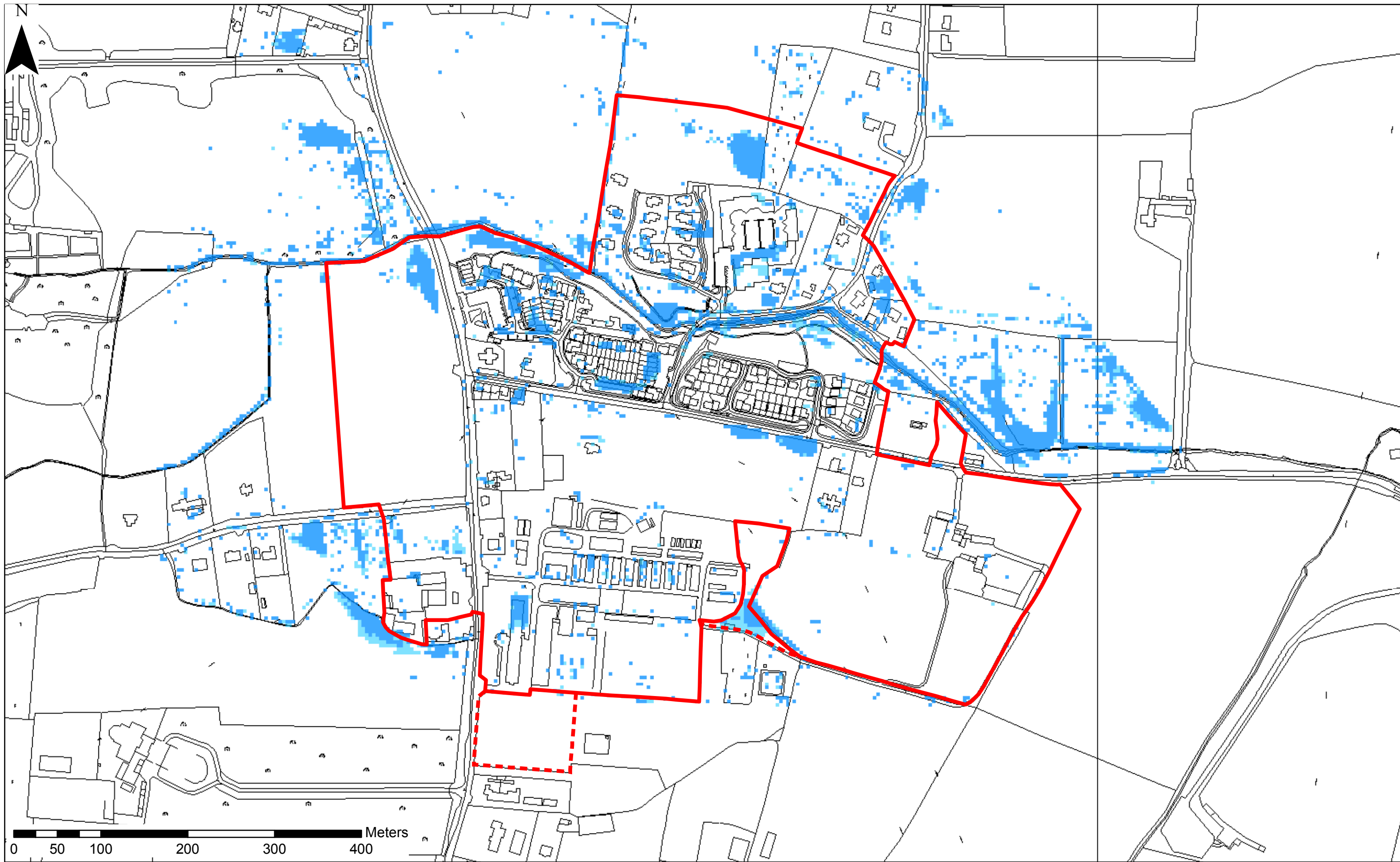
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	Kinsaley LAP - 1 in 1000 Year Tidal Event - Current Scenario
	Kinsaley LAP - 1 in 200 Year Tidal Event - Current Scenario
	Kinsaley LAP Boundary
	Possible Location of Car Park and Sports Facility

No.	Revision	Stage	Date	By	Chk'd	App'd
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F03	Draft Final Flood Extents		26/10/2018	BP	JPR	JPR
F02	Draft Final Flood Extents		04/10/2018	BP	JPR	JPR
F01	Draft Final Flood Extents		01/10/2018	WV	JPR	JPR
F02	Minor Revisions		14/02/2019	BP	JPR	JPR
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 Consulting Engineers
 Civil - Structural - Transportation - Environmental

Arena House, Arena Road,
 Sandyford, Dublin 18.
 Tel : +353 1 294 0800
 Fax : +353 1 294 0820
 e-mail : info@rod.ie
 Website : www.rod.ie

Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Tidal Flood Extents (Current Scenario)			
Drawn:	WV	Job No:	18.144
Scale:	1:4,000 (@ A3)	Date:	28/09/2018
Drawing No:	18.144-05-102	Rev:	F02



Legend

- Kinsaley LAP - 1 in 100 Year Pluvial Event - Current Scenario
- Kinsaley LAP - 1 in 1000 Year Pluvial Event - Current Scenario
- Kinsaley LAP Boundary
- Possible Location of Car Park and Sports Facility

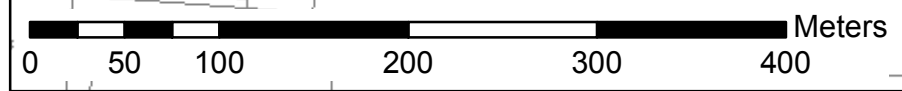
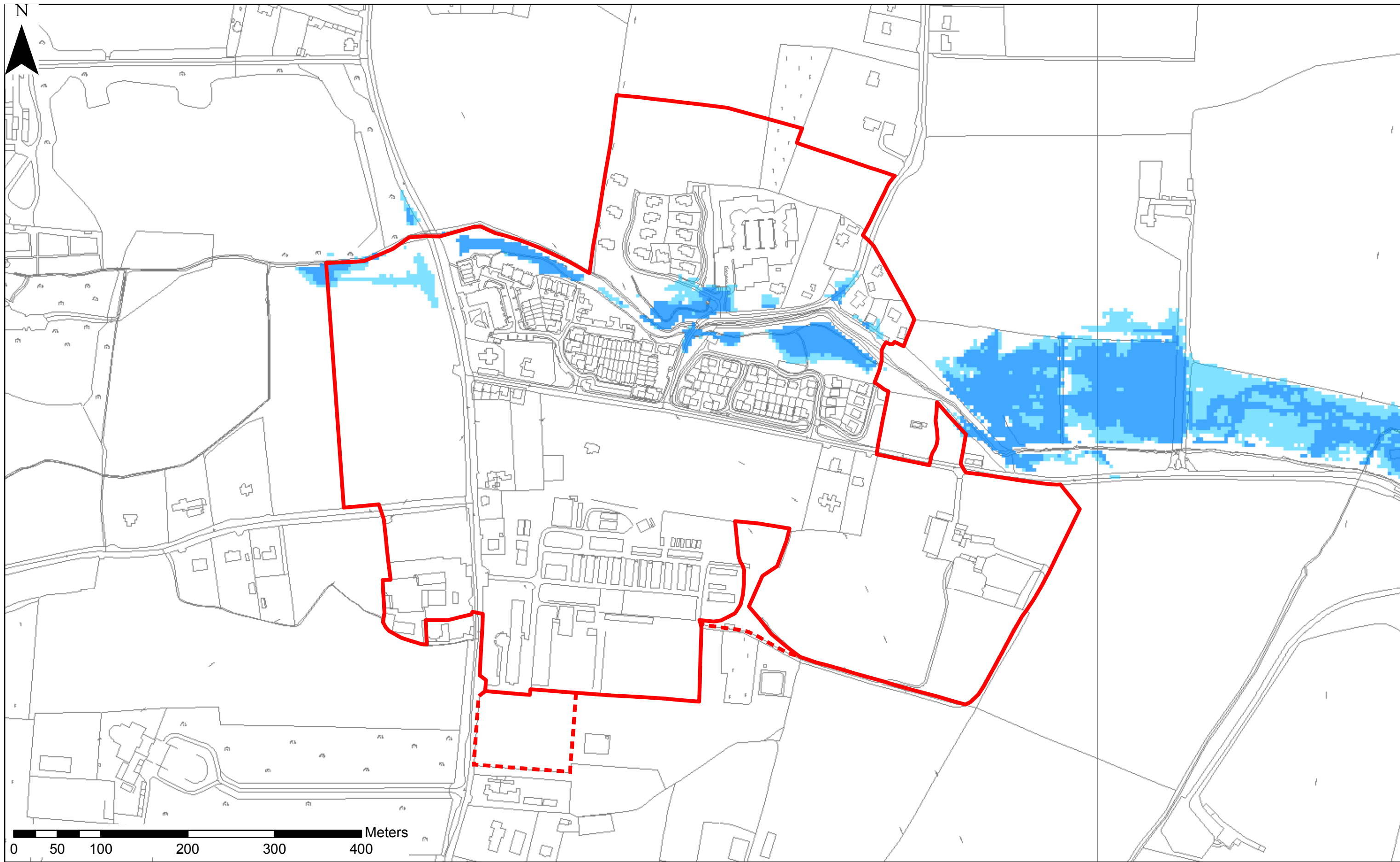
Note:
Pluvial flooding in excess
of 50mm depth.

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F01	Draft Final Flood Extents		01/10/2018	WV	JPR	JPR
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PRELIMINARY						
APPROVAL						
TENDER						
CONSTRUCTION						

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Consulting Engineers
Civil - Structural - Transportation - Environmental

Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Pluvial Flood Extents (Current Scenario)			
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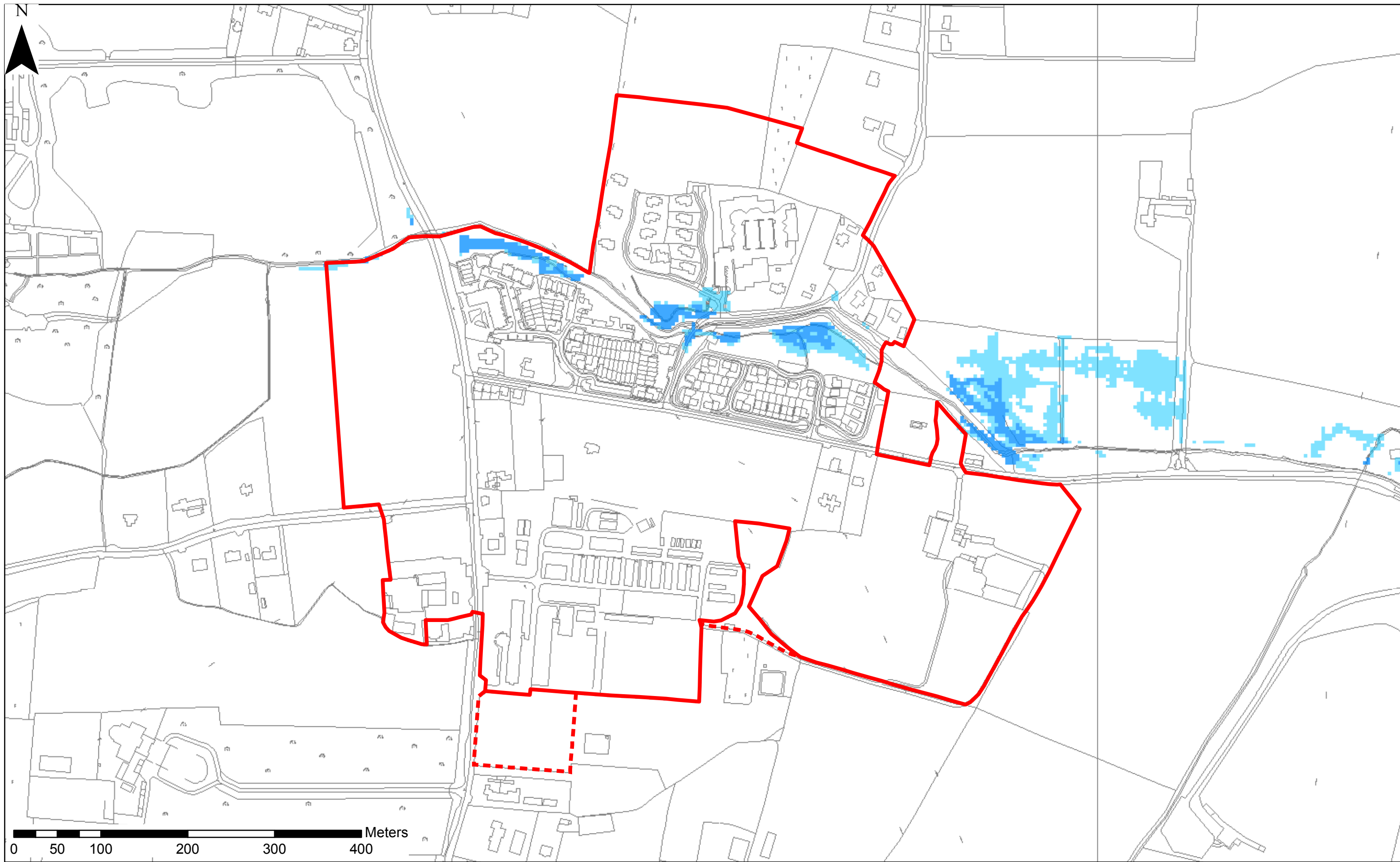
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	Kinsaley LAP - 1 in 100 Year Fluvial Event - Mid Range Future Scenario
	Kinsaley LAP - 1 in 1000 Year Fluvial Event - Mid Range Future Scenario
	Kinsaley LAP Boundary
	Possible Location of Car Park and Sports Facility

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	Stage				
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				

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Consulting Engineers
Civil - Structural - Transportation - Environmental

Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Fluvial Flood Extents (Mid Range Future Scenario)			
Drawn:	WV	Job No:	18.144
Scale:	1:4,000 (@ A3)	Date:	28/09/2018
Drawing No:	18.144-05-104	Rev:	F02



Legend

- Kinsaley LAP - 1 in 200 Year Tidal Event - Mid Range Future Scenario
- Kinsaley LAP - 1 in 1000 Year Tidal Event - Mid Range Future Scenario
- Kinsaley LAP Boundary
- Possible Location of Car Park and Sports Facility

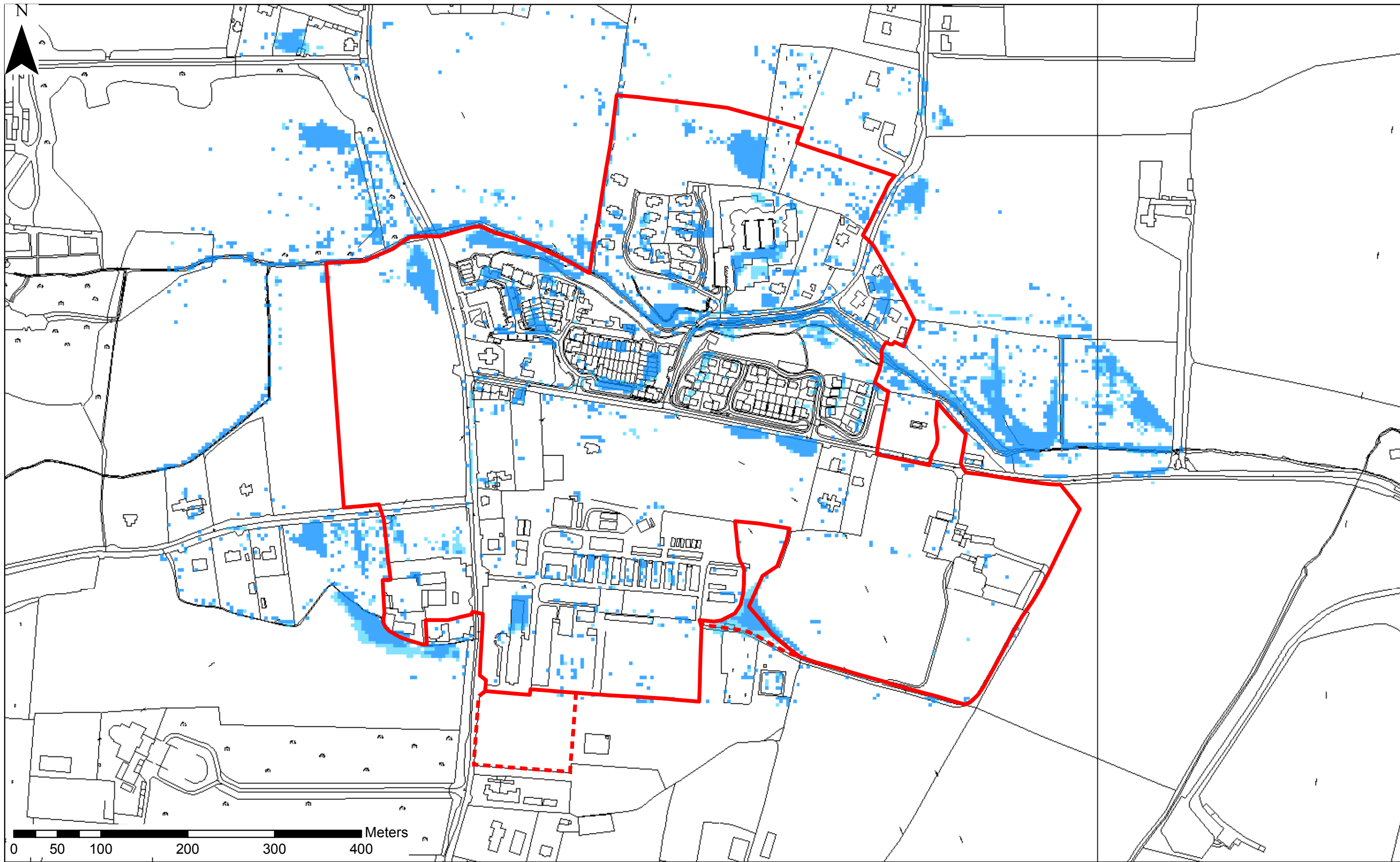
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F02	Minor Revisions		14/02/2019	BP	JPR	JPR
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Consulting Engineers
Civil - Structural - Transportation - Environmental

Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Designed: WV	Checked: JPR	Approved: JPR	Status: Final
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Project Title KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Tidal Flood Extents (Mid Range Future Scenario)			
Drawn: WV	Job No: 18.144	Drawing No:	Rev:
Scale: 1:4,000 (@ A3)	Date: 28/09/2018	18.144-05-105	F02



Legend

- Kinsaley LAP - 1 in 100 Year Pluvial Event - Mid Range Future Scenario
- Kinsaley LAP - 1 in 1000 Year Pluvial Event - Mid Range Future Scenario
- Kinsaley LAP Boundary
- Possible Location of Car Park and Sports Facility

Note:
Pluvial flooding in excess
of 50mm depth.

No.	Revision	Stage	Date	By	Chk'd	App'd
F01	Final Flood Extents		05/12/2018	BP	JPR	JPR
F02	Draft Final Flood Extents		26/10/2018	BP	JPR	JPR
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F01	Draft Final Flood Extents		01/10/2018	WV	JPR	JPR
F02	Minor Revisions		14/02/2019	BP	JPR	JPR
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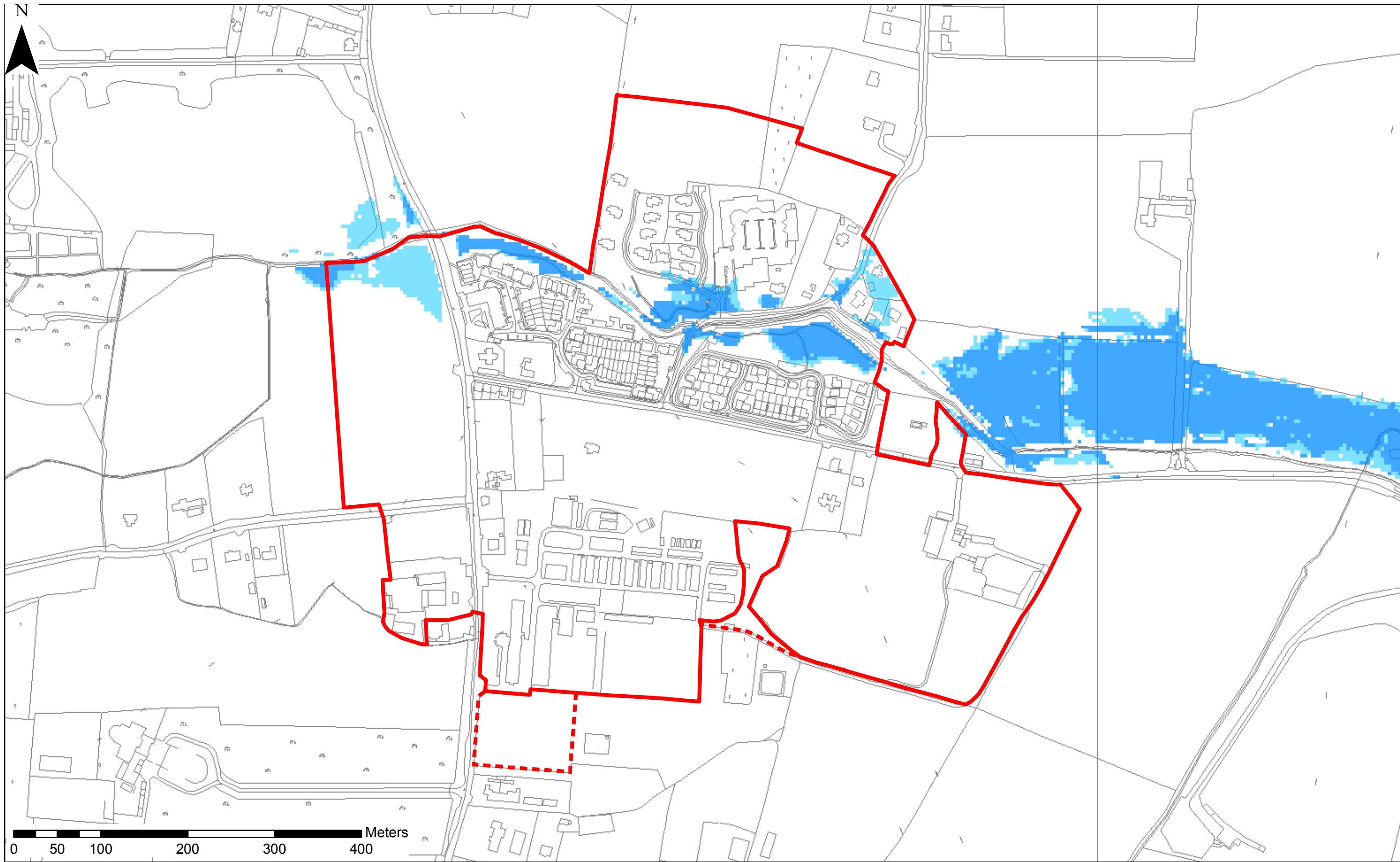
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Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title
KINSALEY SURFACE WATER MANAGEMENT PLAN

Drawing Title
Pluvial Flood Extents (Mid Range Future Scenario)

Drawn: WV	Job No: 18.144	Drawing No: 18.144-05-106	Rev: F02
Scale: 1:4,000 (@ A3)	Date: 28/09/2018		



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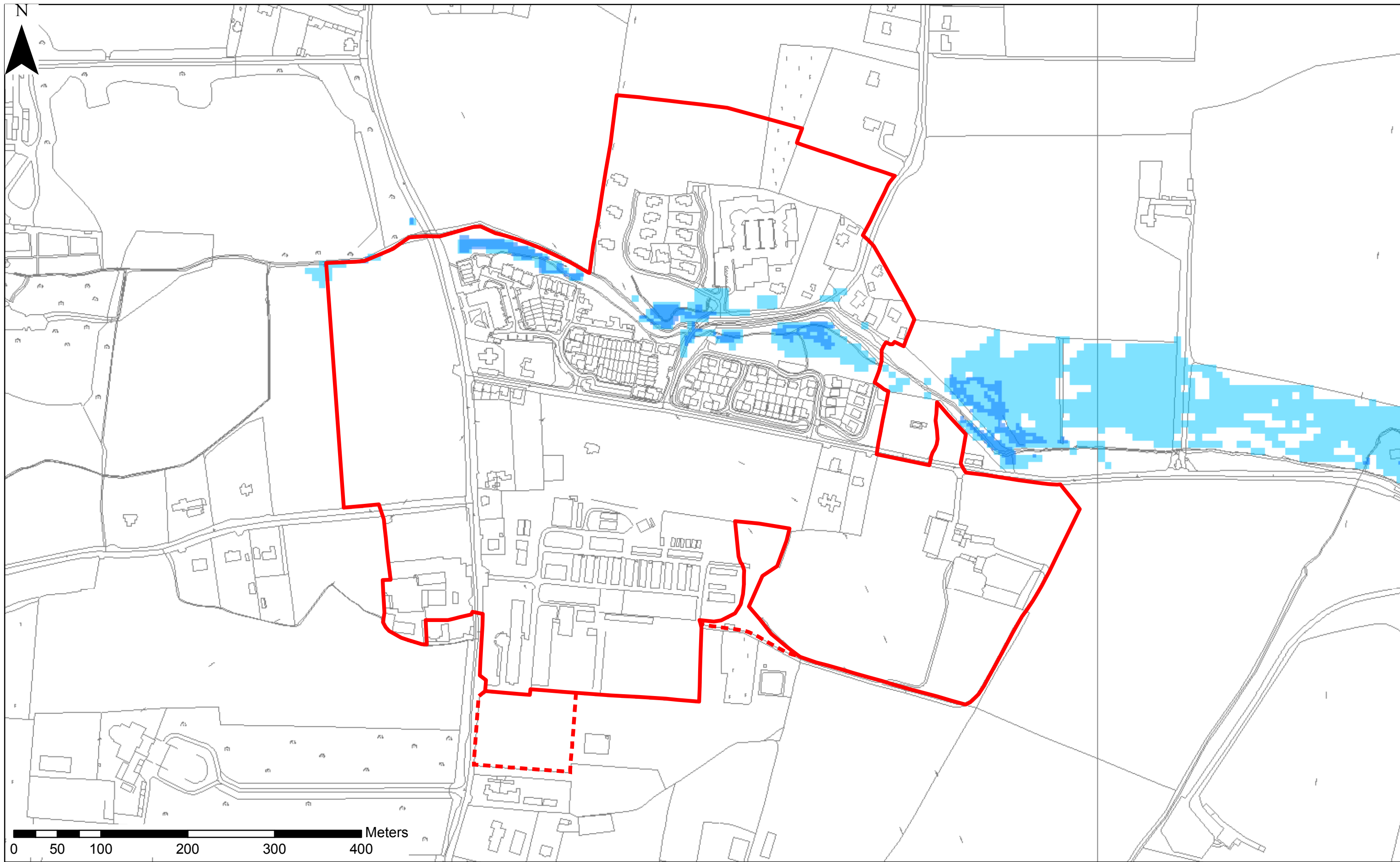
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- Kinsaley LPA - 1 in 1000 Year Fluvial Event - High End Future Scenario
- Kinsaley LPA Boundary
- Possible Location of Car Park and Sports Facility

No.	Revision	Stage	Date	By	Chk'd	App'd
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F01	Draft Final Flood Extents		01/10/2018	WV	JPR	JPR
F02	Minor Revisions		14/02/2019	BP	JPR	JPR

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 Sandyford, Dublin 18.
 Tel : +353 1 294 0800
 Fax : +353 1 294 0820
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Project Title KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Fluvial Flood Extents (High End Future Scenario)			
Drawn: WV	Job No: 18.144	Drawing No: 18.144-05-107	Rev: F02
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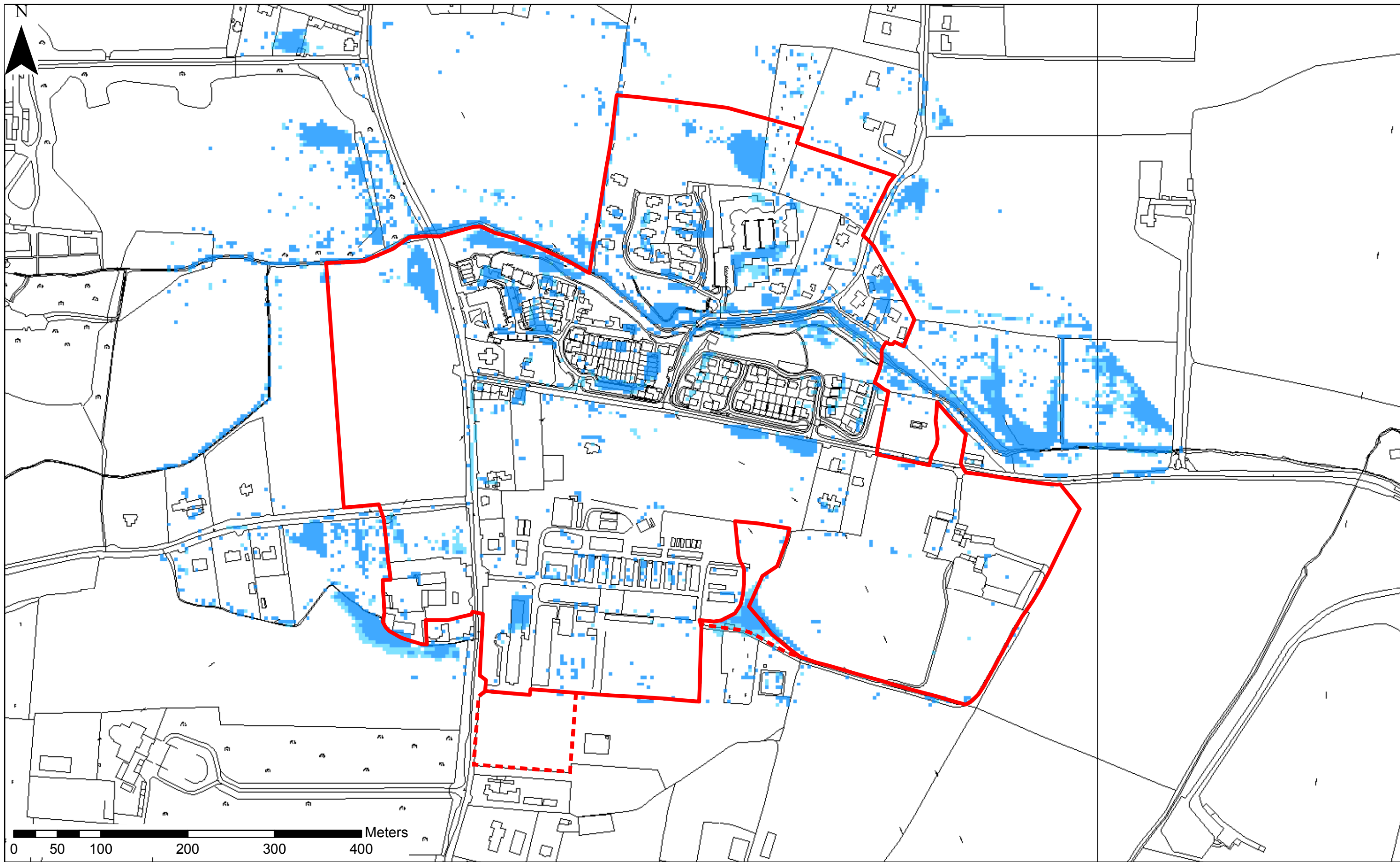
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F01	Draft Final Flood Extents		01/10/2018	WV	JPR	JPR
F02	Minor Revisions		14/02/2019	BP	JPR	JPR

Legend	
	Kinsaley LAP - 1 in 200 Year Tidal Event - High End Future Scenario
	Kinsaley LAP - 1 in 1000 Year Tidal Event - High End Future Scenario
	Kinsaley LAP Boundary
	Possible Location of Car Park and Sports Facility

PRELIMINARY					
APPROVAL					
TENDER					
CONSTRUCTION					

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Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Tidal Flood Extents (High End Future Scenario)			
Drawn: WV	Job No: 18.144	Drawing No: 18.144-05-108	Rev: F02
Scale: 1:4,000 (@ A3)	Date: 28/09/2018		



Legend

- Kinsalee LAP - 1 in 100 Year Pluvial Event - High End Future Scenario
- Kinsalee LAP - 1 in 1000 Year Pluvial Event - High End Future Scenario
- Kinsalee LAP Boundary
- Possible Location of Car Park and Sports Facility

Note:
Pluvial flooding in excess of 50mm depth.

No.	Revision	Stage	Date	By	Chk'd	App'd
F01	Final Flood Extents		05/12/2018	BP	JPR	JPR
F02	Draft Final Flood Extents		26/10/2018	BP	JPR	JPR
F03	Draft Final Flood Extents		04/10/2018	BP	JPR	JPR
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F05	Minor Revisions		14/02/2019	BP	JPR	JPR

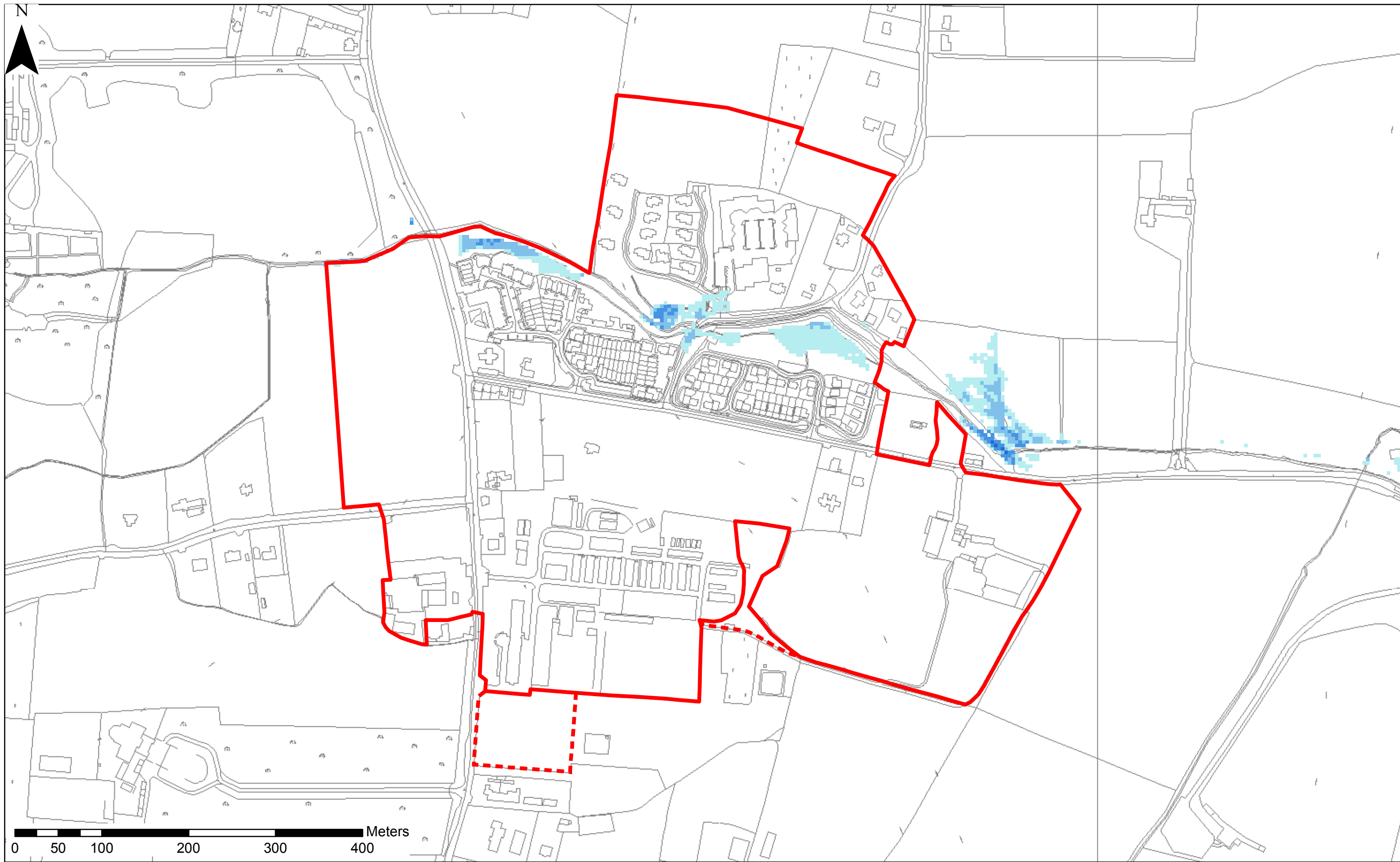
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Arena House, Arena Road,
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Tel : +353 1 294 0800
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Project Title KINSALEE SURFACE WATER MANAGEMENT PLAN			
Drawing Title Pluvial Flood Extents (High End Future Scenario)			
Drawn: WV	Job No: 18.144	Drawing No: 18.144-05-109	Rev: F02
Scale: 1:4,000 (@ A3)	Date: 28/09/2018		

APPENDIX H

STRATEGIC FOOD RISK ASSESSMENT FLOOD DEPTH MAPPING



Legend

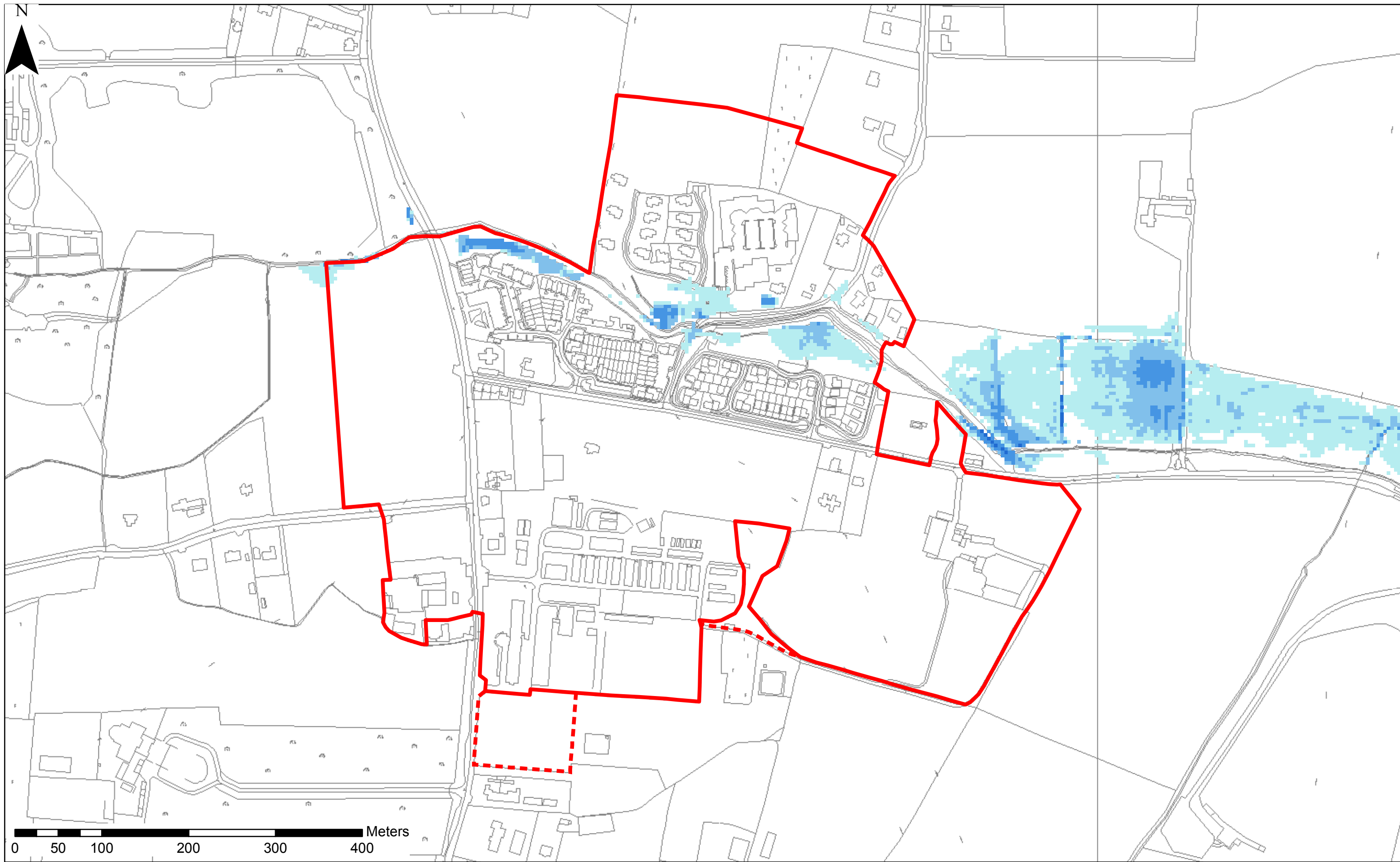
- Depth (m)**
- 0 - 0.25m
 - 0.25 - 0.5m
 - 0.5 - 1m
 - 1 - 1.5m
 - 1.5 - 2m
 - >2m
 - Kinsaley LAP Boundary
 - Possible Location of Car Park and Sports Facility

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
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No.	Revision	Date	By	Chk'd	App'd
	Stage				
PRELIMINARY					
APPROVAL					
TENDER					
CONSTRUCTION					



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Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
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Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Fluvial 1 in 100 Year Flood Depths (Current Scenario)			
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Scale:	1:4,000 (@ A3)	Date:	01/10/2018
Drawing No:	18.144-05-201	Rev:	F02



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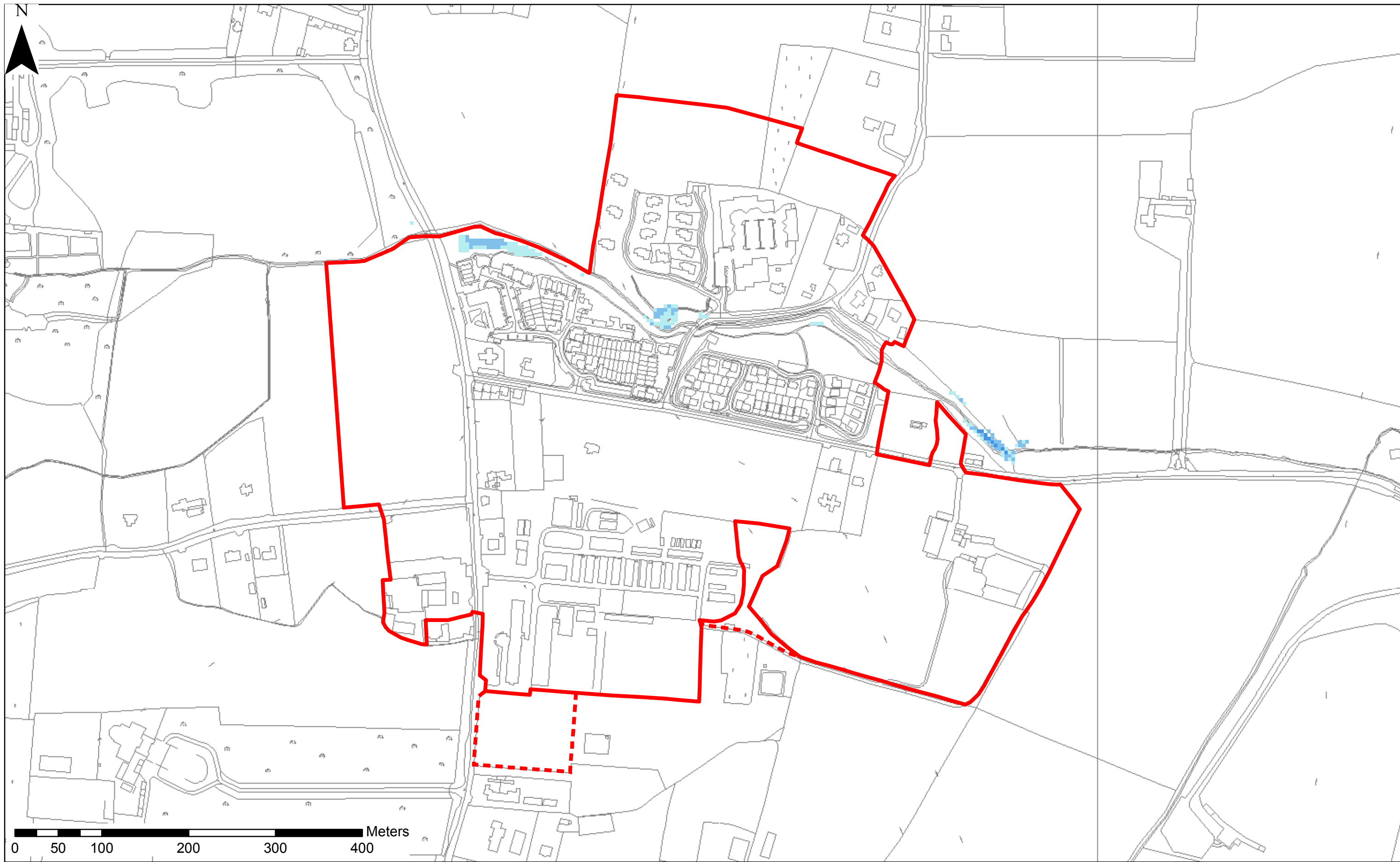
Depth (m)	1 - 1.5m	Kinsaley LAP Boundary
0 - 0.25m	1.5 - 2m	Possible Location of Car Park and Sports Facility
0.25 - 0.5m	>2m	
0.5 - 1m		

No.	Revision	Stage	Date	By	Chk'd	App'd
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F01	Final Flood Extents		05/12/2018	BP	JPR	JPR
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F01	Draft Final Flood Depths		04/10/2018	BP	JPR	JPR
F01	Draft Final Flood Depths		01/10/2018	WV	JPR	JPR



Arena House, Arena Road,
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Tel : +353 1 294 0800
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Project Title KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Fluvial 1 in 1000 Year Flood Depths (Current Scenario)			
Drawn: WV	Job No: 18.144	Drawing No:	Rev:
Scale: 1:4,000 (@ A3)	Date: 01/10/2018	18.144-05-202	F02



Legend

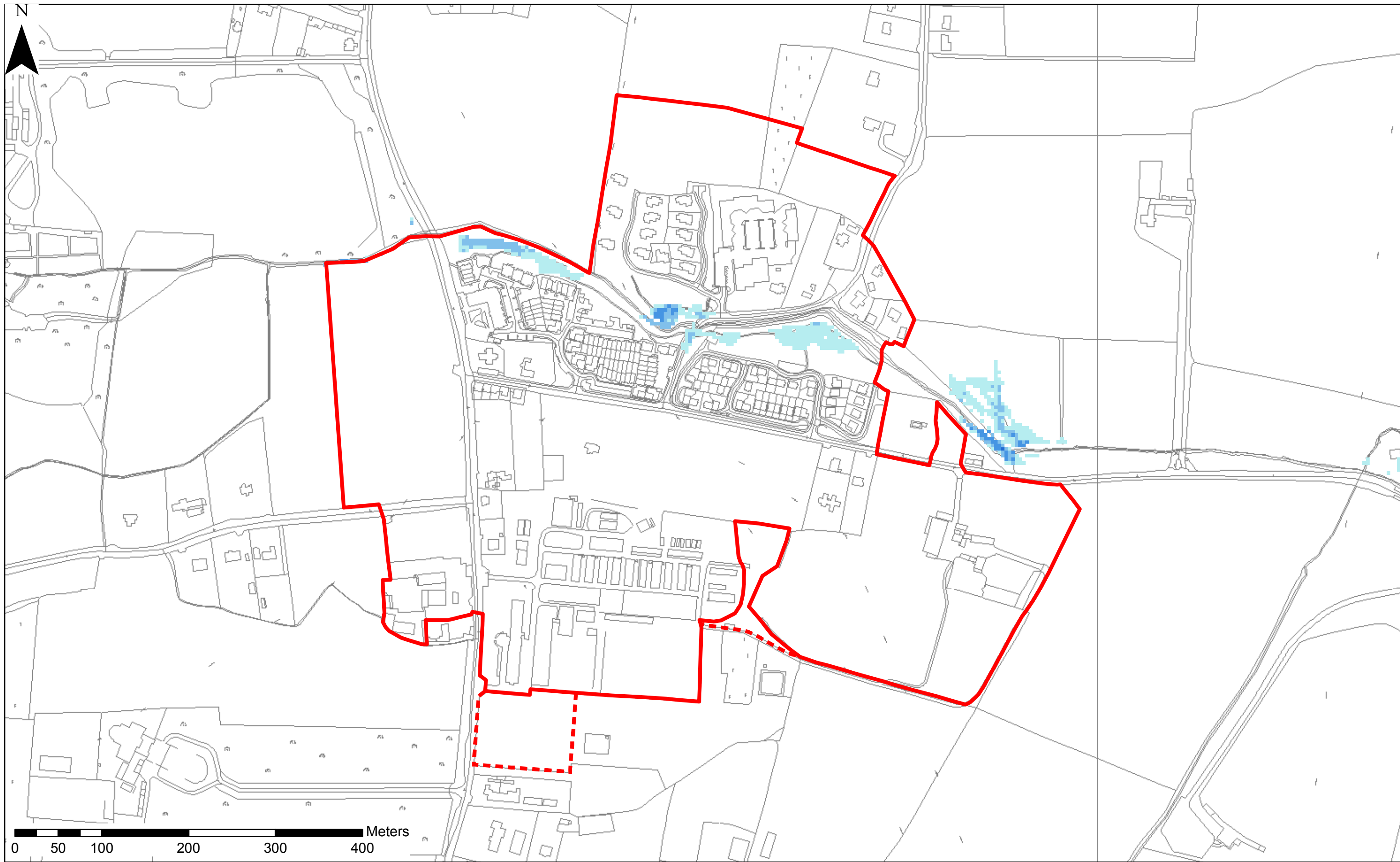
Depth (m)	1 - 1.5m	Kinsaley LAP Boundary
0 - 0.25m	1.5 - 2m	Possible Location of Car Park and Sports Facility
0.25 - 0.5m	>2m	
0.5 - 1m		

