



Bradbourne Lakes

A vision for the future
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Prepared by LUC
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Environmental Planning, Design and Management

LUC is a planning, impact assessment, landscape design and ecology consultancy with expertise across a broad cross-section of environmental disciplines, including:

- Planning & EIA
- Design
- Landscape Planning
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- Ecology
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1 - Introduction

Introduction

This report sets out the initial landscape design Vision proposals for Bradbourne Lakes in Sevenoaks, on behalf of Sevenoaks District Council.

It provides an introduction to the park including its historical development, current condition, the main issues, the need for refurbishment and landscape improvements, and the main key features; a description of the current hydrological processes, structural features, condition of basic infrastructure including paths and bridges, and ecology; key opportunities and constraints; a breakdown of the outline areas of differing character; a series of outline proposals culminating in a Vision Plan with some precedent images; and a series of next steps required to move the project forward.

For the development of this study LUC has been issued a digital Ordnance Survey base, which has been used as the basis for all of the following diagrams and plans. However, it does not include any tree information. All plans therefore show an indicative coverage of trees which have been taken from an aerial photo, but this does not take into account any tree removal or pruning works that may have been recently carried out. Further design work would require a thorough topographical survey which would capture exact positions of all trees and park features.

Project description

Bradbourne Lakes is a tranquil local park of historical and local significance, comprising a series of five ornamental lakes with waterfalls, cascades and a circular walking route set in areas of amenity grass, dense overgrown vegetation and clumps of trees, and some striking specimen veteran trees.

In 2012 the Bradbourne Residents' Association (BRA) carried out a visitor survey that recorded a strong desire for restoration. In 2015 an application was made by Sevenoaks District Council to the Heritage Lottery Fund for a grant to restore the park, which unfortunately was unsuccessful at the first round pass.

In July 2017 it was agreed to employ design consultants to prepare a Vision Plan for the park. This report is the first step towards production of that plan, and seeks to provide a cohesive set of proposals to repair and restore the park in order to provide a high quality open space that is accessible to all, educational, sustainable, and preserved for the enjoyment of future generations.

Site particulars

Bradbourne Lakes is identified within the Sevenoaks Local Development Framework and is in the Kent Compendium of Historic Parks and Gardens. This list includes a number of other historic parks and gardens which are both registered and non-registered, Bradbourne Lakes being the latter. However, the Local Planning Authority considers that it is an important part of the area's heritage and makes a significant contribution to the character of the area in which it is located.

The park is also categorised as Open Space, which includes both public and private spaces and covers any open space which contributes to the character of the locality and is important to the local community.

Other nearby considerations include the Sevenoaks Gravel Pits Site of Special Scientific Interest, as Bradbourne Lakes sits within its Impact Risk Zone. Also, the Clock Tower located to the south-west of the park is a Grade II Listed building and once formed part of the original Bradbourne Estate.

Lastly, the majority of the park sits within an area of High Risk Flood Potential for both flooding from rivers or the sea, and from surface water, all as determined by the Environment Agency. An area of high risk means that each year this area has a chance of flooding of greater than 3.3%. This takes into account the effect of any flood defences in the area. These defences reduce but do not completely stop the chance of flooding as they can be overtopped, or fail.

Aerial photo - wider area



Aerial photo - local area



2 - Existing Site

Bradbourne Lakes is a tranquil local park located 2km north west of Sevenoaks town centre. It measures approximately 350m long x 100m wide, covers 3.5 hectares, and is severed nearly in half by Betenson Avenue. It comprises a series of five ornamental lakes with waterfalls, cascades and a circular walking route set in areas of amenity grass, dense overgrown vegetation and clumps of trees, and some striking specimen veteran trees.

The Bradbourne Residents' Association (BRA)

The Bradbourne Resident's Association was reformed in December 2011 to work towards the restoration and conservation of Bradbourne Lakes, as well as issues affecting local residents. The BRA now have in excess of 450 members from the boundary of the Bradbourne Estate Area of Sevenoaks Town. Exclusively from the membership, as well as other known regular contributors, they organise volunteer working parties (with the agreement of Sevenoaks District Council) to undertake small scale maintenance work within the capabilities of the participants. Such work comprises cutting and control of low planting, bushes and small trees, path edge trimming, and clearance of unswept debris. Some tasks such as removal of small fallen branches from the lakes are undertaken and where possible, with manual effort, water gullies, sumps and water falls are cleared of blocking debris.

Currently, the volunteer effort is limited to those from the membership of the BRA, although there are other organisations, clubs, schools and groups who have indicated a willingness to participate in maintenance and conservation work. However, this falls beyond the scope, resources, and capabilities of the BRA to manage large groups of volunteers, although they are encouraging of such third party involvement.