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
F02	Draft Final Flood Extents	26/10/2018	BP	JPR	JPR
F01	Draft Final Flood Depths	04/10/2018	BP	JPR	JPR
F01	Draft Final Flood Depths	01/10/2018	WV	JPR	JPR
No.	Revision	Date	By	Chk'd	App'd
	Stage				
PRELIMINARY					
APPROVAL					
TENDER					
CONSTRUCTION					



Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Tidal 1 in 200 Year Flood Depths (Current Scenario)			
Drawn:	WV	Job No:	18.144
Scale:	1:4,000 (@ A3)	Date:	01/10/2018
Drawing No:	18.144-05-203	Rev:	F02



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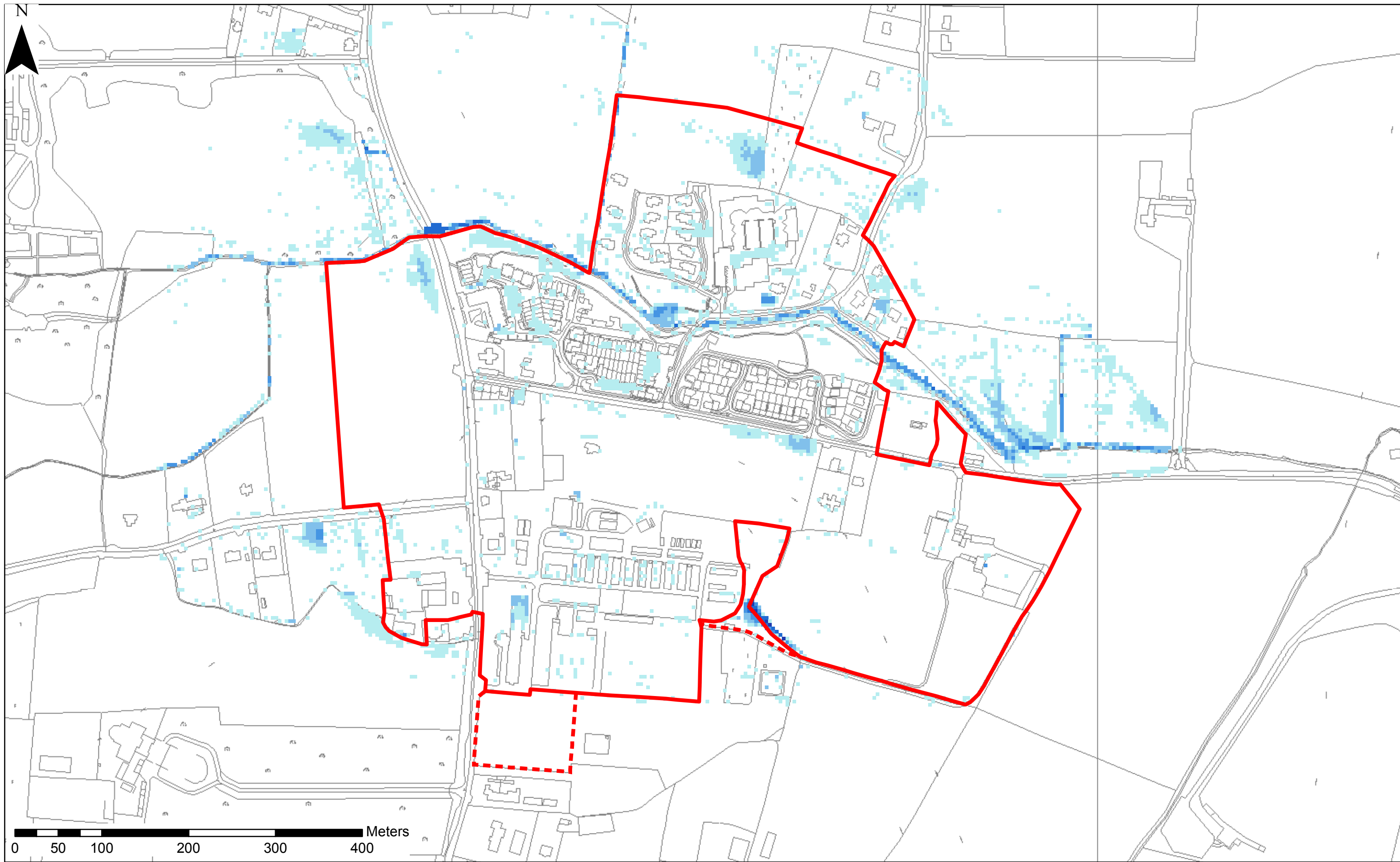
Depth (m)	0 - 0.25m	0.25 - 0.5m	0.5 - 1m	1 - 1.5m	1.5 - 2m	>2m	Kinsaley LAP Boundary	Possible Location of Car Park and Sports Facility
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F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
F02	Draft Final Flood Extents	26/10/2018	BP	JPR	JPR
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No.	Revision	Date	By	Chk'd	App'd
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Tidal 1 in 1000 Year Flood Depths (Current Scenario)			
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Drawing No:	18.144-05-204	Rev:	F02



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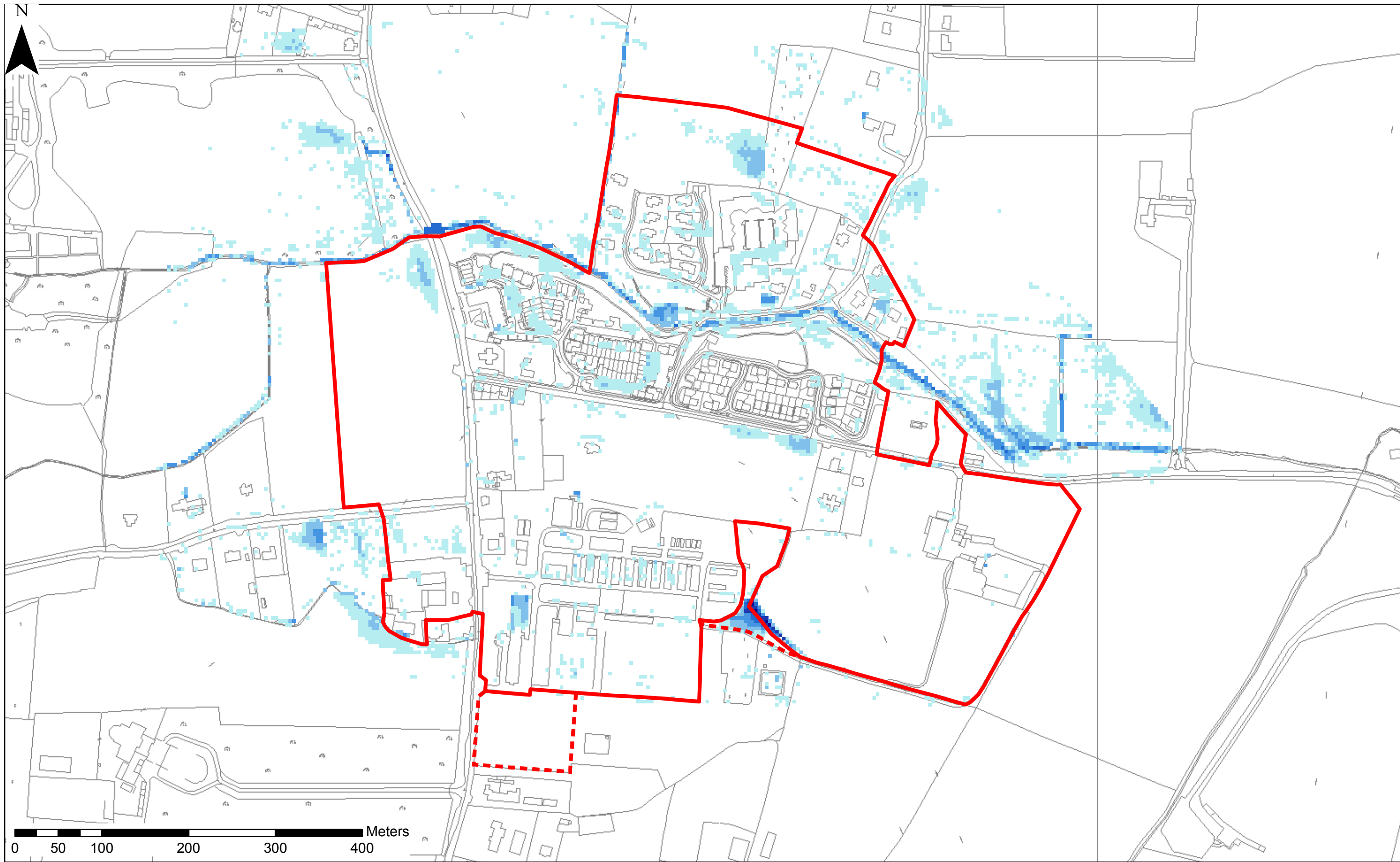
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F02	Minor Revisions	14/02/2019	BP	JPR	JPR
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DF02	Draft Final Flood Extents	26/10/2018	BP	JPR	JPR
DF01	Draft Final Flood Depths	04/10/2018	BP	JPR	JPR
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	APPROVAL				
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title KINSEALY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Pluvial 1 in 100 Year Flood Depths (Current Scenario)			
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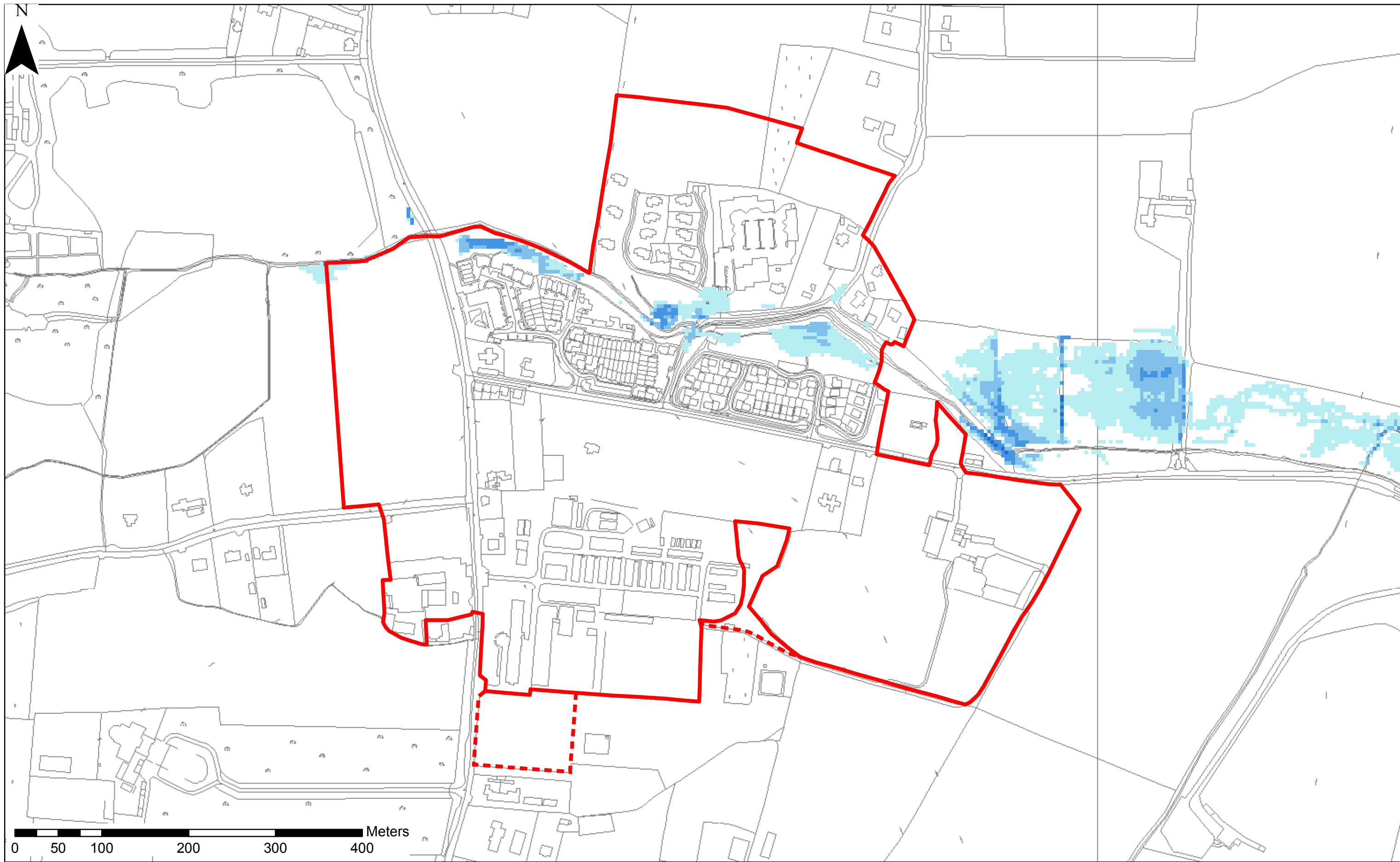
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0.25 - 0.5m	1.5 - 2m	Possible Location of Car Park and Sports Facility
0.5 - 1m	>2m	

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DF01	Draft Final Flood Depths	04/10/2018	BP	JPR	JPR
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	APPROVAL				
	TENDER				
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title			
KINSEALY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Pluvial 1 in 1000 Year Flood Depths (Current Scenario)			
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Drawing No:	18.144-05-206	Rev:	F02



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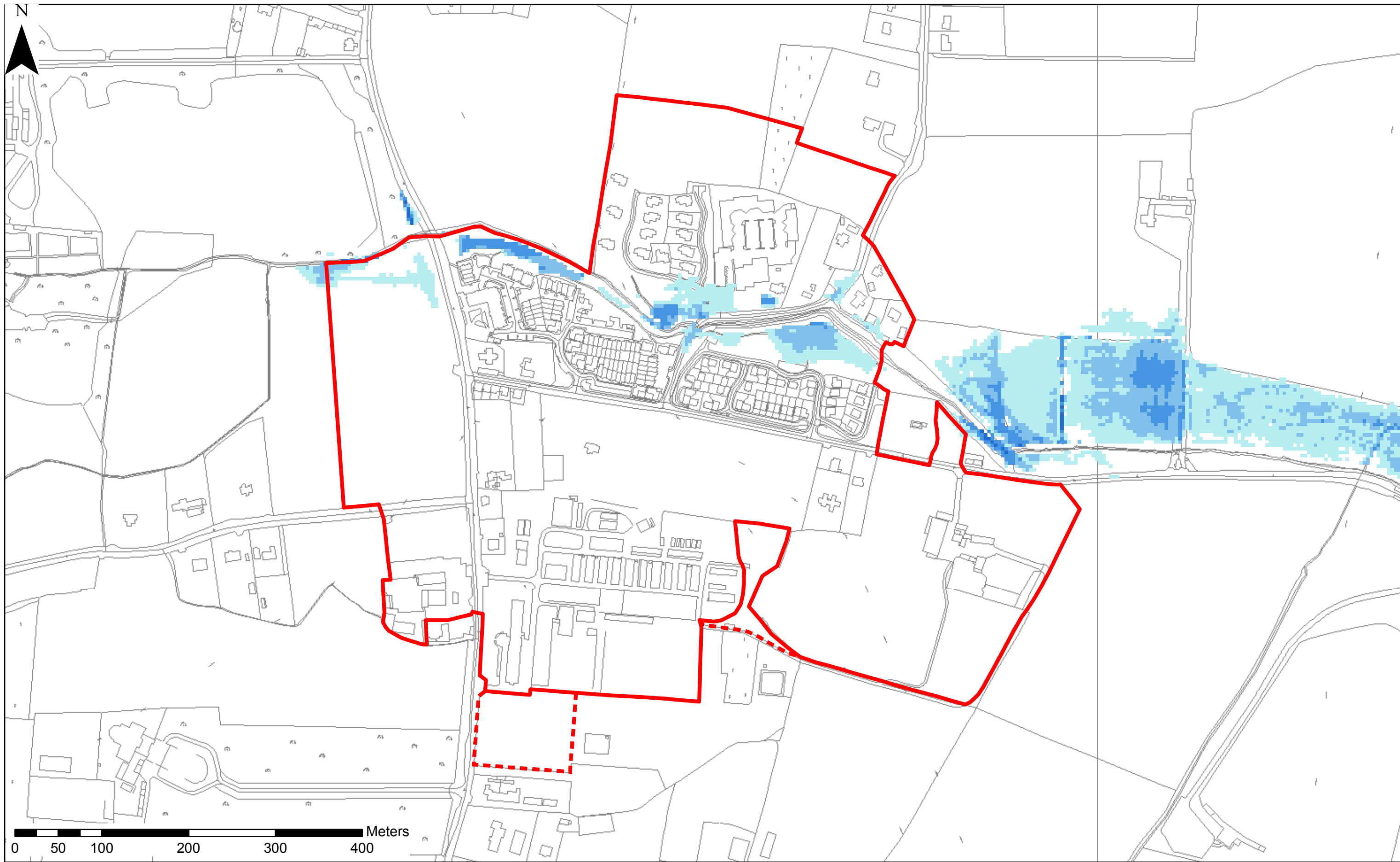
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 - 0.25 - 0.5m
 - 0.5 - 1m
 - 1 - 1.5m
 - 1.5 - 2m
 - >2m
- Kinsaley LAP Boundary
- Possible Location of Car Park and Sports Facility

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
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No.	Revision	Date	By	Chk'd	App'd
	Stage				
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				



Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Fluvial 1 in 100 Year Flood Depths (Mid Range Future Scenario)			
Drawn: WV	Job No: 18.144	Drawing No:	Rev:
Scale: 1:4,000 (@ A3)	Date: 01/10/2018	18.144-05-207	F02



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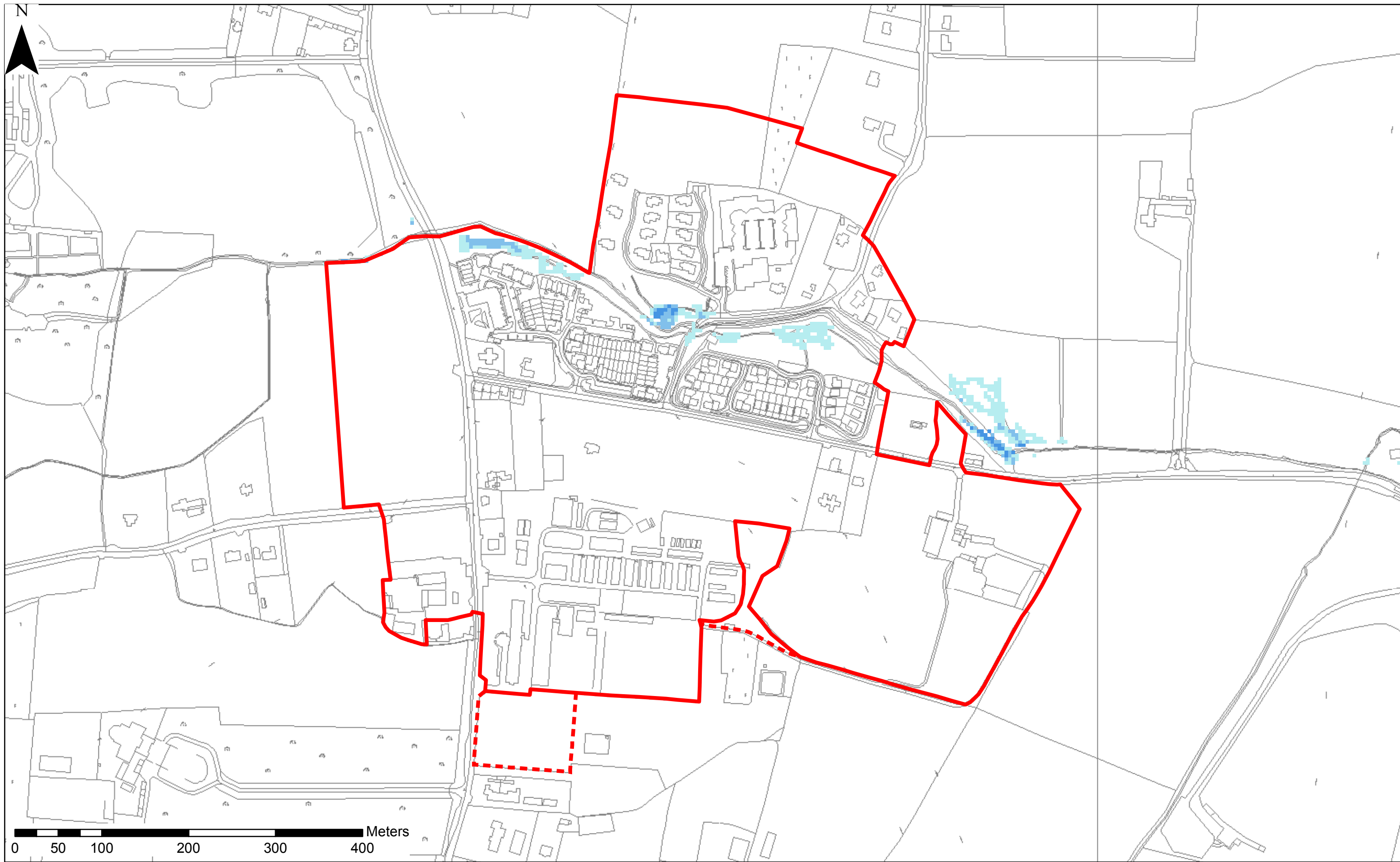
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0.25 - 0.5m	1.5 - 2m	Possible Location of Car Park and Sports Facility
0.5 - 1m	>2m	

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
F02	Draft Final Flood Extents	26/10/2018	BP	JPR	JPR
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No.	Revision	Date	By	Chk'd	App'd
	Stage				
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				



Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Fluvial 1 in 1000 Year Flood Depths (Mid Range Future Scenario)			
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Scale: 1:4,000 (@ A3)	Date: 01/10/2018	18.144-05-208	F02



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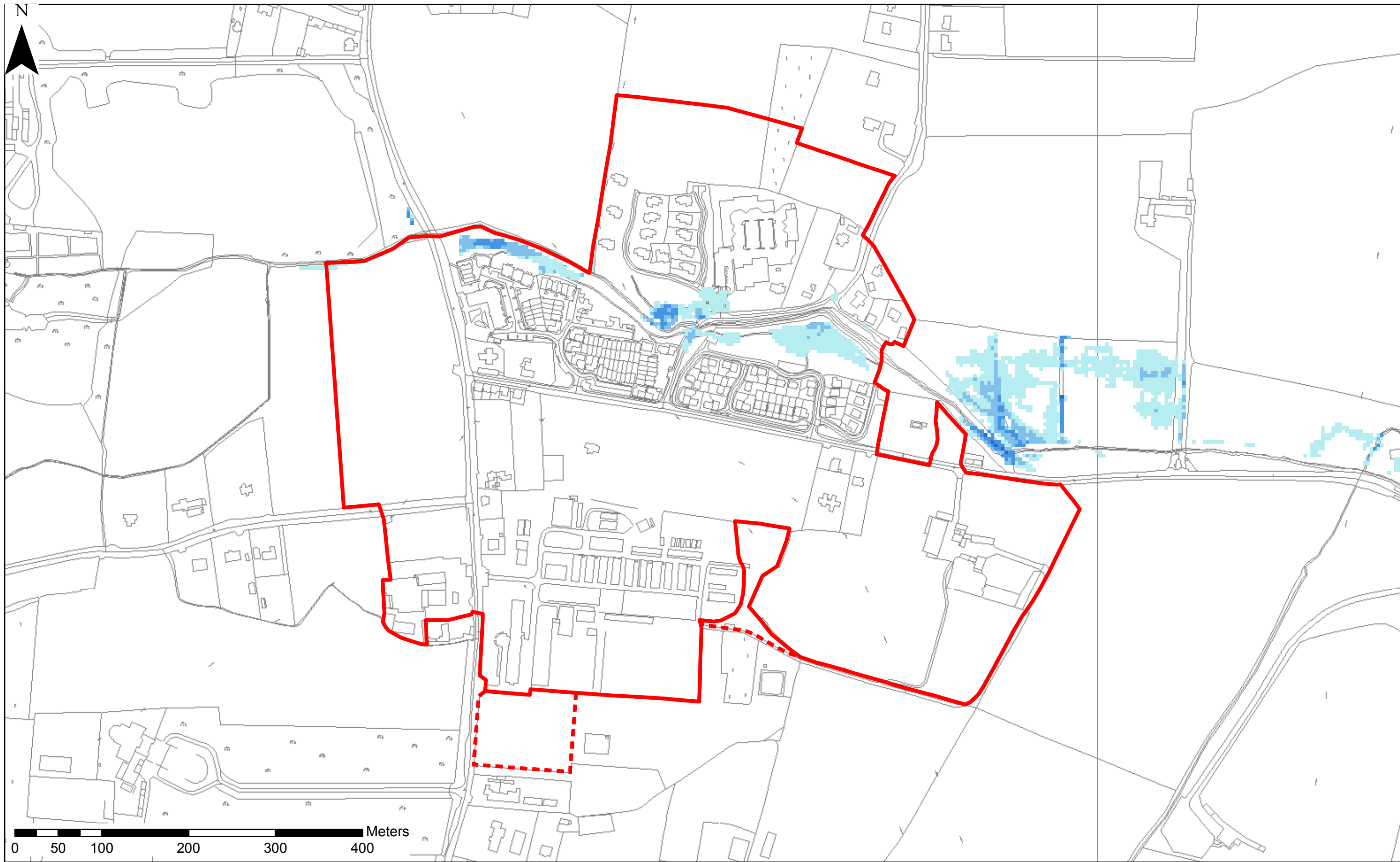
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 - 0.25 - 0.5m
 - 0.5 - 1m
 - 1 - 1.5m
 - 1.5 - 2m
 - >2m
 - Kinsaley LAP Boundary
 - Possible Location of Car Park and Sports Facility

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
F02	Draft Final Flood Extents	26/10/2018	BP	JPR	JPR
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	APPROVAL				
	TENDER				
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Tidal 1 in 200 Year Flood Depths (Mid Range Future Scenario)			
Drawn:	WV	Job No:	18.144
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Drawing No:	18.144-05-209	Rev:	F02



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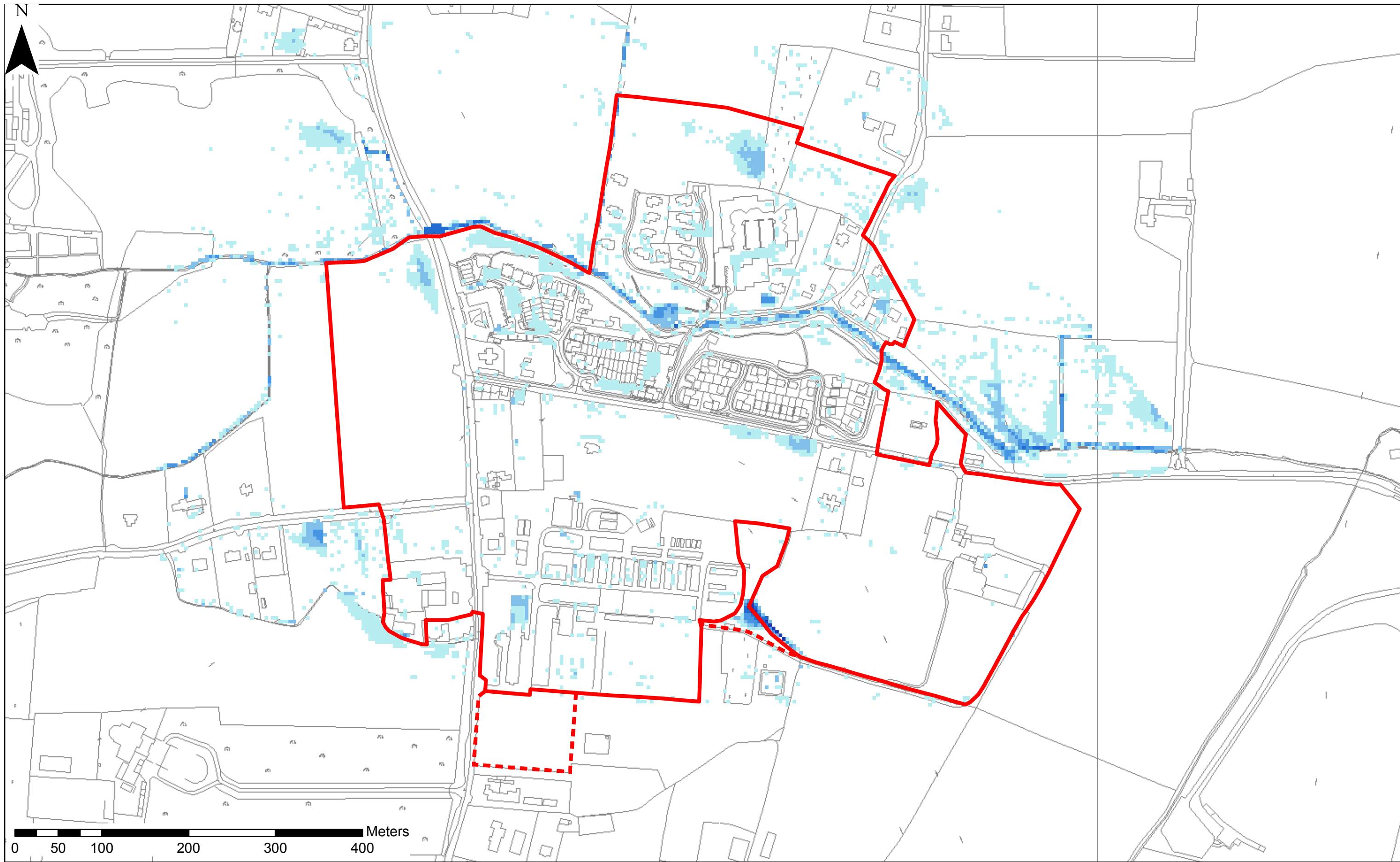
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0 - 0.25m	1.5 - 2m	Possible Location of Car Park and Sports Facility
0.25 - 0.5m	>2m	
0.5 - 1m		

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
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No.	Revision	Date	By	Chk'd	App'd
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	APPROVAL				
	TENDER				
	CONSTRUCTION				



Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Tidal 1 in 1000 Year Flood Depths (Mid Range Future Scenario)			
Drawn: WV	Job No: 18.144	Drawing No:	Rev:
Scale: 1:4,000 (@ A3)	Date: 01/10/2018	18.144-05-210	F02



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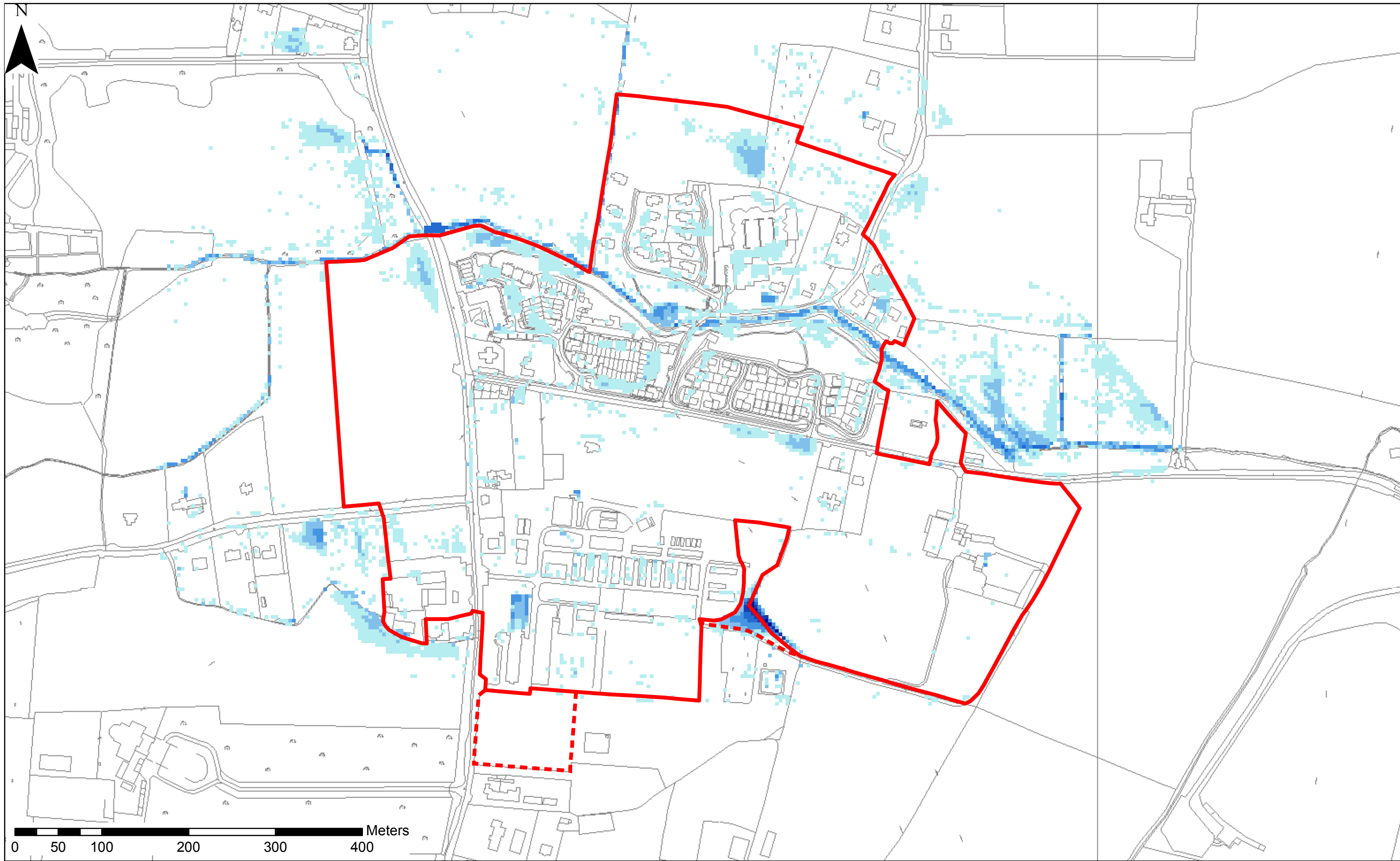
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0.25 - 0.5m	1.5 - 2m	Possible Location of Car Park and Sports Facility
0.5 - 1m	>2m	

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
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DF01	Draft Final Flood Depths	04/10/2018	BP	JPR	JPR
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No.	Revision	Date	By	Chk'd	App'd
	Stage				
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	APPROVAL				
	TENDER				
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title KINSEALY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Pluvial 1 in 100 Year Flood Depths (Mid Range Future Scenario)			
Drawn: WV	Job No: 18.144	Drawing No:	Rev:
Scale: 1:4,000 (@ A3)	Date: 01/10/2018	18.144-05-211	F02



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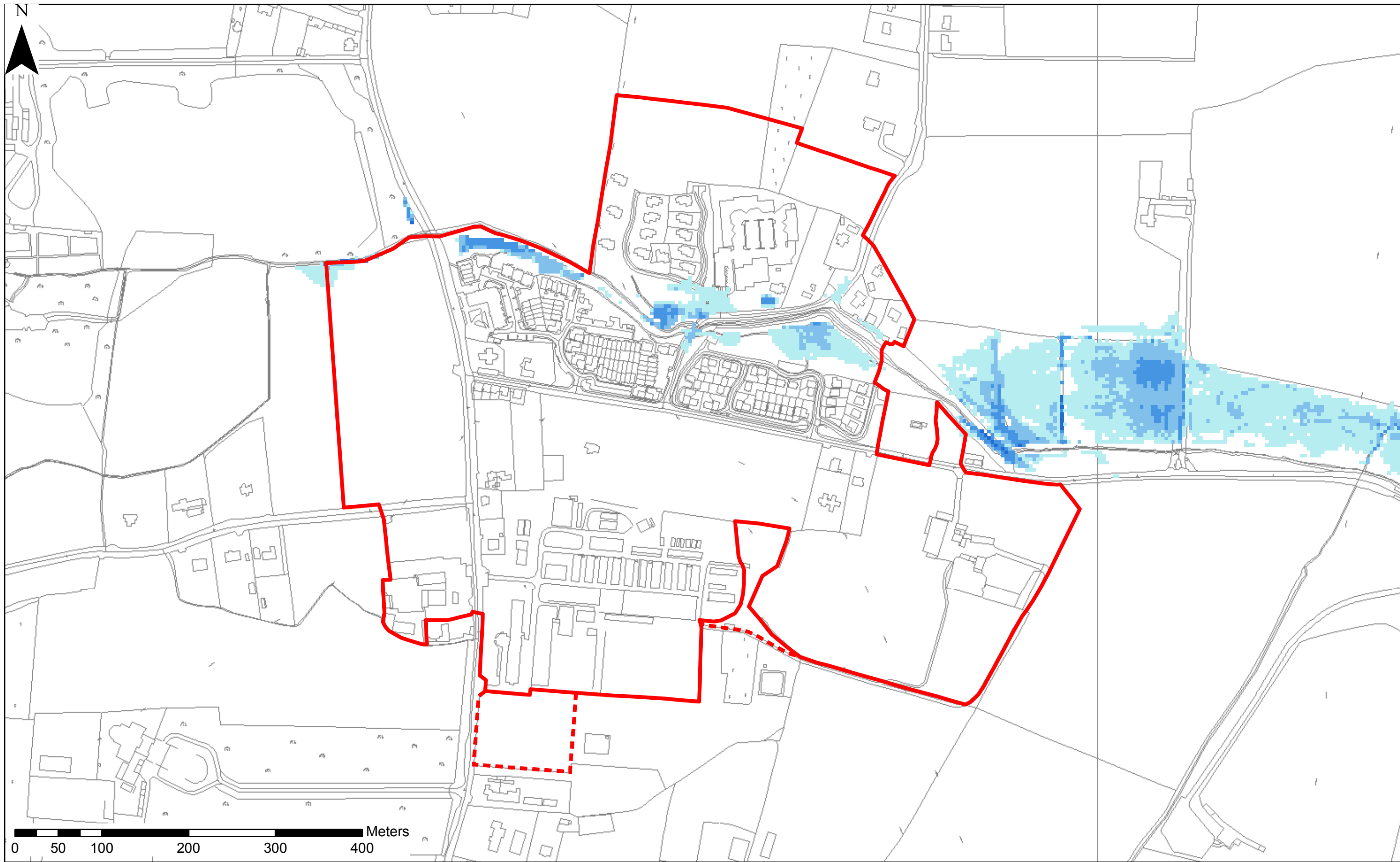
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F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
DF02	Draft Final Flood Extents	26/10/2018	BP	JPR	JPR
DF01	Draft Final Flood Depths	04/10/2018	BP	JPR	JPR
DF0	Draft Final Flood Depths	01/10/2018	WV	JPR	JPR
No.	Revision	Date	By	Chk'd	App'd
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	TENDER				
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title KINSEALY SURFACE WATER MANAGEMENT PLAN			
Drawing Title Pluvial 1 in 1000 Year Flood Depths (Mid Range Future Scenario)			
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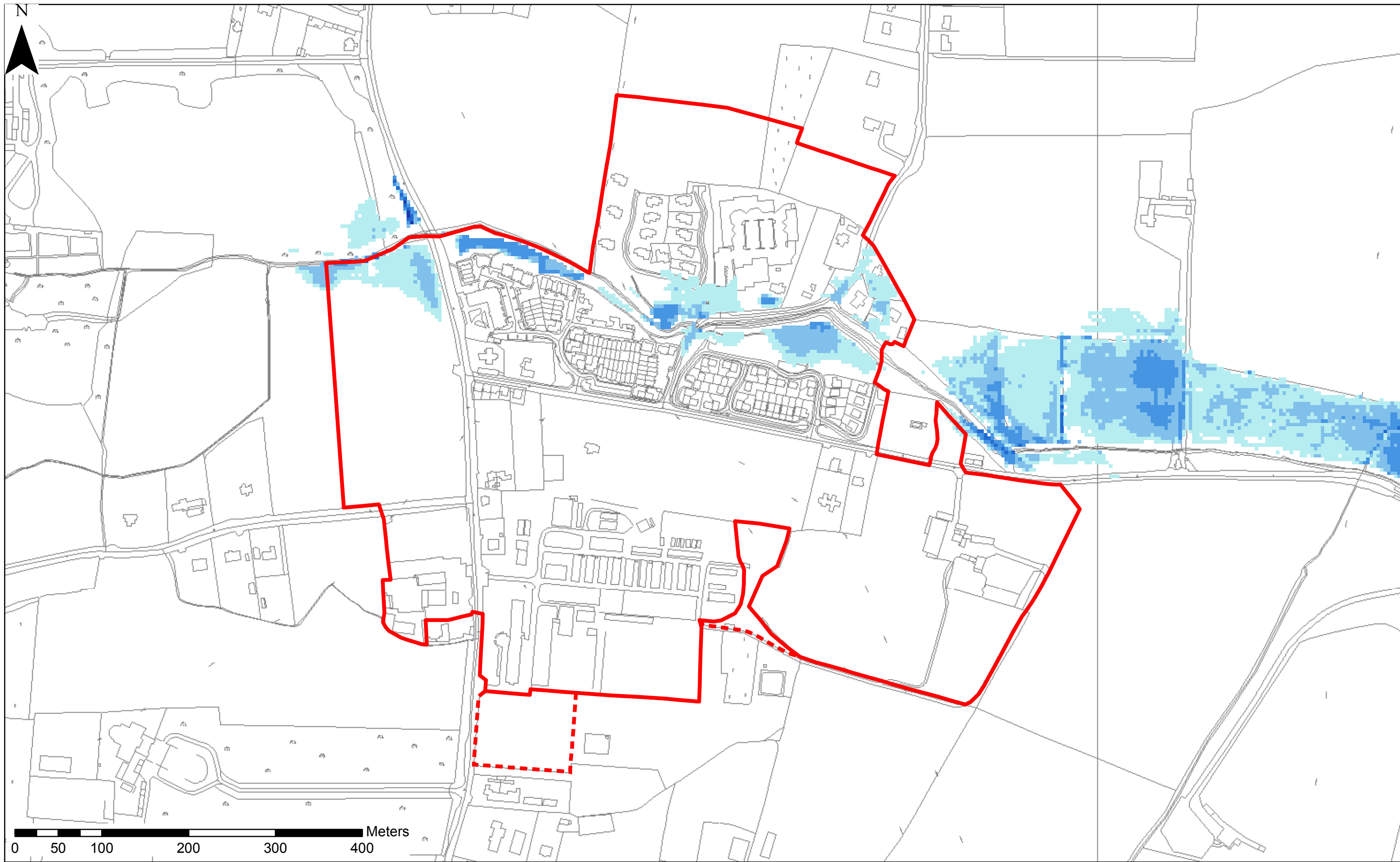
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0.25 - 0.5m	1.5 - 2m	Possible Location of Car Park and Sports Facility
0.5 - 1m	>2m	

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Fluvial 1 in 100 Year Flood Depths (High End Future Scenario)			
Drawn:	WV	Job No:	18.144
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Drawing No:	18.144-05-213	Rev:	F02