Existing site layout



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Existing site views



1. Views south over the ornamental lake



2. View north west over the ornamental lake



3. Southern park entrance from Betenson Avenue



4. View west over the central lake



5. Looking south through trees in northern open space



6. Eroded southern section of the central lake



7. View north close to entrance of northern park



8. View south across the north lake



9. View over 'island' within north lake

3 - Historical Development

Context - Historical significance

- Bradbourne Lakes was formerly part of the Bradbourne Park Estate, first laid out between 1740-1761 by Henry Bosville as a picturesque landscape of lakes and waterfalls, forming the setting for the house of the same period. During the 19th Century there were frequent changes of ownership and parts of the Bradbourne Park Estate were sold off. In 1870 Francis Crawshay purchased the estate and retired to Bradbourne Hall. He had an interest in Druids and brought to the grounds and surrounding area of Bradbourne many stone monoliths from within the British Isles. These were erected in lines and circles according to Druid practice, and still survive today mostly within the back gardens of the surrounding houses. In 1896 Major William Gore Lambarde inherited the estate and by 1926 had sold off the contents followed by the house the following year. The land was eventually passed to the New Ideal Homesteads Company which laid out new streets and, over the subsequent 30 years, undertook much domestic building. In 1935, the land in the centre of this development, surrounding the chain of artificial lakes, was transferred to Sevenoaks Urban District Council with a covenant to maintain it as a public park. Finally, in 1937, the mansion was demolished.
- Henry Bosville carried out the majority of the works to the grounds, involving the damming of the branch of the River Darent (the Brad Stream) which flows northwards through the park. This involved complicated engineering works and produced a series of six interconnected lakes to the east of the mansion, later reduced to five, which remain largely unchanged. The construction of Betenson Avenue severed the Park in two leaving four of the upstream lakes to the south, and one large lake downstream to the north.
- Some of the original picturesque features such as waterfalls built of local ragstone still survive, although the lake edges have deteriorated in places, with evidence of more recent repair works involving metal shuttering and concrete. The lakes themselves are heavily silted from years of deposited leaf matter from overhanging trees, and little in the way of de-silting management. The woodland areas are overgrown and have contributed to the damage to the lake edges in places, and there are several examples of self-



seeded trees that have added to the dense and wild nature of some areas of the Park. Some of the lakes are dominated by Geese, who have destroyed large swathes of grass and whose faeces has contributed to eutrophication of the lakes, resulting in their need to be managed.

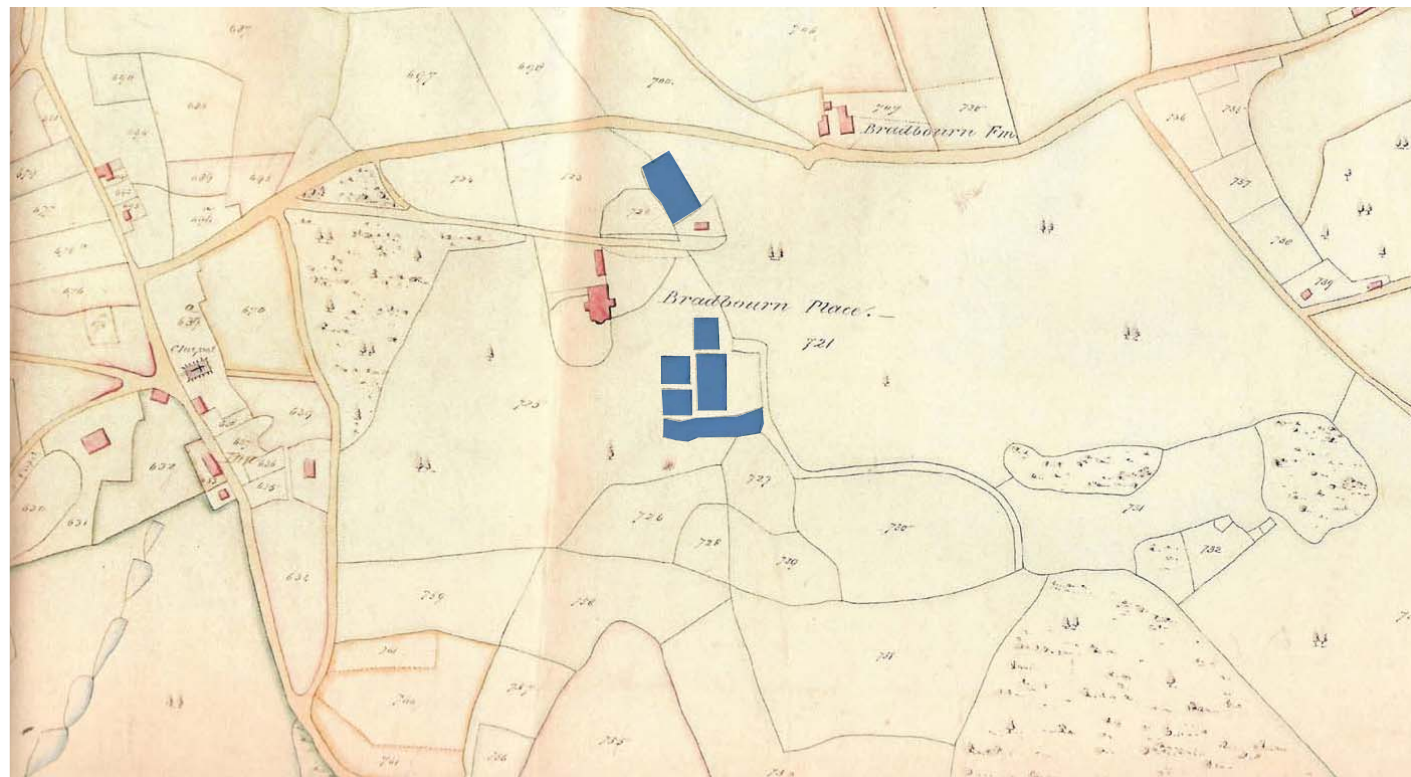
- Bradbourne Lakes has a local friends group in the form of the Bradbourne Residents' Association (BRA) which was reformed in December 2011 to work towards the restoration and conservation of Bradbourne Lakes as well as all issues affecting local residents. They are an active group who have recently carried out maintenance work involving the clearance of some of the overgrown vegetation areas. This is in addition to the conservation and management work carried out by the Council involving tree works and replacement of fences.
- The Lakes were the subject of an HLF grant Stage 1 application made in 2015, which was refused a first round pass in December of that year.