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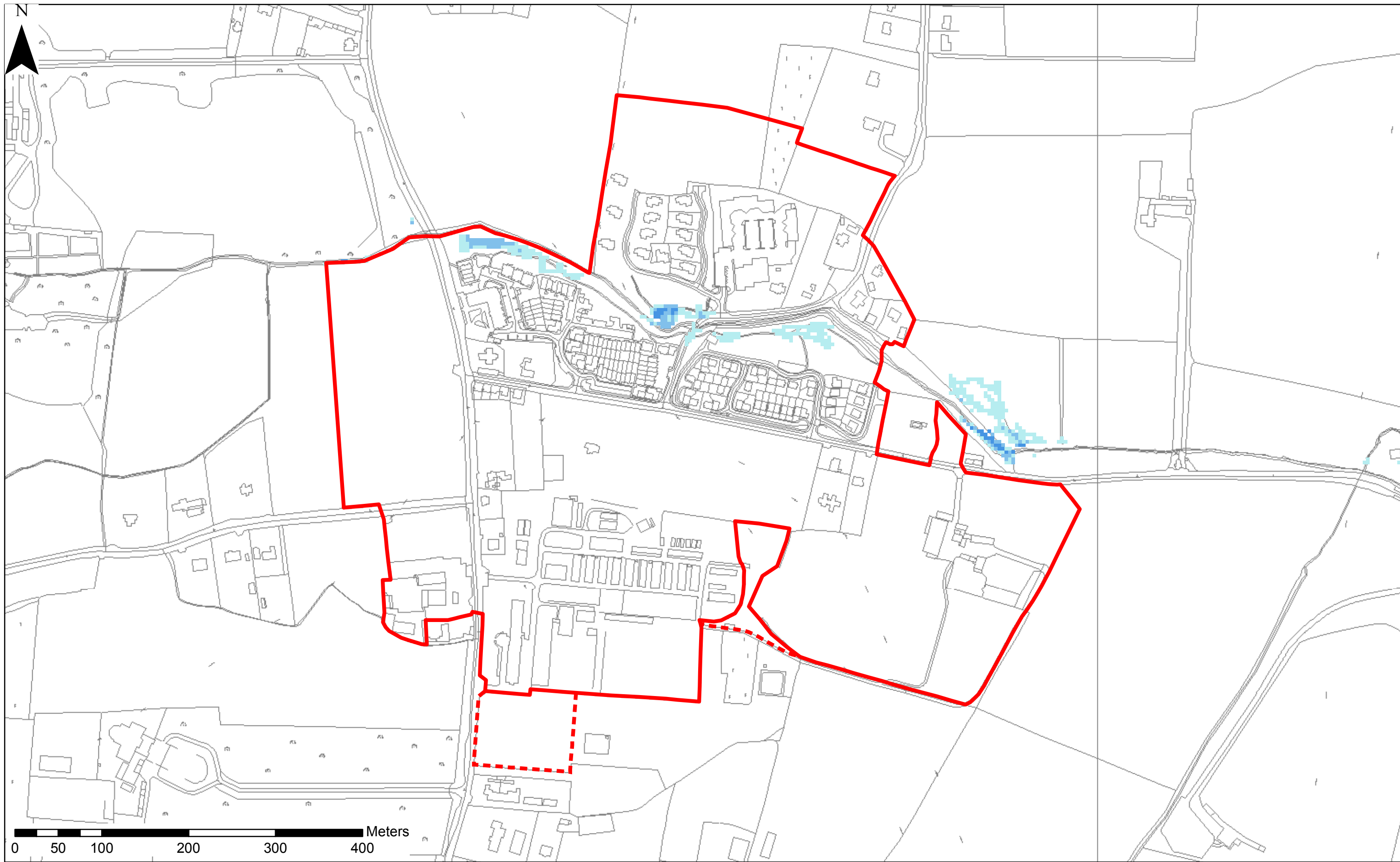
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F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
DF02	Draft Final Flood Extents	26/10/2018	BP	JPR	JPR
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title			
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Drawing Title			
Fluvial 1 in 1000 Year Flood Depths (High End Future Scenario)			
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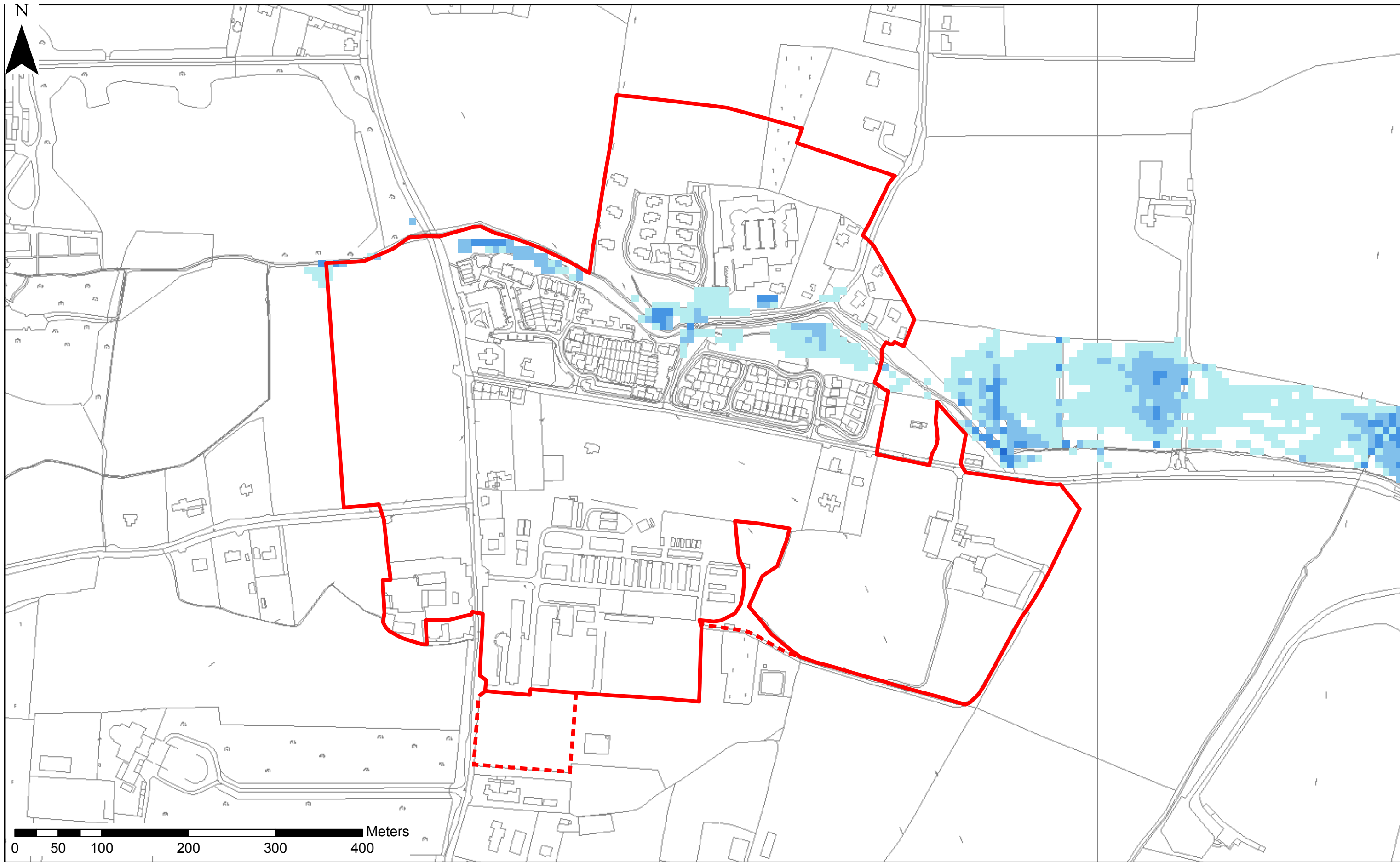
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 - 0.25 - 0.5m
 - 0.5 - 1m
 - 1 - 1.5m
 - 1.5 - 2m
 - >2m
 - Kinsaley LAP Boundary
 - Possible Location of Car Park and Sports Facility

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
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No.	Revision	Date	By	Chk'd	App'd
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
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Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Tidal 1 in 200 Year Flood Depths (High End Future Scenario)			
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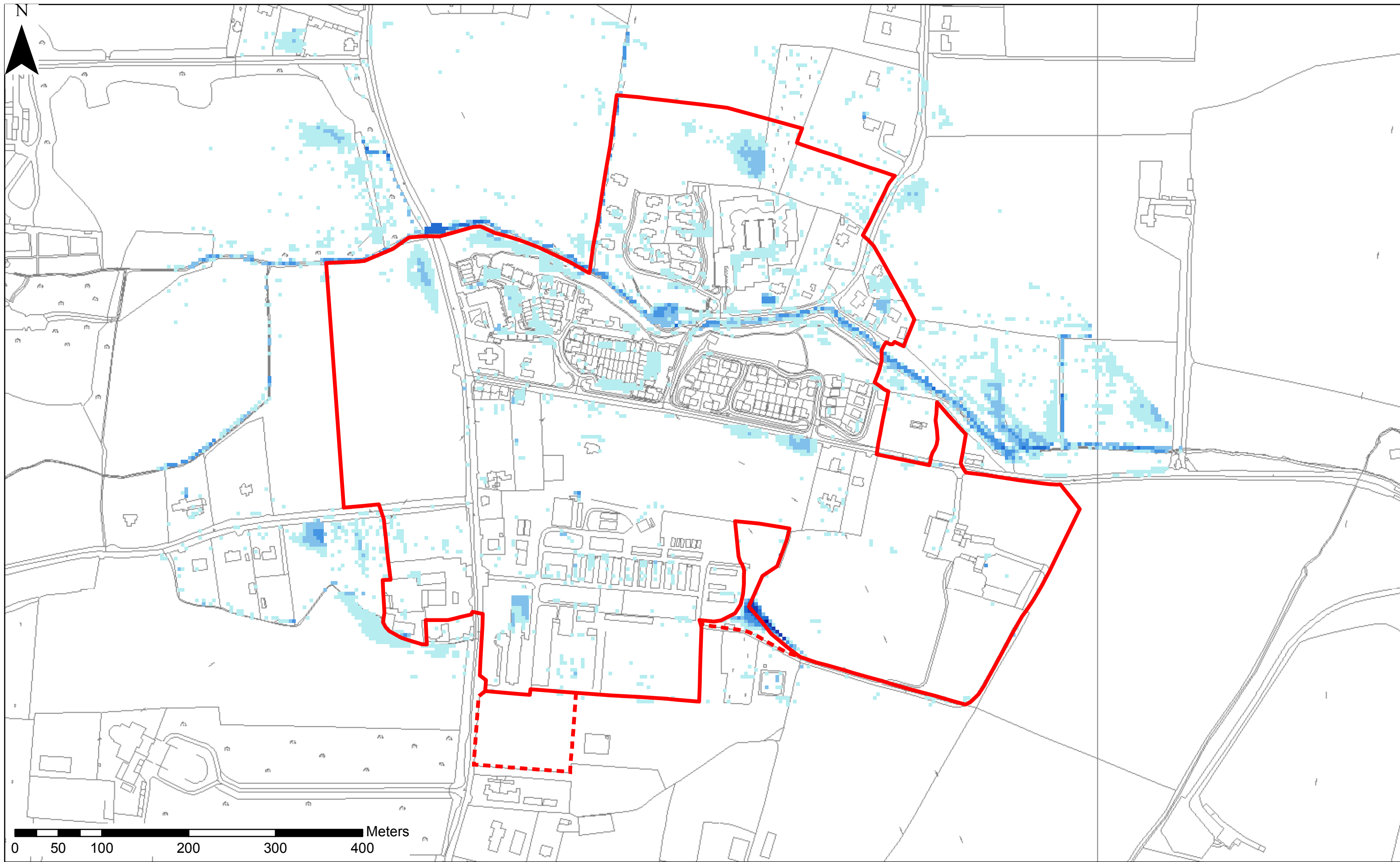
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0 - 0.25m	1.5 - 2m	Possible Location of Car Park and Sports Facility
0.25 - 0.5m	>2m	
0.5 - 1m		

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
F01	Final Flood Extents	05/12/2018	BP	JPR	JPR
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
Website : www.rod.ie

Project Title			
KINSALEY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Tidal 1 in 1000 Year Flood Depths (High End Future Scenario)			
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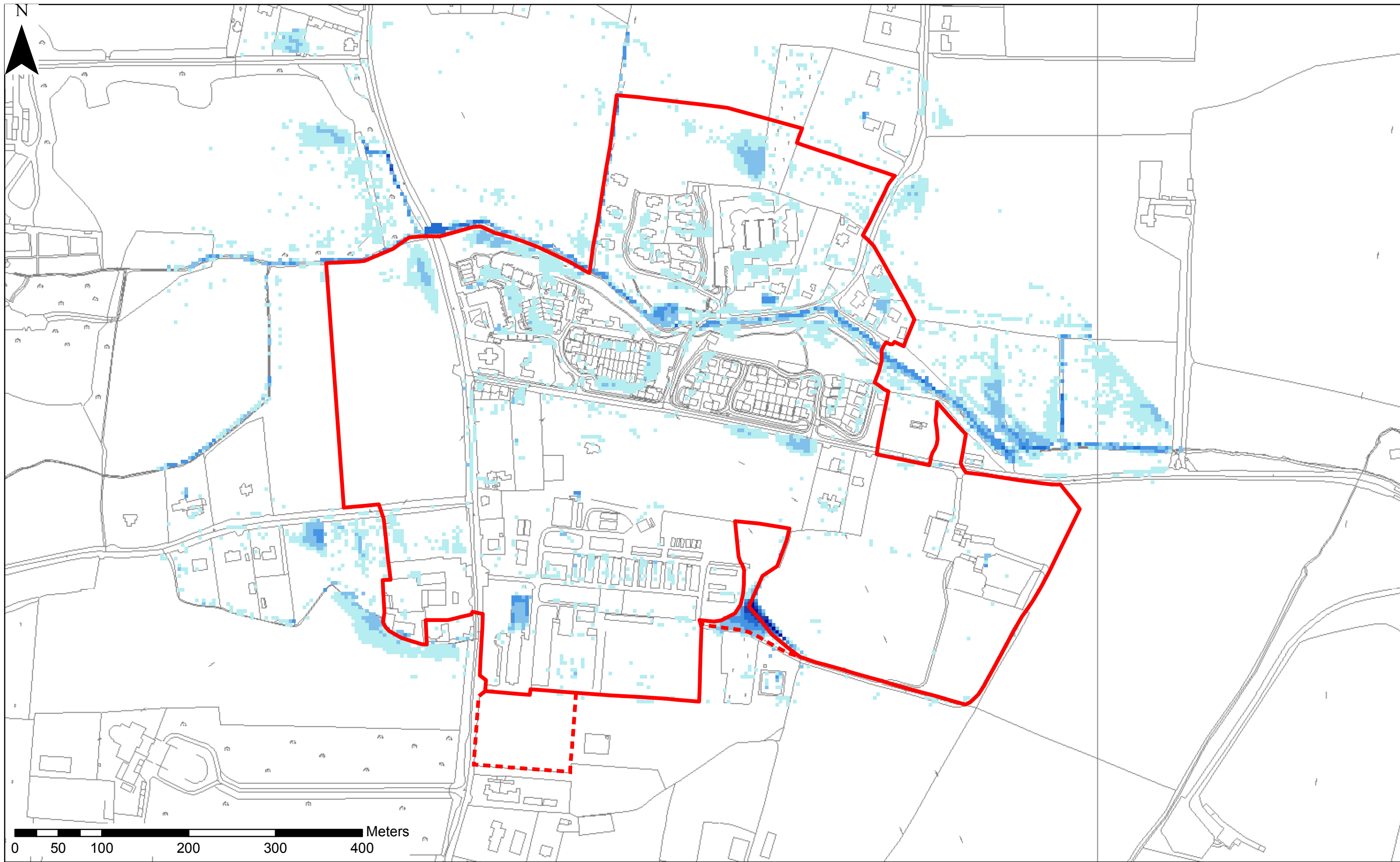
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F02	Minor Revisions	14/02/2019	BP	JPR	JPR
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
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Project Title			
KINSEALY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Pluvial 1 in 100 Year Flood Depths (High End Future Scenario)			
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Scale:	1:4,000 (@ A3)	Date:	01/10/2018
Drawing No:	18.144-05-217	Rev:	F02



Legend

- Depth (m)**
- 0 - 0.25m
 - 0.25 - 0.5m
 - 0.5 - 1m
 - 1 - 1.5m
 - 1.5 - 2m
 - >2m
 - Kinsealy LAP Boundary
 - Possible Location of Car Park and Sports Facility

F02	Minor Revisions	14/02/2019	BP	JPR	JPR
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F01	Draft Final Flood Depths	04/10/2018	BP	JPR	JPR
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No.	Revision	Date	By	Chk'd	App'd
	Stage				
	PRELIMINARY				
	APPROVAL				
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Arena House, Arena Road,
Sandyford, Dublin 18.
Tel : +353 1 294 0800
Fax : +353 1 294 0820
e-mail : info@rod.ie
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Project Title			
KINSEALY SURFACE WATER MANAGEMENT PLAN			
Drawing Title			
Pluvial 1 in 1000 Year Flood Depths (High End Future Scenario)			
Drawn:	WV	Job No:	18.144
Scale:	1:4,000 (@ A3)	Date:	01/10/2018
Drawing No:	18.144-05-218	Rev:	F02

Kinsaley Local Area Plan

Stormwater Management Plan: Part 2: Sustainable Drainage Systems (SuDS) Strategy

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1. INTRODUCTION

1.1 Commission

Roughan & O'Donovan Consulting Engineers (ROD) was commissioned by Fingal County Council (FCC) to prepare a Surface Water Management Plan to supplement the Kinsaley Local Area Plan (LAP). As part of this commission, a Sustainable Drainage Systems (SuDS) Strategy for the proposed LAP has been developed. The LAP will set out the local land use and planning policy and provide a strategy for the future planning and sustainable development of the area.

1.2 Scope

The scope of this report is as follows:

- Review of the existing surface water drainage network in respect of SuDS for current situation, future scenario with all live planning permissions built and with all proposed development and infrastructure in place as set out in the Fingal Development Plan 2017-2023.
- Prepare a SuDS Strategy with recommendations regarding appropriate SuDS systems and devices for the implementation of the SuDS strategy for all proposed development within the Kinsaley LAP boundary.
- Incorporate the effects of Climate Change, soil type and groundwater into the SuDS Strategy.
- Determine the effects on and of flooding, groundwater and surface water drainage system in the LAP area due to the incorporation of the SuDS Strategy.
- Make recommendations on the discharge rate to be applied across the Local Area Plan Lands and as to the future development and sustainable drainage of the Plan lands.
- Liaison with Consultants completing the Strategic Environmental Assessment (SEA), Appropriate Assessment and Fingal County Council.

1.3 Study Area

1.3.1 Overview

Kinsaley village is located in North County Dublin approximately 2.8km east of the M1 motorway and 3km west of the Irish Sea. The village has a strong visual identity and landscape quality formed by the Sluice River, running west-east through the village, and by the stone walls and mature trees associated with the nearby Abbeville Demesne. The R107 Malahide Road runs north-south to the west of the existing village. Chapel Road runs east-west through the village and forms a junction with the R107 at the Parish Church of St. Nicholas of Myra, a Protected Structure. The village is located mid-way between Malahide to the north and Balgriffin to the south. Refer to Figure 1.1 below.



Figure 1.1 Kinsaley LAP Hinterlands

The topography of the LAP lands to the north of the Sluice River generally fall from north to south from a level of approximately 12mOD to 7mOD. The topography of the lands to the south of the Sluice River generally fall from south to north from a level of approximately 21mOD to 7mOD.

1.3.2 Catchment Description

The LAP study area lies within the catchment of the Sluice River and is approximately 3km west of the Baldoye Estuary, as outlined in Figure 1.2. This river drains to the Baldoye Estuary prior to discharging to the Irish Sea.

The Sluice River rises to the north of Dublin Airport and flows through Kinsaley into the head of Baldoye Bay. Its lower course is meandering, with embankments constructed before the 1830's to curtail tidal flooding. It has a catchment area of approximately 17.8km².

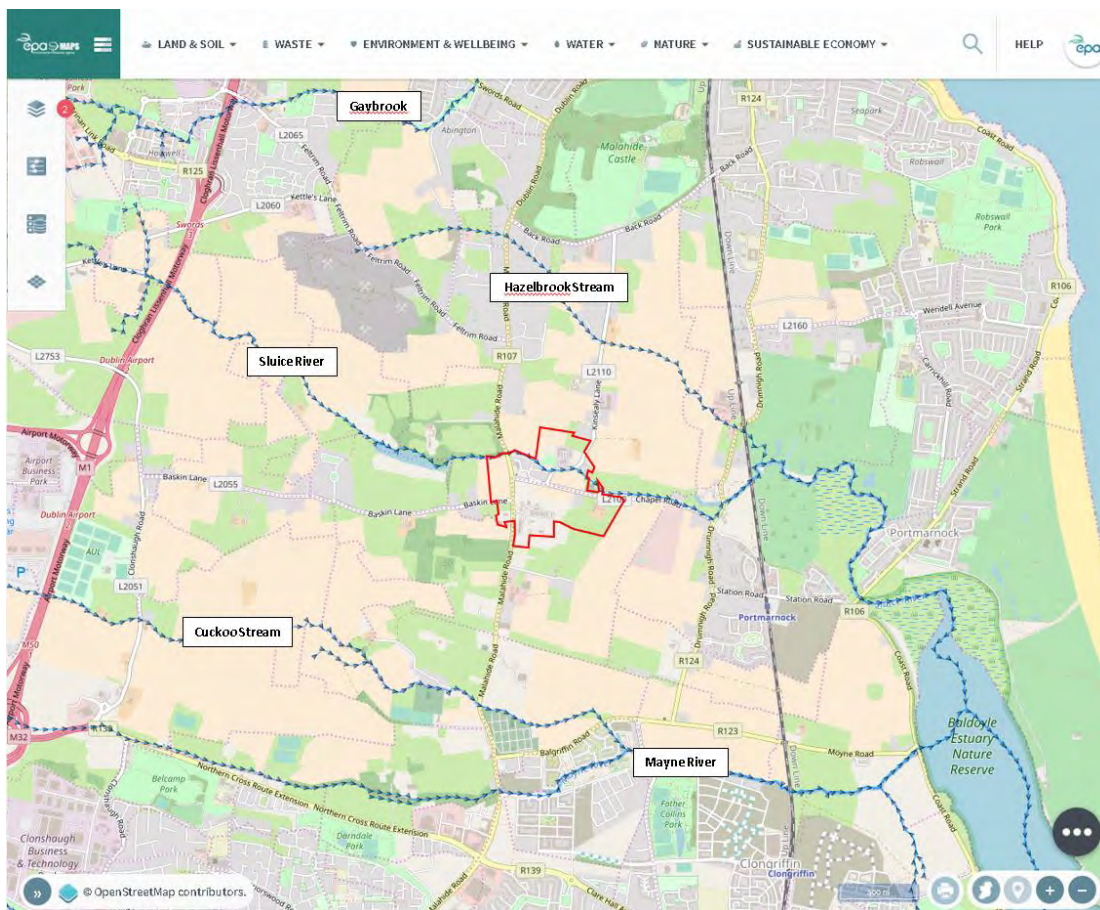


Figure 1.2 Watercourses around the Kinsaley LAP area (EPA Catchments.ie)

Irish Water records indicate two surface water outfalls to the Sluice River, located on Kinsaley Lane and at the St. Olave’s Development. Outfalls to the river have also been identified from the Malahide Road, Emsworth Park and Coopers Wood residential housing developments.

1.3.3 Environment

There are no Natura 2000 sites located within the study area; however, the Natura 2000 sites Baldoyle Bay (SPA and SAC) are 2.4km east of Kinsaley LAP

Under Article 6(3) of the EU Habitats Directive, an “appropriate assessment” (AA) is required where any plan or project, either alone or ‘in combination’ with other plans or projects, could have an adverse effect on the integrity of a Natura 2000 site.

Natural Heritage Areas (NHAs) are sites of national importance for nature conservation and are afforded protection under planning policy and the Wildlife Acts, 1976-2012. Proposed NHAs (pNHAs) are published sites identified as of similar conservation interest but have not been statutorily proposed or designated. The nearest NHA/pNHAs to the study area are:

- Sluice River Marsh (proposed NHA), ~ 1.5km east of Kinsaley LAP
- Feltrim Hill (proposed NHA), ~1.2km north-west of Kinsaley LAP

Therefore, the management of flood risk within the LAP study area must have regard to potential negative impacts to this environment.

1.4 Proposed Development

The Kinsaley area comprises two main zonings with a further two zonings on small areas in the Fingal Development Plan 2017 – 2023 as outlined in Figure 1.3 and Table 1.1 below.

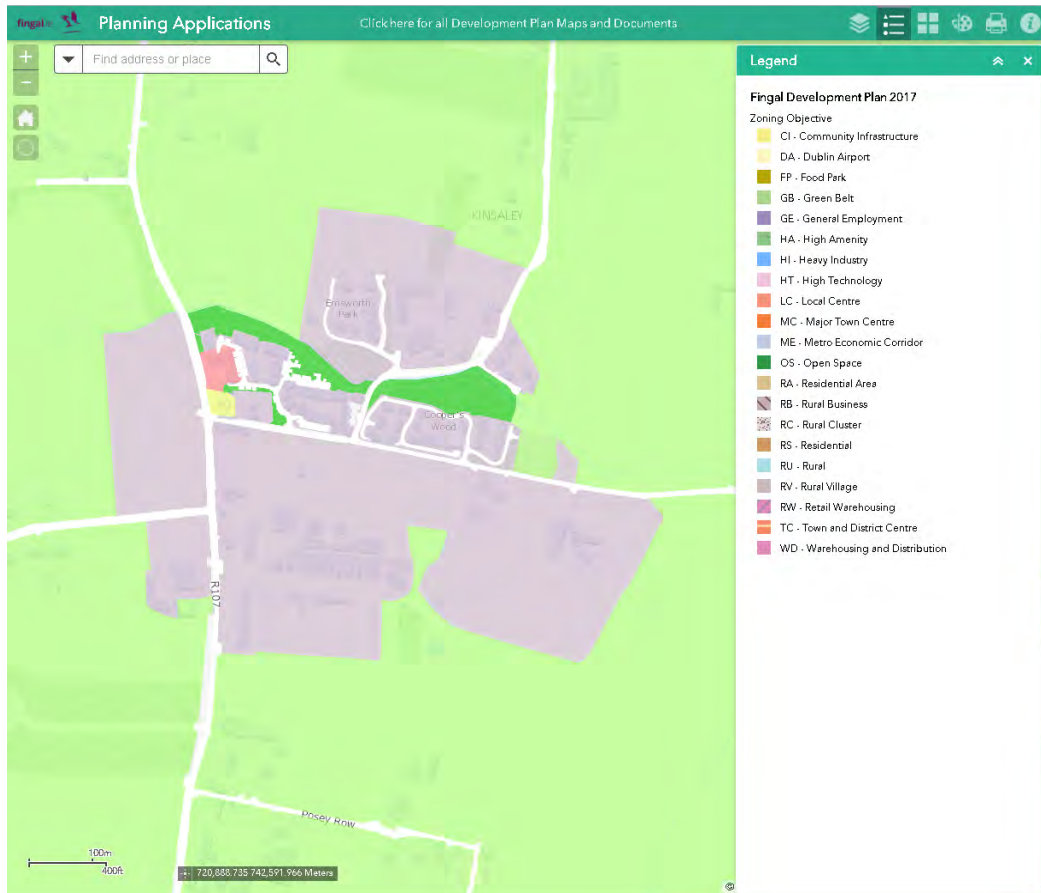


Figure 1.3 Kinsaley Zoning Objectives (Fingal Co Co Development Plan 2017 – 2023)

Table 1.1 Kinsaley Zoning Objectives

Objective	Description	Area
RV - Rural Village	Protect and promote the character of the Rural Village and promote a vibrant community in accordance with an approved Local Area Plan, and the availability of physical and community infrastructure	Majority of Kinsaley village
OS - Open Space	Preserve and provide for open space and recreational amenities.	Existing open space within the LAP study area. The riparian corridor either side of the Sluice River is zoned as open space.
CI - Community Infrastructure	Provide for and protect civic, religious, community, education, health care and social infrastructure	Parish Church of St. Nicholas of Myra (Protected Structure)
LC - Local Centre	Protect, provide for and/or improve local centre facilities	Mixed-use facilities in the centre of Kinsaley village

It is a specific objective of the current County Development Plan (2017 – 2023) to implement the R107 Malahide Road Realignment, Balgriffin Bypass Scheme. Approximately 280m of this proposed road improvement scheme is within the LAP boundary to the north west of the LAP.

2. SUDS OVERVIEW

2.1 Introduction

The SuDS philosophy is to mimic the natural hydrological cycle by promoting; infiltration, evaporation, evapotranspiration, the harvesting of rainwater at source and the temporary storage of water (ponding), through the construction of a combination or series of components to form a 'management train'. Whilst there is no internationally agreed definition for SuDS – as the understanding of the SuDS philosophy correlates to the extent to which it is embedded in policy and practice over time, the three 'pillars' of sustainable stormwater management practice are generally accepted as;

- (i) Reducing the rate and quantity of stormwater discharge,
- (ii) Improve the quality of stormwater discharges and receiving water bodies and
- (iii) Provide amenity and biodiversity value.

Consideration of the sensitivity of the surrounding environment and downstream water quality is fundamental to the successful implementation of SUDS systems, particularly as we face into the uncertainties of a changing climate.

2.2 Benefits of SuDS

Traditional surface water drainage design is relatively simple, using the Rational method to size pipes to ensure that surface water is removed as quickly as possible to ensure flooding does not take place on the road itself. Unfortunately, this philosophy is flawed as, in more rapidly transferring the surface water downstream, it provides the potential for flooding of other areas. This accelerated run-off gives rise to higher flood levels and the corresponding loss of groundwater recharge results in reduced low flows in rivers thus increasing environmental vulnerability. In addition, the pollution in the run-off is conveyed into the natural environment.

SuDS offer multiple benefits over traditional drainage practices managing discharge rates, volumes and diffuse pollution as well as providing the flexibility for adaption to future drainage needs through a modular implementation. Climate change predictions suggest that some types of extreme events will become more frequent, such as heat waves, flooding caused by extreme rainfall and drought. The SuDS approach is more robust and adaptable than the traditional approach of underground piped drainage systems. In shallow surface based systems, such as swales, water levels rise gradually and visibly. When the capacity of the SuDS feature is exceeded, the excess water can be directed to safe storage zones. This allows the general public, and road owners and operators to prepare for flood events more effectively. Conversely, flooding from underground piped drainage systems can occur suddenly and rapidly when the design capacity is exceeded. Furthermore, shallow, visible surface based systems can be designed to offer greater flexibility to adapt to Climate Change. SuDS systems can enhance more readily and cheaply, compared to underground drainage systems. Lower River flows; caused by drought, result in reduced dilution of pollutants following rainfall events. The treatment of surface water runoff, through SuDS, helps to protect and enhance the quality of receiving watercourses.

2.3 Factors Influencing the Design of SuDS

There is no unique solution and each situation has to be evaluated on its own merits and suitable SuDS solutions applied, although the means to achieving these objectives are many and varied. Factors such as site suitability, available space, cost, maintenance regimes and community acceptance must be considered to ensure successful implementation. The various SuDS features can generally be categorised as 'hard' SuDS and 'soft' SuDS. Soft SuDS resemble natural features and include techniques such as swales, ponds and wetlands. Hard SuDS are more similar to traditional drainage methods, but incorporate SUDS principles. Examples of these are permeable pavements and proprietary SUDS features such as filtration systems and vortex separators.

2.4 The Management Train

The individual components described above do not constitute SuDS, if applied in isolation. The SuDS philosophy, and effective stormwater management in general, requires a series of SuDS features, linked together, to form a stormwater management system to treat and attenuate surface water runoff as close to the source of runoff as possible, before being conveyed downstream for further treatment and storage.

3. OPPORTUNITIES FOR SUDS SYSTEMS IN A CHANGING CLIMATE

The principal treatment processes in a SuDS system are Sedimentation and Biodegradation.

3.1 Sedimentation

Sedimentation is one of the primary removal mechanisms in SuDS. Most pollution in stormwater runoff is attached to sediment particles and therefore the removal of sediment will achieve a significant reduction in pollution loading to receiving water bodies. Sedimentation is achieved through the reduction in flow velocities to a level at which the sediment particles fall out of suspension.

3.2 Biodegradation

Biodegradation is a natural biological treatment process that is a feature of several SuDS systems - systems that are subject to both wet and dry conditions. In addition to the physical and chemical processes of SuDS systems, biological treatment may also occur. Microbial communities may be established in the ground using the oxygen within the free-draining materials and the nutrients supplied with the inflows, to degrade pollutants such as hydrocarbons and grease.

The level of bioremediation activity will be affected by environmental conditions such as temperature and the supply of oxygen and nutrients. It also depends on the physical conditions within the ground such as the suitability of the materials for colonisation.

‘Wet and Dry’ SuDS Systems Perform Best

The presence of vegetation adds a physical filtration aspect to SuDS systems. In the case of filter strips leading to swale/basins, the majority of hydrocarbons are removed by the first stage. If vegetation has been affected by drought, this element of the treatment train will be absent (in a worst-case scenario or significantly diminished at best). Maintenance of filter strips, swales and detention basins typically involve grass cutting. It is worth noting that hydrocarbons are also broken down by UV light in a process called photolysis, but where increasing levels of contaminants are building up in the soil (in the swale, basin, pond or wetland) the affected soil is likely to require removal and will more than likely be classified as contaminated waste.

The most recent published literature suggests that ponds and wetlands do not seem to benefit from the enhanced biological treatment of hydrocarbons found in the oxygen-rich conditions of the swales and basins (which are not designed to hold a permanent volume of water). Nonetheless, ponds and wetlands have been utilised extensively as the default treatment system serving roads and motorways in Ireland and UK, with little supporting literature to justify such initiatives.

In the selection of the most resilient and enduring suds systems, this fact is important:

only the suds features that experience both wet and dry conditions benefit from this added biological treatment - ponds and wetlands are proposed as polishing stage options as part of a treatment train.

The temperature dependence of these aerobic microbes (responsible for this additional layer of treatment) means that the chemical and biological treatment mechanisms found in SuDS systems are enhanced with increasing temperature.

3.2.1 The Benefits of Vegetative Systems

The successful implementation of bioremediation systems requires the establishment of appropriate plants and /or microorganisms at the containment site. Factors to be considered include: (i) selection of appropriate plant species, (ii) the influence of contaminants on seed germination, (iii) the use of native versus non-native plants and (iv) the effectiveness of inoculating contaminated soils with microorganisms. Furthermore, the plant species must be well adapted to the soil and climate of the region, making soil characteristics, length of growing season, average temperature and annual rainfall important considerations in plant-assisted bioremediation/biodegradation planning. The rate of microbial degradation generally doubles for every 10 degree centigrade increase in temperature.

Indirect benefits include enhanced soil quality through improvements in soil structure, increased porosity and therefore water infiltration, providing nutrients, accelerating nutrient cycling and increasing soil organic carbon. The use of plants also stabilises the soil thus preventing erosion and direct human exposure.

3.3 SuDS Objectives

3.3.1 Quantity Control Processes

Several techniques can be implemented to control the quantity of runoff from a development. Each technique presents different opportunities for stormwater control, flood risk management, water conservation and groundwater recharge.

- a) Infiltration
 - Soaking of water into the ground

- Most desirable solution to runoff management as it restores the natural hydrologic process
 - Impacted by groundwater vulnerability and infiltration ability of subsoil
- b) Detention / Attenuation
- Slows down surface water flows before their transfer downstream
 - Usually achieved through use of a storage volume and constrained outlet
 - Should be above ground
 - Reduces peak flow rate but total volume of runoff remains the same
- c) Conveyance
- Transfer of surface runoff from one place to another
 - Through grassed channels/trenches and pipes
 - Transfer essential for managing flows and linking SuDS components
 - Uncontrolled conveyance to a point of discharge in the environment not considered sustainable
- d) Water Harvesting
- Direct capture and use of runoff on site for domestic or irrigation, overflowing/discharging to adjoining SuDS component(s)
 - Contributes to Flood Risk Management

3.3.2 Quality Control Processes

A number of natural water quality treatment processes can be exploited within SuDS design. Different processes will predominate for each SuDS technique and will be present at different stages in the treatment train (*Refer to Section 3.5*).

- a) Sedimentation – reducing flow velocities to a level at which the sediment particles fall out of suspension;
- b) Filtration & Biofiltration – trapping pollutants within the soil or aggregate matrix, on plants or on geotextile layers;
- c) Adsorption – pollutants attach or bind to the surface of soil or aggregate particles;
- d) Biodegradation – Microbial communities in the ground degrade organic pollutants such as oils and grease;
- e) Volatilisation – transfer of a compound from solution in water to the soil atmosphere and then to the general atmosphere;
- f) Precipitation – transform dissolved constituents to form a suspension of particles of insoluble precipitates;
- g) Plant Uptake – removal of nutrients from water by plants in ponds and wetland;
- h) Nitrification – Ammonia and ammonium ions can be oxidised by bacteria in the ground to form nitrate which readily used as a nutrient by plants;
- i) Photolysis – The breakdown of organic pollutants by exposure to ultraviolet light.

3.3.3 Amenity & Biodiversity Processes

SuDS provides opportunities to create attractive landscaping features which offer a variety of amenity/biodiversity. The following are the main SuDS components offering aesthetic, amenity and ecological benefits (*Refer to Section 6 for details on each technique*)

Primary Processes:

- a) Blue/Green Roofs
- b) Grassed channels/Swales
- c) Filter strips
- d) Bioretention Areas
- e) Vegetated swales and detention basins
- f) Infiltration Basins

Benefits subject to design:

- a) Ponds
- b) Wetlands

3.3.4 Water Quality

There are no Q Value monitoring points outlined along the Sluice River on the Environmental Protection Agency's online map viewer database. Transitional water quality readings between 2010 – 2012 indicate that the transitional waters where the Sluice River meets the Baldoyle Estuary, approximately 2km downstream of Kinsaley, were of "Eutrophic" status indicating that there was high nutrients and plant growth in these waters.

The Water Framework Directive Monitoring Programme became operational in 2006. The introduction of Water Framework Directive has been a key driver in the implementation of SuDS. For the most recent monitoring period (2010 – 2015), the Sluice River has not been assigned a quality status. The status of the Baldoyle Estuary is also currently unassigned.

Although readily available information was not available at the time of writing, the implementation of SuDS as part of future development within the LAP should ensure that the quality and quantity of discharge from future development to the river will not negatively impact the existing condition of the river, moreover, the adoption of SuDS systems in all new developments, the retrofitting of SuDS and the protection of existing floodplains shall assist in the attainment of our objectives under the Water Framework Directive.

3.4 Effects of Climate Change

The effects of climate change need to be considered when designing and preparing maintenance regimes for SuDS features. Sedimentation is one of the primary removal mechanisms in SuDS. As discussed above in Section 3.1, this is achieved through the reduction in flow velocities to a level at which particles fall out of suspension. However, care must be taken through design and appropriate maintenance regimes to ensure the risk of re-suspension is minimised during extreme rainfall events.

The level of biodegradation activity that occurs within SuDS features will be affected by environmental conditions such as temperature and the supply of oxygen and nutrients. It is also depending on the physical conditions within the ground such as the suitability of the materials for colonisation.

3.5 SuDS Techniques

In addition to the objectives above, in order to replicate the natural drainage system, a 'Management Train' is required. The Management Train sets a hierarchy of SuDS techniques which should be implemented in series as follows:

- (iv) Prevention – prevent runoff and pollution
- (v) Source Control – control runoff at or close to the source
- (vi) Site Control – management of surface water in the site/local area
- (vii) Regional Control – management of surface water from a number of sites together

Various SuDS components have different capabilities regarding the objectives outlined above and are more suited to certain stages of the Management Train. The principle of the Management Train is that wherever possible, surface water should be managed locally in small, sub-catchments rather than being conveyed to and managed in large systems further down the catchment. Table 3.1 below contains examples of SuDS techniques for Source, Site and Regional controls. (*Refer to Section 6 for details on each technique*).

Table 3.1 SuDS Techniques for Source, Site & Regional Control

Source Control	Site Control	Regional Control
Rainwater Harvesting	Permeable Paving	Detention Ponds/Basins
Green Roofs	Bioretention Strips	Retention Ponds/Basins
Permeable Paving	Infiltration Trenches	Wetlands
Bioretention Strips	Filter Drains	Infiltration Basins
Filter Drains	Filter Strips	Detention Basins
Infiltration Trenches	Swales	Petrol Interceptors*
Filter Strips	Sand Filters	
Soakaways	Infiltration Basins	
Blue Roofs	Detention Basins	
Swales	Petrol Interceptors*	

*Use of Petrol Interceptors should be avoided except where the potential for hydrocarbons entering the surface water drainage network is particularly high. Treatment of surface water runoff should be provided through the use other SuDS techniques.

3.6 Modular SuDS Components

Management trains for new and existing developments should facilitate the construction of future SuDS components and/or provide for future enhancements to existing SuDS components – to mitigate the risk of flooding caused by more extreme rainfall events and risk of pollution due to lower baseflow in receiving waters.

Modular components can include:

- Additional physical SuDS features e.g. swales, basins and ponds and/or;
- Enhancements to existing SuDS features by upsizing and/or;
- Introducing vegetation and/or;
- Management actions e.g. changing the maintenance regime in response to findings of a monitoring regime.

Subject to the findings of a monitoring regime, it may be found that more frequent maintenance of the SuDS components (e.g. grass cutting, disposal of contaminated soil and planting) may negate the requirement for additional SuDS components.

4. REVIEW OF EXISTING DRAINAGE NETWORK IN RESPECT OF SUDS

This section outlines the various SuDS techniques, existing and proposed in either live planning applications or development proposals, within the Kinsaley LAP area. Information has been gathered from a review of planning applications in Kinsaley, Fingal Development Plan 2017-2023, and a site visit undertaken on the 31st August 2018.

Development in Kinsaley is predominantly residential. Recent construction occurred during 2006 (St. Olave's / Abby Well) and 2015 (Cooper's Wood and Emsworth Park). Implementation of SuDS techniques by Local Authorities typically began following the publication of the Greater Dublin Strategic Drainage Strategy (GDSDS) in 2005.

4.1 Current Scenario

Table 4.1 Impact of Existing SuDS Techniques on Existing Drainage Network

Development	SuDS Techniques	Comment	Impact on Existing Network
Cooper's Wood	Roadside Swales	Roadside swales to the north of the development draining roads within the estate	Reduces potential runoff to existing network via infiltration. Removal of potential urban pollutants
	Probable Permeable Paving	Paving stones at site but planning application shows macadam	Reduces potential runoff to existing network. Removal of potential urban pollutants
	Underground attenuation	To east of site.	Prevents increase in peak flow rate in drainage network as a result of development
Emsworth Park	Cascading Roadside Swales	Swales are draining parts of the roads within the estate	Reduces potential runoff to existing network via infiltration. Removal of potential urban pollutants
	Roadside Basin	To north east of site. Road runoff drains to the basin.	Provides attenuation and prevents increase in peak flow rate in drainage network as a result of development
	Permeable Paving	Permeable paving on driveways allows partial infiltration of surface water to subsoil	Reduces potential runoff to existing network. Removal of potential urban pollutants
	Underground attenuation	The south west of the site.	Prevents increase in peak flow rate in drainage network as a result of development

4.2 Future Scenario – Live Planning Applications / Currently Under Construction

Table 4.2 *Impact of SuDS Techniques in Live Planning Applications on Existing Drainage Network (i.e. planning permission already granted) / Sites currently under development*

Development	SuDS Techniques	Comment	Impact on Existing Network
Housing Development south of Chapel Road, opposite Kinsaley Lane, residential and childcare scheme (Under Construction) Planning Reference: F16A/0511	Surface Water Attenuation	Hydrobrakes at connection points to existing network. Underground attenuation systems. Detention Basins.	Prevents increase in peak flow rate in drainage network as a result of development.
	Infiltration Trenches	Infiltration trenches in back gardens and adjacent to roadways, discharging to piped network	Reduces runoff rate, volume and pollutants entering drainage network.
	Permeable Paving	Permeable paving on driveways allows partial infiltration of surface water to subsoil	Reduces potential runoff to existing network. Removal of potential urban pollutants.
	Petrol Interceptor	Petrol interceptor located at Kinsaley Lane / Chapel Road	Prevents hydrocarbons entering existing drainage network
Construction of 101 bedroom residential care facility, Kinsaley Lane (Granted permission) Planning Reference: F16A/0202	Rainwater Harvesting	Units for use in building.	Reduces runoff volume entering the surface water drainage network.
	Surface Water Attenuation	Hydrobrakes at connection points to existing network. Retention ponds.	Prevents increase in peak flow rate in drainage network as a result of development.
	Filter strip / swale	Located along proposed access road.	Reduces runoff rate, volume and pollutants entering drainage network.
	Petrol Interceptor	Petrol interceptor located at south of site.	Prevents hydrocarbons entering existing drainage network

Development	SuDS Techniques	Comment	Impact on Existing Network
Construction of 101 dwellings consisting of 2 bed, 3 bed and 4 bed houses, Chapel Road (Granted permission) Planning Reference: F16A/0464	Permeable Paving	Permeable paving on driveways allows partial infiltration of surface water to subsoil	Reduces potential runoff to existing network. Removal of potential urban pollutants.
	Surface Water Attenuation	Hydrobrakes at connection points to existing network. Detention basins.	Prevents increase in peak flow rate in drainage network as a result of development.
	Petrol Interceptor	Petrol interceptor located at north of site.	Prevents hydrocarbons entering existing drainage network
Construction of a craft centre, Malahide Road (Granted permission) Planning Reference: F16A/0491	Permeable Paving	Permeable paving to parking spaces. Access road to consist of self-draining gravel on a stabilisation grid. Permeable paving to be constructed in plaza area.	Reduces potential runoff to existing network. Removal of potential urban pollutants.
	Infiltration Blanket	Runoff from parking bays and roofs to be directed to infiltration blankets.	Reduces runoff rate, volume and pollutants entering drainage network.

4.3 Future Scenario – Proposed Development and Infrastructure as per Fingal Development Plan 2017-2023 if built

Proposals for Kinsaley, as a village within the Metropolitan Area, in the Fingal Development Plan 2017-2023 include the following to protect and promote:

- Village character through preparation of a Village Development Framework Plan,
- A sustainable mix of commercial and community activity within an identified village core which includes provision for appropriate sized enterprise, residential, retail, commercial, and community facilities,
- The water services provision within the village,
- Community services which allow residents to meet and interact on a social basis, and include churches, community and sports halls, libraries and pubs,
- A mix of housing types and tenure which will appeal to a range of socio-economic groups,
- Retail activity, consistent with the Fingal Retail Strategy, in the form of village shops which will meet the needs of the local community,
- A public realm within the village which allows people to circulate, socialise and engage in commercial activity in a manner which balances the needs of all involved,
- The provision of Green Infrastructure, including natural, archaeological and architectural heritage, and green networks within the village,
- Zoning objective which aims to protect the special character of Rural Villages and provide for improved village facilities,

- Careful consideration of future development (ensure it does not expand rapidly, putting pressure on services and the environment and creating the potential for unsustainable travel patterns).

4.4 Sustainable Water Management

It is a specific objective of the current Fingal County Development Plan to require all Local Area Plans to protect, enhance, provide and manage green infrastructure in an integrated and coherent manner, which includes sustainable water management. This can be achieved through the implementation of the SuDS Protocol, (which will be discussed further in Section 6) along with natural floodplain management. It is a specific objective to establish riparian corridors free from new development along significant watercourses, including the Sluice River. Along the Sluice River, a 30m wide riparian buffer strip is required from top of bank to either side of all watercourses is required as a minimum. The provision of such buffer strips will:

- Preserve water quality by filtering sediment from runoff before it enters the river;
- Protect the river bank from erosion;
- Provide an undeveloped flood plain to accommodate flood waters during extreme flooding events (Refer to Kinsaley Strategic Flood Risk Assessment Flood Maps);
- Provide food and habitat for fish and wildlife;
- Preserve open space and aesthetic surroundings.

The primary impact on the existing surface water drainage network will be as a result of new development within the LAP boundary. Integration of SuDS techniques within these new developments will be required to ensure that the capacity of the existing network is not exceeded, and the quality of surface water runoff is not negatively impacted by the development. As discussed further in Section 6, it is recommended that runoff from private developments be managed at source, by limiting discharge to 2l/sec/ha and by providing attenuation for the 1 in 100 year rainfall event, including an allowance for climate change, within the curtilage of all proposed development plots. Runoff from public infrastructure such as roads and landscaped areas should be managed within the public realm, by also limiting discharge to 2l/sec/ha and by providing attenuation for the 1 in 100 year rainfall event, including an allowance for climate change of 20%. These SuDS features should also convey the attenuated flows from individual private plot. As discussed later in Section 6, runoff from roads and parking bays in public areas should be treated by a minimum of two SuDS components prior to discharge to receiving watercourses / sewers.

Based on the existing surface water drainage network and topographic levels obtained from contour mapping provided by FCC, it is likely that the majority of the LAP lands will outfall to the Sluice River. Where the new surface water drainage network for the LAP lands is connecting to the existing surface water network in Kinsaley, the capacity of the existing network will need to be established at these locations and discharge from the developments limited to acceptable flow rates. The quality of any runoff from any new development will need to be such that the existing water quality and flow regime is not negatively affected.

5. SUDS SELECTION

5.1 Land use

The majority of land within the LAP area is Zoned Objective RV – ‘*Protect and promote the character of the Rural Village and promote a vibrant community in accordance with an approved local area plan and the availability of physical and community infrastructure*’. Potential lands for future development currently within the Kinsaley LAP zoned RV are outlined in Table 5.1 below and in Appendix A.

Table 5.1 Potential lands for future development within the LAP Zoned Objective RV

Site Ref	Location	Name	Approximate size (ha)
1	Kinsaley Lane	Kinsaley Lane Development Area	2.5
2	Malahide Road	Garden Centre Development Area	1.3
3	Malahide Road (Teagasc Site)	Former Teagasc Development Area	6.5
4	Malahide Road	Malahide Road West Development Area	4.0
5	Malahide Road	Malahide Road East Development Area	0.26
6	Chapel Road	Kinsaley House Development Area	6.5

Site 4 is located on the southern bank of the Sluice River. Future development on these sites should incorporate the provision of a riparian corridor along the river, as per Fingal County Councils current development plan objectives.

5.2 Site Characteristics

The various site characteristics which influence SuDS techniques are outlined below. The site characteristics have been obtained from a desktop study of LiDAR and Contour maps, Ordnance Survey maps and Geological Survey of Ireland (GSI) maps. *Refer to Appendix B for relevant maps.*

5.2.1 Soils

The soil in Kinsaley generally consists of Limestone Till (Carboniferous), Limestone Sand and Gravels (Carboniferous), and Bedrock at surface with some Alluvium in the flood plain of the Sluice River. There are no GSI records showing the depth to bedrock. Localised ground investigation will need to be undertaken to determine the depth to bedrock at each development area. The aquifer vulnerability increases within the LAP borders in a south-west to north-east direction from moderate to extreme. *Refer to Appendix B.*

5.2.2 Area Draining to SuDS Component

The Kinsaley LAP lands comprise approximately 39.8ha in total, with varying; land uses, ecological characteristics, topography, subsoil permeability, historical development and with some areas at risk of flooding, therefore, a carefully selected Management Train of various SuDS components will be required to effectively manage surface water runoff.

5.2.3 Minimum Depth to Water Table

Typically, some SuDS techniques require a minimum 1m depth of soil between the maximum water Table level and the base of the device (e.g. Soakaways). Localised

ground investigation will need to be undertaken to determine the depth to groundwater at each development area.

5.2.4 Site Slope

The slope of the lands within the LAP Area is diverse but generally slopes towards the Sluice River. The majority of the LAP area has gentle slopes less than 5% towards the Sluice River.

In steeper sections, swales can be routed along contours or fitted with cascades to reduce the effective gradient. Ponds and basins are not usually located in areas with slopes >5%, although tiered systems can be effective in treating runoff but need to be carefully designed.

5.2.5 Available Head

Based on existing levels in the proposed development areas, available head is unlikely to be an issue for any SuDS solutions.

5.2.6 Available Space

Given the extent of undeveloped land within the LAP, there should be significant available space to incorporate SuDS features as part of any future development. Planning applications granted on lands that are currently undeveloped have made an allowance for the inclusion of SuDS features.

5.3 Catchment Characteristics

5.3.1 Aquifers used for Public Water supply

The majority of Kinsaley is underlain by Poor Aquifer – Bedrock is Generally Unproductive except for Local Zones. In the south-eastern part Kinsaley is underlain by Locally Important Aquifer – Bedrock which is Moderately Productive only in Local Zones. This suggests a reasonable depth to groundwater. This is expected based on the coastal location of the area. There are no GSI or EPA Source Protection Zones in the vicinity of the LAP area. GSI records show no wells within the LAP lands. *Refer to Appendix B.*

5.3.2 Surface Waters used for Public Supply

The watercourses in the area do not appear to be used for surface water abstraction.

5.3.3 Coastal / Estuarial Waters

According to the SuDS Manual (2015) and Greater Dublin Strategic Drainage Study (GDSDS), discharge to coastal waters do not typically require attenuation as there will be no deterioration in flood risk as a result of an increase in runoff. However, it will be necessary to provide a combination of source controls, site controls and regional controls as part of the Kinsaley surface water drainage system to protect and enhance the receiving coastal / estuarine waterbodies. This will help achieve our obligations under the Water Framework Directive.

It will be necessary to provide a combination of SuDS systems within the curtilage of all new individual development plots and proposed public areas (to be taken-in-charge) as part of all new developments. This approach should be adopted in tandem with Fingal County Council Policy, to protect and enhance floodplains (as identified in the Strategic Flood Risk Assessment for the Kinsaley LAP), to ensure high water quality from runoff into these downstream areas.

5.3.4 Receiving Waters that act as Formal Recreational / Amenity Facilities

The following recreational / amenity facilities in receiving waters from Kinsaley have been identified:

- Burrow Beach located approximately 5.0km south east of Kinsaley;
- Portmarnock Beach located approximately 3.0km east of Kinsaley.

5.3.5 Requirements for Sustainable Water Management / Water Conservation Measures

The provision of rainwater harvesting for landscaping purposes shall be provided in all residential developments. Any commercial, educational or institutional buildings shall provide rainwater harvesting for non-consumption purposes (eg. flushing toilets).

5.3.6 Habitat – Dependent Flow Regime

As part of any future development within the LAP boundary, discharging to the existing surface water network should not exceed 2l/sec/ha. This shall be implemented via SuDS measures and on-site attenuation, ensuring that there is no significant impact on the existing flow regime of the Sluice River, and through the protection and enhancement of existing Floodplains.

5.3.7 Flood Risk

Proposed surface water drainage networks should be designed such that runoff is limited to 2l/sec/ha. *Refer to Kinsaley LAP Flood Risk Assessment.*

5.4 Quantity and Quality Performance

In selecting suitable SuDS components for a SuDS management train, the quantity of runoff and quality performance for various SuDS techniques should be assessed:

- Source Control techniques are most effective in reducing run off volume
- Open Channels and Detention Basins provide the best hydraulic control for large flows (1% AEP), and water quality benefits.
- Permeable paving, Infiltration and Filtration techniques (filter strips, swales, grassed channels) are most effective for water quality treatment
- Subsurface storage systems offer limited potential for water treatment.

5.5 Community, Environmental and Amenity Performance

Community and environmental factors for various SuDS techniques include Maintenance Regime, Community Acceptability, Construction and Maintenance Costs and Habitat Creation Potential.

Detention Basins and Swales (particularly Conveyance Swales) typically provide the most cost effective SuDS solution while also incorporating the potential for habitat creation.

The implementation of wetlands will typically promote habitat creation and are generally accepted by communities as they provide valuable open space for visual and recreational enjoyment, however capital and maintenance costs can be relatively high.

There may be some public safety concerns associated with SuDS techniques involving open water, however good design and education can help minimise these

concerns. This can be achieved through ‘demonstration projects’ and initiatives to educate local residents of the benefits of SuDS systems and natural floodplain management approaches as a means to tackle flood risk, particularly in response to climate change and the adverse environmental effects of uncontrolled contaminated stormwater runoff from urban developments. The SuDS approach also offers benefits to the health and wellbeing of citizens.

6. SUDS STRATEGY

6.1 SuDS Protocol for New Development

As part of any future development within the Kinsaley LAP, the developing authority should adapt the following protocol. This protocol will provide guidance for assessing the resilience of SuDS to climate change during periods of drought, flash flooding, temperature extremes and periods of persistent rainfall and to propose appropriate resilient SuDS strategies to manage stormwater runoff arising from severe rainfall events now and into the future. An overview of this protocol is outlined in Figure 6.1 below.

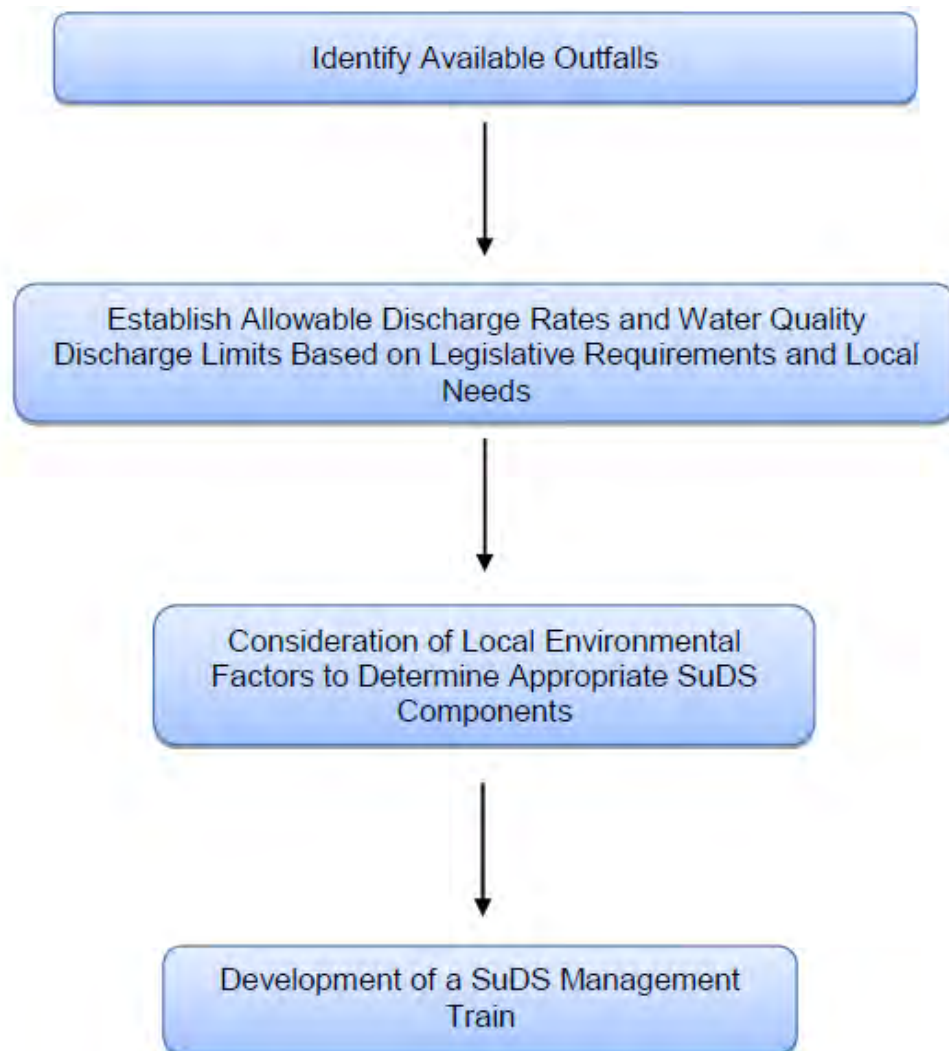


Figure 6.1 Recommended SuDS Protocol to Be Adapted

6.2 Management Train

A Management Train is usually required when developing a SuDS strategy. A Management Train sets a hierarchy of SuDS techniques which are subsequently linked together. Each technique employed contributes in different ways and degrees to the overall drainage network. The scale and number of components required will depend on the respective catchment characteristics and likely concentration of pollutants in the inflow. Considering the scale of proposed developments, a combination of carefully designed and appropriately maintained source controls, site controls and possibly regional controls are required as part of the surface water drainage system to ensure high water quality from runoff into these area.

Following a review of all the information presented in previous sections, a selection of some SuDS techniques suitable for inclusion in the Kinsaley LAP are described below. Given the extent of potential development lands within the LAP and that source and site control devices should be utilised on these lands, regional control measures may not be required.

6.3 Source Controls

6.3.1 Water Butts

Water Butts are small, offline storage devices designed to collect runoff from roofs. They are the most common means of harvesting rainwater for garden use and have a typical capacity of less than 0.5m³. Two-stage devices can provide some storage volume for attenuation using a throttled overflow, however poor maintenance can lead to blockages.

Table 6.1 Advantages of Water Butts

Advantages
Ease of installation (new and retrofit)
Inexpensive
Provides water for non-potable means – typically garden use
Suitable for all developments



Figure 6.2 Domestic Water Butt (Susdrain.org)

Water Butts are recommended for all residential properties.

6.3.2 Rainwater Harvesting

Rainwater harvesting involves collection of rainwater from roofs and hard surfaces, similar in principle to Water Butts but generally on a much larger scale. Collected water is typically used for non-potable purposes such as irrigation, flushing toilets and washing machines. The size of the harvesting tank depends on catchment area, seasonal rainfall pattern, demand pattern and retention time. Stormwater attenuation can also be provided by additional storage capacity in the tank.

Table 6.2 Advantages of Rainwater Harvesting

Advantages
Reduced demand of mains water
Can provide source control of stormwater runoff

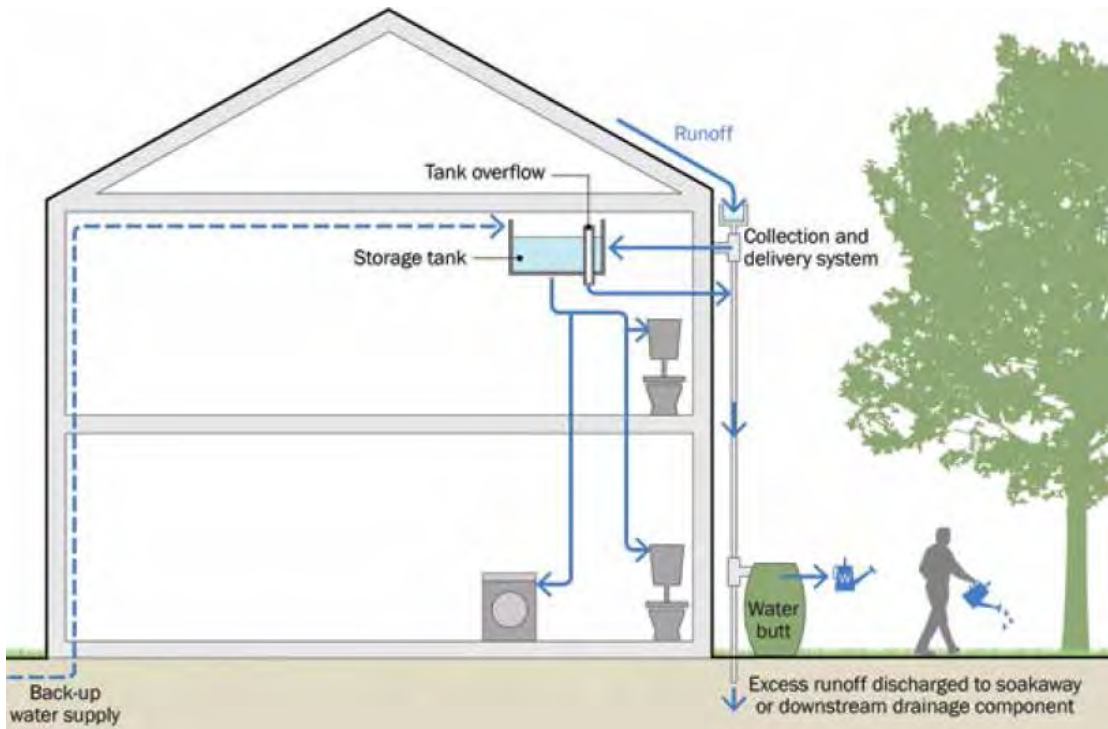


Figure 6.3 Rainwater Harvesting Schematic (CIRIA 753)

Rainwater Harvesting is recommended for use in commercial, industrial and educational buildings.

6.3.3 Permeable Pavements

Permeable pavements provide a pavement suitable for pedestrian and/or vehicular traffic, while allowing rainwater infiltrate through the surface and into the underlying layers where it is subsequently infiltrates to the ground and/or is collected and conveyed to the drainage network. Permeable pavements are most suitable for areas with light traffic loads and volume. The pavement generally caters for rainwater which lands directly on its surface but in certain cases, can accept runoff from other impermeable areas, such as Water Butts, Modified Planters or directly from rainwater goods and paved areas.

Table 6.3 Advantages of Permeable Paving

Advantages
Peak flow reduction
Runoff volume reduction
Effective in removing urban runoff pollutants
No additional land space requirements
Low maintenance costs
Good community acceptability

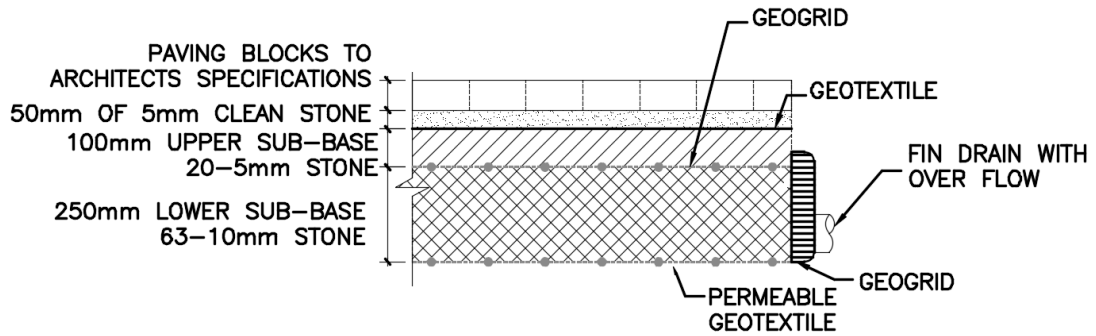


Figure 6.4 Typical Permeable Paving Detail

Permeable paving is recommended for all residential and commercial parking spaces. Lightly trafficked roads should be considered for permeable block paving. Detailed site investigation will be required to determine if total, partial or no infiltration to groundwater is possible.

6.3.4 Green / Blue Roofs

Green Roofs comprise a multi-layered system which covers the roof of a building with vegetation and landscaping over a drainage layer. Blue Roofs comprise a porous surface that is explicitly designed to store water. Both systems are designed to intercept and retain precipitation which reduces the volume and rate of surface water runoff. Both systems can be integrated on a variety of roof types and sizes, although larger roof areas are typically more cost effective. They are particularly suited to flat / gently sloping roofs on commercial buildings, sports centres, schools, apartment blocks and other similar buildings.

Table 6.4 Advantages of Green / Blue Roofs

Advantages
No additional land take
Ecological, aesthetic and amenity benefits
Good removal of atmospherically deposited pollutants
Provides further insulation to buildings
Runoff storage provided at source

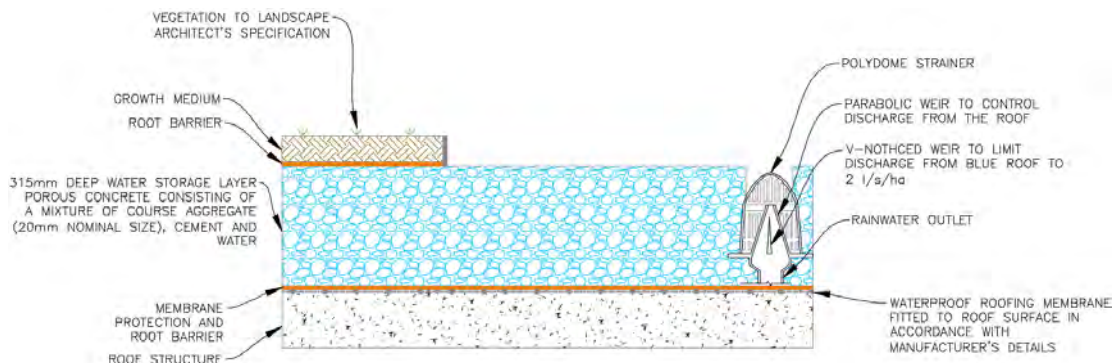


Figure 6.5 Typical Green / Blue Roof Schematic

6.3.5 Green Walls

Green Walls are walls that have plants growing on, or integrated within them, providing a living and self-regenerating cladding system. Green walls can comprise climbing plants supported by the wall, hanging plants which hang from suspended planters or plants growing within them.

Table 6.5 Advantages of Green Walls

Advantages
Can occupy much greater surface area than green roofs
High amenity & biodiversity benefits
Improves thermal efficiency of building
Good removal of atmospherically deposited pollutants



Figure 6.6 Green Wall (CIRIA C644, 2007)

6.3.6 Filter Drains

Filter drains are shallow excavations backfilled with granular material that create temporary subsurface storage for either filtration or infiltration of stormwater runoff. Filter drains can contain a perforated pipe at the base to convey runoff to further SuDS components in the Management Train.

Table 6.6 Advantages of Filter Drains

Advantages
Can reduce runoff rates and volumes
Significant reduction in pollutant load
Easily incorporated into site landscaping



Figure 6.7 Example Filter Drain

Subject to appropriate ground conditions, filter drains are recommended for draining residential back gardens and other small grassed areas where subsoil permeability is low. Filter drains can also be used to drain carriageways. The base of the filter drain should be a minimum 500mm above highest expected groundwater table level.

6.3.7 Soakaways

Soakaways are excavations that are filled with a void-forming material that allows the temporary storage of water before it soaks into the ground. They are generally suited for small catchments, such as within the curtilage of a dwelling. Many soakaways are now constructed with geocellular units, as these units provide good overall storage capacity.

Table 6.7 Advantages of Soakaways

Advantages
Minimal net land take
Provides groundwater recharge
Good volume reduction and peak flow attenuation
Easy to construct and operate

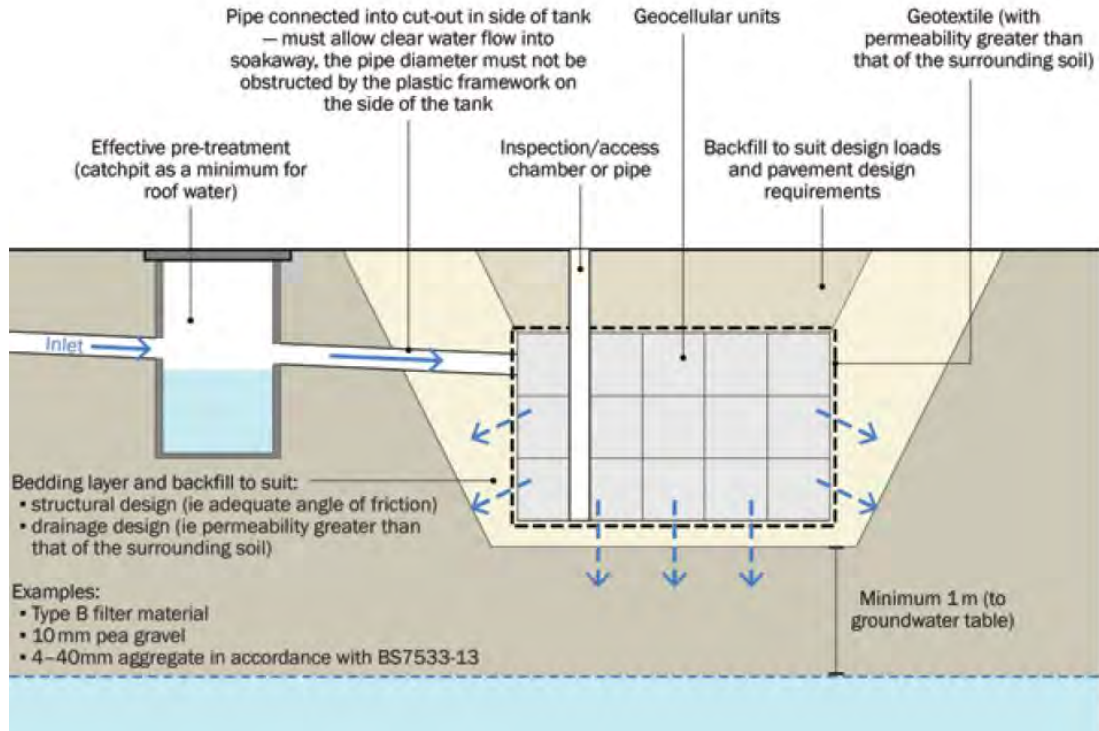


Figure 6.8 Typical Schematic of a Soakaway (SuDS Manual, 2015)

Subject to appropriate ground conditions, soakaways are recommended for draining residential gardens and other small grassed areas where subsoil permeability is low.

6.4 Site Controls

6.4.1 Swales

Swales are broad, shallow, vegetated drainage channels which can be used to convey or store surface water. Swales are generally suited for small catchments with impermeable areas. They are typically provided along roads in grass verges. Swales can be designed for infiltration to subsoil or detention and conveyance to another stage in the management train. Conveyance can be in the open channel or in a perforated pipe within a filter bed below the base of the channel.

Table 6.8 Advantages of Swales

Advantages
Good removal of pollutants
Easy to incorporate into landscaping
Peak flow reduction
Runoff volume reduction (depending on design)

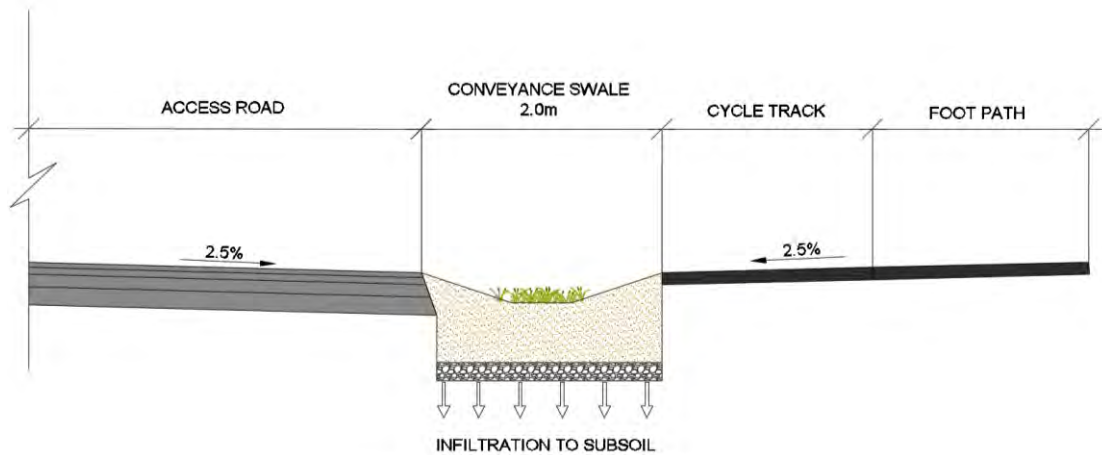


Figure 6.9 Typical Swale Schematic



Figure 6.10 Example Roadside Swale – Emsworth Park, Kinsaley

Swales are recommended to cater for runoff from access roads, providing water treatment and reduction in peak flow. Depending on local subsoil conditions, dry swales are recommended which provide infiltration and further reduce runoff volume. Where vehicle and pedestrian access is required across a swale, a causeway can be provided. The levels at the outer swale banks will be higher than at the centre of the crossing point. This drop in level acts as an exceedance route for runoff from the swale during extreme rainfall events.



Figure 6.11 Example Causeway for Access Across Swale (Robert Bray Associates)

6.4.2 Bioretention Areas / Modified Planters

Bioretention areas are stormwater controls that collect and treat stormwater runoff. The runoff is treated using soils and vegetation in shallow landscaped basins to remove pollutants. Treated runoff can be collected and conveyed further downstream and/or allowed infiltrate into the subsoil. Part of the runoff volume will be removed by evaporation and plant transpiration.

Table 6.9 Advantages of Bioretention Areas / Modified Planters

Advantages
Very good removal of pollutants
Runoff volume and peak flow reduction
Flexible layouts possible
Can be aesthetic landscaping features

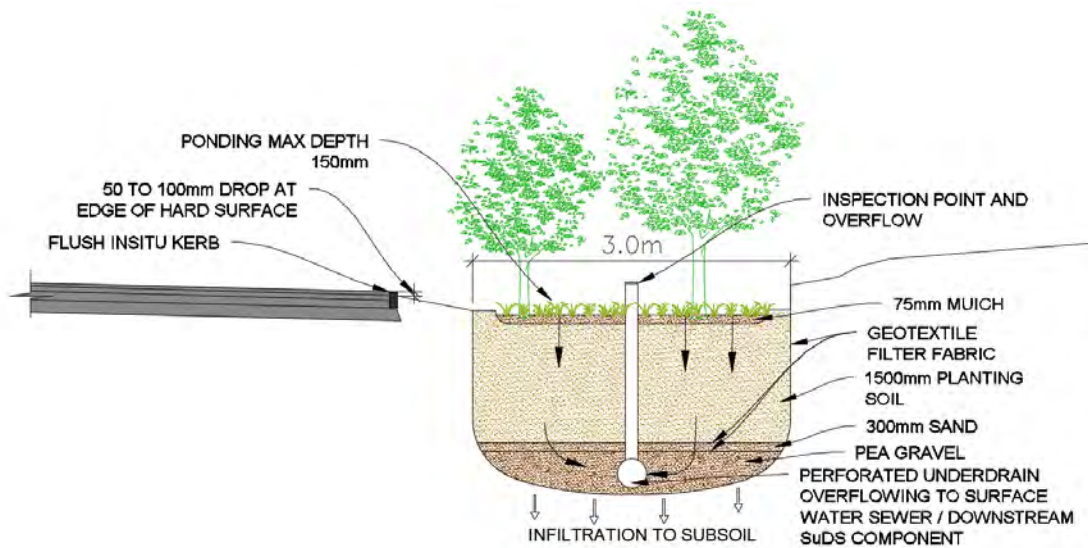


Figure 6.12 Bioretention Area Schematic



Figure 6.13 Example Roadside Bioretention Area (Portlandoregon.gov)

Bioretention areas are recommended to cater for runoff from residential neighbourhoods and car parks.

6.4.3 Detention Basins

Detention Basins are dry basins that attenuate stormwater runoff by providing temporary storage with flow control of the attenuated runoff. Detention basins are generally applicable to most types of developments. In residential areas they are normally dry and often function as a recreational facility, e.g. sports fields or play grounds. They may be constructed such that surface runoff is routed through them during storm events with an outflow restriction (online), or such that runoff typically bypasses the detention basin until a design storm event occurs when runoff is received by a flow diverter or overflow and temporarily stored until the inflow recedes below a design level (offline). Small permanent pools at the outlet can enhance water treatment quality.

Table 6.10 Advantages of Detention Basins

Advantages
Can cater for wide range of rainfall events
Simple to design and construct
Potential for dual use
Easy to maintain



Figure 6.14 Example Detention Basin (SuDS Manual, 2015)

6.5 Regional Controls

6.5.1 Ponds

Ponds are basins which have a permanent depth of water. They can be constructed in an existing depression, by excavating a new depression or by constructing embankments. Runoff which enters the pond is detained and treated by settlement and often biological uptake before outfalling. Ponds should contain the following features:

- Sediment Forebay – This may not be required if previous SuDS techniques are implemented upstream
- Permanent pool – This minimum volume of water (excluding losses due to infiltration and evaporation) will remain throughout the year. The main treatment associated with the pond occurs in this pool.
- Temporary Storage Volume – An additional storage volume within the pond to provide flood attenuation for design events.
- Aquatic Bench – A shallow zone around the perimeter of the pool to support wetland planting which provides biological treatment, ecology, amenity and safety benefits.

Table 6.11 Advantages of Ponds

Advantages
Good removal of pollutants
High potential ecological, aesthetic and amenity benefits



Figure 6.15 Example Landscaped Pond

Ponds are recommended at the end of proposed surface water drainage networks following previous SuDS techniques in the Management Train. Outflow from any proposed ponds may be restricted at times due to high tide levels and as such may require additional attenuation volume. Inclusion of several independent cells is encouraged which will enhance biodiversity, improve water quality levels and provide a more environmentally effective management programme.

6.5.2 Constructed Wetlands

Constructed Wetlands comprise of shallow ponds and marshy areas which are designed primarily for stormwater treatment but can also provide some attenuation above the permanent water level. Well designed and maintained wetlands can offer significant aesthetic, amenity and biodiversity opportunities. Constructed wetlands require a continuous baseflow to support a plant-rich community. Wetlands should contain the following features:

- Shallow, vegetated areas of varying depths
- Permanent pools or micropools
- Small depth range overlying permanent pool in which runoff control volumes are stored
- Sediment forebay
- Emergency spillway
- Maintenance access
- Safety bench

Table 6.12 Advantages of Constructed Wetlands

Constructed Wetlands
Good removal of pollutants
High potential ecological, aesthetic and amenity benefits



Figure 6.16 Example Constructed Wetland

Constructed Wetlands are recommended at the end of proposed surface water drainage networks following previous SuDS techniques in the Management Train. Their primary objective should be treatment, not attenuation. Outflow from any proposed ponds may be restricted at times due to high tide levels and as such may require additional attenuation volume. Inclusion of several independent cells is encouraged which will enhance biodiversity, improve water quality levels and provide a more environmentally effective management programme. Permanent pond volume should be provided in accordance with CIRIA C753 'The SuDS Manual'.

6.6 Recommended Management Train for Undeveloped Areas

Recommended SuDS features that should be utilised as part of a management train for undeveloped areas for residential, commercial, industrial and educational uses are outlined below:

SuDS Protocol for Residential Developments:

For all future residential developments:

- runoff within the curtilage of the property boundary shall pass through at least one SuDS component prior to discharging to downstream SuDS components within the public realm.
- Storage for the 100 year event (as a minimum) including a 20% increase in rainfall intensity for climate change shall be provided within the curtilage of the property boundary, with a maximum discharge rate of 2l/s/ha.
- Runoff from public areas (such as roads, parking bays, hard and soft landscaped areas and footpaths) shall pass through at least two SuDS components prior to discharging to the final downstream detention/retention/polishing SuDS components within the public realm.
- The Final SuDS Components located in the public realm shall comprise basins/ponds/wetlands (as appropriate), prior to discharge to the Sluice River or local surface water sewer.
- Storage for the 100 year event (as a minimum) including a 20% increase in rainfall intensity for climate change shall be provided for runoff from the public realm, with a maximum discharge rate of 2l/s/ha.

In addition, a 30m wide riparian buffer strip shall be provided from top of bank to either side of the Sluice River.

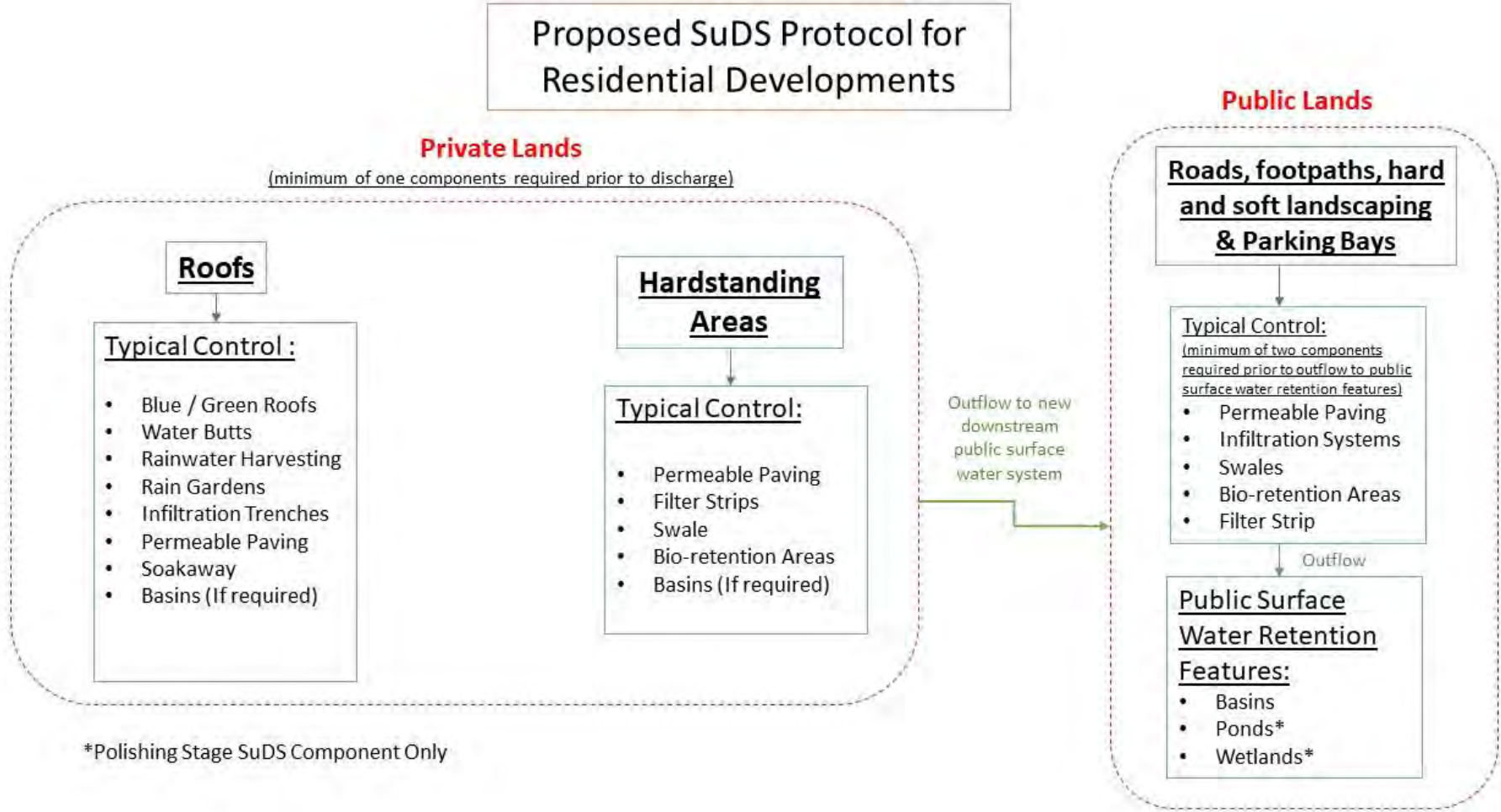


Figure 6.17 Proposed SuDS Features to Be Utilised for Residential Development Management Train

Commercial, Industrial, Educational and Apartment Developments:

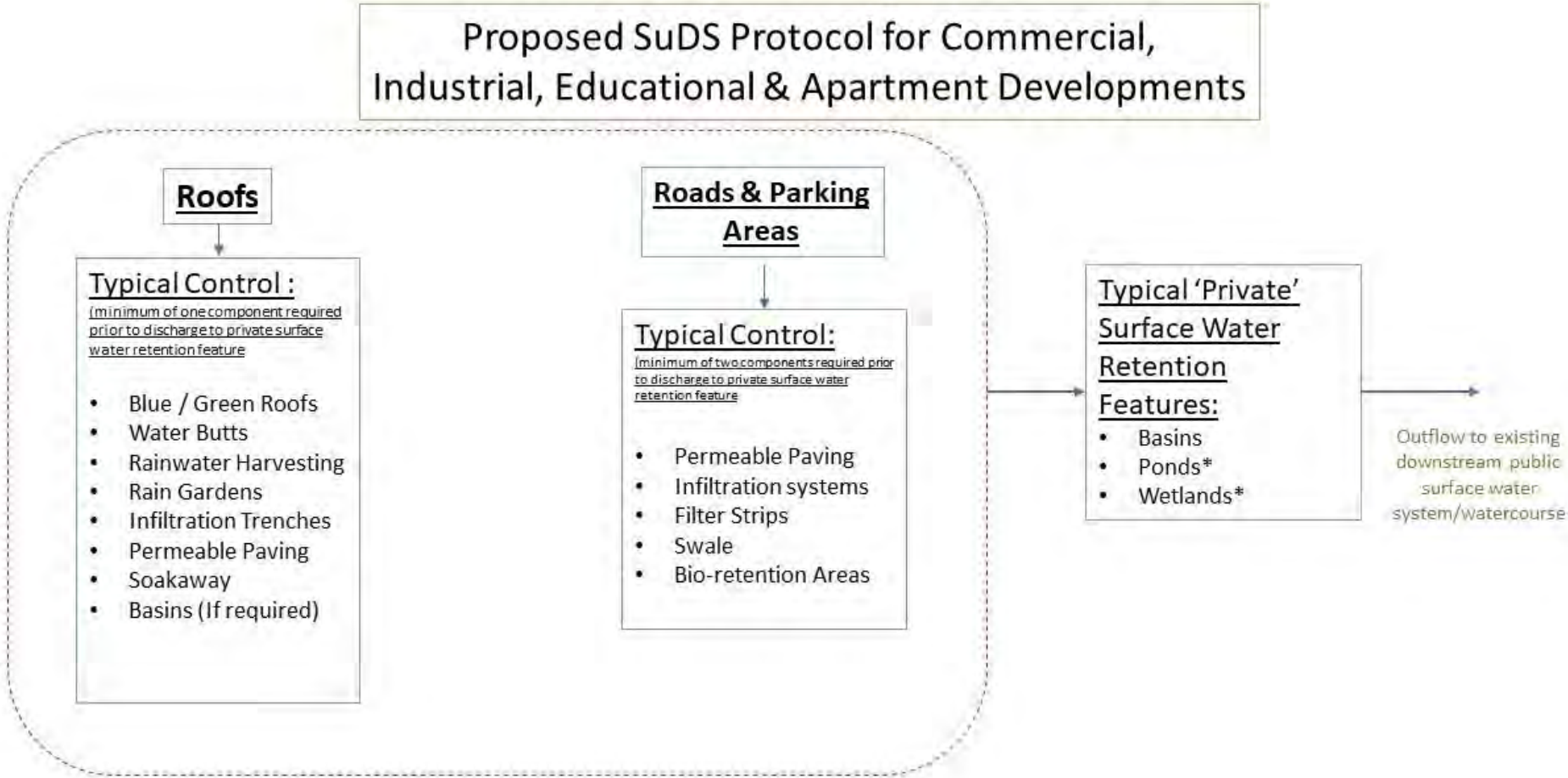
For all future commercial, industrial, educational and apartment developments:

- runoff from roofs shall pass through at least one SuDS feature prior to discharge to on-site surface water retention features.
- Blue/green roofs shall be provided to store the 100 year event with an allowance for Climate Change.
- runoff from roads and parking areas shall past through at least two SuDS features prior to discharge to the final on-site surface water retention features.

The final 'Private' surface water retention features shall comprise basins/ponds/wetlands (as appropriate), prior to discharge to the local surface water sewers/watercourses.

Storage for the 100 year event (as a minimum) including a 20% increase in rainfall intensity for climate change shall be provided for runoff from the developments, with a maximum discharge rate of 2l/s/ha.

In addition, a 30m wide riparian buffer strip shall be provided from top of bank to either side of the Sluice River.



*Polishing Stage SuDS Component Only
All new industrial/commercial and apartment developments shall incorporate blue / green roofs to attenuate the 1 in 100 year (incl. climate change) rainfall event.

Figure 6.18 Proposed SuDS Features to Be Utilised for Industrial, Commercial & Educational Development Management Train

If the R107 Malahide Road Realignment, Balgriffin Bypass (Specific Objective of current County Development Plan) is to be implemented, which is proposed to pass through the north western corner of the LAP lands, it is recommended that filter strips, swales and detention basins (as a minimum) be utilised to cater for runoff from the proposed road, providing water treatment and reduction in peak flow.

6.7 SuDS Retrofitting

There are opportunities for SuDS retrofitting throughout the LAP, however, this would be difficult to implement on existing private development. This is due to a lack of knowledge on the societal benefits of SuDS (economic, ecological, health and well-being, amenity etc.) by the general public. SuDS measures that could be implemented on existing private development include permeable paving on driveways, installation of rainwater harvesting systems and the provision of vegetated systems such as swales and bioretention areas within private gardens.

7. IMPACT OF SUDS STRATEGY

7.1 Runoff Quantity

Increase in the area of hardstanding within the development areas will result in an increase in the total runoff quantity due to reduced infiltration of surface water to ground. This increase will be minimised through the use of rainwater harvesting and evaporation and transpiration from open channels / ponds and vegetation respectively.

7.2 Runoff Quality

Management of runoff quality is important in order to protect existing water quality in receiving waters. The proposed SuDS Strategy implements a Management Train whereby runoff will pass through a series of SuDS techniques prior to outfall. Each technique will provide different treatment processes – settlement, filtration, removal of nutrients, removal of heavy metals and biological treatment through vegetation.

7.3 Amenity and Biodiversity

The lands in Kinsaley available for new development currently consist primarily of farmland with a mix of grass and tillage farms, the existing Teagasc facility and the garden centre lands on Malahide Road. The proposed SuDS Strategy will introduce a variety of features to promote and enhance amenity and biodiversity in the area. Tree plantings will be incorporated within Bioretention Areas. Ponds/Wetlands should be designed with an emphasis on ecology. Ponds should contain multiple pools fed by cleaner surface water runoff from surrounding grassland or scrub. This will allow a wider range of plants and animals to exploit the overall pond development. A variety of local (c.30km) pond plants should be included to maximise habitat structural diversity. A mix of open, lightly shaded and densely shaded areas will also add to the diversity of habitats available.

7.4 Flooding

Implementation of the SuDS Strategy will reduce peak flow runoff of the proposed development and minimise the risk of flooding. Ponds located in low lying areas will need to be designed to provide additional attenuation volume as it may not be possible to outfall during periods of extreme tidal events. *Refer to Kinsaley LAP Strategic Flood Risk Assessment.*

7.5 Groundwater

It is expected that the infiltration capacity of the soil within the LAP will be generally good as the LAP lands are within Soil Class 2, as identified in the Flood Studies Report. Infiltration SuDS techniques may be favourable as part of this SuDS Strategy. As a result of the proposed development, there will be a significant increase in the area of hardstanding within the LAP, resulting in a loss of surface water infiltration to the underlying subsoil. Where possible, infiltration SuDS techniques should be implemented to minimise the effect of the development and replicate the natural hydrological process. Site specific ground investigations should be undertaken when determining the infiltration capacity for future development sites.

7.6 Surface Water Drainage Network

The majority of land zoned for new development will require construction of new surface water drainage networks. These networks should discharge at the downstream end of the existing networks where possible. It is recommended that the SuDS Protocol described above is adapted for all sites and that a SuDS Management Train is developed for all future development sites, prior to discharging to the Sluice River.

8. CONCLUSIONS

- As part of new development in the LAP lands, new surface water drainage networks will be required.
- SuDS measures will be required as part of these new developments to ensure the quantity, quality and ecological/biodiversity value of downstream water bodies are protected and enhanced, to assist in achieving our obligations under the WFD.
- The protocols outlined in this report for the various land uses should be adopted as a minimum, in accordance with Fingal County Council policy, and overarching national and EU legislation.

9. RECOMMENDATIONS

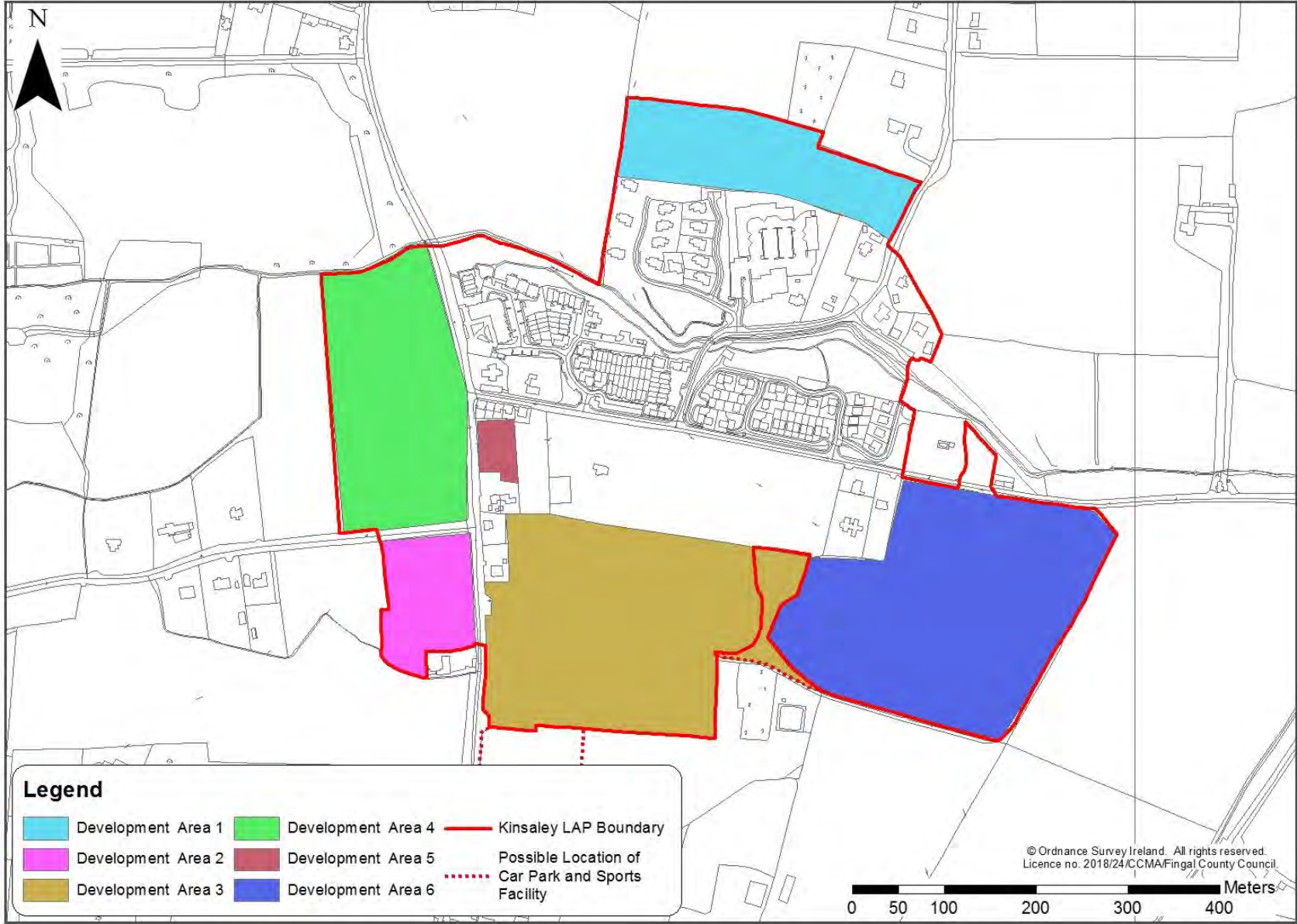
- 1) New surface water drainage networks will be required as part of developments within lands available for development. These networks should be designed in accordance with this SuDS Strategy, CIRIA C753 'The SuDS Manual' and the Greater Dublin Strategic Drainage Systems (GSDSDS).
- 2) Provide an undeveloped flood-plain to accommodate flood waters during extreme flooding events through the provision of a riparian corridor along the Sluice River – refer to the Strategic Flood Risk Assessment for the Kinsaley LAP.
- 3) For all future residential developments:
 - runoff within the curtilage of the property boundary shall pass through at least one SuDS component prior to discharging to downstream SuDS components within the public realm.
 - Storage for the 100 year event (as a minimum) including a 20% increase in rainfall intensity for climate change shall be provided within the

- curtilage of the property boundary, with a maximum discharge rate of 2l/s/ha.
- Runoff from public areas (such as roads, parking bays, hard and soft landscaped areas and footpaths) shall pass through at least two SuDS components prior to discharging to the final downstream detention/retention/polishing SuDS components within the public realm.
 - The Final SuDS Components located in the public realm shall comprise basins/ponds/wetlands (as appropriate), prior to discharge to the Sluice River or local surface water sewer.
 - Storage for the 100 year event (as a minimum) including a 20% increase in rainfall intensity for climate change shall be provided for runoff from the public realm, with a maximum discharge rate of 2l/s/ha.
- 4) For all future commercial, industrial, educational and apartment developments:
- runoff from roofs shall pass through at least one SuDS feature prior to discharge to on-site surface water retention features.
 - blue/green roofs shall be provided to store the 100 year event with an allowance for Climate Change.
 - runoff from roads and parking areas shall past through at least two SuDS features prior to discharge to the final on-site surface water retention features.
 - The final 'Private' surface water retention features shall comprise basins/ponds/wetlands (as appropriate), prior to discharge to the local surface water sewers/watercourses.
 - Storage for the 100 year event (as a minimum) including a 20% increase in rainfall intensity for climate change shall be provided for runoff from the developments, with a maximum discharge rate of 2l/s/ha.
- 5) A Management Train should be incorporated during the design stage whereby surface water should be managed locally in small sub-catchments rather than being conveyed to and managed in large systems further down the catchment.
- 6) Water Butts, Rainwater Harvesting, Rain Gardens and Permeable Paving are recommended for use in all residential developments.
- 7) Any Industrial, Commercial and Educational developments and Apartment blocks should incorporate rainwater harvesting for re-use and should incorporate blue / green roof structures.
- 8) Subject to subsoil permeability, filter drains may be required to drain residential gardens and other small green areas within future developments. Runoff from green areas should, where possible, infiltrate directly to groundwater.
- 9) Runoff from development lands should be limited to 2l/sec/ha. Attenuation should be provided for the 1% AEP rainfall event plus an allowance for Climate Change in accordance with regional drainage policy.
- 10) The relevant authorities should promote the benefits of SuDS retrofitting to the general public.

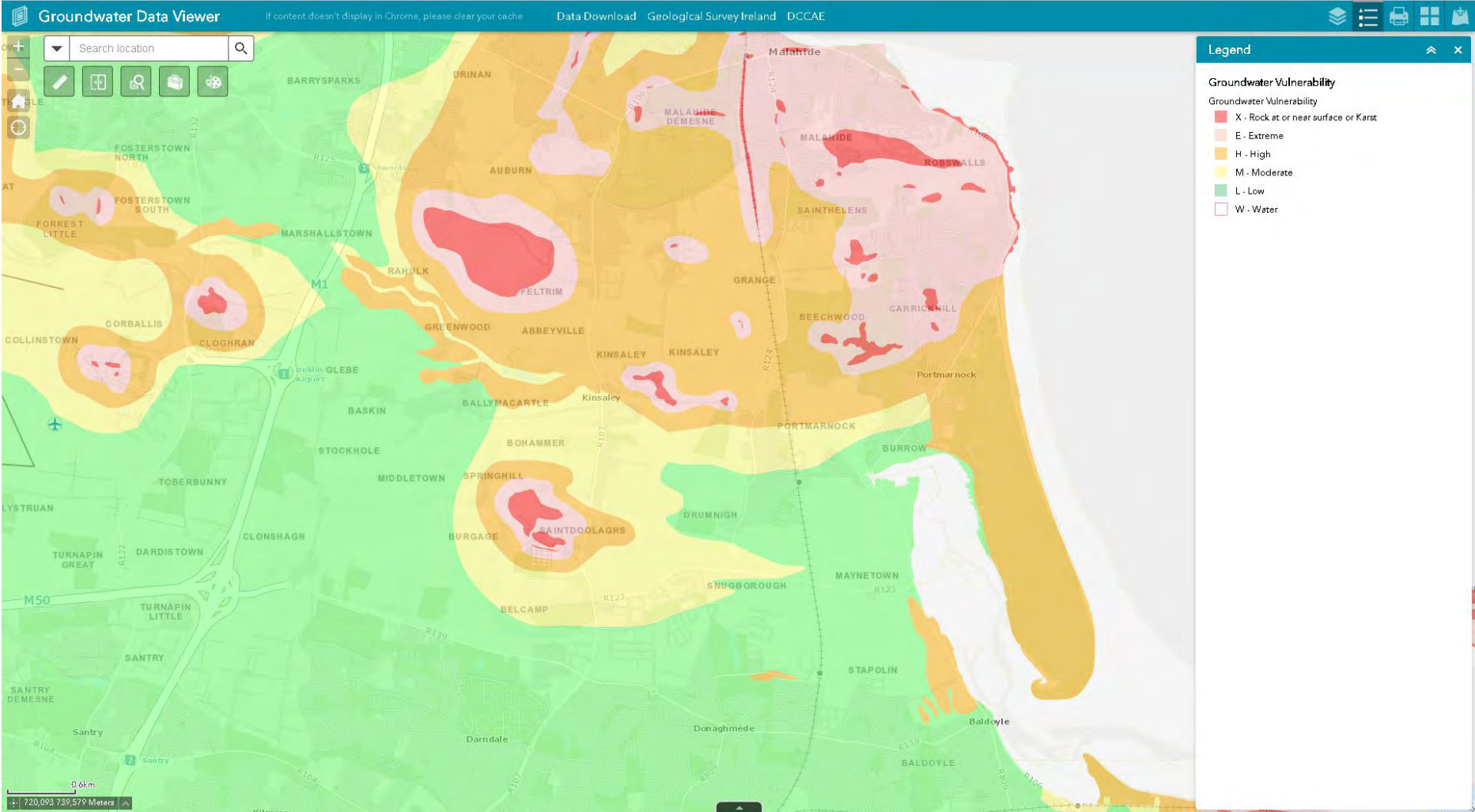
- 11) No residential development shall occur within the 0.1% AEP Fluvial or Tidal Flood Extent, including defended areas. Refer to Kinsaley LAP Flood Risk Assessment for flood extent mapping.

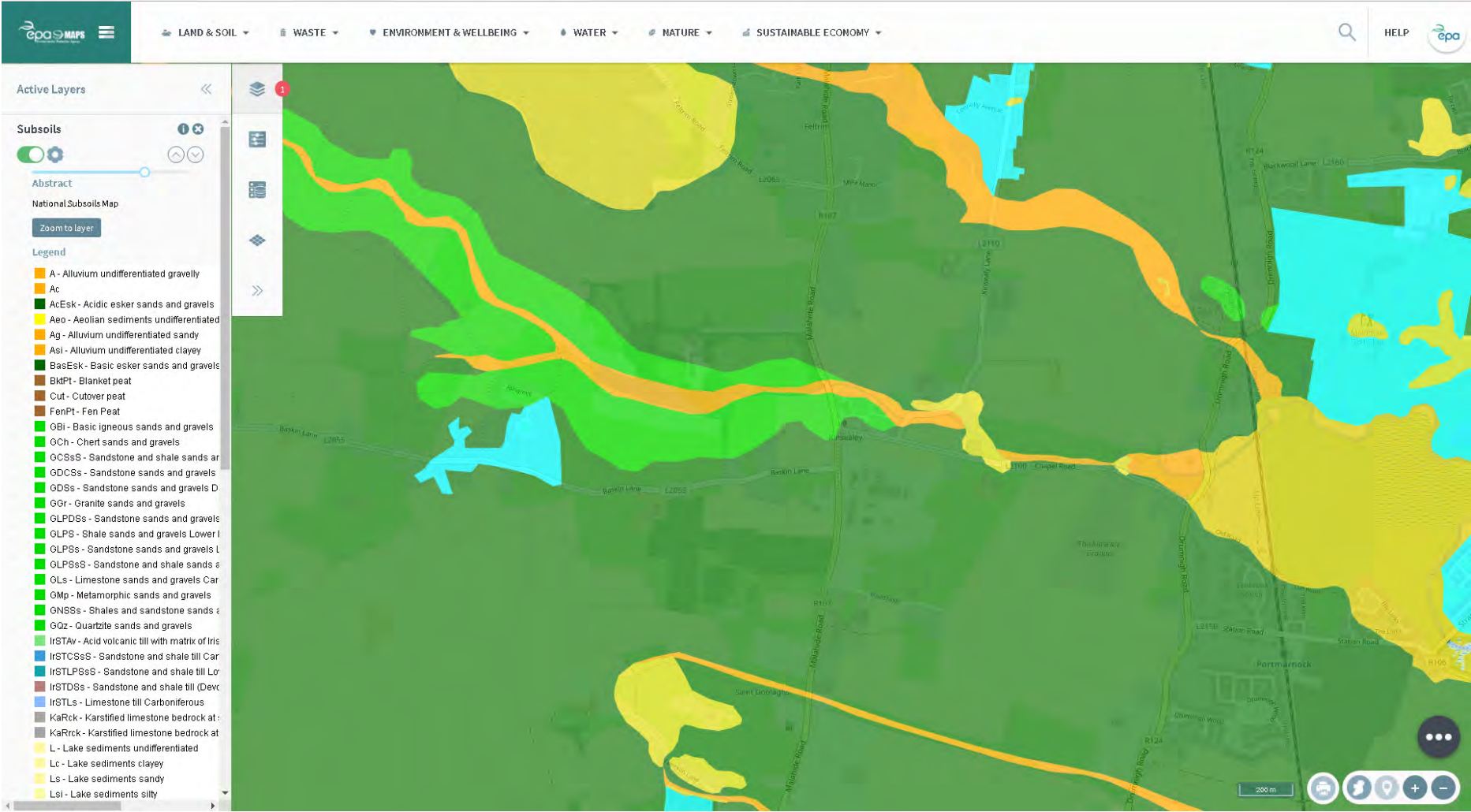
- 12) Management trains for new and existing developments should facilitate the construction of future SuDS components and/or provide for future enhancements to existing SuDS components – to mitigate the risk of flooding caused by more extreme rainfall events and risk of pollution due to lower baseflow in receiving waters.

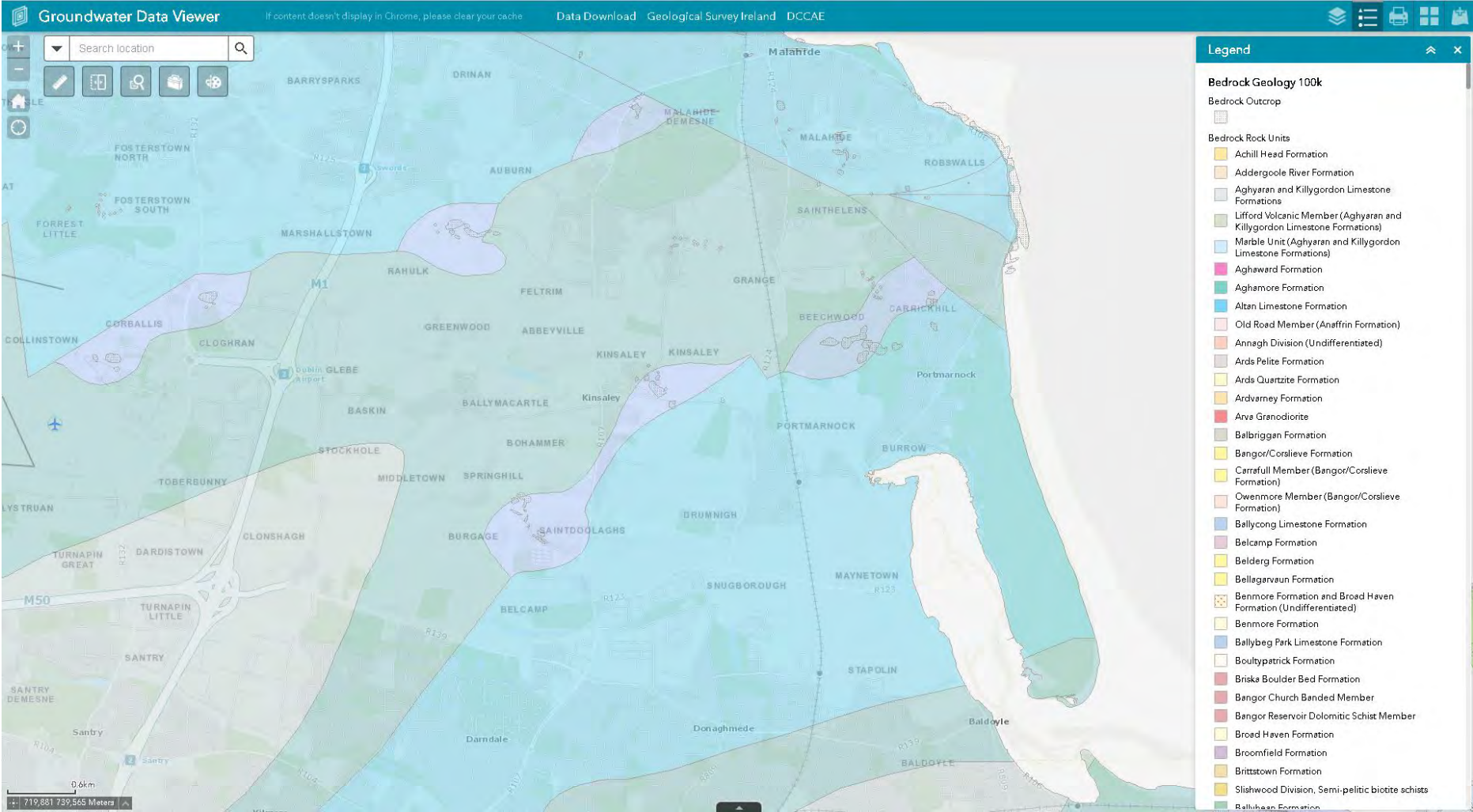
APPENDIX A SITE LOCATION MAP

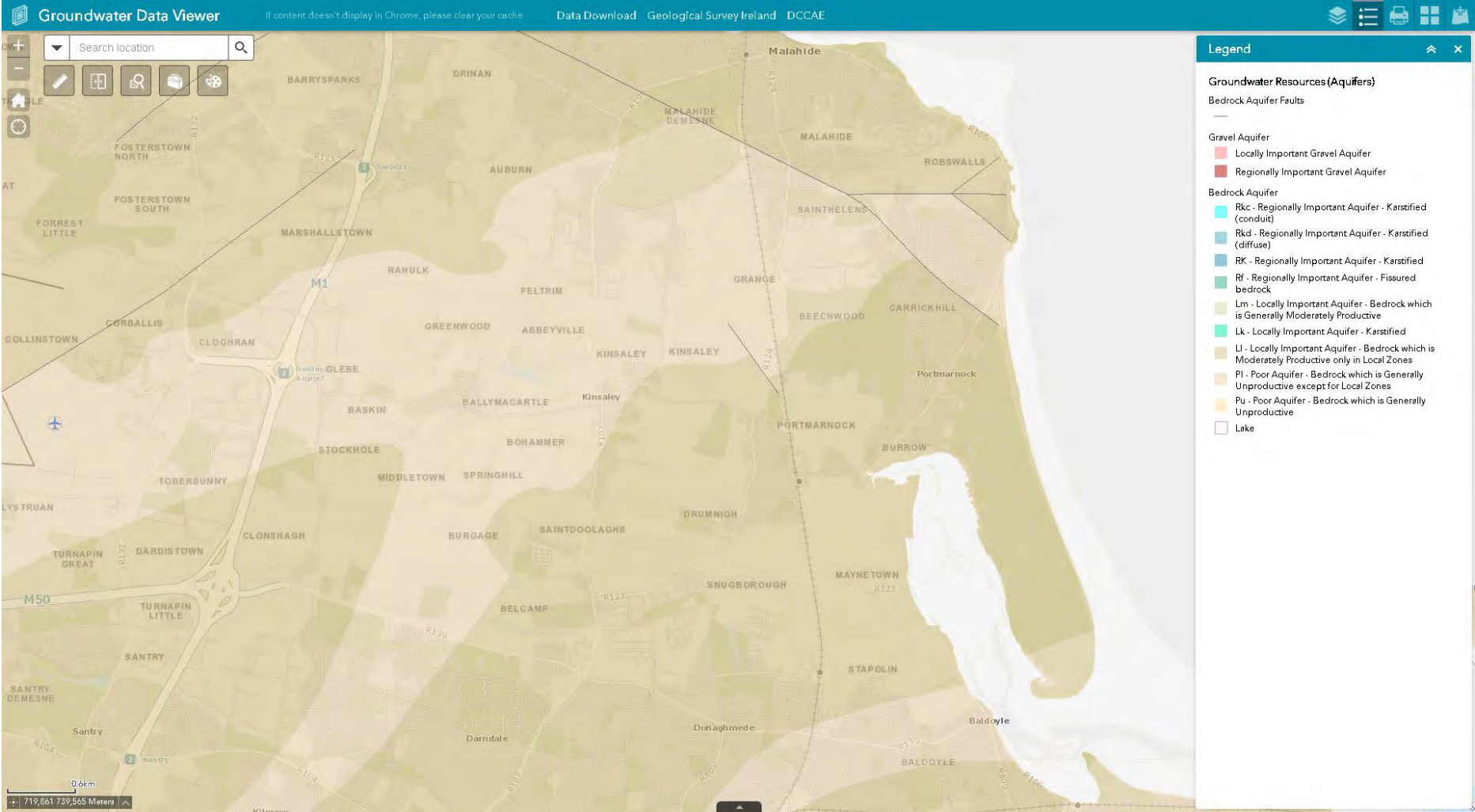


APPENDIX B GSI MAPS









Appendix 4

Strategic Environmental Assessment (SEA) Screening Report



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1.0 Introduction

1.1 Background

Fingal County Council (FCC) has prepared the Kinsaley Local Area Plan (hereafter referred to as the “LAP”). The LAP seeks to establish a framework for the planned, coordinated and sustainable development of the village core and surrounding lands at Kinsaley village.

As set out in the following sections, this report constitutes a screening of the proposed LAP for the requirement for Strategic Environmental Assessment (SEA) in accordance with the requirements of Article 14A of the Planning and Development Regulations 2001 (as amended) on the “*determination of need for environmental assessment of local area plan*”.

A Preliminary Screening for SEA was forward to the specified Environmental Authorities (as listed in Section 1.3.3 of this report) and submissions and observations received have been incorporated into the LAP and this SEA Screening Report.

1.2 Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (SEA) is a process for evaluating, at the earliest possible stage, the likely environmental effects of implementing a plan, in order to ensure that environmental considerations are addressed in an appropriate manner as part of the decision-making process, during the preparation of the plan and prior to its adoption.

SEA derives from European Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment¹. This directive, which is commonly referred to as the ‘SEA Directive’, was transposed into Irish law through:

- The European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, (S.I. No. 435 of 2004) as amended by S.I. No. 200 of 2011; and
- The Planning and Development (Strategic Environmental Assessment) Regulations 2004, (S.I. No. 436 of 2004) as amended by S.I. No. 201 of 2011.

The former regulations apply to plans or programmes for certain sectors (*e.g.* agriculture, energy, industry, *etc.*), while the latter regulations apply to development plans, including local area plans, such as that proposed for Kinsaley, regional planning guidelines or a planning scheme.

Article 1 of the SEA Directive states:

“The objective of this directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.”

The transposing Regulations (S.I. No. 436 of 2004 as amended by S.I. No. 201 of 2011) require that SEA is mandatory for certain plans and programmes that are above specified thresholds (*e.g.* County Development Plan with a population or target population greater than 10,000 persons or a Local Area Plan with a population or target population greater than 5,000 persons).

Where plans or programmes fall below or outside of the specified thresholds, ‘*screening*’ is required to determine whether the making and implementation of a particular plan or programme will, or will not, lead to significant environmental consequences for the area of the plan or programme.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0042&from=EN>

Screening for the purposes of Strategic Environmental Assessment is defined as “[t]he determination of whether implementation of a P/P [Plan or Programme] would be likely to have significant environmental effects on the environment. The process of deciding whether a P/P [Plan or Programme] requires SEA.” (SEA Park, EPA 2018)².

The screening process is carried out with regard to the “Criteria for determining whether a plan or programme is likely to have significant effects on the environment”, as set out in Schedule 1 of Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended and Schedule 2A of Planning and Development Regulations 2001, as amended.

Where screening determines that implementation of the plan or programme would be likely to have significant environmental effects on the environment, then the plan or programme must be subject to full SEA.

1.3 Screening for Strategic Environmental Assessment (SEA)

1.3.1 Requirement for SEA

Article 14A of the Planning and Development Regulations 2001, as amended, determines the need for environmental assessment (*i.e.* SEA) of a local area plan. Specifically, Article 14A(1) requires screening for SEA for:

‘a local area plan or an amendment to a local area plan for an area the population or the target population of which is less than 5,000 persons or where the area covered by the local area plan is less than 50 square kilometres’.

This means that SEA is mandatory for local area plans for an area where the population or the target population is greater than 5,000 persons or where the area covered the plan area is more than 50 square kilometres.

However, the Kinsaley LAP relates to an area of c.39 hectares (or c.0.4 square kilometres), as well as an existing population of c.340 persons³ and a target population of c.1,800 persons. The target population includes an allowance for the existing permitted total of 182 residential units (*i.e.* 82 units in FCC Planning Reg. Ref. No.: F16A/0511 (ABP Ref.: PL06F.248584) and 100 units in FCC Planning Reg. Ref. No.: F16A/0464 (ABP Ref.: PL06F.248515)), as well as the proposed development areas set out in the LAP. As the plan area and target population are significantly below the specified thresholds, SEA is not mandatory for the Kinsaley LAP.

The LAP for Kinsaley is therefore subject to Screening for the requirement for SEA taking account of the criteria set out in Schedule 2A of the Planning and Development Regulations 2001, as amended (*or as in* Schedule 1 of S.I. 436 of 2004, as amended).

Article 14A(2) of the Planning and Development Regulations 2001, as amended, states that:

‘Where a planning authority proposes to prepare or amend a local area plan referred to in sub-article (1), the planning authority shall, prior to giving notice under section 20(3) of the Act, consider whether or not implementation of the local area plan or amended plan would be likely to have significant effects on the environment, taking account of relevant criteria set out in Schedule 2A.’

² <http://www.epa.ie/pubs/advice/ea/SEA%20Pack%202018.pdf>

³ Fingal County Council (FCC), 2016

1.3.2 Appropriate Assessment and Relationship to Screening for SEA

The EU Habitats Directive (92/43/EEC) requires an ‘Appropriate Assessment’ (AA) to be carried out where a plan or project is likely to have a significant impact on a Natura 2000 site. Natura 2000 sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

The first test is to establish whether AA is required for the particular plan or project. This test is referred to as Screening for AA and the purpose is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a Natura 2000 site in view of the site’s conservation objectives.

As set out in Department Circular Letter SEA 1/08 & NPWS 1/08⁴ (15 February 2008), screening for AA is of relevance to screening for SEA in that ***“where following screening, it is found that the draft plan or amendment may have an impact on the conservation status of a Nature 2000 site or that such an impact cannot be ruled out, adopting the precautionary approach:***

- *an appropriate assessment of the plan must be carried out, and*
- *in any case where a strategic environmental assessment (SEA) would not otherwise be required, it must also be carried out.”* (emphasis added).

Hence where the local area plan requires AA it shall also require SEA.

1.3.3 Consultation with Environmental Authorities

Prior to making a determination that implementation of the Kinsaley LAP would not be likely to have significant effects on the environment, Fingal County Council give notice (as per Article 14A(3)) to the following environmental authorities (as specified in Article 13A(4)):

- (i) the Environmental Protection Agency (EPA);
- (ii) the Minister for Housing, Planning and Local Government (*previously the Minister for the Environment, Community and Local Government*);
- (iii) where it appears that the LAP might have significant effects on fisheries or the marine environment, the Minister for Agriculture, Food and the Marine (*previously the Minister for Agriculture, Marine and Food*), and the Minister for Communications, Climate Action and Environment (*previously the Minister for Communications, Marine and Natural Resources*);
- (iv) where it appears that the LAP might have significant effects in relation to the architectural or archaeological heritage or to nature conservation, the Minister for Culture, Heritage and the Gaeltacht (*previously the Minister for Arts, Heritage and Gaeltacht Affairs*); and
- (v) the planning authorities adjoining the area of Fingal County Council – *i.e.* Dublin City Council, Kildare County Council and Meath County Council.

Submissions / observations were received from the following: (copies are included in Appendix A)

- the EPA;
- the Department of Culture, Heritage and the Gaeltacht;
- the Department of Communications, Climate Action and Environment (Inland Fisheries Ireland);
- Kildare County Council; and
- Meath County Council.

⁴ <https://www.npws.ie/sites/default/files/general/circular-sea-01-08.pdf>

Table 1.1 below sets out how the points raised in the submissions / observations have been incorporated into the preparation of the LAP and this SEA Screening Report.

Table 1.1: Response of Draft Plan and SEA to Submissions received from Environmental Authorities (EA)

Environmental Authority	Comment	Response
EPA	Consultation noted. EPA sets out its role in relation to SEA and the SEA services and resources it makes available to plan-making and environmental assessment teams.	Noted and acknowledged.
	Critical Infrastructure, including wastewater	Objectives 9.1, 9.2 and 9.3 have been included in the LAP to specifically support the delivery and maintenance of wastewater and water supply infrastructure to Kinsealy.
	Sustainable Development and reference to National Planning Framework and Draft Regional Spatial and Economic Strategy for the Midland and Eastern Region.	The LAP includes specific reference to The National Planning Framework, The National Development Plan, and the forthcoming Regional Spatial and Economic Strategy (currently in draft form). The Draft LAP also notes (section 8.1.1) the key environmental actions (from the EPA's "State of the Environment Report - Ireland's Environment, 2016") The LAP also includes specific objectives 8.1 to 8.6 inclusive, which directly respond to the issue of sustainable development.
	Climate Change, including incorporation of national climate change commitments and relevant sectoral recommendations.	The Draft LAP notes and includes a general objective (section 8.1.1) to support the key environmental actions from the EPA's State of the Environment Report – Ireland's Environment, 2016, These actions include a key action to accelerate mitigation actions to address adverse climate impacts. At section 8.1.2 responds directly to the issue of Climate Change within the LAP.
	Flood Risk, including commitment to a detailed flood risk assessment and recommendation for specific objective.	A Specific Flood Risk Assessment (SFRA) was carried out in preparing the Draft LAP. The findings of the SFRA influenced the drafting of the LAP (refer to section 9.4) and the Draft LAP includes objectives 9.4 to 9.17 which directly respond to flood risk and surface water management.
	Groundwater and specific protective objective.	The Draft LAP notes and includes a specific objectives (Objectives 9.18, 9.19 & 9.20) for the protection of groundwater.
	State of the Environment Report – Ireland's Environment 2016, and key actions.	The Draft LAP notes and includes a general objective (section 8.1.1) to support the key environmental actions from the EPA's State of the Environment Report – Ireland's Environment, 2016.
	Department of Culture, Heritage and the Gaeltacht	Consultation noted.
Architectural Heritage The Department recommends that the "Row of five labourers' cottages to the south of the Catholic		The Draft LAP sets out in the design principles associated with Development Area No. 5 and how the character of the cottages is to be protected within the LAP. The designation of an ACA is a separate procedure to the making of the LAP and this will be considered separately to the making of the LAP.

Environmental Authority	Comment	Response
	Church / old school, at the west end of the road to Portmarnock”, be included as an Architectural Conservation Area (ACA).	
Department of Communications, Climate Action and Environment	Statement from Inland Fisheries Ireland agreeing with conclusion of screening for SEA.	N/A
Kildare County Council	Consultation noted. No comment to make	N/A
Meath County Council	Consultation noted. No comment to make	N/A

2.0 Planning Context

2.1 Kinsaley

The village of Kinsaley (also Kinsealy) is located c.1.5km west of Portmarnock and 2.5km north of the suburban outskirts of Dublin City. Dublin Airport is located c.3.5km to the west. The village established around the junction of the R107 Malahide Road and Chapel Road. The Malahide Road facilitates north-south traffic movements, while Chapel Road and Baskin Lane facilitate east-west traffic movements. As a result of its location, the village experiences a significant quantity of through traffic. The nearest rail service is at Station Road, Portmarnock over 1km to the east of the village.

The lands around Kinsaley are largely agricultural in character, combined with the demesne lands of large country houses, including Abbeville (formerly Abbeville) to the northwest and smaller properties such as Emsworth to the southwest, Kinsaley House to the east and Kinsaley Hall to the northeast.

Kinsaley has a strong visual identity and landscape quality formed by the Sluice River, flowing west to east through the village, and by the stone walls and mature trees associated with the nearby Abbeville Demesne. The village core is centred on the parish church, the cottages on Chapel Lane and the relatively recently developed lands at St. Olave's Local Centre and associated residential development.

Recent residential development includes Cooper's Wood north of Chapel Lane and Emsworth Park off Kinsealy Lane. A recently permitted residential development (*i.e.* Kinsealy Woods) is also under construction to the south of Chapel Road.

Kinsealy Business Park to the north of the village provides employment, comprising light industrial units and offices accessed off Kinsealy Lane. Until recently, the Teagasc Research Centre to the south of the village offered a significant level of research-based employment but, following consolidation of the research function into the Teagasc Centre in Blanchardstown, the Kinsealy Centre has ceased operation. Other employment providers are focused on existing retail services along the Malahide Road, including Kinsealy Garden Centre.

2.2 Fingal Development Plan 2017-2023

2.2.1 Fingal Development Plan: Rural Villages / Kinsaley

The Fingal Development Plan 2017-2023 notes that outside of the main urban areas "*the remainder of the County is rural in character and includes the villages of Balscadden, Naul, Garristown, Oldtown, Ballyboghil, Rowlestown, Rivermeade, Coolquay, Ballymadun and Kinsaley.*" (page 3) (emphasis added).

Table 2.8 of the Development Plan indicates that there is c.80 hectares (ha) of residential capacity lands in "*Other Settlements*", which includes Charlestown & Meakstown, Santry & Ballymun, Balgriffin & Belcamp, Baskin and **Kinsaley**. This equates to 2,791 Potential Residential Units. (page.38) (emphasis added).

In addressing the four villages located within the Metropolitan Area of the county, the development plan notes:

*"The future development of Fingal's villages needs careful consideration. In the Metropolitan Area growth in villages such as Coolquay, **Kinsaley**, Rivermeade and Rowlestown will be managed to ensure these centres do not expand rapidly, putting pressure on services and the environment and creating the potential for unsustainable travel patterns."* (page 46) (emphasis added).

The function of Rural Villages (RV), which Kinsaley is predominantly zoned, is stated as:

“These villages vary in function but generally meet the day-to-day needs of the locality and usually offer a mix of commercial and community activity within the village core. Other enterprise, residential, retail, commercial, and community facilities may be provided.” (page 55).

The Statement of Policy for Rural Villages (page 147) is to:

- *Promote attractive and vibrant villages.*
- *Ensure sustainable expansion and development at a level appropriate to and integrated with the existing village.*
- *Meet the socio-economic and civic aspirations of the community, whilst at the same time affording maximum environmental protection.*
- *Preserve the villages' distinctive character, heritage, amenity and local identity.*

The Development Plan also notes that:

“The RPGs indicate that future growth in commuter villages [which includes Kinsaley] should be curtailed or safeguarded so that they do not act as a catalyst to facilitate continuing expansion of unsustainable growth patterns.” (page 147).

In discussing Kinsaley, the Development Plan describes the village as follows:

“Functionally, the village can be described as a commuter village under development pressure. Lands within the village boundary are subject to new residential planning permissions with one such development at Cooper’s Wood to the east of Kinsaley Lane.

Local employment exists in the form of Kinsaley Business Park, comprising light industrial units and offices built in the late 80’s and accessed off Kinsaley Lane. Until recently, the Teagasc site to the south of the village offered significant rural based employment but this has ceased since consolidation into the Teagasc Centre in Blanchardstown. Other employment uses are focused on existing retail services along the Malahide Road. Kinsaley has a current population of circa 340 persons.” (page 148).

In discussing Design Criteria for Rural Villages and Rural Clusters, the Development Plan notes that:

“Village development shall be guided by the adopted Local Area Plans and Village Development Framework Plans.” (page 428).

2.2.2 Fingal Development Plan: Land Use Zoning for Rural Villages / Kinsaley

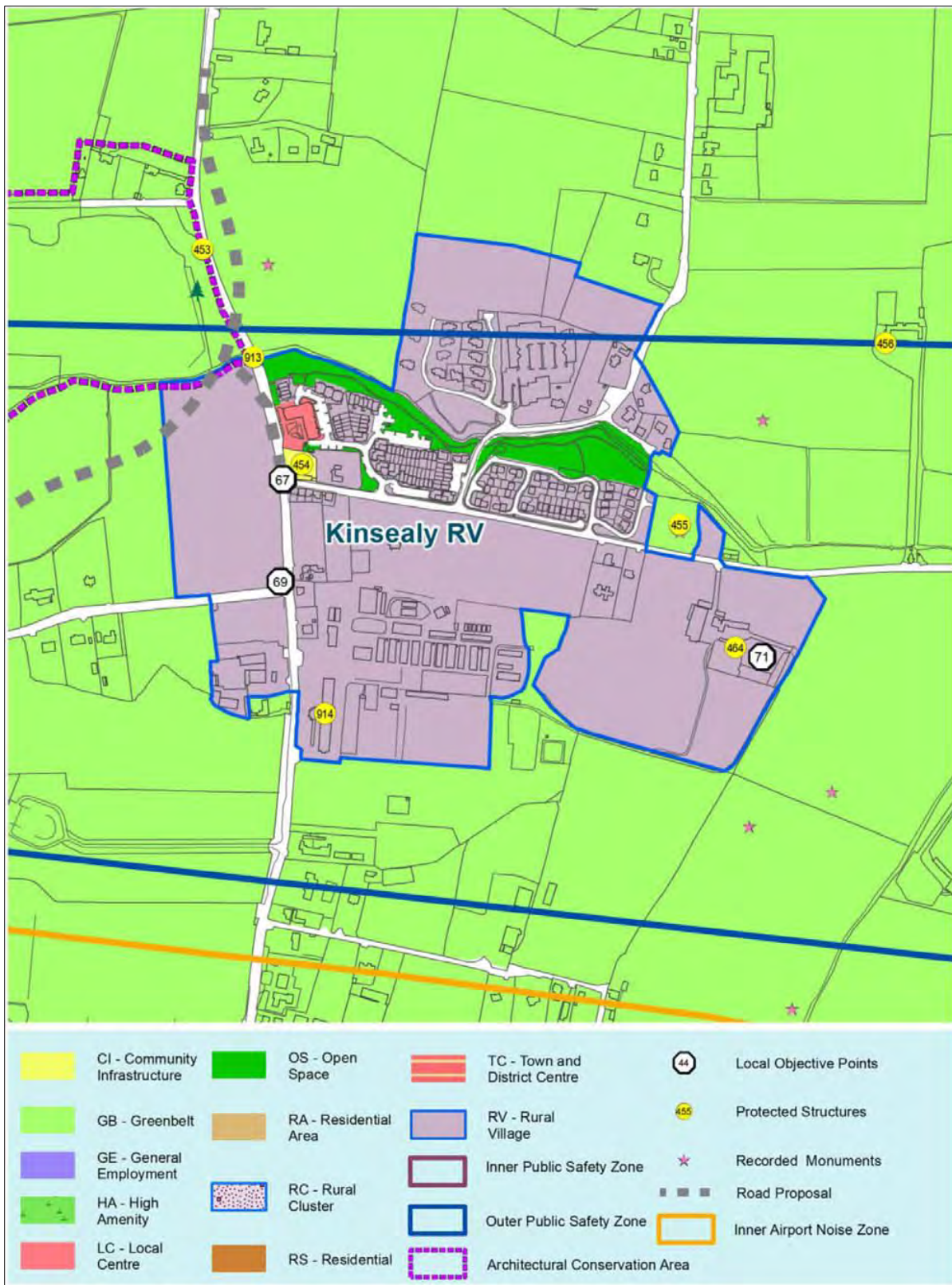
The vast majority of the LAP lands are identified as ‘RV - Rural Village’ in the Fingal County Development Plan 2017-2023 (refer to Figure 2.1 below). This land use zoning objective, which notes the requirement for preparation of an “approved Local Area Plan”, seeks to:

“Protect and promote the character of the Rural Village and promote a vibrant community in accordance with an approved Local Area Plan, and the availability of physical and community infrastructure”

Two small areas zoned for ‘CI - Community Infrastructure’ and ‘LC - Local Centre’ are located to the north of the junction between R107 Malahide Road and Chapel Lane. In addition the corridor of the Sluice River, which flows west to east through the centre of the lands, is zoned ‘OS - Open Space’. (Refer to Figure 2.1 below).

The RV - Rural Village land use zoning excludes a small indentation of 'GB - Greenbelt' to the south of Kinsaley. It is proposed that this small area be included within the new LAP boundary – but retained as a green corridor between proposed development areas.

Figure 2.1 Existing land use zoning (Extract from Sheet No. 9 of Fingal Development Plan 2017-2023)



The following map-based local objectives apply to the plan area (refer to numbered white circles on Figure 2.1):

- 67 *Facilitate a traffic impact assessment of the junction of Chapel Lane with the Malahide Road and, subject to an identified need and resources being available, carry out improvement works to same.**
- 69 *Facilitate a traffic impact assessment of the junction of Baskin Lane with the Malahide Road and, subject to an identified need and resources being available, carry out improvement works to same.*
- 71 *That any development of this area will include the integration of the Protected Structure on site (Kinsaley House) within the first phase of development.***

* Traffic impact assessments were subsequently completed for the junction of Chapel Lane and Malahide Road as part of the application processes for two previously permitted residential developments located off Chapel Lane. (FCC Planning Reg. Ref. No.: F16A/0511 & ABP Ref.: PL06F.248584, and FCC Planning Reg. Ref. No.: F16A/0464 & ABP Ref.: PL06F.248515).

** Permission has subsequently been granted for residential development on the lands around Kinsaley House (FCC Planning Reg. Ref. No.: F16A/0464 & ABP Ref.: PL06F.248515).

The Fingal Development Plan includes an objective for a new road connecting from the R139 adjacent to Darndale Park, c.2.5km south of Kinsaley, north to the R107 Malahide Road just to the northwest of the LAP lands (refer to dashed grey line on Figure 2.1 above). The road alignment shown on the Development Plan is indicative only and subject to future feasibility studies and detailed design. However, this road objective is generally outside of the subject LAP lands.

The LAP lands are located within the Outer Airport Noise Zone associated with Dublin Airport, while a small portion of the northern LAP lands are also located within the Outer Public Safety Zone associated with Dublin Airport (refer to extent of RV - Rural Village lands located north of northernmost blue on Figure 2.1 above).

2.2.3 Fingal Development Plan: Objectives for Rural Villages / Kinsaley

Fingal Development Plan contains a range of objectives relating to Rural Villages, of which Kinsaley is one. The objectives focus on orderly and sustainable development that maintains the distinctive rural character of the settlement. Strategic Vision objectives and Strategic Policies include:

Strategic Vision (page 7)

- *“Support and protect Fingal’s attractive rural villages and countryside which support agriculture, horticulture, recreation and tourism. Promote vibrant rural villages with a mix of uses, through the creation of a dynamic framework which involves people living, working, and interacting for social and community reasons.*
- *Direct rural generated housing demand to villages and rural clusters and promote the re-use and rehabilitation of existing housing stock in rural areas in preference to new build in order to preserve and enhance the distinct character of rural Fingal.”*

Strategic Policy (page 10)

13. *“Provide viable housing alternatives for the rural community through the promotion of controlled growth of the rural villages and clusters balanced with careful restriction of residential development in the countryside and recognising the unique value of the rural communities in Fingal.”*

The Development Plan includes a range of applicable objectives addressing Rural Settlement (e.g. SS07), Sustainable Placemaking (e.g. PM01, PM07), Local Area Plans (e.g. PM13), Mixed Uses and

Vitality of Sustainable Communities (e.g. PM35, PM36), Village Settlement Strategy (e.g. RF04, RF05, RF06), Community Infrastructure (e.g. RF07 to RF15), Village Development Framework Plans (VDFPs), (e.g. RF16 to RF18), Rural Transport (e.g. RF69) and Rural Economy and Enterprise (e.g. RF107, RF108 and RF123).

In relation to Village Development Framework Plans, it is a requirement of **Objective RF18** to:

“Prepare a Local Area Plan and VDFP for each of the villages, where necessary, involving public consultation with the local community, to provide a planning framework for appropriate village development. The LAPs will protect and promote:

- i. Village character through preparation of a Village Development Framework Plan,*
- ii. A sustainable mix of commercial and community activity within an identified village core which includes provision for appropriate sized enterprise, residential, retail, commercial, and community facilities,*
- iii. The water services provision within the village,*
- iv. Community services which allow residents to meet and interact on a social basis, and include churches, community and sports halls, libraries and pubs,*
- v. A mix of housing types and tenure which will appeal to a range of socio-economic groups,*
- vi. Retail activity, consistent with the Fingal Retail Strategy, in the form of village shops which will meet the needs of the local community,*
- vii. A public realm within the village which allows people to circulate, socialise and engage in commercial activity in a manner which balances the needs of all involved,*
- viii. The provision of Green Infrastructure, including natural, archaeological and architectural heritage, and green networks within the village.”*

Fingal Development Plan also includes an extensive range of protective environmental policies and objectives including for:

- Environmental Assessment and Appropriate Assessment (e.g. Strategic Policy 1, Objectives ED88, DMS01, DMS02, DMS163, DMS164, DMS165, etc.),
- Protection of Ecological Corridors and of Natural and Built Heritage (e.g. Strategic Policy 11, Objectives DMS170, DMS171, DMS172, CH45, CH46, etc.),
- provision of adequate Waste Water Infrastructure (e.g. Strategic Policy 17, Objectives WT01, WT02, WT05, etc.),
- Flooding (Strategic Policy 20, Objectives SW02, SW04, etc.),
- Open Space and Green Infrastructure (e.g. Strategic Policy 22, Objectives SS10, SS11, PM51, RF113, and Chapter 8 generally),

In relation to the Sluice River it is a requirement of **Objective DMS170** to:

*‘Protect and enhance the ecological corridors along the following rivers in the County by ensuring that no development takes place, outside urban centres, within a minimum distance of 30m from each riverbank: Liffey, Tolka, Pinkeen, Mayne, **Sluice**, Ward, Broadmeadow, Ballyboghil, Corduff, Matt and Delvin (see Green Infrastructure Maps)’. (page 480) (emphasis added).*

Objective WQ05 of the Development Plan (page280) sets out a similar riparian protection requirement.

In relation to wastewater infrastructure it is a requirement of **Objective WT01** to:

‘Liaise with and work in conjunction with Irish Water during the lifetime of the plan for the provision, extension and upgrading of waste water collection and treatment systems in all towns and villages of the County to serve existing populations and facilitate sustainable development of the County, in accordance with the requirements of the Settlement Strategy and associated Core Strategy’ (page 271).

2.3 The Local Area Plan (LAP)

2.3.1 Vision Statement and Strategic Aims of the LAP

The proposed Vision Statement for Kinsaley, as set out in the LAP (section 4.1), is to:

“Enhance and consolidate the village centre whilst ensuring the sustainable expansion of Kinsaley at a level appropriate to and integrated with the existing village in which the housing, socio-economic and civic aspirations of the community are met while retaining its distinctive character and sense of identity and ensuring maximum environmental protection.”

In order to achieve this vision it is proposed that the LAP be underpinned by four strategic aims (section 4.2):

- *“Support the expansion of Kinsaley Village centre as a focal point for the community with an enhanced retail function to serve the needs of existing and future residents.*
- *Support infrastructural investment to ensure safe pedestrian and cyclist movements throughout the village in tandem with enhanced traffic management measures including facilitating the provision of improved pedestrian / cycle access to public transport and local schools.*
- *Protect and enhance the existing natural amenities of Kinsaley together with improving access to established and proposed amenity areas through designated green routes.*
- *Provide for the integrated development of the village and its growing population with the development of new housing delivered in tandem with supporting community and physical infrastructure.”*

2.3.2 The Village Centre

The Village Centre in Kinsaley currently consists of St. Olave’s Local Centre and the adjoining Church of St. Nicholas of Myra and the associated Community Centre. While the Local Centre is generally well supported by the local community, public consultation also revealed a desire for an expanded range of services in the Village Core. Therefore, it is an objective of the LAP to support the limited expansion of the Village Core to include additional retail space, ideally of a nature and scale suitable for a convenience retailer, as well as additional space that could be used for services such as a locally-focused medical use (section 4.6, page 13). The expansion of the Village Centre will be in accordance with Kinsaley’s designated position in the retail hierarchy as a Level 5 Centre as defined in the Fingal Development Plan.

2.3.3 Proposed Development Areas

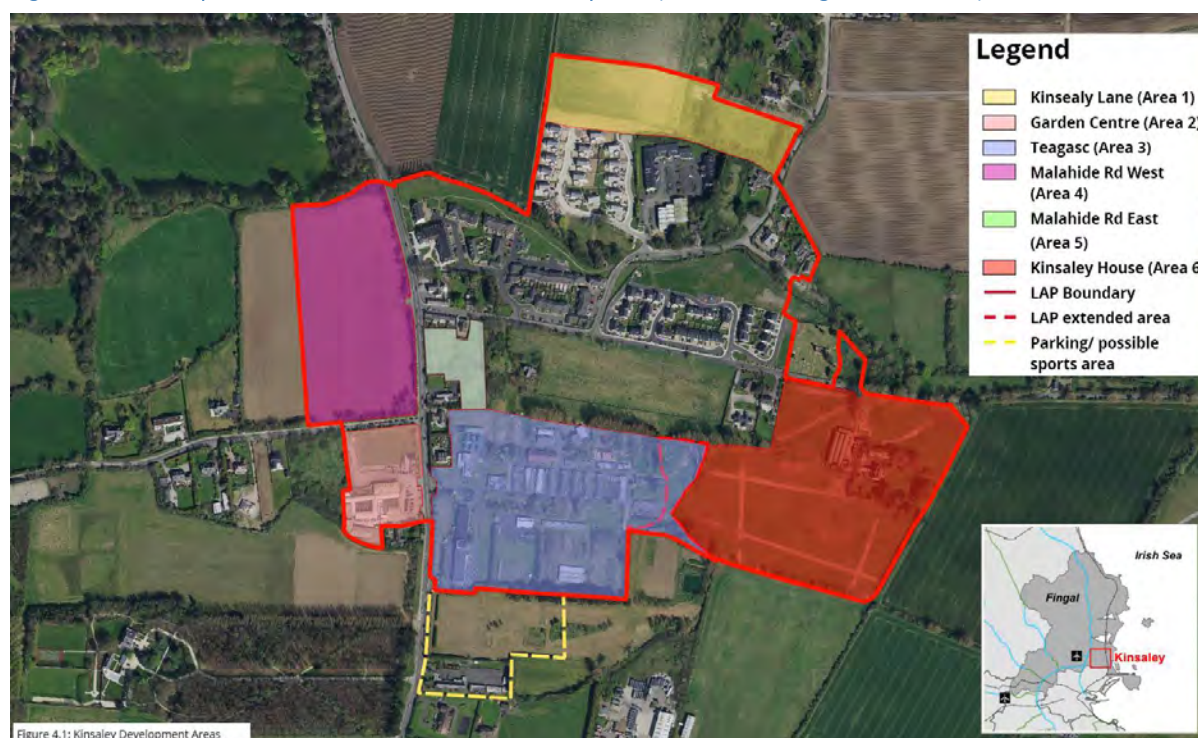
The LAP identifies six Development Areas totalling 20.17ha to incorporate existing permitted development and to accommodate further development that will facilitate the consolidation of the village (refer to Table 2.1 and Figure 2.2 below). As noted permission already exists for the residential development as set out on Development Area No. 6.

Table 2.1: Proposed Development Areas

No.	Development Area	Land Use	Approximate Quantum of Proposed Development
1.	Kinsaley Lane Development Area - 2.6ha	Residential	c.30 dwellings
2.	Garden Centre Development Area - 1.3ha	Residential	c.40 dwellings
3.	Former Teagasc Development Area - 5.6ha	Residential / Education	c.185 dwellings 1 No. c.16 classroom school site
4.	Malahide Road West Development Area - 4.0ha	Mixed-use / Residential / Public Park	1,200-1500 sqm of convenience retail floorspace and limited number of smaller retail units c.85 dwellings
5.	Malahide Road East Development Area - 0.6ha	Residential	c.20 dwellings
6.	Kinsaley House Development Area - 6.6ha	Residential	c.123 dwellings and crèche (Note: 100 of these units and the crèche are provided for in an extant permission)
	Totals (20.7ha - including the already permitted development within Area 6):	Residential Education Retail / Commercial	483 units* (excluding 100 units already permitted in Area 6) 1 No. school 1,200 - 1500 sqm + smaller units.

* An additional 82 residential units are also under construction south of Chapel Road

Figure 2.2: Development Areas identified in the Kinsaley LAP. (Extract from Figure 4.1 of LAP)



In addition to the Development Areas identified in Table 2.1 and Figure 2.2 above, it is noted that a number of comparatively large sites that currently accommodate single dwellings, either on a stand-alone basis or in small groups, may present for infill redevelopment within the lifetime of the LAP (Section 4.11, page 14 of the LAP). Proposals on these sites should be considered on their individual merits, but should comply with the requirements of the Fingal Development Plan and be consistent with the prevailing character of the area.

The LAP also includes a small area of Greenbelt (GB) lands, which will be retained as a green corridor between Development Area No. 3 and Development Area No. 6.

Furthermore, lands to the south of the Teagasc landholding, also zoned Green Belt may facilitate a future soccer pitch and associated car parking area. This car park would have the dual function of providing a safe set-down area for both the existing and proposed national schools serving the village.

2.3.4 Relevant Planning History

A significant extent of the area of the LAP lands are already allocated to either existing established residential development or to a recently permitted residential development. In addition to the proposed Development Areas (see Figure 2.2 above), construction has also recently commenced at 'Kinsealy Woods' in relation to a residential development of 82 No. units and a childcare facility on a c.3.65ha site located south of Chapel Lane at the centre of the LAP lands (refer to FCC Planning Reg. Ref. No.: F16A / 0511 & ABP Ref.: PL06F.248584). As this development has already commenced it is not included within the six identified Development Areas. It is noted that the permission includes a condition (No.3) phasing the development based on the availability of public water / wastewater services.

In addition, a garden centre is located on part of a 1.3ha site to the southwest of the village (*i.e.* Development Area No. 2), and the former Teagasc Kinsealy Research Centre is located on c.6.4ha of developed lands to the south of the village centre (*i.e.* Development Area No. 2).

A ten year permission also exists for residential development of 100 units and a childcare facility on c.6.5ha surrounding Kinsaley House, a protected structure (refer to FCC Planning Reg. Ref. No.: F16A / 0464 & ABP Ref.: PL06F.248515). While already permitted, this development is identified as part of Development Area No. 6 in the LAP. It is noted that the permission includes a condition (No.6) phasing the development based on the availability of public water / wastewater services.

Proposed Development Area No. 1 relates to c.2.6ha of currently undeveloped / agricultural lands located to the immediate north of Kinsealy Business Park and existing residential development at Emsworth Park.

Planning permission was granted to Irish Water in 2018 for a new Wastewater Pumping Station in Kinsaley as part of the Local Network Reinforcement Project (refer to FCC Planning Reg. Ref. No.: F18A / 0041).

2.3.5 Landscape Character

The LAP lands are located within the designated '*Low Lying Agricultural*' landscape character type. This is an area characterised by a mix of pasture and arable farming on low lying land with few protected views or prospects. This low lying character type is dominated by agriculture with a number of settlements and is categorised as being of modest value. However, it contains pockets of important value areas requiring particular attention such as important archaeological monuments and demesnes (*e.g.* the nearby Abbeville House Demesne).

A small area located to the west of the Malahide Road, and which also include Abbeville Demesne, is considered as '*Highly Sensitive Landscape*'. The portion of the LAP lands that lie west of the Malahide Road are also located within this landscape and the LAP includes a specific objective to minimise visual impact on highly sensitive landscapes (refer to Objective 6.17).

2.3.6 Natural Heritage

Green infrastructure Map 2 (Sheet 15 of the Fingal Development Plan) highlights the Sluice River as an Ecological Corridor and Abbeville Demesne as a Nature Development Area. European and National designated sites are also highlighted (refer to the following sections).

Green infrastructure Map 3 (Sheet 16 of the Fingal Development Plan) indicates that the Sluice River (IE_EA_09S071100) has an ‘unassigned’ water quality status⁵.

The LAP includes objectives to enhance, manage and protect the ecological network of the LAP lands, including the Sluice River and its public corridor (refer to Objectives 6.1 to 6.6); to provide for new and improved open space, parks and recreation (refer to Objectives 6.7 to 6.10) and for sustainable water management measures (refer to Objective 6.10).

2.3.6.1 European Designated Conservation Areas

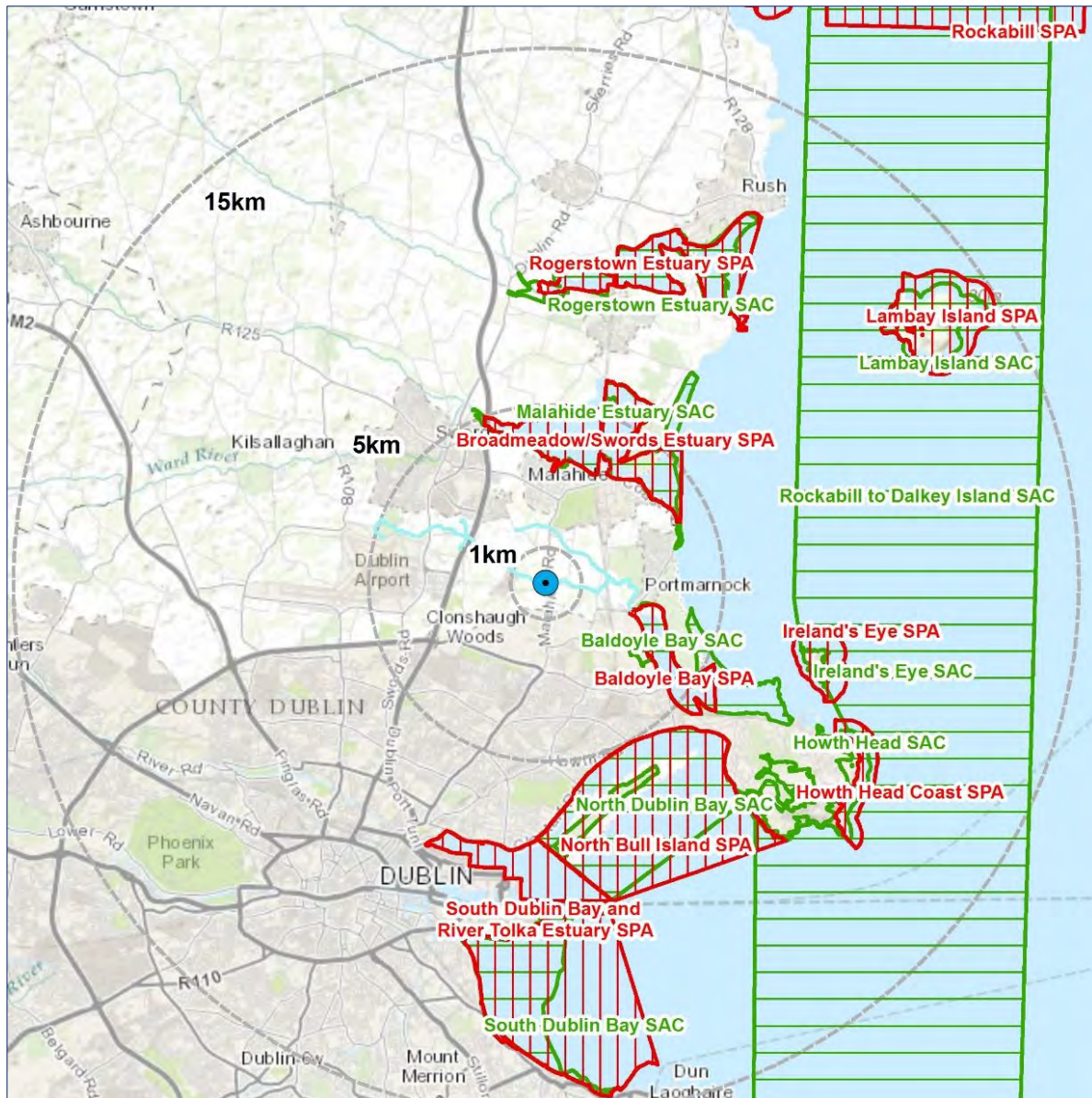
There are 17 No. European sites (Natura 2000 sites) located within 15km from the LAP lands as set out in Table 2.2 and Figure 2.3 below. Despite the number of such sites within a 15km radius, the LAP lands are connected hydrologically to only two of these sites (*i.e.* Baldoyle cSAC and SPA) via the Sluice River and Mayne River (IE_EA_09M030500) catchment.

Table 2.2: European Sites within 15km of LAP

European Site	Site Code	Distance (straight line) to LAP area
Special Areas of Conservation (SAC) / candidate Special Areas of Conservation (cSAC)		
Baldoyle Bay SAC	000199	c.2km to the southeast
Malahide Estuary SAC	000205	c.3km to the north
North Dublin Bay SAC	000206	c.4km to the south
Rockabill to Dalkey Island SAC	003000	c.6km to the east
Ireland’s Eye SAC	002193	c.6.5km to the east
Howth Head SAC	000202	c.7km to the southeast
Rogerstown Estuary SAC	000208	c.7.5km to the north
South Dublin Bay SAC	000210	c.9km to the south
Lambay Island SAC	000204	c.11.5km to the northeast
Special Protection Areas (SPA)		
Baldoyle Bay SPA	004016	c.2km to the southeast
Broadmeadow / Swords (Malahide) Estuary SPA	004025	c.3km to the north
North Bull Island SPA	004006	c.4.5km to the south
Ireland’s Eye SPA	004117	c.6.5km to the east
South Dublin Bay and River Tolka Estuary SPA	004024	c.7.km to the south
Rogerstown Estuary SPA	004015	c.7.5km to the north
Howth Head Coast SPA	004113	c.8km to the southeast
Lambay Island SPA	004069	c.11.5km to the northeast

⁵ EPA, 2019, WFD 2010-2015

Figure 2.3: European Sites (Source: Screening for Appropriate Assessment, Scott Cawley, 2019)



2.6.3.2 Other Designated Conservation Areas

The nearest non-European designated site to the LAP lands is the Sluice River Marsh proposed Natural Heritage Area (pNHA Site Code: 001763), which is located c.1.1km downstream (c.0.9km straight-line distance) of the LAP lands.

The marsh abuts the Sluice River to the north and is bounded to the west by the Dublin-Belfast railway line. This site, which is hydrology connected to the LAP lands via the Sluice River, is of importance as a relatively intact freshwater marsh, a habitat that is now rare in County Dublin. Some waterfowl from Baldoye Estuary (IE_EA_080_0100) may use the marsh on occasions. The site is not designated for the Qualifying Interests (QI) / Special Conservation Interests of Baldoye Bay cSAC or SPA. The LAP includes specific objectives to protect the ecological network, biodiversity and flood plain of the Sluice River and other streams and waterbodies (refer to Objectives 6.2, 6.3 and 9.18 to 9.23).

A Second pNHA, Feltrim Hill (Site Code: 001208), located c.0.9km to the Northwest, is not to be Connected to the LAP lands.

2.3.7 Cultural Heritage

There are four structures on the Record of Protected Structures (RPS) of architectural and historical interest within the LAP boundary. These buildings and sites, which are included on the National Inventory of Architectural Heritage (NIAH) are:

- RPS No. 913: Road Bridge located at Malahide Road, Kinsaley, Co. Dublin. A mid-18th Century triple-arch masonry road bridge over the Sluice River.
- RPS No. 454: St. Nicholas of Myra Church (RC) at Malahide Road (R107), Kinsaley, Malahide, Co. Dublin. This is a mid-19th Century Catholic Church, tower and school building.
- RPS No. 914: Malahide / Portmarnock Educate Together National School at Malahide Road, Kinsaley.
- RPS No. 464: Kinsaley House, Chapel Road, Kinsaley, Malahide, Co. Dublin. An early 18th Century five-bay two-storey house.

The following Protected Structures are is located just outside the boundary of the LAP:

- RPS No. 455: Church (in ruins) & Graveyard at Chapel Lane, Kinsaley, Malahide, Co. Dublin. Remains of medieval church within enclosed graveyard.
- RPS No. 452: Abbeville House an 18th Century nine-bay two-storey house, stables, out-buildings & walled garden. Abbeville House and its associated Architectural Conservation Area (ACA) plays an important role in the heritage of Kinsaley.

The LAP includes a series of specific objectives to protect the archaeological and architectural heritage of the area (refer to Objectives 6.11 to 6.16).

2.3.8 Infrastructure

2.3.8.1 Traffic and Transportation

No significant new road infrastructure is required as part of the LAP. Improvements to the junction between the Malahide Road and Church Road are already provided for under recent grant of permissions (FCC Planning Reg. Ref. No.: F16A/0511 & ABP Ref.: PL06F.248584 and FCC planning reg. ref. no.: F16A / 0464 & ABP Ref.: PL06F.248515).

The nearest train station is Portmarnock, which is c.1.5km to the east of Kinsaley. This station is well served by trains during the day, with frequent peak hour services. Kinsaley is relatively well served by bus in the peak hours, with two services (No. 42 & 43) operated by Dublin Bus.

There are no dedicated cycle facilities provided within the Kinsaley LAP area. However, Fingal County Council has commissioned a Cycling Feasibility Study for the Kinsaley area. Details of the study have not yet been published - but it is anticipated that a cycling link to Malahide Castle and a cycling link to Portmarnock from the LAP lands will be examined in the study.

The LAP includes proposals and objectives for calming of road traffic, traffic management and for enhanced pedestrian and cycling connectivity and services, including to public transport (refer to Objectives 5.2 to 5.5, 5.9 to 5.14, 5.15, 5.18, and 5.20)

2.3.8.2 Wastewater

The LAP lands are currently served by Connolly Avenue Pumping Station and Floraville Pumping Station which discharge to the Wastewater Treatment Plant (WWTP) at Malahide. The pumping stations are operating at capacity and pumping becomes overloaded during storm events, with resultant discharges without screening to the Sluice River.

Planning permission was recently granted to Irish Water for a new Wastewater Pumping Station in Kinsaley as part of the Local Network Reinforcement Project (refer to FCC Planning Reg. Ref. No.: F18A/0041). The development will increase forward pump capacity from an existing 13 litres / per second to c.70 litres / per second and will provide for significant additional capacity for development within Kinsaley. The development will also provide for 6 hours of emergency storage and is projected to remove the risk of unscreened overflows to the Sluice River.

The LAP includes a series of specific objectives to ensure that development is planned in tandem with the delivery and availability of appropriate supporting wastewater infrastructure (refer to Objectives 9.1 to 9.3).

2.3.8.3 Water Supply

Water supply for the LAP lands and the surrounding area is provided from the Ballycoolin reservoir supply area. The area in general is well-served with trunk mains which have capacity to cater for additional future growth in the area.

Irish Water's 25 year plan for the Greater Dublin Region includes further enhancement water supply proposals to serve the region.

The LAP includes a series of specific objectives to ensure that development is planned in tandem with the delivery and availability of appropriate supporting public water supply infrastructure (refer to Objectives 9.1 to 9.3).

2.3.8.4 Surface Water, Drainage and Flood Risk

Kinsaley lies within the Liffey and Dublin Bay Catchment (09) and the Mayne Sub-catchment (Mayne_SC_010). The Sluice River rises to the north of Dublin Airport and flows from west to east through Kinsaley and enters the sea at the Baldoyle Estuary (IE_EA_080_0100) in Portmarnock. Downstream of the Kinsaley LAP lands, the river is meandering with embankments constructed before the 1830's to curtail tidal flooding. It has a total catchment area of c.17.8km²

Irish Water records indicate two surface water outfalls to the Sluice River, located on Kinsealy Lane and at the St. Olave's Development. Outfalls to the river have also been identified from the Malahide Road, Emsworth Park and Coopers Wood residential housing developments.

The Sluice River and tributaries is described in the Fingal Development Plan as having an '*unassigned*'⁶ water quality status as per the EPA water quality standards.

The Flood Risk Identification phase (Stage 1) includes a review of the existing information and the identification of any flooding or surface water management issues in the vicinity of the LAP lands that may warrant further investigation. The LAP lands are bisected by the Sluice River and this section of the river is fluvially dominated, as such; the most prevalent flood risk to the site is from extreme fluvial inundation events or fluvial events in combination with extreme tidal events. The OPW Preliminary Flood Risk Assessment (PFRA) mapping indicate fluvial flooding along the Sluice River within the LAP lands, and as such the LAP lands is a probable area for further assessment.

The OPW Fingal-East Meath Flood Risk Assessment and Management (FEM-FRAM) Study indicate that areas along the Sluice River, within the LAP lands, are subject to flooding in the 1% and 0.1% AEP (river / fluvial flood events - Zone B) and 0.5% and 0.1% AEP (tidal flood events - Zone B).

The Kinsaley LAP lands are therefore, considered to require a Stage 3 detailed FRA with respect to flooding derived from Fluvial and Tidal sources.

⁶ Due to the lack of monitoring data within some waterbodies, it would not be satisfactory to base the status result on one monitoring location and therefore the EPA opted to use an "unassigned" category or "not completed" category.

The LAP includes a series of specific objectives to ensure protection of surface water and ground waters, flood risk and integration of surface water management (refer to Objectives 9.4 to 9.23).

3.0 Assessment of Likely Significant Effects

3.1 Screening for Appropriate Assessment (AA)

A separate report has been prepared providing Information for Screening for AA and as noted at Section 1.4 of this report, a relationship exists between the outcome of screening for AA and screening for SEA.

As set out in Table 2.2 of this report, 17 No. European sites (Natura 2000 sites) are located within 15km of the LAP lands. However, it is considered that only two of these sites - Baldoyle Bay cSAC (Site Code: 000199) and Baldoyle Bay SPA (Site Code: 004016) have potential connectivity to the LAP lands. Both sites are located c.2km southeast of Kinsaley (see Figure 2.3 above), and the LAP lands are connected hydrologically to Baldoyle Bay via the River Sluice and Mayne River catchment. Therefore, potential impacts on these European sites could theoretically arise from contaminated surface water run-off generated during construction and operation of development within the LAP lands.

The preliminary AA Screening Report has concluded that:

“Following review of the objectives of the LAP against the Conservation Objectives of the relevant European Sites, it was concluded that there is no possibility that the implementation of the LAP could result in any likely significant effects on European Sites on its own or in combination with other plans and programmes.”

Therefore, SEA is not required for the LAP because of a requirement for AA.

3.2 Flood Risk Assessment (FRA)

A Strategic Flood Risk Assessment (SFRA) has been carried out for the LAP lands in accordance with the requirements of the OPW *“The Planning System and Flood Risk Management Guidelines for Planning Authorities”*, 2009.

Stage 1 of the SFRA (Flood Risk Identification) findings concluded that lands identified for development within the Kinsaley LAP are at risk of flooding. Therefore, a Stage 2 FRA should be carried out.

Stage 2 (Initial Flood Risk Assessment) confirmed the sources of flooding that may affect the LAP lands, these included:

- Flooding from Fluvial & Sea Level Rises / Coastal Flooding - fluvial from the Sluice River and / or in combination with extreme tidal events (Stage 3 required).
- Surface Water Flooding - from the local drainage system (Stage 3 not required).
- Groundwater Flooding - from high water table (Stage 3 not required).
- Pluvial Flooding - from heavy rainfall (Stage 3 required).

Stage 3 (Detailed Flood Risk Assessment) used a hydraulic model to ascertain the effects of extreme pluvial and combination tidal / fluvial events.

The findings from the hydraulic model are that critical flooding and flood levels within Kinsaley LAP lands are driven by fluvial flooding with tidal inundation having a lesser though nonetheless significant effect.

Flood risk is detailed for specific potential Development Areas within the Kinsaley LAP lands, described below.

Development Areas within the LAP indicated that Development Areas 1, 2, 3 and 5 are not affected by current and future estimated fluvial or tidal flood risk. The northern portion of Development Area 4 is impacted by potential fluvial and tidal flooding from the Sluice River. This area is to be maintained free

of development and used for riparian setback and open space. Permission has already been granted for development on Development Area 6. This development was also subject to SRFA during the planning application process.

Stage 3 concluded that the majority of the LAP area is within Flood Zone C, where the probability of flooding from rivers and the sea is low (<1 in 1000 year (0.1%)) and is therefore appropriate for highly vulnerable developments.

All Development Areas are still susceptible to flooding from pluvial sources and this risk will be managed through appropriate surface water management strategies incorporating Sustainable Drainage Systems (SuDS). There is no requirement for a Justification test for Development Management on any Development Area.

The LAP includes specific objectives in relation to flood risk management (refer to Objectives 9.12 to 9.17).

3.3 Screening for Strategic Environmental Assessment (SEA)

A screening assessment for likely significant effects has been carried in accordance with the requirements of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004). In so doing the Screening of the Kinsaley LAP has taken account of the specified criteria for determining the likely significant environmental effects of implementing the LAP as set out in Schedule 1 of SEA Regulations 2004, as amended (or Schedule 2A of the Planning and Development Regulations 2001, as amended).

The screening assessment is presented in the following with reference to the specified criteria.

3.3.1 The Characteristics of the Plan or Programme Having Regard, in particular, to:

- | |
|--|
| <p><i>i. the degree to which the plan sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions, or by allocating resources;</i></p> |
|--|

The Kinsaley LAP sets out a development framework for the planned, co-ordinated and sustainable development of Kinsaley and for the conservation and enhancement of its natural and man-made environment. The LAP provides guidance in the form of policies and objectives for the development of environmental, physical and social infrastructure in a modest and sustainable manner. The Village Development Framework Plan and the LAP Objectives set out the relevant requirements for the development of lands within Development Areas and within the village generally.

Notably, the extent of population expansion is limited and this expansion has already been assessed as part of Fingal Development Plan 2017-2023.

Development as proposed in the LAP is considered to be consistent with the established and emerging profile of such development within Kinsaley village. As such the LAP provides no major divergence from the existing policy provided for by the Development Plan and instead provides greater detail as to the nature and extent of the development envisioned for the LAP lands.

- | |
|---|
| <p><i>ii. the degree to which the plan or programme influences other plans, including those in a hierarchy;</i></p> |
|---|

The LAP is prepared being wholly consistent with the Fingal Development Plan and higher level legislation, which has undergone full SEA. The nature and extent of development proposed in the LAP is as already established in the Development Plan and the primary purpose of the LAP

is to provide further detail and clarity with regard to the intentions of the Planning Authority to give effect to the objectives for Kinsaley.

The LAP is set within the context of Fingal Development Plan 2017-2023 and will only influence future development within the village of Kinsaley. It does not have a significant influence on additional plans in a hierarchy and it is considered that the Plan will not have a significant environmental effect on any other plans.

iii. the relevance of the plan for the integration of environmental considerations in particular with a view to promoting sustainable development

The LAP for Kinsaley prepared is in accordance with the provisions of Part II, Chapter II, Sections 18-20 of the Planning and Development Act 2000 (as amended) and therefore, is related to the proper planning and sustainable development of the area. It is also prepared having regard to National, Regional and County level policy documents and in particular to the requirements of the Fingal Development Plan 2017-2023.

The Fingal Development Plan, which underwent full SEA, integrated environmental considerations into the Plan and concluded that the Plan is based on the principles of sustainable development. The LAP does not in itself propose changes to environmental considerations and seeks to clarify and define intentions and process in relation to the development of Kinsaley in giving effect to the zoning of these lands and the objectives of the Development Plan.

The LAP sets out a strategy for the planned and sustainable development of Kinsaley and for the protection, conservation and enhancement of its natural and man-made environment. The LAP will guide future development by identifying Development Areas for particular uses and for providing a development framework for planning decisions within the village.

iv. environmental problems relevant to the plan or programme;

The LAP is consistent with the objectives of the Development Plan which has undergone full SEA. The Environmental Report, prepared for the Fingal Development Plan, concluded that the implementation of the Plan, including the various mitigation measures, would result, in general terms, in a neutral to positive impact on the environment as a whole.

While at present wastewater infrastructure in Kinsaley is at times operating near capacity, new proposals by Irish Water to alleviate this situation have been permitted by the planning authority. No other significant environmental problems are identified in relation to the LAP area.

v. The relevance of the plan for the implementation of European Union legislation on the environment (e.g. plans linked to waste management or water protection)

Issues relating to legislation on the environment are provided for in the Fingal Development Plan 2017-2023. The LAP is consistent with the policies and objectives of the Development Plan which itself was the subject of SEA. The LAP is therefore guided and informed by the relevant European legislation on the environment including; waste management and water protection policies and objectives as set out in the Fingal Development Plan 2017-2023.

The statutory planning and transportation policy context for the LAP is determined at the national, regional and local policy levels. In particular the planning context for the preparation of the LAP emanates from the current Fingal Development Plan 2017-2023, which guides and informs the implementation of relevant European legislation on the environment including; waste management and water protection policies and objectives.

Therefore, issues relating to EU legislation on the environment are addressed in the Development Plan as outlined above and the DLAP will ensure the continued implementation of these objectives.

3.3.2 Characteristics of the effects and of the area to be affected having regard, in particular to:

i. The probability, duration, frequency and reversibility of the effects;

The land subject to the LAP is currently zoned under the Fingal Development Plan 2017-2023. The LAP does not zone additional lands beyond the extent of development envisaged in the Fingal Development Plan. It is noted that a small tract of zoned greenbelt (GB) land within the Teagasc landholding will be subsumed into the LAP boundary but the lands will retain its GB zoning.

The LAP aims to guide the sustainable development of the Kinsaley area. Its extent is limited to the existing zoned lands and the objectives as set out in the Fingal Development Plan, and further expanded upon in the LAP and Village Development Framework Plan. Planning permission has already been permitted for some of the lands and other lands are subject to existing development. Therefore their development is established and the impacts of same have been considered by Fingal County Council and any mitigations or conditions considered or put in place.

While development will result in permanent change in identified Development Areas, it is not anticipated that adverse environmental effects will arise as a result of the implementation of the LAP.

ii. The cumulative nature of the effects;

The LAP forms part of the overall balanced, development strategy of Fingal County Council, as set out in the Fingal Development Plan 2017-2023. The LAP is consistent with the policies and objectives of the overarching county-wide policy and as a result will not have a significant cumulative effect on the environment, when taken with other plans and strategies within the county.

Given the nature of permitted development in the area and the remainder of zoned lands in the vicinity it is considered that there are unlikely to be any cumulative effects.

Given that the LAP will focus on the principles of sustainable development within a limited geographical area and for limited new development - all of which is guided within a Village Development Framework Plan - where cumulative effects arise on the environment it is anticipated that they will be positive.

iii. The trans-boundary nature of the effects;

The LAP will have no international, national, regional or inter-county transboundary effects.

iv. The risks to human health or the environment (e.g. due to accidents);

No risks to human health or to the environment due to accidents or other considerations in the implementation of the LAP have been identified.

v. The magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected);

The spatial extent of the Kinsaley LAP is c.39ha. in area (or 0.39 square kilometres), however, this includes established development areas of the Village as well as a number of recently

permitted developments. Six Development Areas, providing primarily residential development at between 15 to 30 units /ha have been identified on c.13.75ha of the LAP lands. Development Area 6 already includes an extant permission for 100 No. residential units and a crèche (FCC Planning Reg. Ref.: F16A/0464).

The population of Kinsaley was recorded as 264 persons in the 2016 census, however, the Development Plan, which uses a slightly different boundary to the census, put the village's population at 340 persons (page 148). Permitted residential development will allow for a further 182 residential units or a population increase of c.455 persons.

The six new Development Areas will realise a further 383 residential units or an additional population of c.958 persons. Therefore the ultimate target population arising from the LAP is considered to be up to c.1,800 persons.

The geographical area (c.0.4sqkm) and target population (c.1,800 persons) are significantly below the threshold values of 50sqkm and / or 5,000 persons for mandatory SEA.

Therefore the magnitude and spatial extent of the effects of the LAP are very local to the village and its immediate rural hinterland. The strategic impacts of the proposed scale and extent of development have also been subject to SEA as part of the preparation of the Fingal Development Plan 2017- 2023.

- vi. *The value and vulnerability of the area likely to be affected due to:*
- a) *special natural characteristics or cultural heritage*

Kinsaley is a small village settlement with a distinctive village character. Its surrounding landscape quality is informed by the Sluice River and its valley, and by the general good quality nature of the surrounding agricultural landscape.

The geographical area (c.0.4 sqkm) and target population (c.1,800 persons) of the LAP are significantly below the threshold values of 50sqkm and / or 5,000 persons required for mandatory SEA. A significant extent of the lands identified as Development Areas within the LAP are currently either already under some form of development (*e.g.* the Garden Centre, the former Research Centre) or subject to extant permissions for proposed development (Development Area No. 6). In addition the Development Areas do not adversely affect any aspects of special natural characteristic or cultural heritage.

European Sites

The nearest European sites with connectivity to the potential LAP lands are Baldoyle Bay cSAC and SPA located c.2km southeast of Kinsaley. The LAP lands are connected hydrologically to Baldoyle Bay via the River Sluice and Mayne River catchment. Potential impacts on these European sites could theoretically arise from contaminated surface water run-off generated during construction and operation of development within the potential LAP lands.

C.2.5km to the southeast of the site:

- Baldoyle Bay SPA (Site Code: 004016)
- Baldoyle Bay cSAC (Site Code: 000199)

C.3km to the northeast of the site:

- Malahide Estuary SAC (Site Code: 000205)
- Broadmeadow / Swords Estuary SPA (Site Code: 004025)

A significant extent of the lands identified as Development Areas within the LAP are currently either already under some form of development (*e.g.* the Garden Centre, the former Research Centre) or subject to extant permissions for proposed development (*i.e.* Development Area No. 6).

These include two main residential developments listed below:

- Permitted Residential Development (FCC Ref. No. F16A / 0511; ABP Ref. PL06F.248584); and
- Permitted Residential Development (FCC Ref. No. F16A / 0464; ABP Ref. PL06F.248515).

A review of the AA Screening Reports prepared for the two above applications concluded that there was no likelihood of any significant effects on any European sites arising from these proposed developments, either alone or in combination with other plans or projects.

In addition, the finding of the Preliminary Screening for AA for the Kinsaley LAP is that the implementation of the Plan will not have any effect on European sites either on its own or in combination with other plans and programmes.

Flooding and Surface Water Drainage

No areas proposed for development within the six Development Areas are affected by current or future estimated fluvial or tidal flood risks. Any potential risk of flooding from pluvial sources will be managed through appropriate surface water management strategies incorporating Sustainable Drainage Systems (SuDS). It is noted that the LAP will incorporate the existing Fingal Development Plan **Objective WQ05** (page 279):

*“Establish riparian corridors free from new development along all significant watercourses and streams in the County. Ensure a 10 to 15 metre wide riparian buffer strip measured from the top of the bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, **Sluice**, Ward, Broadmeadow, Corduff, Matt and Delvin where a **30m wide riparian buffer strip** from top of bank to either side of all watercourses outside urban centres is required as a minimum.”* (emphasis added).

Objective DMS170 of the Development Plan (page 480) has a similar riparian protection requirement.

It is a requirement of all future developments within the LAP lands to comply with the Greater Dublin Regional Code of Practice for Drainage Works and to address surface water management on site through SuDS measures.

Heritage

There are some sites of Archaeological, Architectural and Cultural Heritage value within and around the village, which include:

National Monuments:

- DU015-002002- Graveyard
- DU015-002001- Church

NIAH:

- Saint Nicholas' Roman Catholic Church
- Kinsaley Bridge
- Kinsaley House

Protected Structures:

- 454: St. Nicholas of Myra Church (RC).
- 455: Church (in ruins) & Graveyard (located just outside subject lands).
- 456: Kinsaley Hall (outside the LAP lands).

- 464: Kinsaley House, Chapel Road, Kinsaley, Malahide, Co. Dublin.
- 914: Malahide / Portmarnock Educate Together National School at Malahide Road.

The LAP identifies the important cultural heritage features within and adjacent to the LAP lands and ensures that proposed development or public realm interventions are approached in a sensitive and appropriate manner.

- *b) exceeded environmental quality standards or limit values,*

It is noted that existing wastewater pumping stations in the Kinsaley area are operating at capacity, and Irish Water have recently received planning permission for a new pumping station which will provide sufficient capacity for all existing and planned development areas. This current constraint is acknowledged in the LAP and includes objectives supporting the delivery of the planned infrastructure as well as requirement that any planned development will be subject to a connection agreement with Irish Water, in order to protect all waters in the area.

It is not anticipated that any other environmental quality standards or limit values will be exceeded. All sites identified for development in the LAP, which is consistent with the Development Plan, will be subject to a statutory planning process which will ensure that no environmental quality standards or limit values are exceeded.

- *c) Intensive land-use,*

The LAP consolidates the development of c.39ha of land, the majority of which is either under existing or permitted development. Of this c.39ha, only 13.75ha is highlighted for redevelopment / new development within Development Areas. These Development Areas are detailed in the LAP and subject to a Village Development Framework Plan, which establishes the proposed nature and scale of development. The sites to be development include for residential densities in the range of 15-30 units / ha which is appropriate for the character of Kinsaley and not considered as intensive land-use.

vii. The effects on areas or landscapes which have a recognised national, European Union or international protection status

The Fingal Development Plan recognises the importance of sites with national and European designations, and sets out policies and objectives for their protection. The LAP accords fully with those objectives. It is not anticipated that the implementation of the Plan would have any significant adverse impacts on areas of recognised national, European or international protection status.

There are no designated sites, Special Areas of Conservation (SAC) for flora and fauna, Special Protection Areas (SPA) for birds or Natural Heritage Areas (NHA) within the LAP lands. The Sluice River flows into the nearby Baldoyle Estuary SPA and cSAC, however, an AA Screening undertaken on the LAP has found that no significant impacts will arise on designated sites.

4.0 Screening of Amendments

Following public display of the Draft LAP and review of submissions received, a number of recommended amendments, and motions from elected representatives, were proposed and incorporated into the final Plan. The recommended amendments and motions were screened out for the requirement for SEA as set out in Tables 4.1 & 4.2. The recommended amendments and motions were also screened out for the requirement for AA.

Table 4.1: Screening of Amendments for the requirement for SEA

No.	Recommended Amendment	Screening for SEA										
CER 1	<p>Map-based Amendments to:</p> <p>Include icon for wastewater pumping station on Chapel Road</p> <p>Remove shading (in green) to existing school at St. Nicholas of Myra.</p> <p>Amend location of recreational facilities on lands zoned greenbelt to the south of LAP lands.</p> <p>Include indicative pedestrian connection between the drop-off/car parking area and St. Nicholas of Myra N.S.</p>	<p>Amendments are of a clarification, information and/or update nature.</p> <p>Neutral environmental effects.</p> <p>SEA not required.</p>										
No.1	<p>Support increased residential densities within Development Area 4 Malahide Road West by insertion of the following':</p> <p>It is recommended the following additional footnote is added to the Table on Page 54.</p> <p><i>'Fingal County council will consider a modest increase on these lands above that stated subject to observing the key objectives and design requirements outlined in Sections 10.4.6 and 10.4.7 as they relate to Development Area 4. Any such increase in density shall also align with (i) the Core Strategy (ii) be accommodated within the footprint of the stated Development Area (iii) comply with design guidance of the LAP for differing development areas.'</i></p> <p>In addition the density ranges should be given as 'approximate' densities. The Table will read as follows:</p> <table border="1"> <thead> <tr> <th colspan="2">Development Characteristics*</th> </tr> </thead> <tbody> <tr> <td>Site Area</td> <td>4 hectares</td> </tr> <tr> <td><i>Approximate</i> Density Range (gross)</td> <td>20-23 units/hectare</td> </tr> <tr> <td><i>Approximate</i> Density range (net)</td> <td>38-42 units/hectare</td> </tr> <tr> <td><i>Approximate</i> units</td> <td>85</td> </tr> </tbody> </table> <p><i>* Subject to observing the key objectives and design requirements outlined in Section 10.4.6 and Section 10.4.7 these density requirements and unit numbers may change during the development management process by consent of the Planning Authority.'</i></p>	Development Characteristics*		Site Area	4 hectares	<i>Approximate</i> Density Range (gross)	20-23 units/hectare	<i>Approximate</i> Density range (net)	38-42 units/hectare	<i>Approximate</i> units	85	<p>Minor amendment providing for clarification of intent and balanced sustainable development.</p> <p>No possibility of likely significant effects.</p> <p>SEA not required.</p>
Development Characteristics*												
Site Area	4 hectares											
<i>Approximate</i> Density Range (gross)	20-23 units/hectare											
<i>Approximate</i> Density range (net)	38-42 units/hectare											
<i>Approximate</i> units	85											
No. 2	<p>Support increased residential densities within Development Area 3 Teagasc by insertion of the following:</p> <p>It is recommended the following additional footnote is added to the Table on Page 49.</p> <p><i>'Fingal County council will consider a modest increase on these lands above that stated subject to observing the key objectives and design</i></p>	<p>Minor amendment providing for clarification of intent and balanced sustainable development.</p> <p>No possibility of likely significant effects.</p> <p>SEA not required.</p>										

	<p><i>requirements outlined in Sections 10.3.7 and 10.3.8 as they relate to Development Area 3 and subject to the early delivery of playground and MUGA within Development Area 3- Teagasc (exclusive of the school site). Any such increase in density shall also align with (i) the Core Strategy (ii) be accommodated within the footprint of the stated Development Area (iii) comply with design guidance of the LAP for differing development areas.'</i></p> <p>In addition the density ranges proposed should be given as 'approximate' densities. The Table will read as follows:</p> <table border="1"> <thead> <tr> <th colspan="2">Development Characteristics*</th> </tr> </thead> <tbody> <tr> <td>Site Area</td> <td>6.6 hectares (including proposed school site)</td> </tr> <tr> <td>Approximate Density Range (gross)</td> <td>30-35 units/hectare</td> </tr> <tr> <td>Approximate Density range (net)</td> <td>65-70 units/hectare</td> </tr> <tr> <td>Approximate units</td> <td>185-200</td> </tr> </tbody> </table> <p><i>* Subject to observing the key objectives and design requirements outlined in Section 10.3.7 and in Section 10.3.8, these density requirements and unit numbers may change during the development management process by consent of the Planning Authority.'</i></p>	Development Characteristics*		Site Area	6.6 hectares (including proposed school site)	Approximate Density Range (gross)	30-35 units/hectare	Approximate Density range (net)	65-70 units/hectare	Approximate units	185-200	
Development Characteristics*												
Site Area	6.6 hectares (including proposed school site)											
Approximate Density Range (gross)	30-35 units/hectare											
Approximate Density range (net)	65-70 units/hectare											
Approximate units	185-200											
No.3	<p>Insert the following Objective under Section 3.13 Objective 3.1 Page 9 to read:</p> <p>(Objective 3.1 of LAP)</p> <p><i>'That the Local Authority supports the continued role and future enhancement of St. Nicholas of Myra National School.'</i></p>	<p>Supports existing educational infrastructure.</p> <p>Neutral/Positive environmental effects.</p> <p>SEA not required.</p>										
No.4	<p>Insert new Objective under Section 5.4.3 Pedestrian / Cycle Routes Objectives:</p> <p>(Objective 5.15 of LAP)</p> <p><i>'Ensure that the design of cycle paths will accord with the recommendations in the National Cycle Manual.'</i></p>	<p>Provides for clarification on required design standards.</p> <p>No possibility of likely significant environmental effects.</p> <p>SEA not required.</p>										

Table 4.2: Screening of Motions for the requirement for SEA

No.	Recommended Amendment/Motion	Screening for SEA
No.1	<p><i>"That the Chief Executive, along with affected landowners, will examine the feasibility of accessing the Teagasc Development Area (DA3) direct from the Baskin Lane/Malahide Road junction. Should this option be feasible, provision will be made for such access which will also allow for the planned junction upgrade."</i></p> <p>The motion is noted. There is no change to the Plan.</p>	<p>This is a local detailed design aspect, which will be subject to further consideration/assessment.</p> <p>No environmental effects/Not applicable.</p> <p>SEA not required.</p>
No.2	<p><i>"That the planned footpath along the Malahide Road boundary of Teagasc Development Area (DA3) will be delivered before any new residential units on this land are occupied."</i></p>	<p>Provides for clarification and balanced sustainable development.</p> <p>Neutral environmental effects.</p> <p>SEA not required.</p>

No.	Recommended Amendment/Motion	Screening for SEA
	(Section 10.3.7 of LAP and also the Phasing Table on Page 67 of the Plan under the Teagasc Development Area).	
No.3	<p><i>“That provision be made to accommodate separate left and right turning lanes from Baskin Lane onto Malahide Road when Malahide Road West Development Area (DA4) is developed.”</i></p> <p>The motion is noted. There is no change to the Plan.</p>	<p>This is a local detailed design aspect, which will be subject to further consideration/assessment.</p> <p>No environmental effects</p> <p>SEA not applicable / not required.</p>
No.4	Motion is outside of LAP consideration.	SEA not applicable.
No.5	Withdrawn.	SEA not applicable.
No.6	<p>That in response to recommendations received, including from the Department of Housing Planning and Local Government, the LAP be amended to include the following in Section 11:</p> <p>(Section 11.4 of LAP)</p> <p><i>“The LAP supports segregated cycle and pedestrian links to Old Portmarnock R124 to provide access to Portmarnock train station as part of the further development in Kinsaley village and should be included in the next County Council Capital Programme 2020 with a view to submitting a planning application in 2021 for the agreed scheme.”</i></p>	<p>Supports enhanced pedestrian and cycle connectivity. Any future scheme will be subject to screening for Environmental Impact Assessment. Sufficient protective objectives/policies in LAP to ensure no negative environmental effects.</p> <p>SEA not required.</p>
No.7	<p>That in response to recommendations received, including from the National Transport Authority the LAP be amended to include the following:</p> <p>(Objective 5.12 of LAP)</p> <p><i>‘Facilitate the delivery of a comprehensive network of safe and attractive cycle and pedestrian routes facilitating commuting, educational, housing and leisure trips connecting key attraction points within the village to the wider hinterland. This includes the provision of safe walking and cycling routes to existing and future schools in Kinsaley from all locations within the Kinsaley LAP.’</i></p>	<p>Supports enhanced pedestrian and cycle connectivity and provides for clarification on intention and design standards.</p> <p>Neutral/Positive environmental effects.</p> <p>SEA not required.</p>
No.8	<p>That in response to recommendations received, including from the National Transport Authority, the LAP be amended to include the following:</p> <p>(Objective 5.16 of LAP)</p> <p><i>“It is a priority objective to provide segregated walking and cycling routes to Kinsealy from Old Portmarnock, from Kettle's Lane and from Balgriffin/Belmayne, and a traffic-calmed route from Malahide Demesne suitable for pedestrians and cyclists of all ages and abilities, in line with the proposals in the Kinsealy Cycleway and Footpath Network Feasibility Study, to facilitate access to schools, public transport and other local services and amenities. Any emerging studies / proposals shall be subject to applicable SEA / EIA and AA assessments.”</i></p>	<p>Supports enhanced pedestrian and cycle connectivity.</p> <p>Provision is primarily outside of the area of the LAP and proposals will be subject to further environmental assessment as applicable.</p> <p>Neutral/Positive environmental effects.</p> <p>SEA not required.</p>

The recommended amendments and motions incorporated in the LAP do not constitute material alterations. They are generally minor in nature, supportive or provide clarification to the existing intention of the plan. Individually or in combination, they do not change the nature and character of the Local Area Plan. Likewise, no significant interactions arise and there is no change to the finding of the Screening of the Draft LAP for the requirement for SEA.

Therefore, the recommended amendments do not result in significant environmental effects and do not require AA, and as such SEA is not required.

5.0 Determination under Article 14K

Following careful review and consideration of the environmental issues and following consultation with the Environmental Authorities, it has been determined that the aims and objectives of the Kinsaley Local Area Plan will not in themselves result in a significant adverse environmental effects and therefore, the LAP does not require a detailed assessment of their effect upon implementation through the strategic environmental assessment (SEA) process.

This conclusion has been drawn through consideration of the following factors:

- The extent to which the LAP will act as a framework for the future development of the lands.
- The extent of land which is already zoned Rural Village and environmentally assessed under the Fingal Development Plan 2017-2023.
- The extent of the existing zoned lands which is already subject to existing planning permissions and / or under construction.
- The scope and nature of development proposed in the LAP as presented and the need to ensure that all environmental aspects of same are considered.
- Protective measures and objectives already included in the Fingal Development Plan 2017-2023 and in the Kinsaley LAP.
- Consultations with the specified Environmental Authorities.
- The nature and limited scope of amendments / motions proposed following Draft Plan stage.

6.0 Recommendation

It is not anticipated that implementation of the Kinsaley LAP 2019-2025 will have strategic environmental effects and **therefore, Strategic Environmental Assessment (SEA) is not required**. Any potential localised environmental effects arising as a result of specific development carried out within the LAP lands can be appropriately and adequately addressed through the assessment of individual planning applications and within the provisions of the normal planning and sustainable development process.

7.0 References

7.1 European

European Parliament and Council Directive 2001/42/EC of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.

Council Directive Habitats Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

7.2 National

European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004).

Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. 436 or 2004).

European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011).

Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2004 (S.I. 201 or 2011).

Planning and Development Act 2000, as amended.

Planning and Development Regulations 2001, as amended.

Project Ireland 2040 National Planning Framework, Department of Housing, Planning and Local Government, 2018.

7.3 County

Fingal Development Plan 2017-2023. Fingal County Council, 2017.

Strategic Environmental Assessment SEA Statement for the Fingal Development Plan 2017-2023. Fingal County Council, 2017.

7.4 Guidelines

Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment Guidelines for Regional Authorities and Planning Authorities. Environmental Protection Agency, 2004.

Implementation of Directive 2001/42 on the Assessment of the Effects of Certain Plans and Programmes on the Environment. Environment Directorate-General of the European Commission, 2003.

Integrated Biodiversity Impact Assessment - Streamlining AA, SEA and EIA Processes - Practitioner's Manual. Environmental Protection Agency, 2013.

Local Area Plans Guidelines for Planning Authorities, Department of Environment, Community and Local Government, 2013.

SEA Pack. Environmental Protection Agency, 2018.

SEA of Local Authority Land Use Plans - EPA Recommendations and Resources. Environmental Protection Agency, 2018.

SEA Process Checklist - Consultation Draft. Environmental Protection Agency, 2008.

SEA Resource Manual for Local and Regional Planning Authorities. Environmental Protection Agency, 2008.

Synthesis Report on Developing a Strategic Environmental Assessment (Sea) Methodologies for Plans and Programmes in Ireland. Environmental Protection Agency, 2003.

The Planning System and Flood Risk Management Guidelines for Planning Authorities, Department of Environment, Heritage and Local Government, 2009.

7.5 Other

Kinsaley LAP Research Findings Report. GVA for Fingal County Council, 2018.

Kinsaley Local Area Plan Stormwater Management Plan Part 1: Strategic Flood Risk Assessment. Roughan O'Donovan for Fingal County Council, 2018.

Kinsaley Local Area Plan Stormwater Management Plan Part 2: Sustainable Drainage Systems (SuDS) Strategy. Roughan O'Donovan for Fingal County Council, 2018.

8.0 APPENDICES

APPENDIX A: Specific Objectives from Kinsaley Local Area Plan

APPENDIX B: Submissions / Observations received from Environmental Authorities at Scoping Stage

Appendix B1: Environmental Protection Agency (EPA)

Appendix B2: Department of Culture, Heritage and the Gaeltacht

Appendix B3: Department of Communications, Climate Action and Environment

Appendix B4: Kildare County Council

Appendix B5: Meath County Council

APPENDIX A: Specific Objectives from Kinsaley Local Area Plan

Chapter 3 Environmental Issues and Opportunities

Objective	Description
<i>Objective 3.1</i>	That the Local Authority supports the continued role and future enhancement of St. Nicholas of Myra National School.

Chapter 4 Vision and Development Strategy

Strategic Aim	Description
■	Support the expansion of Kinsaley Village centre as a focal point for the community with an enhanced retail function to serve the needs of existing and future residents.
■	Support infrastructural investment to ensure safe pedestrian and cyclist movements throughout the village in tandem with enhanced traffic management measures including facilitating the provision of improved pedestrian/cycle access to public transport and local schools.
■	Protect and enhance the existing natural amenities of Kinsaley together with improving access to established and proposed amenity areas through designated green routes.
■	Provide for the integrated development of the village and its growing population with the development of new housing delivered in tandem with supporting community and physical infrastructure.

Chapter 5 Movement and Transport Strategy

Objective	Description
<i>Objective 5.1</i>	Provide an alternative pavement treatment along the northern section of the Malahide Road within the LAP lands, between St. Olave's, St. Nicholas of Myra Church, and the proposed new civic square in Development Area 4.
<i>Objective 5.2</i>	Ensure the provision of safe, attractive and convenient pedestrian and cycle routes throughout the LAP area, connecting existing and future residential areas to the village centre, schools, and local amenities.
<i>Objective 5.3</i>	Implement traffic management solutions for the village as set out in the Movement and Transport Strategy of the LAP in order to provide enhanced facilities for pedestrians and cyclists and to reduce the speed of vehicles travelling through the village.
<i>Objective 5.4</i>	The implementation of traffic management solutions and junction improvement/ upgrade works shall be informed by a traffic study to be carried out by Fingal County Council.
<i>Objective 5.5</i>	Undertake a transport assessment and concept design of the road network in the area to assess the implications of the traffic management recommendations contained herein, to include a traffic modelling assessment of the AM and PM peak flows and concept design of the Malahide Road/ Chapel Road junction and the Malahide Road/ Baskin Lane junction.
<i>Objective 5.6</i>	Facilitate the provision of a suitable pavement treatment along the northern section of the Malahide Road within the LAP lands between St. Olave's, St. Nicholas of Myra church and the proposed village civic square in Development Area 4 (Malahide Road West).
<i>Objective 5.7</i>	Facilitate appropriate village entry treatment and gateway features on all approach roads to the village.
<i>Objective 5.8</i>	Provide appropriate landscaping and street furniture.
<i>Objective 5.9</i>	Support and encourage public transport providers to enhance the provision of public transportation services in the village including enhanced bus waiting areas, improved shelters and Real Time Passenger Information.
<i>Objective 5.10</i>	Maintain and improve existing footpaths and ensure that new footpaths are provided as part of a connected permeable network throughout the village.
<i>Objective 5.11</i>	Facilitate the recommendations of the Cycleway/Footpath Network Development in the Kinsealy Environs- Feasibility and Concept Study taking cognisance of the objectives of the LAP.
<i>Objective 5.12</i>	Facilitate the delivery of a comprehensive network of safe and attractive cycle and pedestrian routes facilitating commuting, educational, housing and leisure trips connecting key attraction points within the village to the wider hinterland. This includes the provision of safe walking and cycling routes to existing and future schools in Kinsaley from all locations within the Kinsaley LAP.
<i>Objective 5.13</i>	Facilitate the provision of footpaths along the main arteries of the Malahide Road, Chapel Road and Baskin lane.
<i>Objective 5.14</i>	Provide enhanced pedestrian and cycle connectivity to the existing and proposed schools.
<i>Objective 5.15</i>	Ensure that the design of cycle paths will accord with the recommendations in the National Cycle Manual.
<i>Objective 5.16</i>	It is a priority objective to provide segregated walking and cycling routes to Kinsaley from Old Portmarnock, from Kettle's Lane and from Balgriffin/Belmayne, and a traffic-calmed route from Malahide Demesne suitable for pedestrians and cyclists of all ages and abilities, in line with the proposals in the Kinsealy Cycleway and Footpath Network Feasibility Study, to facilitate access to schools, public transport and other local services and amenities. , subject to SEA and AA Assessment. Any emerging studies / proposals shall be subject to applicable SEA / EIA and AA assessments.
<i>Objective 5.17</i>	Facilitate the development of a car parking area within the Teagasc lands to facilitate a multi-purpose parking and drop off area to serve the existing and proposed school campuses and future recreational amenities.
<i>Objective 5.18</i>	Ensure that all new developments provide for appropriate levels of off street car parking in accordance with parking standards contained in the Fingal Development Plan.
<i>Objective 5.19</i>	Require the provision of appropriate levels of off street car parking to serve new commercial and amenity facilities in the village.
<i>Objective 5.20</i>	Ensure adequate levels of disabled parking.
<i>Objective 5.21</i>	To facilitate and promote appropriate hard and soft landscaping and appropriate lighting around car parking areas.
<i>Objective 5.22</i>	Facilitate the provision of electricity charging infrastructure for electric vehicles both on street and in new developments in accordance with car parking standards.

Objective	Description
<i>Objective 5.23</i>	Ensure future development takes due cognisance of Public Safety and Airport Noise Zones and that applicants consult with relevant authorities including the Irish Aviation Authority and Dublin Airport Authority as part of the development management process.

Chapter 6 Green Infrastructure

Objective	Description
<i>Objective 6.1</i>	Promote the conservation and enhancement of biodiversity having regard to the policies and objectives of the Fingal Development Plan, the Fingal Heritage Plan and the Fingal Biodiversity Plan while allowing for appropriate development, access arrangements and recreational activity.
<i>Objective 6.2</i>	Require any development proposal for Development Area 4 (land to the west of the Malahide Road) to incorporate proposals for the treatment of the stream running along the boundary of the site adjacent to the Malahide Road, to ensure its sustainable management and to protect the ecological network.
<i>Objective 6.3</i>	Ensure that all proposals for the upgrading of the riparian corridor running along the River Sluice make adequate provision for the protection of biodiversity and flood plain.
<i>Objective 6.4</i>	Protect existing trees, hedgerows within the LAP lands which are of amenity or biodiversity value and contribute to the landscape character of the area in so far as is practicable and incorporate same into future development proposals.
<i>Objective 6.5</i>	Conserve, protect and enhance existing trees and hedgerows within the LAP lands which form wildlife corridors and link habitats providing the stepping stones necessary for wildlife to flourish while also protecting and enhancing surface water and groundwater resources in the area.
<i>Objective 6.6</i>	The planting and design strategy for green routes should incorporate measures to facilitate wildlife movement.
<i>Objective 6.7</i>	Provide an appropriately designed, extended open space corridor adjacent to the Sluice River to connect onward to Chapel Road from the existing pedestrian route (rear of the Church and graveyard in ruins). Any proposals should give careful consideration to the interface with the Recorded Monument (north of the church and graveyard in ruins) to the south of the route including archaeological investigations.
<i>Objective 6.8</i>	Ensure that new or extended open space networks are designed to facilitate people with a broad range of ability.
<i>Objective 6.9</i>	Ensure that areas of open space provide or retain features that encourage biodiversity within the LAP lands recognising that this may be limited in areas of active open space.
<i>Objective 6.10</i>	Ensure that flood storage areas are designed to reflect and enhance the landscape character of the area.
<i>Objective 6.11</i>	Investigate the possible extension of the open space corridor adjacent to the Sluice River into and through the Abbeville Architectural Conservation Area (ACA). Any proposals shall positively enhance the character of the ACA.
<i>Objective 6.12</i>	Protect all archaeological sites and monuments which are listed in the Record of Monument and Places in accordance with National Monuments legislation; all sites and features of archaeological interest discovered subsequently, and to promote best practice in the conservation and management of the archaeological resource.
<i>Objective 6.13</i>	Protect recorded archaeological sites and their settings from inappropriate development that would adversely affect or detract from the monuments whilst at the same time enabling the sustainable development of the village.
<i>Objective 6.14</i>	To promote and create greater awareness of the rich archaeological heritage of the village and its surroundings.
<i>Objective 6.15</i>	Ensure archaeological remains are identified and fully considered at the earliest stages of the development process to protect the resource and facilitate appropriate design.
<i>Objective 6.16</i>	Any and all required archaeological investigations including geophysical survey, archaeological assessment and excavation and archaeological monitoring shall in consultation with the Department of Culture, Heritage and the Gaeltacht be undertaken by a suitably qualified archaeologist under licence from the Department and at the expense of the developer.
<i>Objective 6.17</i>	Minimise the visual impact of future development on the setting and visual quality of the Highly Sensitive Landscape designation applicable to lands to the west of the Malahide Road.

Chapter 7 Parks, Open Space and Recreation

Objective	Description
<i>Objective 7.1</i>	The Teagasc and Kinsaley House Development Areas shall provide a green route/ corridor accommodating cycle and footpath facilities through both sites, connecting to the Malahide Road. The route shall provide for high quality pedestrian and cycle facilities, shall be tree lined, appropriately lit and afforded high levels of passive surveillance.
<i>Objective 7.2</i>	Provide for active recreational facilities in the form of a full size all-weather soccer pitch and associated car parking on lands adjacent to the proposed National School in the Teagasc Development Area (Area 3). The soccer pitch shall be 600 sq.m in area (60 metres x 100 metres minimum dimensions).
<i>Objective 7.3</i>	Provide a civic square (minimum 2,500 sq.m) within the Malahide Road West Development Area. The civic square shall comprise 50% soft landscaping and be suitably landscaped and finished to a high standard to ensure its suitability for multifunctional usage.
<i>Objective 7.4</i>	Provide a Mixed Use Games Area (MUGA) within the Teagasc Development Area (Area 3), adjacent to the proposed National School.
<i>Objective 7.5</i>	Provide for a playground within the Teagasc Development Area (c. 400 sq.m), suitably designed by a specialist playground provider which shall be accessible via the proposed green route serving the Teagasc Development Area and via the proposed car park serving the soccer pitch. The play area shall have a suitably designed boundary treatment with passive supervision provided by adjoining residential units.
<i>Objective 7.6</i>	Give favourable consideration to proposals to provide active recreational facilities on lands zoned GB to the north of St. Nicholas of Myra National School and south of Protected Structure 914.
<i>Objective 7.7</i>	Ensure that Developers lay out and maintain areas of open space to a high standard until such time as they are taken in charge and facilitate the early handover of such areas of public open space to the Council in a completed manner in accordance with approved landscaping plans.
<i>Objective 7.8</i>	Encourage improvements to small existing public open space areas through additional tree planting and pathways, where appropriate.
<i>Objective 7.9</i>	Ensure that public and or communal open space areas are designed to be overlooked to ensure the potential for anti-social behaviour is minimised through passive surveillance.
<i>Objective 7.10</i>	Provide for a riparian corridor/ buffer free from development to the south of the Sluice River within the Malahide Road West Development Area. The riparian corridor shall accord with the recommendations of the Strategic Flood Risk Assessment.
<i>Objective 7.11</i>	The design and layout of the proposed open spaces including pedestrian and cycle links shall have regard to the layouts and recommendations for proposed open spaces and pedestrian/cycle accessibility as set out in the Village Development Framework Plan.
<i>Objective 7.12</i>	The design and layout of the proposed open spaces including cycle and pedestrian routes shall have regard to layouts and guidelines for proposed open spaces and accessibility as set out in the Village Development Framework Plan for the Village.
<i>Objective 7.13</i>	All planning applications within identified Development Areas shall clearly distinguish between areas of private and public space with clearly delineated boundary treatment.

Chapter 8 Creating Communities

Objective	Description
<i>Objective 8.1</i>	Development shall strive to reduce the energy and water demand through measures which include the following: <ul style="list-style-type: none"> Careful consideration of building orientation, form, massing and fenestration to make the most of passive solar gain for heating and cooling. Maximisation of natural daylight. Maximisation of passive solar gain for solar thermal water heating and electricity production. Exploring the potential for incorporating wind energy (e.g. wind turbines and wind spires) or other renewable energy systems, such as combined heat and power (CHP). Intelligent and energy efficient heating, cooling and ventilation systems. Reduced water use through rainwater harvesting and recycling of rainwater and in-building grey water treatment systems. Use of materials with low embodied energy. Promoting walking and cycling by providing for safe, attractive pedestrian and cycling routes. Promoting the retention of existing trees and hedgerows where possible and providing for new planting to augment or replace existing, ensuring that the planting has maximum biodiversity value.
<i>Objective 8.2</i>	Ensure high standards of energy efficiency in existing and new residential developments in line with good architectural conservation practice and the promotion of energy efficiency and conservation in the design and development of new residential units.
<i>Objective 8.3</i>	Promote the use of renewable energy in all developments.
<i>Objective 8.4</i>	Promote the principles of Biodiversity by conserving existing indigenous hedgerows and trees and by introducing green routes through the village.
<i>Objective 8.5</i>	Promote and facilitate the development of small scale renewable energy facilities within the LAP lands such as wind turbines, spires, solar) where such development does not have a significant negative impact on the landscape and the amenities of property adjacent. All new wind energy developments shall comply with national guidance and the Fingal Development Plan.
<i>Objective 8.6</i>	Facilitate and promote walking and cycling as an alternative to the private car by the delivery of an integrated network and safe and attractive pedestrian and cycle routes throughout the village providing access to community and recreational amenities.
<i>Objective 8.7</i>	Promote the retention of existing trees and hedgerows where possible and provide for new planting to augment or replace existing, ensuring that the planting has maximum biodiversity value.
<i>Objective 8.8</i>	Require proposals for the Teagasc Development Area to incorporate an appropriately sized national school in consultation with the Department of Education and Skills, incorporating associated car parking, drop off/collection and play areas as required. An associated soccer pitch and car parking shall be located within DA3 or may be facilitated immediately to the south of the Development Area.
<i>Objective 8.9</i>	Require development proposals on the Malahide Road West Development Area to include a new civic square approximately opposite St. Nicholas of Myra Church, parish hall and St. Olave's at the western end of the Malahide Road. The civic square shall be suitably landscaped and finished to a high standard to ensure its suitability for numerous community functions.
<i>Objective 8.10</i>	Provide a mix of high quality pocket parks, small parks and playgrounds within the Development Areas of the village which shall be sized and designed to Development Plan standards.
<i>Objective 8.11</i>	Facilitate and co-operate with community and educational organisations in the provision of services for the community as it grows.
<i>Objective 8.12</i>	Require the provision of appropriate childcare facilities in line with national guidelines.
<i>Objective 8.13</i>	Co-operate with sports clubs, schools and community organisations in the provision of sports and recreational facilities.
<i>Objective 8.14</i>	Strengthen the local economy by creating and facilitating opportunities for new businesses to locate and establish in Kinsaley.
<i>Objective 8.15</i>	Support the ongoing successful operation of the Kinsealy Business Park as a key employer in the area and as an attractive destination for business and workers.
<i>Objective 8.16</i>	Support the expansion of Kinsaley Village centre as a focal point for the village with an enhanced retail function to serve the needs of existing and future residents.
<i>Objective 8.17</i>	Provide for the integrated development of the village and its growing population with the development of new housing delivered in tandem with supporting community and physical infrastructure.

Objective	Description
<i>Objective 8.18</i>	Encourage the expansion and development of additional retail provision and commercial services and facilities at a level appropriate to the village to meet the retailing and service needs of the existing and future population of Kinsaley.
<i>Objective 8.19</i>	Require that all proposals for new retail/commercial developments are designed to the highest architectural standards and promote an awareness of good shop front design ensuring that new shopfronts do not visually detract from the character of the village.
<i>Objective 8.20</i>	Ensure that all proposals for new retail and commercial developments respect the character and scale of the village.
<i>Objective 8.21</i>	Develop and maximise the tourism potential of Kinsaley and co-operate with the community and relevant organisations in marketing and promoting tourism within the village.
<i>Objective 8.22</i>	Facilitate and actively promote tourism activities including walking, cycling and agri-tourism including the development of green routes through the village with attractive pedestrian and cycle facilities so as to enhance the special qualities of Kinsaley and the surrounding natural and built environment.
<i>Objective 8.23</i>	Preserve, protect and enhance the natural, built, cultural and historical heritage of Kinsaley to promote the attractiveness of the village to visitors.
<i>Objective 8.24</i>	Promote the development of looped walks between existing and new residential areas and the enhanced village core.
<i>Objective 8.25</i>	Promote and facilitate the development of remaining sections of the riverside walk within the village through the provision of a riparian corridor.

Chapter 9 Water and Infrastructure Services

Objective	Description
<i>Objective 9.1</i>	Collaborate with Irish Water to ensure the delivery of their Capital Investment Plan or any other relevant investment works programme to ensure both foul and water capacity constraints are not a deterrent to sustainable development.
<i>Objective 9.2</i>	Support Irish Water in the provision and maintenance of adequate wastewater disposal and water supply in accordance with EU Directives, to service Kinsealy as appropriate.
<i>Objective 9.3</i>	Development shall connect to the public sewer and public water mains, subject to a connection agreement with Irish Water, in order to protect all waters in the plan area.
<i>Objective 9.4</i>	Developments within the Kinsaley LAP catchment must incorporate Sustainable urban Drainage Systems (SuDS) measures in line with the recommendations of the Surface Water Management Plan to suit individual site layouts and local ground conditions. Design of SuDS Systems should be in accordance with the Greater Dublin Strategic Drainage Study (GSDSDS) and the CIRIA SUDS Manual.
<i>Objective 9.5</i>	New surface water drainage networks will be required as part of developments within lands available for development. These networks should be designed in accordance with this SuDS Strategy, CIRIA C753 'The SuDS Manual' and the Greater Dublin Strategic Drainage Systems (GSDSDS).
<i>Objective 9.6</i>	Provide an undeveloped flood-plain to accommodate flood waters during extreme flooding events through the provision of a riparian corridor in line with the recommendations of the Strategic Flood Risk Assessment carried out as part of the Kinsaley LAP.
<i>Objective 9.7</i>	For all future residential developments: <ul style="list-style-type: none"> ▪ Runoff within the curtilage of the property boundary shall pass through at least one SuDS component prior to discharging to downstream ▪ SuDS components within the public realm. Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided within the curtilage of the property boundary, with a maximum discharge rate of 2l/s/ha. ▪ Runoff from public areas (such as roads, parking bays, hard and soft landscaped areas and footpaths) shall pass through at least two SuDS components prior to discharging to the final downstream detention/retention/polishing SuDS components within the public realm. ▪ The Final SuDS Components located in the public realm shall comprise of basins/ponds/wetlands (as appropriate), prior to discharge to the Sluice River or local surface water sewer. Measures must align with acceptable landscape and open space proposals and maintenance requirements. ▪ Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided for runoff from the public realm, with a maximum discharge rate of 2l/s/ha.
<i>Objective 9.8</i>	For all future commercial, industrial, educational and apartment developments: <ul style="list-style-type: none"> ▪ Runoff from roofs shall pass through at least one SuDS feature prior to discharge to on-site surface water retention features. Blue/green roofs shall be provided to store the 100 year event with an allowance for Climate Change. ▪ Runoff from roads and parking areas shall pass through at least two SuDS features prior to discharge to the final on-site surface water retention features. ▪ The final 'Private' surface water retention features shall comprise basins/ponds/wetlands (as appropriate), prior to discharge to the local surface water sewers/watercourses. ▪ Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided for runoff from the developments, with a maximum discharge rate of 2l/s/ha.
<i>Objective 9.9</i>	Water Butts, Rainwater Harvesting, Rain Gardens and Permeable Paving are recommended for use in all residential developments. Any Industrial, Commercial and Educational developments and Apartment blocks shall incorporate rainwater harvesting for re-use and should incorporate blue / green roof features.
<i>Objective 9.10</i>	Subject to subsoil permeability, filter drains may be required to drain residential gardens and other small green areas within future developments. Runoff from green areas should, where possible, infiltrate directly to groundwater.
<i>Objective 9.11</i>	The relevant authorities should promote the benefits of SuDS retrofitting to the general public.
<i>Objective 9.12</i>	Implement the provisions of the DoEHLG/OPW publication 'The Planning System and Flood Risk Management: Guidelines for Planning Authorities' 2009 or any superseding document in relation to flooding and flood risk management and facilitate flood management measures, as appropriate.
<i>Objective 9.13</i>	It is recommended that the drainage channels, watercourses and floodplains within the developed and undeveloped areas of the LAP boundary be maintained and protected.

Objective	Description
<i>Objective 9.14</i>	Riparian corridors should be provided in accordance with the requirements of the Fingal Development Plan 2017-2023 to protect and enhance watercourses and their natural regimes including: ecological, biogeochemical and hydromorphological.
<i>Objective 9.15</i>	Sustainable Drainage Systems should be incorporated in all new developments and retro-fitting of SuDS should be encouraged within the Kinsealy LAP lands.
<i>Objective 9.16</i>	Future developments within Kinsaley LAP should be designed and constructed in accordance with the “Precautionary Principle” detailed in The Guidelines. It is recommended that the flood zoning within the LAP is based on the High-End Future Scenario (HEFS) for climate change.
<i>Objective 9.17</i>	To address the risk of pluvial flooding in new developments in the LAP area, the Kinsaley LAP Surface Water Management Plan Part 2: Sustainable Drainage Systems (SuDS) Strategy will be adopted. This will ensure a consistent approach to the management of flood risk and water quality within Kinsealy LAP. Implementing these measures and complying with the GSDS will ensure that the risk of flooding downstream or upstream of any new developments is minimised.
<i>Objective 9.18</i>	Strive to achieve ‘good status’ in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.
<i>Objective 9.19</i>	Protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the County and control development in a manner consistent with the proper management of these resources in conformity with the Eastern River Basin Management Plan 2009-2015 and the second cycle national River Basin Management Plan 2017-2021 and any subsequent plan and the Groundwater Protection Scheme.
<i>Objective 9.20</i>	Implement the recommendations of the Groundwater Protection Scheme.
<i>Objective 9.21</i>	Protect existing riverine wetland and coastal habitats and where possible create new habitats to maintain naturally functioning ecosystems whilst ensuring they do not impact negatively on the conservation objectives of any European Sites.
<i>Objective 9.22</i>	Establish riparian corridors free from new development along all significant watercourses and streams in the County. Ensure a 10 to 15 metre wide riparian buffer strip measured from the top of the bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Corduff, Matt and Delvin where a 30m wide riparian buffer strip from top of bank to either side of all watercourses outside urban centres is required as a minimum.
<i>Objective 9.23</i>	Minimise the impact on surface water of discharges from septic tanks, proprietary effluent treatment systems and percolation areas by ensuring that they are located and constructed in accordance with the recommendations and guidelines of the EPA and Fingal County Council.

Chapter 10 Village Development Framework Plan

Objective	Description
<i>Objective 10.1</i>	'Provide for a varied high quality housing choice creating a range of household types, tenures and typologies creating a range of lifestyle, affordability and lifestyle choices'.
<i>Objective 10.2</i>	Provide high quality housing having regard to the Planning Guidelines on Sustainable Residential Development, the Fingal Development Plan development standards, the design principles as set out in this Local Area Plan and the objectives and design requirements set out in the Village Development Framework Plan.
<i>Objective 10.3</i>	Proposals for development shall demonstrate variation in residential streetscapes to create distinctive neighbourhood identities. Suburban type housing development shall be avoided as it does not respond to Kinsaley's rural village character.
<i>Objective 10.4</i>	Ensure new residential development is designed to respond to the natural environment and landscape setting in which it sits and ensure the enhancement and protection of biodiversity.
<i>Objective 10.5</i>	A detailed Design Statement for all developments shall accompany all planning applications within the LAP boundary, the components of which shall be informed by the Village Development Framework Plan and Development Objectives for the Development Areas.
<i>Objective 10.6</i>	Provide high quality development at appropriate densities in close proximity to the village centre and pedestrian/cyclist movement corridors.
<i>Objective 10.7</i>	All developments shall incorporate the principles of universal design.
<i>Objective 10.8</i>	Ensure that all proposals for development provide an attractive and sensitive interface to environmental and historic features particularly the Sluice River, Abbeville Architectural Conservation Area and protected structures within the village.
<i>Objective 10.9</i>	All new development shall protect the archaeological heritage of the area.
<i>Objective 10.10</i>	New development shall seek to preserve and retain existing quality trees and hedgerows of amenity value.
<i>Objective 10.11</i>	Explore opportunities for additional street tree planting along the Malahide Road and Chapel Road utilising constructed tree pits.
<i>Objective 10.12</i>	Identify opportunities for heritage interpretation across the village to encourage awareness of Kinsaley's rich historical past.
<i>Objective 10.13</i>	Align pedestrian and cycle links to capture views to local features (natural and built) and incorporate opportunities for overlooking and passive surveillance insofar as possible.
<i>Objective 10.14</i>	Create safe and attractive pedestrian and cycle routes with high levels of legibility and permeability connecting homes to existing and future neighbourhoods, amenities and the village centre.
<i>Objective 10.15</i>	Improve and extend the existing footpath network across the village with a focus on providing access to the village core and educational facilities.
<i>Objective 10.16</i>	Provide appropriate gateway features on the approach roads to Kinsaley village.
<i>Objective 10.17</i>	All new street and estate names shall be in Irish or bilingual and shall reflect meaningful local names or references.
<i>Objective 10.18</i>	Ensure appropriate levels of internal noise insulation within noise sensitive structures having regard to the location of the village within the Outer Airport Noise Zone.
<i>Objective 10.19</i>	Support the expansion of Kinsaley Village centre as a focal point for the community with an enhanced retail function to serve the needs of existing and future residents.
<i>Objective 10.20</i>	A new civic square shall be provided in the Malahide Road West Development Area approximately opposite St. Nicholas of Myra church and St. Olave's commercial centre which shall be landscaped and finished to a high standard and shall be suitable for use for a variety of functions facilitating community gatherings and acting as a focal point of the expanded village core.
<i>Objective 10.21</i>	Support the provision of a range of retailing and commercial options in the village core (Malahide Road West Development Area) including the provision of a supermarket commensurate with the Level 5 of the Fingal Retail Hierarchy to serve local demand for top up shopping.
<i>Objective 10.22</i>	Require that all proposals for new retail/commercial developments are designed to the highest architectural standards and promote an awareness of good shop front design ensuring that new shopfronts do not visually detract from the character of the village.
<i>Objective 10.23</i>	Ensure that all proposals for new retail and commercial developments respect the character and scale of the village.

APPENDIX B: Submissions / Observations received from Environmental Authorities at SEA Scoping Stage

Appendix B1: Environmental Protection Agency (EPA)

Ms Patricia Cadogan
Senior Executive Planner
Fingal County Council
Planning & Strategic Infrastructure Department
Grove Road
Blanchardstown
Dublin 15

17 December 2018

Our Ref: 181202

Re. SEA Screening Report for the Draft Kinsaley Local Area Plan 2018-2024

Dear Ms Cadogan,

We acknowledge your notice, dated 7th December 2018, in relation to the Screening Report for the Draft Kinsaley Local Area Plan 2019-2025 (the Plan).

The EPA is one of five statutory environmental authorities under the SEA Regulations. In our role as an SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the Plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.

As a priority, we focus our efforts on reviewing and commenting on key sector plans. For land use plans at county and local level, we provide a 'self-service approach' via our guidance document '[SEA of Local Authority Land Use Plans – EPA Recommendations and Resources](#)'. This document is updated regularly and sets out our key recommendations for integrating environmental considerations into Local Authority land use plans.

Proposed SEA Determination

We note your proposed determination that the Draft LAP does not require a Strategic Environmental Assessment (SEA).



In finalising your SEA screening determination, we recommend that you take the comments outlined in this submission into account.

Specific Comments on the Plan

Critical Service Infrastructure

We note under Section 2.3.8.2 of the Screening Report that the pumping stations at Connolly Avenue and Floraville, which discharge to the wastewater treatment plant at Malahide, are currently operating at capacity and become overloaded during storm events. Our *Water Quality in Ireland 2010 – 2012* report (EPA, 2015) highlights that one of the key causes of water pollution is from point sources including discharges from waste water treatment plants. We recommend that a specific commitment (Policy/Objective) should be included in the Plan to provide and maintain adequate and appropriate wastewater treatment infrastructure to service zoned lands and developments over the lifetime of the Plan.

Sustainable Development

In proposing and in implementing the Plan, Fingal County Council should ensure that the Plan is consistent with the need for proper planning and sustainable development. The Plan should be consistent with the National Planning Framework and the Draft Regional Spatial and Economic Strategy for the Midland and Eastern region. The Plan should also align with and support national commitments on implementing the UN Sustainable Development Goals.

Climate Change

The Plan should align with and support national climate change commitments. Relevant recommendations contained in sectoral, regional and local climate plans should be incorporated into the Plan as relevant and appropriate.

Flood Risk

We note the commitment to carrying out a stage 3 detailed flood risk assessment with respect to flooding derived from fluvial and tidal sources. The Plan should fully comply with [The Planning System and Flood Risk Management - Guidelines for Planning Authorities](#) (OPW/DEHLG, 2009). We recommend that a specific commitment (Policy/Objective) should be included in the Plan that development proposed within the Plan area will be subject to appropriate flood risk assessment, in accordance with the above guidelines.

Groundwater

We recommend that the Plan should include a Policy/Objective relating to the protection of groundwater resources and associated groundwater-dependent habitats and species. The Plan should also include a commitment to integrate any existing Groundwater Protection Schemes and Groundwater Source Protection Zones, as relevant and appropriate within the Plan area. The Plan should also include a commitment to comply with the [European Communities Environmental Objectives \(Groundwater\) Regulations 2010](#) (S.I. No. 9 of 2010).

State of the Environment Report – Ireland’s Environment 2016

In preparing the Plan and associated SEA screening, the recommendations, key issues and challenges described in our most recent State of the Environment Report [Ireland's Environment – An Assessment 2016](#) (EPA, 2016) should be considered, as relevant and appropriate to the Plan.

Available Guidance & Resources

Our website contains SEA resources and guidance, including:

- SEA process guidance and checklists
- list of relevant spatial datasets
- topic specific SEA guidance, such as how to integrate climate change into SEA.

You can access these resources at: <http://www.epa.ie/pubs/advice/ea/>

EPA SEA Search and Reporting Tool

This tool allows public authorities to explore, interrogate and produce high level environmental summary reports. It is intended to assist in screening and scoping exercises. The tool is available through EDEN www.edenireland.ie

EPA WFD Application

Our WFD Application provides access to water quality and catchment data from the national WFD monitoring programme. The Application is accessed through EDEN <https://wfd.edenireland.ie/> and is available to public agencies. Publicly available data can be accessed via the www.catchments.ie website.

Future Amendments to the Plan

Where changes to the Plan are made prior to finalisation, or where modifications to the Plan are proposed following its adoption, these should be screened for potential for likely significant effects in accordance with the criteria set out in Schedule 2A of the SEA Regulations (S.I. No. 436 of 2004)

Appropriate Assessment

You should ensure that the Plan complies with the requirements of the Habitats Directive where relevant. Where Appropriate Assessment is required, the key findings and recommendations should be incorporated into the SEA and the Plan.

Environmental Authorities

Under the SEA Regulations, you should also consult with:

- The Minister for Housing, Planning and Local Government
- Minister for Agriculture, Food and the Marine, and the Minister for Communications, Climate Action and Environment, where it appears that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment

- where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural or archaeological heritage or to nature conservation, the Minister for Culture, Heritage and the Gaeltacht, and
- any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan.

As soon as practicable after making your determination as to whether SEA is required or not, you should make a copy of your decision, including, as appropriate, the reasons for not requiring an environmental assessment, available for public inspection in your offices and on your website. You should also send a copy of your determination to the relevant environmental authorities consulted.

If you have any queries or need further information in relation to this submission, please contact me directly. I would be grateful if you could send an email confirming receipt of this submission to: sea@epa.ie.

Yours sincerely,

A handwritten signature in black ink that reads 'David Galvin'.

David Galvin
SEA Section
Office of Evidence and Assessment

Appendix B2: Department of Culture, Heritage and the Gaeltacht



Our Ref: **FP2018/109**
(Please quote in all related correspondence)

09 January 2019

Senior Executive Planner,
Fingal County Council,
PO Box 174,
County Hall,
Swords,
Co. Dublin
K67 X8Y2

Via email: devplan@fingal.ie cc: Patricia.Cadogan@fingal.ie

Re: Draft Local Area Plan for Kinsaley, County Dublin
--

A chara

On behalf of the Department of Culture, Heritage and the Gaeltacht, I refer to correspondence received in relation to the above.

Outlined below are heritage-related observations/recommendations of the Department under the stated heading.

Architectural Heritage

This Department notes that within the area of the Draft Local Area Plan there are four protected structures, i.e. Kinsealy Bridge (on the road to Malahide), St Nicholas' Catholic Church, the old school and Kinsealy House.

This Department would recommend the addition of the following as an Architectural Conservation Area:

- Row of five labourers' cottages to the south of the Catholic church/old school, at the west end of the road to Portmarnock.

This row of houses, together with the church and old school, forms the totality of the old village of Kinsealy. The protection and conservation of these houses is important for the survival of the character of Kinsealy village.

In the event that additional heritage-related observations become available before the deadline date, a further letter will issue.



You are requested to send further communications to this Department's Development Applications Unit (DAU) via **eReferral**, where used, or to manager.dau@chg.gov.ie; if emailing is not possible, correspondence may alternatively be sent to:

The Manager
Development Applications Unit (DAU)
Department of Culture, Heritage and the Gaeltacht
Newtown Road
Wexford
Y35 AP90

Is mise, le meas

Sinéad O' Brien
Development Applications Unit

Appendix B3: Department of Communications, Climate Action and Environment

From: CorporateSupport.Unit [<mailto:CorporateSupport.Unit@DCCAE.gov.ie>]
Sent: 11 January 2019 09:52
To: Patricia Cadogan
Cc: CorporateSupport.Unit
Subject: FW: SEA Screening Report (Consultation): Draft Kinsaley LAP

Ms. Cadogan,

Please see observations below for Strategic Environmental Assessment (SEA) Screening Report prepared in association with the Draft Local Area Plan (LAP) for the village of Kinsaley Co. Dublin from Inland Fisheries Ireland.

Regards,
Eric

Eric Pepper,
Corporate Support Unit
Tel: 01 6782057

From: Gretta Hannigan [<mailto:Gretta.Hannigan@fisheriesireland.ie>]
Sent: 11 January 2019 09:46
To: CorporateSupport.Unit
Subject: RE: SEA Screening Report (Consultation): Draft Kinsaley LAP

Enda Brady,
Dept. of Communications, Climate Action and Environment,
Corporate Support Unit,
Ext. 2308

Dear Sir,

IFI-Dublin have examined the Strategic Environmental Assessment (SEA) Screening Report prepared in association with the Draft Local Area Plan (LAP) for the village of Kinsaley Co. Dublin, and agree with the stated conclusion *that the aims and objectives of the Plan will not in themselves result in a significant adverse environmental effects and therefore, the Draft LAP does not require a detailed assessment of their effect upon implementation through the strategic environmental assessment (SEA) process.*

Please advise Fingal County Council accordingly.

Yours sincerely,
Gretta Hannigan

Gretta Hannigan
Senior Fisheries Environmental Officer

Inland Fisheries Ireland- Dublin

Iascach Intíre Éireann
Inland Fisheries Ireland

Tel +353 (0)1 8842693

Email gretta.hannigan@fisheriesireland.ie

Web www.fisheriesireland.ie

3044 Lake Drive, City West, Dublin 24, IRELAND.

Appendix B4: Kildare County Council



Kildare County Council
Comhairle Contae Chill Dara

Service: Local Area Plan

Service Option:

Date Received: 07/12/2018

Dear Ms. Patricia Cadogan

Your case number 36331 dated 07/12/2018 has been examined by the Forward Planning Team in the Planning Department and the outcome is:

Your email notification has been noted

Regards

Forward Planning

Planning Department

Appendix B5: Meath County Council

Comhairle Chontae na Mí

Teach Buvinda, Bóthar Átha Cliath, An Uaimh,
Contae na Mí, C15 Y291

Fón: 046 – 9097000/Fax: 046 – 9097001

R-phost: customerservice@meathcoco.ie

Web: www.meath.ie

Uimhir Chláraithe: 00172770



Meath County Council

Buvinda House, Dublin Road, Navan,
Co. Meath, C15 Y291

Tel: 046 – 9097000/Fax: 046 – 9097001

E-mail: customerservice@meathcoco.ie

Web: www.meath.ie

Registration No.: 00172770

Planning Department.

21st December, 2018.

Patricia Cadogan,
Senior Executive Planner,
Fingal County Council,
Blanchardstown Office,
Grove Road, Blanchardstown,
Dublin 15.

Re: Draft Local Area Plan for Kinsaley, Co. Dublin.

Dear Madam,

I acknowledge receipt of the above-mentioned and wish to confirm that Meath County Council, Planning Department have no comments to make in relation to same.

Yours sincerely,

Wendy Bagnall,
Senior Executive Planner.

Appendix 5

Appropriate Assessment (AA) Screening



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1 INTRODUCTION

1.1 Appropriate Assessment Screening Report: Purpose and Process

Fingal County Council has prepared the Kinsaley Local Area Plan (hereafter referred to as the “LAP”). This LAP, through a series of objectives and policies, sets out the vision and direction for the future development of Kinsaley.

Proposed land use plans and proposed variations must undergo a formal “test” or “screening” to ascertain whether they are likely to result in significant effects on specific sites designated for their nature conservation importance. These sites are those designated under the European Commission’s Natura 2000 network of sites (hereafter “European sites”¹). These sites are designated on the basis of the presence of certain habitats and species that are deemed to be of international importance. The Irish Government and local planning authorities have a legal obligation to protect these sites.

The EC Habitats and Birds Directives are the framework for the designation of these sites. The EC Habitats Directive requires the “screening” of plans and projects under Article 6(3). If the screening process results in a judgement that likely significant effects may occur or cannot be ruled out, then a more detailed ‘appropriate assessment’ (AA) is required.

Scott Cawley Ltd. was appointed by Fingal County Council to analyse the LAP during early stages of preparation and prepare an AA Screening Report to inform the Council’s own AA Screening.

Scott Cawley prepared an Appropriate Assessment Screening Report of the Draft LAP. Following review of submissions received, a number of recommended amendments, and motions from elected representatives, were proposed and incorporated into the final Plan. This Appropriate Assessment Screening Report of the final LAP was then prepared. The recommended amendments and motions were screened for the requirement for AA as set out in Appendix 2.

2 IDENTIFICATION OF EUROPEAN SITES, GENERIC THREATS AND PRESSURES

As part of the analysis of the LAP, all European sites (SACs and SPAs) within the zone of influence of the LAP boundary were identified. Similarly, all Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs) within the zone of influence of the LAP were identified. NHAs, pNHAs and other designated sites such as Nature Reserves, Wildfowl Sanctuaries and Ramsar sites do not form part of the European site network, however they often provide an important supporting role to the network, particularly when it comes to fauna species which often do not obey site boundaries. A list of all European sites, NHAs and pNHAs located within the LAP boundary and environs can be found in Section 2.1.

¹ Natura 2000 sites are defined under the Habitats Directive (Article 3) as a European 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. The aim of the network is to aid the long-term survival of Europe’s most valuable and threatened species and habitats. In Ireland these sites are designed as *European sites* - defined under the Planning Acts and/or Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as candidate Special Areas of Conservation (cSACs) and Special Protection Areas (SPAs).

Threats and pressures to the integrity of the European sites and hence the sensitivities of the Qualifying Interests (QI) and Special Conservation Interests (SCI) of the European sites within the zone of influence of the Draft LAP have been identified. Threats and pressures for QIs were extracted from the Status of EU Protected Habitats and Species in Ireland, Volume 2 & 3 (NPWS, 2013a & 2013b). Information on the parameters contributing to achieving and/or maintaining favourable conservation condition were largely compiled from a range Site Specific Conservation Objectives (SSCOs) downloaded from the NPWS website, but is also based on professional judgement. Generic threats and pressures to key environmental and ecological conditions required for QIs/SCIs can be found in Section 2.1 also.

2.1 European Sites

The analyses identified a single SAC and one SPA – Baldoyle Bay SAC and SPA- that falls within the same hydrological catchment of the LAP. Since development within the lands are most likely to interact with the Sluice River which flows through Kinsaley, the river catchment is the feature most likely to delimit any determination of likely significant effects on European sites.

Figure 1 (overleaf) shows all European sites within and beyond the LAP boundary. As stated, one SAC and one SPA were identified as being within the catchment of the LAP. Information regarding European sites located within the zone of influence of the LAP and regarded as being vulnerable to potential impacts are outlined in Table 2.1.1 below.

The Qualifying Interests of the Baldoyle Bay SAC and SPA are presented in Table 2.1.1 below.

Table 2.1.1 Qualifying Interests of European sites

Qualifying Interests of European sites	
Site Name:	Baldoyle Bay SAC
Site Code:	000199
Qualifying Interests:	<p>Annex I Habitats:</p> <ul style="list-style-type: none"> ▪ Mudflats and sandflats not covered by seawater at low tide [1140] ▪ <i>Salicornia</i> and other annuals colonising mud and sand [1310] ▪ Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] ▪ Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] <p>Annex II Species: None</p>
Source: NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Site Name:	Baldoyle Bay SPA
Site Code:	004016
Qualifying Interests:	<p>Special Conservation interests:</p> <ul style="list-style-type: none"> ▪ Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] ▪ Shelduck (<i>Tadorna tadorna</i>) [A048] ▪ Ringed Plover (<i>Charadrius hiaticula</i>) [A137] ▪ Golden Plover (<i>Pluvialis apricaria</i>) [A140] ▪ Grey Plover (<i>Pluvialis squatarola</i>) [A141] ▪ Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] ▪ Wetland and Waterbirds [A999]

<p>Source: NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	

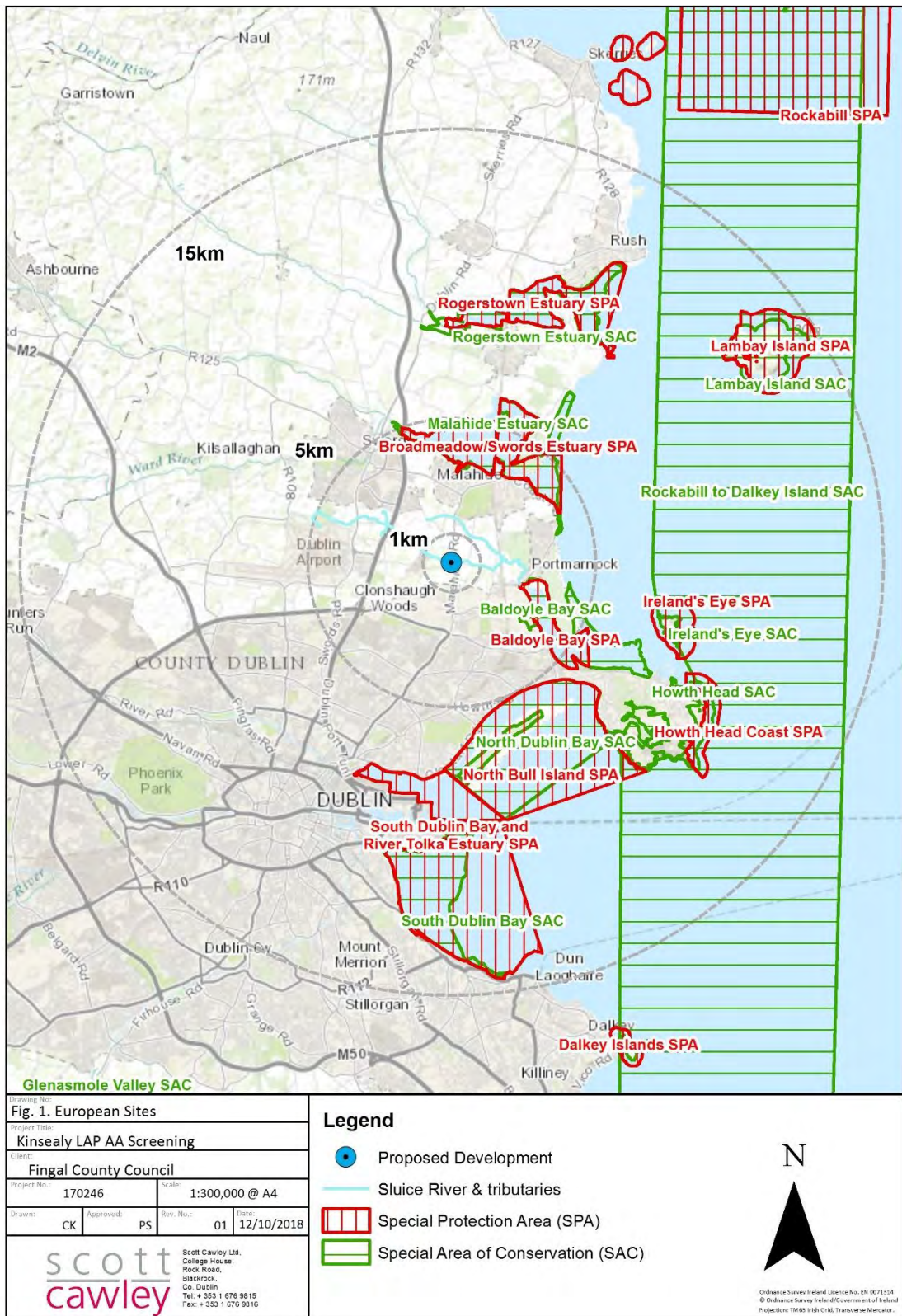
Several other European sites were considered as part of the screening stage but, following the result of an analysis against impact categories, it was regarded that there was no source-receptor pathway identified and no possibility of likely significant effects. These European sites are displayed in Table 2.1.3 below.

Table 2.1.2 European Sites outside of the zone of influence of the LAP.

Special Areas of Conservation	Special Protection Areas
Malahide Estuary SAC (000205)	Baldoyle Bay SPA (004016)
North Dublin Bay SAC (000206)	Malahide Estuary SPA (004025)
Rockabill to Dalkey Island SAC (003000)	North Bull Island SPA (004006)
Ireland's Eye SAC (002193)	Ireland's Eye SPA (004117)
Howth Head SAC (000202)	South Dublin Bay and River Tolka Estuary SPA (004024)
Rogerstown Estuary SAC (000208)	Rogerstown Estuary SPA (004015)
South Dublin Bay SAC (000210)	Howth Head Coast SPA (004113)
Lambay Island SAC (000204)	Lambay Island SPA (004069)

These European sites were regarded to be outside of the catchment of the LAP and/or at a considerable distance from the LAP and therefore the likelihood of significant impacts either in isolation or combination with elements of the LAP or other plans and projects, was deemed to be ruled out at this stage.

Figure 1. European Sites within 15km of the LAP boundary



2.2 Conservation Objectives for European Sites

The focus of the AA Screening stage is on the potential for likely significant effects on the European Sites in terms of the Conservation objectives for the site. Therefore the relevant objectives of the LAP were screened against the Conservation objectives for the two European sites.

Baldoyle Bay SAC has 4 qualifying interest Annex I habitats. Each of these has a series of Conservation Objectives, several of which are similar for all of the habitats. Therefore in order to streamline the AA Screening process, the full list of Conservation objectives (where similar) are covered by the following list:

- Habitat area (Hectares) - The permanent habitat area is stable or increasing, subject to natural processes, including erosion and succession (reference to maps).
- Community distribution (Hectares) - Conserve the following community types in a natural condition: Fine sand dominated by *Angulus tenuis* community complex; and Estuarine sandy mud with *Pygospio elegans* and *Tubificoides benedii* community complex.
- Habitat distribution (Occurrence) - No decline, or change in habitat distribution, subject to natural processes.
- Physical structure: sediment supply (Presence/ absence of physical barriers) - Maintain natural circulation of sediments and organic matter, without any physical obstructions.
- Physical structure: creeks and pans - Occurrence Maintain creek and pan structure, subject to natural processes, including erosion and succession
- Physical structure: flooding regime (Hectares) flooded; frequency - Maintain natural tidal regime.
- Vegetation structure: zonation (Occurrence) - Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession.
- Vegetation structure: vegetation height (Centimeters) - Maintain structural variation within sward.
- Vegetation structure: vegetation cover (Percentage cover at a representative sample of monitoring stops) - Maintain more than 90% of area outside creeks vegetated.
- Vegetation composition: typical species and sub-communities (Percentage cover) - Maintain the presence of species-poor communities with typical species listed in the Saltmarsh Monitoring Project (McCorry and Ryle, 2009).
- Vegetation structure: negative indicator species - *Spartina anglica* (Hectares) - No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1%.

Baldoyle Bay SPA has 6 special conservation interest species and wetland habitat added as an additional conservation interest. Each of these has a series of Conservation Objectives, several of which are similar for all of the habitats. Therefore in order to streamline the AA Screening process the full list of Conservation objectives (where similar) are covered by the following list:

- Population trend (Percentage change) - Long term population trend stable or increasing
- Distribution (Range, timing and intensity of use of areas) - No significant decrease in the range, timing and intensity of use of areas by the [SCI BIRD SPECIES], other than that occurring from natural patterns of variation.
- Habitat area (Hectares)- (relates to Wetlands only) - The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 263ha, other than that occurring from natural patterns of variation

3 LIKELY SIGNIFICANT EFFECTS FOLLOWING IMPLEMENTATION OF THE DRAFT LAP

Appendix 1 lists the Objectives within the LAP and describes if they pose any risk of likely significant effects on the European sites in the context of the conservation objectives described above. It was concluded after full consideration of all of the LAP objectives, that there was no possibility of likely significant effects of any of the European sites.

4 CONSIDERATION OF OTHER PLANS AND PROJECTS

The LAP will be implemented within the current planning hierarchy beneath the current Fingal Development Plan 2017-2023 which is the principle source of land use change within the Sluice catchment. Objectives within the current Fingal Development Plan 2017-2023 protect the receiving hydrological environment of the Kinsaley LAP, the River Sluice and Mayne River catchments, and downstream European sites, Baldoyle Bay SAC and SPA.

Table 4.1.1 sets out objectives included in the Fingal Development Plan 2017-2023 which ensure that there is no possibility of impacts on the receiving watercourses and downstream European sites as a result of the proposed zonings within the Kinsaley LAP.

Developments associated with the Kinsaley LAP must comply with Fingal County Development Plan 2017-2023 objectives set out in Table 4.1.1 to allow a conclusion that there will be no likelihood of any significant effects on any European sites arising from Kinsaley LAP, either alone or in combination with other plans or projects.

The most relevant objective in the Fingal County Development Plan 2017-2023 is as follows:

Objective WQ05 Establish riparian corridors free from new development along all significant watercourses and streams in the County. Ensure a 10 to 15 metre wide riparian buffer strip measured from the top of the bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Corduff, Matt and Delvin where a

30m wide riparian buffer strip from top of bank to either side of all watercourses outside urban centres is required as a minimum.

This objective ensures future development within the zoned lands will not occur within the riparian buffer strip of 30m for the Sluice and Mayne, therefore protecting water quality in the receiving watercourse.

Table 4.1.1: Fingal Development Plan 2017-2023 objectives which ensure no possible impacts on the receiving hydrological environment and downstream European sites of Kinsaley LAP

Objective	Description	Does the objective ensure no possible impact on the European site?
Objective SW01	Protect and enhance the County's floodplains, wetlands and coastal areas subject to flooding as vital green infrastructure which provides space for storage and conveyance of floodwater, enabling flood risk to be more effectively managed and reducing the need to provide flood defences in the future and ensure that development does not impact on important wetland sites within river / stream catchments.	Yes, this objective ensures protection of the water quality in the receiving hydrological environment and downstream European sites and should be complied with for any works associated with the Kinsaley LAP.
Objective WQ01	Strive to achieve 'good status' in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.	Yes, this objective ensures protection of the water quality in the receiving hydrological environment and downstream European sites and should be complied with for any works associated with the Kinsaley LAP.
Objective WQ04	Protect existing riverine wetland and coastal habitats and where possible create new habitats to maintain naturally functioning ecosystems whilst ensuring they do not impact negatively on the conservation objectives of any European Sites.	Yes, this objective ensures protection of the water quality in the receiving hydrological environment and downstream European sites and should be complied with for any works associated with the Kinsaley LAP.
Objective WQ05	Establish riparian corridors free from new development along all significant watercourses and streams in the County. Ensure a 10 to 15 metre wide riparian buffer strip measured from the top of the bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Corduff, Matt and Delvin where a 30m wide riparian buffer strip from top of bank to either side of all watercourses outside urban centres is required as a minimum.	Yes, this objective ensures future development within Kinsaley LAP will not occur within the riparian buffer strip of 30m for the Sluice and Mayne, therefore protecting water quality in the receiving watercourse and the integrity of downstream European sites.
Objective WQ06	Minimise the impact on surface water of discharges from septic tanks, proprietary effluent treatment systems and percolation areas by ensuring that they are located and constructed in accordance with the recommendations and guidelines of the EPA and Fingal County Council.	Yes, this objective ensures foul water arising from future development within Kinsaley LAP will be treated sufficiently prior to discharge, protecting the water quality of the receiving hydrological environment and downstream European sites.
Objective NH14	Protect inland fisheries within and adjacent to Fingal and take full account of Inland Fisheries Ireland Guidelines in this regard when undertaking, approving or authorising	Yes, this objective ensures protection of the water quality in the receiving hydrological environment and downstream

Objective	Description	Does the objective ensure no possible impact on the European site?
	development or works which may impact on rivers, streams and watercourses and their associated habitats and species.	European sites and should be complied with for any works associated with the Kinsaley LAP that involve potential impacts on the Sluice or other watercourses.
Objective NH16	Protect the ecological integrity of proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, and Habitat Directive Annex I sites.	Yes, this objective ensures protection of downstream European sites where a pathway-source-receptor is identified, in regard to future development associated with Kinsaley LAP.
Objective NH17	Ensure that development does not have a significant adverse impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Habitat Directive Annex I sites and Annex II species contained therein, and on rare and threatened species including those protected by law and their habitats.	Yes, this objective ensures protection of downstream European sites where a pathway-source-receptor is identified, in regard to future development associated with Kinsaley LAP.
Objective NH18	Protect the functions of the ecological buffer zones and ensure proposals for development have no significant adverse impact on the habitats and species of interest located therein.	Objective WQ05 and Objective DMS170 have identified the requirement of a 30m ecological buffer zone of the Sluice and Mayne watercourses. This objective ensures that development associated with Kinsaley LAP must comply with these objectives and in turn protect the water quality of the receiving hydrological environment and downstream European sites.
Objective NH23	Protect the ecological functions and integrity of the corridors indicated on the Development Plan Green Infrastructure Maps.	The Development Plan Green Infrastructure Maps have identified an ecological corridor along rivers which includes the Sluice river.
Objective NH24	Protect rivers, streams and other watercourses and maintain them in an open state capable of providing suitable habitat for fauna and flora, including fish.	Yes, this objective ensures protection of the water quality in the receiving hydrological environment and downstream European sites and should be complied with for any works associated with the Kinsaley LAP.
Objective DMS170	Protect and enhance the ecological corridors along the following rivers in the County by ensuring that no development takes place, outside urban centres, within a minimum distance of 30m from each riverbank: Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Ballyboghil, Corduff, Matt and Delvin (see Green Infrastructure Maps).	Yes, this objective ensures protection of the water quality in the receiving hydrological environment and downstream European sites and should be complied with for any works associated with the Kinsaley LAP.

Objective	Description	Does the objective ensure no possible impact on the European site?
Objective DMS171	Ensure that no development, including clearance and storage of materials, takes place within 10m – 15m as a minimum, measured from each bank of any river, stream or watercourse in the County.	Yes, this objective ensures protection of the water quality in the receiving hydrological environment and downstream European sites and should be complied with for any works associated with the Kinsaley LAP.

5 AA SCREENING CONCLUSION

Following review of the objectives of the LAP against the Conservation Objectives of the relevant European Sites, it was concluded that there is no possibility that the implementation of the LAP could result in any likely significant effects on European Sites on its own or in combination with other plans and programmes.

Fingal County Council have issued a determination that they are of the opinion that there is no possibility of any likely significant effects of the implementation of the LAP and in combination with other plans and projects. This determination is published alongside the LAP.

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Appendix 1: Assessment of Plan Objectives against Conservation Objectives

Chapter 3 Environmental Issues and Opportunities

Objective	Description	Risk of Likely Significant effects
<i>Objective 3.1</i>	That the Local Authority supports the continued role and future enhancement of St. Nicholas of Myra National School.	No relationship to the European sites and therefore no risk posed

Chapter 4 Vision and Development Strategy

Strategic Aim	Description	Risk of Likely Significant effects
▪	Support the expansion of Kinsaley Village centre as a focal point for the community with an enhanced retail function to serve the needs of existing and future residents.	No relationship to the European sites and therefore no risk posed
▪	Support infrastructural investment to ensure safe pedestrian and cyclist movements throughout the village in tandem with enhanced traffic management measures including facilitating the provision of improved pedestrian/cycle access to public transport and local schools.	No relationship to the European sites and therefore no risk posed
▪	Protect and enhance the existing natural amenities of Kinsaley together with improving access to established and proposed amenity areas through designated green routes.	No relationship to the European sites and therefore no risk posed
▪	Provide for the integrated development of the village and its growing population with the development of new housing delivered in tandem with supporting community and physical infrastructure.	No relationship to the European sites and therefore no risk posed

Chapter 5 Movement and Transport Strategy

Objective	Description	Risk of Likely Significant effects
<i>Objective 5.1</i>	Provide an alternative pavement treatment along the northern section of the Malahide Road within the LAP lands, between St. Olave's, St. Nicholas of Myra Church, and the proposed new civic square in Development Area 4.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.2</i>	Ensure the provision of safe, attractive and convenient pedestrian and cycle routes throughout the LAP area, connecting existing and future residential areas to the village centre, schools, and local amenities.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.3</i>	Implement traffic management solutions for the village as set out in the Movement and Transport Strategy of the LAP in order to provide enhanced facilities for pedestrians and cyclists and to reduce the speed of vehicles travelling through the village.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.4</i>	The implementation of traffic management solutions and junction improvement/ upgrade works shall be informed by a traffic study to be carried out by Fingal County Council.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.5</i>	Undertake a transport assessment and concept design of the road network in the area to assess the implications of the traffic management recommendations contained herein, to include a traffic modelling assessment of the AM and PM peak flows and concept design of the Malahide Road/ Chapel Road junction and the Malahide Road/ Baskin Lane junction.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.6</i>	Facilitate the provision of a suitable pavement treatment along the northern section of the Malahide Road within the LAP lands between St. Olave's, St. Nicholas of Myra church and the proposed village civic square in Development Area 4 (Malahide Road West).	No relationship to the European sites and therefore no risk posed
<i>Objective 5.7</i>	Facilitate appropriate village entry treatment and gateway features on all approach roads to the village.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.8</i>	Provide appropriate landscaping and street furniture.	No relationship to the European sites and therefore no risk posed

Objective	Description	Risk of Likely Significant effects
<i>Objective 5.9</i>	Support and encourage public transport providers to enhance the provision of public transportation services in the village including enhanced bus waiting areas, improved shelters and Real Time Passenger Information.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.10</i>	Maintain and improve existing footpaths and ensure that new footpaths are provided as part of a connected permeable network throughout the village.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.11</i>	Facilitate the recommendations of the Cycleway/Footpath Network Development in the Kinsealy Environs- Feasibility and Concept Study taking cognisance of the objectives of the LAP.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.12</i>	Facilitate the delivery of a comprehensive network of safe and attractive cycle and pedestrian routes facilitating commuting, educational, housing and leisure trips connecting key attraction points within the village to the wider hinterland. This includes the provision of safe walking and cycling routes to existing and future schools in Kinsaley from all locations within the Kinsaley LAP.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.13</i>	Facilitate the provision of footpaths along the main arteries of the Malahide Road, Chapel Road and Baskin lane.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.14</i>	Provide enhanced pedestrian and cycle connectivity to the existing and proposed schools.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.15</i>	Ensure that the design of cycle paths will accord with the recommendations in the National Cycle Manual.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.16</i>	It is a priority objective to provide segregated walking and cycling routes to Kinsaley from Old Portmarnock, from Kettle's Lane and from Balgriffin/Belmayne, and a traffic-calmed route from Malahide Demesne suitable for pedestrians and cyclists of all ages and abilities, in line with the proposals in the Kinsealy Cycleway and Footpath Network Feasibility Study, to facilitate access to schools, public transport and other local services and amenities. ,	Provision is primarily outside of the area of the LAP and proposals will be subject to screening for Appropriate Assessment as applicable. Sufficient protective objectives/policies in LAP to ensure no likely environmental effects on European sites. AA not required.

Objective	Description	Risk of Likely Significant effects
	subject to SEA and AA Assessment. Any emerging studies / proposals shall be subject to applicable SEA / EIA and AA assessments.	
<i>Objective 5.17</i>	Facilitate the development of a car parking area within the Teagasc lands to facilitate a multi-purpose parking and drop off area to serve the existing and proposed school campuses and future recreational amenities.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.18</i>	Ensure that all new developments provide for appropriate levels of off street car parking in accordance with parking standards contained in the Fingal Development Plan.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.19</i>	Require the provision of appropriate levels of off street car parking to serve new commercial and amenity facilities in the village.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.20</i>	Ensure adequate levels of disabled parking.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.21</i>	To facilitate and promote appropriate hard and soft landscaping and appropriate lighting around car parking areas.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.22</i>	Facilitate the provision of electricity charging infrastructure for electric vehicles both on street and in new developments in accordance with car parking standards.	No relationship to the European sites and therefore no risk posed
<i>Objective 5.23</i>	Ensure future development takes due cognisance of Public Safety and Airport Noise Zones and that applicants consult with relevant authorities including the Irish Aviation Authority and Dublin Airport Authority as part of the development management process.	No relationship to the European sites and therefore no risk posed

Chapter 6 Green Infrastructure

Objective	Description	Risk of Likely Significant effects
<i>Objective 6.1</i>	Promote the conservation and enhancement of biodiversity having regard to the policies and objectives of the Fingal Development Plan, the Fingal Heritage Plan and the Fingal Biodiversity Plan while allowing for appropriate development, access arrangements and recreational activity.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 6.2</i>	Require any development proposal for Development Area 4 (land to the west of the Malahide Road) to incorporate proposals for the treatment of the stream running along the boundary of the site adjacent to the Malahide Road, to ensure its sustainable management and to protect the ecological network.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 6.3</i>	Ensure that all proposals for the upgrading of the riparian corridor running along the River Sluice make adequate provision for the protection of biodiversity and flood plain.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 6.4</i>	Protect existing trees, hedgerows within the LAP lands which are of amenity or biodiversity value and contribute to the landscape character of the area in so far as is practicable and incorporate same into future development proposals.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 6.5</i>	Conserve, protect and enhance existing trees and hedgerows within the LAP lands which form wildlife corridors and link habitats providing the stepping stones necessary for wildlife to flourish while also protecting and enhancing surface water and groundwater resources in the area.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 6.6</i>	The planting and design strategy for green routes should incorporate measures to facilitate wildlife movement.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 6.7</i>	Provide an appropriately designed, extended open space corridor adjacent to the Sluice River to connect onward to Chapel Road from the existing pedestrian route (rear of the Church and graveyard in ruins). Any proposals should give careful	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.

Objective	Description	Risk of Likely Significant effects
	consideration to the interface with the Recorded Monument (north of the church and graveyard in ruins) to the south of the route including archaeological investigations.	
<i>Objective 6.8</i>	Ensure that new or extended open space networks are designed to facilitate people with a broad range of ability.	No relationship to the European sites and therefore no risk posed
<i>Objective 6.9</i>	Ensure that areas of open space provide or retain features that encourage biodiversity within the LAP lands recognising that this may be limited in areas of active open space.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 6.10</i>	Ensure that flood storage areas are designed to reflect and enhance the landscape character of the area.	No relationship to the European sites and therefore no risk posed
<i>Objective 6.11</i>	Investigate the possible extension of the open space corridor adjacent to the Sluice River into and through the Abbeville Architectural Conservation Area (ACA). Any proposals shall positively enhance the character of the ACA.	No relationship to the European sites and therefore no risk posed
<i>Objective 6.12</i>	Protect all archaeological sites and monuments which are listed in the Record of Monument and Places in accordance with National Monuments legislation; all sites and features of archaeological interest discovered subsequently, and to promote best practice in the conservation and management of the archaeological resource.	No relationship to the European sites and therefore no risk posed
<i>Objective 6.13</i>	Protect recorded archaeological sites and their settings from inappropriate development that would adversely affect or detract from the monuments whilst at the same time enabling the sustainable development of the village.	No relationship to the European sites and therefore no risk posed
<i>Objective 6.14</i>	To promote and create greater awareness of the rich archaeological heritage of the village and its surroundings.	No relationship to the European sites and therefore no risk posed
<i>Objective 6.15</i>	Ensure archaeological remains are identified and fully considered at the earliest stages of the development process to protect the resource and facilitate appropriate design.	No relationship to the European sites and therefore no risk posed

Objective	Description	Risk of Likely Significant effects
<i>Objective 6.16</i>	Any and all required archaeological investigations including geophysical survey, archaeological assessment and excavation and archaeological monitoring shall in consultation with the Department of Culture, Heritage and the Gaeltacht be undertaken by a suitably qualified archaeologist under licence from the Department and at the expense of the developer.	No relationship to the European sites and therefore no risk posed
<i>Objective 6.17</i>	Minimise the visual impact of future development on the setting and visual quality of the Highly Sensitive Landscape designation applicable to lands to the west of the Malahide Road.	No relationship to the European sites and therefore no risk posed

Chapter 7 Parks, Open Space and Recreation

Objective	Description	Risk of Likely Significant effects
<i>Objective 7.1</i>	The Teagasc and Kinsaley House Development Areas shall provide a green route/ corridor accommodating cycle and footpath facilities through both sites, connecting to the Malahide Road. The route shall provide for high quality pedestrian and cycle facilities, shall be tree lined, appropriately lit and afforded high levels of passive surveillance.	No relationship to the European sites and therefore no risk posed
<i>Objective 7.2</i>	Provide for active recreational facilities in the form of a full size all-weather soccer pitch and associated car parking on lands adjacent to the proposed National School in the Teagasc Development Area (Area 3). The soccer pitch shall be 600 sq.m in area (60 metres x 100 metres minimum dimensions).	No relationship to the European sites and therefore no risk posed
<i>Objective 7.3</i>	Provide a civic square (minimum 2,500 sq.m) within the Malahide Road West Development Area. The civic square shall comprise 50% soft landscaping and be suitably landscaped and finished to a high standard to ensure its suitability for multifunctional usage.	No relationship to the European sites and therefore no risk posed
<i>Objective 7.4</i>	Provide a Mixed Use Games Area (MUGA) within the Teagasc Development Area (Area 3), adjacent to the proposed National School.	No relationship to the European sites and therefore no risk posed
<i>Objective 7.5</i>	Provide for a playground within the Teagasc Development Area (c. 400 sq.m), suitably designed by a specialist playground provider which shall be accessible via the proposed green route serving the Teagasc Development Area and via the proposed car park serving the soccer pitch. The play area shall have a suitably designed boundary treatment with passive supervision provided by adjoining residential units.	No relationship to the European sites and therefore no risk posed
<i>Objective 7.6</i>	Give favourable consideration to proposals to provide active recreational facilities on lands zoned GB to the north of St. Nicholas of Myra National School and south of Protected Structure 914.	No relationship to the European sites and therefore no risk posed
<i>Objective 7.7</i>	Ensure that Developers lay out and maintain areas of open space to a high standard until such time as they are taken in charge and facilitate the early handover of such areas of	No relationship to the European sites and therefore no risk posed

Objective	Description	Risk of Likely Significant effects
	public open space to the Council in a completed manner in accordance with approved landscaping plans.	
<i>Objective 7.8</i>	Encourage improvements to small existing public open space areas through additional tree planting and pathways, where appropriate.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 7.9</i>	Ensure that public and or communal open space areas are designed to be overlooked to ensure the potential for anti-social behaviour is minimised through passive surveillance.	No relationship to the European sites and therefore no risk posed
<i>Objective 7.10</i>	Provide for a riparian corridor/ buffer free from development to the south of the Sluice River within the Malahide Road West Development Area. The riparian corridor shall accord with the recommendations of the Strategic Flood Risk Assessment.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 7.11</i>	The design and layout of the proposed open spaces including pedestrian and cycle links shall have regard to the layouts and recommendations for proposed open spaces and pedestrian/cycle accessibility as set out in the Village Development Framework Plan.	No relationship to the European sites and therefore no risk posed
<i>Objective 7.12</i>	The design and layout of the proposed open spaces including cycle and pedestrian routes shall have regard to layouts and guidelines for proposed open spaces and accessibility as set out in the Village Development Framework Plan for the Village.	No relationship to the European sites and therefore no risk posed
<i>Objective 7.13</i>	All planning applications within identified Development Areas shall clearly distinguish between areas of private and public space with clearly delineated boundary treatment.	No relationship to the European sites and therefore no risk posed

Chapter 8 Creating Communities

Objective	Description	Risk of Likely Significant effects
Objective 8.1	<p>Development shall strive to reduce the energy and water demand through measures which include the following:</p> <ul style="list-style-type: none"> ▪ Careful consideration of building orientation, form, massing and fenestration to make the most of passive solar gain for heating and cooling. ▪ Maximisation of natural daylight. ▪ Maximisation of passive solar gain for solar thermal water heating and electricity production. ▪ Exploring the potential for incorporating wind energy (e.g. wind turbines and wind spires) or other renewable energy systems, such as combined heat and power (CHP). ▪ Intelligent and energy efficient heating, cooling and ventilation systems. ▪ Reduced water use through rainwater harvesting and recycling of rainwater and in-building grey water treatment systems. ▪ Use of materials with low embodied energy. ▪ Promoting walking and cycling by providing for safe, attractive pedestrian and cycling routes. ▪ Promoting the retention of existing trees and hedgerows where possible and providing for new planting to augment or replace existing, ensuring that the planting has maximum biodiversity value. 	<p>Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.</p>
Objective 8.2	<p>Ensure high standards of energy efficiency in existing and new residential developments in line with good architectural conservation practice and the promotion of energy efficiency and conservation in the design and development of new residential units.</p>	<p>No relationship to the European sites and therefore no risk posed.</p>
Objective 8.3	<p>Promote the use of renewable energy in all developments.</p>	<p>No relationship to the European sites and therefore no risk posed.</p>
Objective 8.4	<p>Promote the principles of Biodiversity by conserving existing indigenous hedgerows</p>	<p>Provision of such measures may benefit the ecological network at a local</p>

Objective	Description	Risk of Likely Significant effects
	and trees and by introducing green routes through the village.	geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 8.5</i>	Promote and facilitate the development of small scale renewable energy facilities within the LAP lands such as wind turbines, spires, solar) where such development does not have a significant negative impact on the landscape and the amenities of property adjacent. All new wind energy developments shall comply with national guidance and the Fingal Development Plan.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.6</i>	Facilitate and promote walking and cycling as an alternative to the private car by the delivery of an integrated network and safe and attractive pedestrian and cycle routes throughout the village providing access to community and recreational amenities.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.7</i>	Promote the retention of existing trees and hedgerows where possible and provide for new planting to augment or replace existing, ensuring that the planting has maximum biodiversity value.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 8.8</i>	Require proposals for the Teagasc Development Area to incorporate an appropriately sized national school in consultation with the Department of Education and Skills, incorporating associated car parking, drop off/collection and play areas as required. An associated soccer pitch and car parking shall be located within DA3 or may be facilitated immediately to the south of the Development Area.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.9</i>	Require development proposals on the Malahide Road West Development Area to include a new civic square approximately opposite St. Nicholas of Myra Church, parish hall and St. Olave's at the western end of the Malahide Road. The civic square shall be suitably landscaped and finished to a high standard to ensure its suitability for numerous community functions.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.10</i>	Provide a mix of high quality pocket parks, small parks and playgrounds within the Development Areas of the village which shall	No relationship to the European sites and therefore no risk posed.

Objective	Description	Risk of Likely Significant effects
	be sized and designed to Development Plan standards.	
<i>Objective 8.11</i>	Facilitate and co-operate with community and educational organisations in the provision of services for the community as it grows.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.12</i>	Require the provision of appropriate childcare facilities in line with national guidelines.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.13</i>	Co-operate with sports clubs, schools and community organisations in the provision of sports and recreational facilities.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.14</i>	Strengthen the local economy by creating and facilitating opportunities for new businesses to locate and establish in Kinsaley.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.15</i>	Support the ongoing successful operation of the Kinsealy Business Park as a key employer in the area and as an attractive destination for business and workers.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.16</i>	Support the expansion of Kinsaley Village centre as a focal point for the village with an enhanced retail function to serve the needs of existing and future residents.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.17</i>	Provide for the integrated development of the village and its growing population with the development of new housing delivered in tandem with supporting community and physical infrastructure.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.18</i>	Encourage the expansion and development of additional retail provision and commercial services and facilities at a level appropriate to the village to meet the retailing and service needs of the existing and future population of Kinsaley.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.19</i>	Require that all proposals for new retail/commercial developments are designed to the highest architectural standards and promote an awareness of good shop front design ensuring that new shopfronts do not visually detract from the character of the village.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.20</i>	Ensure that all proposals for new retail and commercial developments respect the character and scale of the village.	No relationship to the European sites and therefore no risk posed.

Objective	Description	Risk of Likely Significant effects
<i>Objective 8.21</i>	Develop and maximise the tourism potential of Kinsaley and co-operate with the community and relevant organisations in marketing and promoting tourism within the village.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.22</i>	Facilitate and actively promote tourism activities including walking, cycling and agri-tourism including the development of green routes through the village with attractive pedestrian and cycle facilities so as to enhance the special qualities of Kinsaley and the surrounding natural and built environment.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.23</i>	Preserve, protect and enhance the natural, built, cultural and historical heritage of Kinsaley to promote the attractiveness of the village to visitors.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 8.24</i>	Promote the development of looped walks between existing and new residential areas and the enhanced village core.	No relationship to the European sites and therefore no risk posed.
<i>Objective 8.25</i>	Promote and facilitate the development of remaining sections of the riverside walk within the village through the provision of a riparian corridor.	No relationship to the European sites and therefore no risk posed.

Chapter 9 Water and Infrastructure Services

Objective	Description	Risk of Likely Significant effects
<i>Objective 9.1</i>	Collaborate with Irish Water to ensure the delivery of their Capital Investment Plan or any other relevant investment works programme to ensure both foul and water capacity constraints are not a deterrent to sustainable development.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.2</i>	Support Irish Water in the provision and maintenance of adequate wastewater disposal and water supply in accordance with EU Directives, to service Kinsealy as appropriate.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.3</i>	Development shall connect to the public sewer and public water mains, subject to a connection agreement with Irish Water, in order to protect all waters in the plan area.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.4</i>	Developments within the Kinsale LAP catchment must incorporate Sustainable urban Drainage Systems (SuDS) measures in line with the recommendations of the Surface Water Management Plan to suit individual site layouts and local ground conditions. Design of SuDS Systems should be in accordance with the Greater Dublin Strategic Drainage Study (GSDSDS) and the CIRIA SUDS Manual.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.5</i>	New surface water drainage networks will be required as part of developments within lands available for development. These networks should be designed in accordance with this SuDS Strategy, CIRIA C753 'The SuDS Manual' and the Greater Dublin Strategic Drainage Systems (GSDSDS).	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.6</i>	Provide an undeveloped flood-plain to accommodate flood waters during extreme flooding events through the provision of a riparian corridor in line with the recommendations of the Strategic Flood Risk Assessment carried out as part of the Kinsale LAP.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.7</i>	For all future residential developments: <ul style="list-style-type: none"> ▪ Runoff within the curtilage of the property boundary shall pass through at least one SuDS component prior to discharging to downstream 	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.

Objective	Description	Risk of Likely Significant effects
	<ul style="list-style-type: none"> ▪ SuDS components within the public realm. Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided within the curtilage of the property boundary, with a maximum discharge rate of 2l/s/ha. ▪ Runoff from public areas (such as roads, parking bays, hard and soft landscaped areas and footpaths) shall pass through at least two SuDS components prior to discharging to the final downstream detention/retention/polishing SuDS components within the public realm. ▪ The Final SuDS Components located in the public realm shall comprise of basins/ponds/wetlands (as appropriate), prior to discharge to the Sluice River or local surface water sewer. Measures must align with acceptable landscape and open space proposals and maintenance requirements. ▪ Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided for runoff from the public realm, with a maximum discharge rate of 2l/s/ha. 	
<i>Objective 9.8</i>	<p>For all future commercial, industrial, educational and apartment developments:</p> <ul style="list-style-type: none"> ▪ Runoff from roofs shall pass through at least one SuDS feature prior to discharge to on-site surface water retention features. Blue/green roofs shall be provided to store the 100 year event with an allowance for Climate Change. ▪ Runoff from roads and parking areas shall past through at least two SuDS features prior to discharge to the final on-site surface water retention features. 	<p>Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.</p>

Objective	Description	Risk of Likely Significant effects
	<ul style="list-style-type: none"> ▪ The final 'Private' surface water retention features shall comprise basins/ponds/wetlands (as appropriate), prior to discharge to the local surface water sewers/watercourses. ▪ Storage for the 100 year event (as a minimum) including a 10% increase in rainfall intensity for climate change shall be provided for runoff from the developments, with a maximum discharge rate of 2l/s/ha. 	
<i>Objective 9.9</i>	Water Butts, Rainwater Harvesting, Rain Gardens and Permeable Paving are recommended for use in all residential developments. Any Industrial, Commercial and Educational developments and Apartment blocks shall incorporate rainwater harvesting for re-use and should incorporate blue / green roof features.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.10</i>	Subject to subsoil permeability, filter drains may be required to drain residential gardens and other small green areas within future developments. Runoff from green areas should, where possible, infiltrate directly to groundwater.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.11</i>	The relevant authorities should promote the benefits of SuDS retrofitting to the general public.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.12</i>	Implement the provisions of the DoEHLG/OPW publication 'The Planning System and Flood Risk Management: Guidelines for Planning Authorities' 2009 or any superseding document in relation to flooding and flood risk management and facilitate flood management measures, as appropriate.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.13</i>	It is recommended that the drainage channels, watercourses and floodplains within the developed and undeveloped areas of the LAP boundary be maintained and protected.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.14</i>	Riparian corridors should be provided in accordance with the requirements of the	Provision of such measures may benefit the ecological network at a local geographic

Objective	Description	Risk of Likely Significant effects
	Fingal Development Plan 2017-2023 to protect and enhance watercourses and their natural regimes including: ecological, biogeochemical and hydromorphological.	scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.15</i>	Sustainable Drainage Systems should be incorporated in all new developments and retro-fitting of SuDS should be encouraged within the Kinsealy LAP lands.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.16</i>	Future developments within Kinsaley LAP should be designed and constructed in accordance with the “Precautionary Principle” detailed in The Guidelines. It is recommended that the flood zoning within the LAP is based on the High-End Future Scenario (HEFS) for climate change.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.17</i>	To address the risk of pluvial flooding in new developments in the LAP area, the Kinsaley LAP Surface Water Management Plan Part 2: Sustainable Drainage Systems (SuDS) Strategy will be adopted. This will ensure a consistent approach to the management of flood risk and water quality within Kinsealy LAP. Implementing these measures and complying with the GDSDS will ensure that the risk of flooding downstream or upstream of any new developments is minimised.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.18</i>	Strive to achieve ‘good status’ in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.19</i>	Protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the County and control development in a manner consistent with the proper management of these resources in conformity with the Eastern River Basin Management Plan 2009-2015 and the second cycle national River Basin Management Plan 2017-2021 and any	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.

Objective	Description	Risk of Likely Significant effects
	subsequent plan and the Groundwater Protection Scheme.	
<i>Objective 9.20</i>	Implement the recommendations of the Groundwater Protection Scheme.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.21</i>	Protect existing riverine wetland and coastal habitats and where possible create new habitats to maintain naturally functioning ecosystems whilst ensuring they do not impact negatively on the conservation objectives of any European Sites.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.22</i>	Establish riparian corridors free from new development along all significant watercourses and streams in the County. Ensure a 10 to 15 metre wide riparian buffer strip measured from the top of the bank either side of all watercourses, except in respect of the Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Corduff, Matt and Delvin where a 30m wide riparian buffer strip from top of bank to either side of all watercourses outside urban centres is required as a minimum.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 9.23</i>	Minimise the impact on surface water of discharges from septic tanks, proprietary effluent treatment systems and percolation areas by ensuring that they are located and constructed in accordance with the recommendations and guidelines of the EPA and Fingal County Council.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.

Chapter 10 Village Development Framework Plan

Objective	Description	Risk of Likely Significant effects
<i>Objective 10.1</i>	‘Provide for a varied high quality housing choice creating a range of household types, tenures and typologies creating a range of lifestyle, affordability and lifestyle choices’.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 10.2</i>	Provide high quality housing having regard to the Planning Guidelines on Sustainable Residential Development, the Fingal Development Plan development standards, the design principles as set out in this Local Area Plan and the objectives and design requirements set out in the Village Development Framework Plan.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.3</i>	Proposals for development shall demonstrate variation in residential streetscapes to create distinctive neighbourhood identities. Suburban type housing development shall be avoided as it does not respond to Kinsaley’s rural village character.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.4</i>	Ensure new residential development is designed to respond to the natural environment and landscape setting in which it sits and ensure the enhancement and protection of biodiversity.	Provision of such measures may benefit the ecological network at a local geographic scale which will not pose likely significant effects downstream on European sites.
<i>Objective 10.5</i>	A detailed Design Statement for all developments shall accompany all planning applications within the LAP boundary, the components of which shall be informed by the Village Development Framework Plan and Development Objectives for the Development Areas.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.6</i>	Provide high quality development at appropriate densities in close proximity to the village centre and pedestrian/cyclist movement corridors.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.7</i>	All developments shall incorporate the principles of universal design.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.8</i>	Ensure that all proposals for development provide an attractive and sensitive interface to environmental and historic features particularly the Sluice	No relationship to the European sites and therefore no risk posed.

Objective	Description	Risk of Likely Significant effects
	River, Abbeville Architectural Conservation Area and protected structures within the village.	
<i>Objective 10.9</i>	All new development shall protect the archaeological heritage of the area.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.10</i>	New development shall seek to preserve and retain existing quality trees and hedgerows of amenity value.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.11</i>	Explore opportunities for additional street tree planting along the Malahide Road and Chapel Road utilising constructed tree pits.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.12</i>	Identify opportunities for heritage interpretation across the village to encourage awareness of Kinsaley's rich historical past.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.13</i>	Align pedestrian and cycle links to capture views to local features (natural and built) and incorporate opportunities for overlooking and passive surveillance insofar as possible.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.14</i>	Create safe and attractive pedestrian and cycle routes with high levels of legibility and permeability connecting homes to existing and future neighbourhoods, amenities and the village centre.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.15</i>	Improve and extend the existing footpath network across the village with a focus on providing access to the village core and educational facilities.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.16</i>	Provide appropriate gateway features on the approach roads to Kinsaley village.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.17</i>	All new street and estate names shall be in Irish or bilingual and shall reflect meaningful local names or references.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.18</i>	Ensure appropriate levels of internal noise insulation within noise sensitive structures having regard to the location of the village within the Outer Airport Noise Zone.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.19</i>	Support the expansion of Kinsaley Village centre as a focal point for the community with an enhanced retail function to serve the needs of existing and future residents.	No relationship to the European sites and therefore no risk posed.

Objective	Description	Risk of Likely Significant effects
<i>Objective 10.20</i>	A new civic square shall be provided in the Malahide Road West Development Area approximately opposite St. Nicholas of Myra church and St. Olave's commercial centre which shall be landscaped and finished to a high standard and shall be suitable for use for a variety of functions facilitating community gatherings and acting as a focal point of the expanded village core.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.21</i>	Support the provision of a range of retailing and commercial options in the village core (Malahide Road West Development Area) including the provision of a supermarket commensurate with the Level 5 of the Fingal Retail Hierarchy to serve local demand for top up shopping.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.22</i>	Require that all proposals for new retail/commercial developments are designed to the highest architectural standards and promote an awareness of good shop front design ensuring that new shopfronts do not visually detract from the character of the village.	No relationship to the European sites and therefore no risk posed.
<i>Objective 10.23</i>	Ensure that all proposals for new retail and commercial developments respect the character and scale of the village.	No relationship to the European sites and therefore no risk posed.

Appendix 2: Screening for Appropriate Assessment of Recommended Amendments and Motions from Elected Representatives Incorporated into the final LAP.

Table 1: Screening of Amendments for the requirement for SEA

No.	Recommended Amendment	Screening for SEA										
CER 1	<p>Map-based Amendments to:</p> <p>Include icon for wastewater pumping station on Chapel Road</p> <p>Remove shading (in green) to existing school at St. Nicholas of Myra.</p> <p>Amend location of recreational facilities on lands zoned greenbelt to the south of LAP lands.</p> <p>Include indicative pedestrian connection between the drop-off/car parking area and St. Nicholas of Myra N.S.</p>	<p>Amendments are of a clarification, information and/or update nature.</p> <p>No possibility of likely significant effects on European sites.</p> <p>AA not required.</p>										
No.1	<p>Support increased residential densities within Development Area 4 Malahide Road West by insertion of the following’:</p> <p>It is recommended the following additional footnote is added to the Table on Page 54.</p> <p><i>‘Fingal County council will consider a modest increase on these lands above that stated subject to observing the key objectives and design requirements outlined in Sections 10.4.6 and 10.4.7 as they relate to Development Area 4. Any such increase in density shall also align with (i) the Core Strategy (ii) be accommodated within the footprint of the stated Development Area (iii) comply with design guidance of the LAP for differing development areas.’</i></p> <p>In addition the density ranges should be given as ‘approximate’ densities. The Table will read as follows:</p> <table border="1"> <thead> <tr> <th colspan="2">Development Characteristics*</th> </tr> </thead> <tbody> <tr> <td>Site Area</td> <td>4 hectares</td> </tr> <tr> <td><i>Approximate</i> Density Range (gross)</td> <td>20-23 units/hectare</td> </tr> <tr> <td><i>Approximate</i> Density range (net)</td> <td>38-42 units/hectare</td> </tr> <tr> <td><i>Approximate</i> units</td> <td>85</td> </tr> </tbody> </table> <p><i>‘* Subject to observing the key objectives and design requirements outlined in Section 10.4.6 and Section 10.4.7 these density requirements and unit numbers may change during the development</i></p>	Development Characteristics*		Site Area	4 hectares	<i>Approximate</i> Density Range (gross)	20-23 units/hectare	<i>Approximate</i> Density range (net)	38-42 units/hectare	<i>Approximate</i> units	85	<p>Minor amendment providing for clarification of intent and balanced sustainable development.</p> <p>No possibility of likely significant effects on European sites.</p> <p>AA not required.</p>
Development Characteristics*												
Site Area	4 hectares											
<i>Approximate</i> Density Range (gross)	20-23 units/hectare											
<i>Approximate</i> Density range (net)	38-42 units/hectare											
<i>Approximate</i> units	85											

No.	Recommended Amendment	Screening for SEA										
	<p><i>management process by consent of the Planning Authority.'</i></p>											
No. 2	<p>Support increased residential densities within Development Area 3 Teagasc by insertion of the following:</p> <p>It is recommended the following additional footnote is added to the Table on Page 49.</p> <p><i>'Fingal County council will consider a modest increase on these lands above that stated subject to observing the key objectives and design requirements outlined in Sections 10.3.7 and 10.3.8 as they relate to Development Area 3 and subject to the early delivery of playground and MUGA within Development Area 3- Teagasc (exclusive of the school site). Any such increase in density shall also align with (i) the Core Strategy (ii) be accommodated within the footprint of the stated Development Area (iii) comply with design guidance of the LAP for differing development areas.'</i></p> <p>In addition the density ranges proposed should be given as 'approximate' densities. The Table will read as follows:</p> <table border="1"> <thead> <tr> <th colspan="2">Development Characteristics*</th> </tr> </thead> <tbody> <tr> <td>Site Area</td> <td>6.6 hectares (including proposed school site)</td> </tr> <tr> <td>Approximate Density Range (gross)</td> <td>30-35 units/hectare</td> </tr> <tr> <td>Approximate Density range (net)</td> <td>65-70 units/hectare</td> </tr> <tr> <td>Approximate units</td> <td>185-200</td> </tr> </tbody> </table> <p><i>* Subject to observing the key objectives and design requirements outlined in Section 10.3.7 and in Section 10.3.8, these density requirements and unit numbers may change during the development management process by consent of the Planning Authority.'</i></p>	Development Characteristics*		Site Area	6.6 hectares (including proposed school site)	Approximate Density Range (gross)	30-35 units/hectare	Approximate Density range (net)	65-70 units/hectare	Approximate units	185-200	<p>Minor amendment providing for clarification of intent and balanced sustainable development.</p> <p>No possibility of likely significant effects on European sites.</p> <p>AA not required.</p>
Development Characteristics*												
Site Area	6.6 hectares (including proposed school site)											
Approximate Density Range (gross)	30-35 units/hectare											
Approximate Density range (net)	65-70 units/hectare											
Approximate units	185-200											
No.3	<p>Insert the following Objective under Section 3.13 Objective 3.1 Page 9 to read:</p> <p>(Objective 3.1 of LAP)</p>	<p>Supports existing educational infrastructure.</p>										

No.	Recommended Amendment	Screening for SEA
	<i>'That the Local Authority supports the continued role and future enhancement of St. Nicholas of Myra National School.'</i>	No possibility of likely significant effects on European sites. AA not required.
No.4	Insert new Objective under Section 5.4.3 Pedestrian / Cycle Routes Objectives: (Objective 5.15 of LAP) <i>'Ensure that the design of cycle paths will accord with the recommendations in the National Cycle Manual.'</i>	Provides for clarification on required design standards. No possibility of likely significant effects on European sites. AA not required.

Table 2: Screening of Motions for the requirement for SEA

No.	Recommended Amendment/Motion	Screening for SEA
No.1	<i>"That the Chief Executive, along with affected landowners, will examine the feasibility of accessing the Teagasc Development Area (DA3) direct from the Baskin Lane/Malahide Road junction. Should this option be feasible, provision will be made for such access which will also allow for the planned junction upgrade."</i> The motion is noted. There is no change to the Plan.	This is a local detailed design aspect, which will be subject to further consideration/assessment. No possibility of likely significant effects on European sites. AA not required.
No.2	<i>"That the planned footpath along the Malahide Road boundary of Teagasc Development Area (DA3) will be delivered before any new residential units on this land are occupied."</i> (Section 10.3.7 of LAP and also with the Phasing Table on Page 67 of the Plan under the Teagasc Development Area.)	Provides for clarification and balanced sustainable development. No possibility of likely significant effects on European sites. AA not required.
No.3	<i>"That provision be made to accommodate separate left and right turning lanes from Baskin Lane onto Malahide Road when Malahide Road West Development Area (DA4) is developed."</i> The motion is noted. There is no change to the Plan.	This is a local detailed design aspect, which will be subject to further consideration/assessment. No possibility of likely significant effects on European sites. AA not required.
No.4	Motion is outside of LAP consideration.	Not applicable.
No.5	Withdrawn.	Not applicable.
No.6	That in response to recommendations received, including from the Department of Housing Planning	Supports enhanced pedestrian and cycle connectivity.

No.	Recommended Amendment/Motion	Screening for SEA
	<p>and Local Government, the LAP be amended to include the following in Section 11: (Section 11.4 of LAP)</p> <p><i>“The LAP supports segregated cycle and pedestrian links to Old Portmarnock R124 to provide access to Portmarnock train station as part of the further development in Kinsaley village and should be included in the next County Council Capital Programme 2020 with a view to submitting a planning application in 2021 for the agreed scheme.”</i></p>	<p>Any future scheme will be subject to screening for Appropriate Assessment.</p> <p>Sufficient protective objectives/policies in LAP to ensure no likely environmental effects on European sites.</p> <p>The location of the full segregated cycle and pedestrian link is restricted to lands within the Kinsealy LAP boundary, Old Portmarnock/R124 road and Portmarnock train station, which is located c. 590m west of Baldoyle Bay SAC and Baldoyle Bay SPA; therefore, there is no potential for this project alone to result in likely significant effects on any European sites.</p> <p>The Baldoyle to Portmarnock Pedestrian and Cyclist Scheme and the greenway currently under construction on Station road east of the train station, both of which are located in close proximity to Baldoyle Bay SAC and Baldoyle Bay SPA, have been granted planning permission and have undergone full assessment; therefore, there is no possibility of significant in combination effects on any European sites.</p> <p>AA not required.</p>
No.7	<p>That in response to recommendations received, including from the National Transport Authority the LAP be amended to include the following: (Objective 5.12 of LAP)</p> <p><i>‘Facilitate the delivery of a comprehensive network of safe and attractive cycle and pedestrian routes facilitating commuting, educational, housing and leisure trips connecting key attraction points within the village to the wider hinterland. ‘This includes the provision of safe</i></p>	<p>Supports enhanced pedestrian and cycle connectivity and provides for clarification on intention and design standards.</p> <p>No possibility of likely significant effects on European sites.</p> <p>AA not required.</p>

No.	Recommended Amendment/Motion	Screening for SEA
	<p>walking and cycling routes to existing and future schools in Kinsaley from all locations within the Kinsaley LAP.'</p>	
No.8	<p>That in response to recommendations received, including from the National Transport Authority, the LAP be amended to include the following:</p> <p>(Objective 5.16 of LAP)</p> <p><i>“It is a priority objective to provide segregated walking and cycling routes to Kinsealy from Old Portmarnock, from Kettle's Lane and from Balgriffin/Belmayne, and a traffic-calmed route from Malahide Demesne suitable for pedestrians and cyclists of all ages and abilities, in line with the proposals in the Kinsealy Cycleway and Footpath Network Feasibility Study, to facilitate access to schools, public transport and other local services and amenities. Any emerging studies / proposals shall be subject to applicable SEA / EIA and AA assessments.”</i></p>	<p>Supports enhanced pedestrian and cycle connectivity.</p> <p>Provision is primarily outside of the area of the LAP and proposals will be subject to screening for Appropriate Assessment as applicable.</p> <p>Sufficient protective objectives / policies in LAP to ensure no likely environmental effects on European sites.</p> <p>AA not required.</p>

Appendix 6

Appropriate Assessment (AA) Screening Determination



Appropriate Assessment (AA) Screening Determination

Planning and Development Act 2000 (as amended)
Planning and Development Regulations 2001 (as amended)

Pursuant to the requirements of the above, Fingal County Council has prepared a Local Area Plan for Kinsaley (the LAP).

Having regard to Article 6(3) of the Habitats Directive and Part XAB of the Planning and Development Acts 2000 (as amended), the guidance contained in the Department of Housing, Planning, Community and Local Governments “Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities” (2010) following an examination, analysis and evaluation of the objective information provided in the “Appropriate Assessment Screening Report Kinsaley Local Area Plan” prepared by Scott Cawley Ltd, Fingal County Council, as the Competent Authority determines that the LAP, individually and in combination with other plans and projects, does not require an AA as it has been concluded that it is possible to rule out likely significant effects on all European sites.

Following analysis of all objectives within the LAP, none would be expected to give rise to any threats to any of the conservation objectives in terms of their attributes and targets for any of the European sites.

Therefore a Stage 2 Appropriate Assessment is not required.

Colm McCoy

Senior Planner