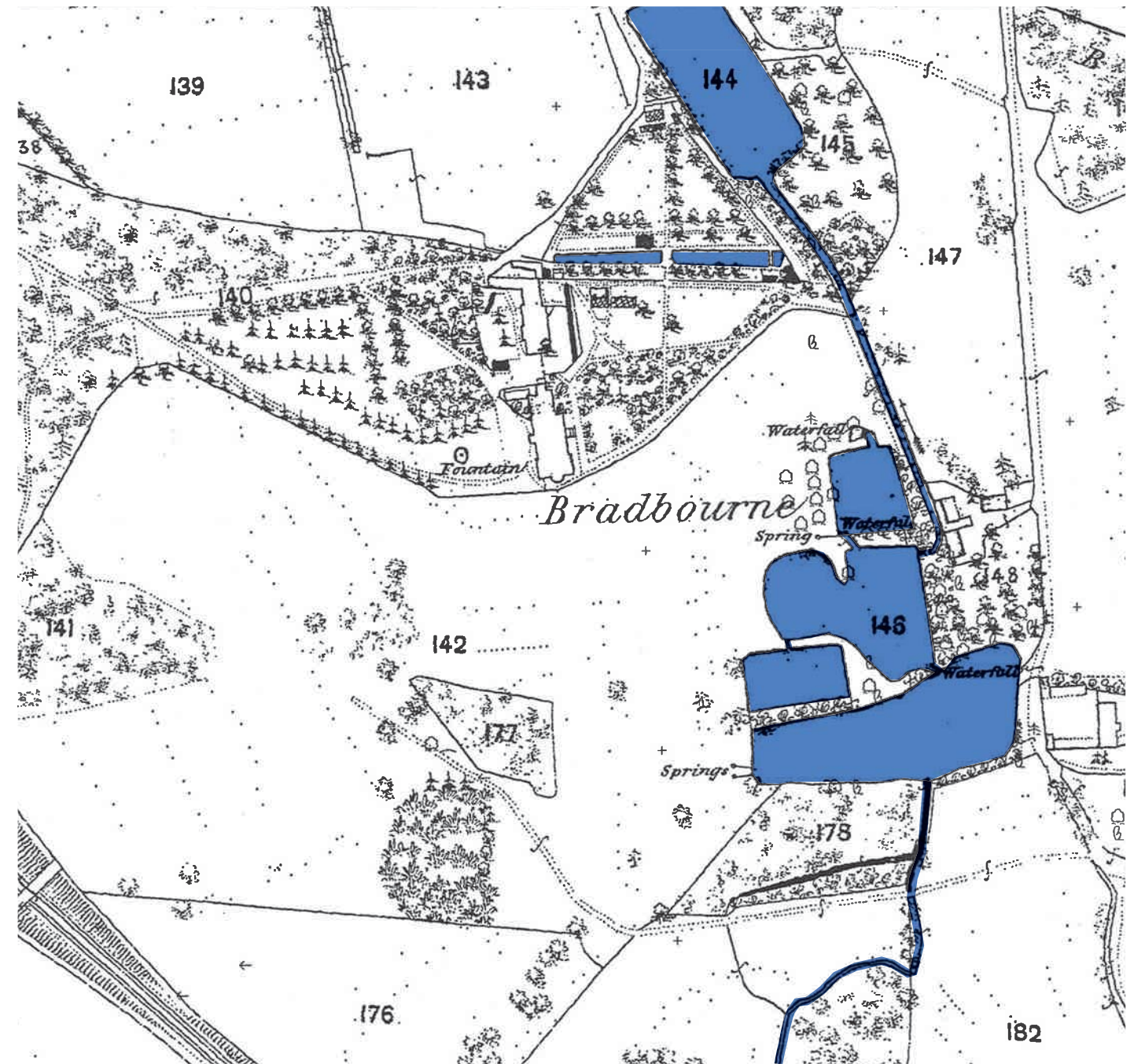
Site layout development



1. J. Andrews, A. Drury and W. Herbert, A Topographical Map of the County of Kent in Twenty Five Sheets (1769)

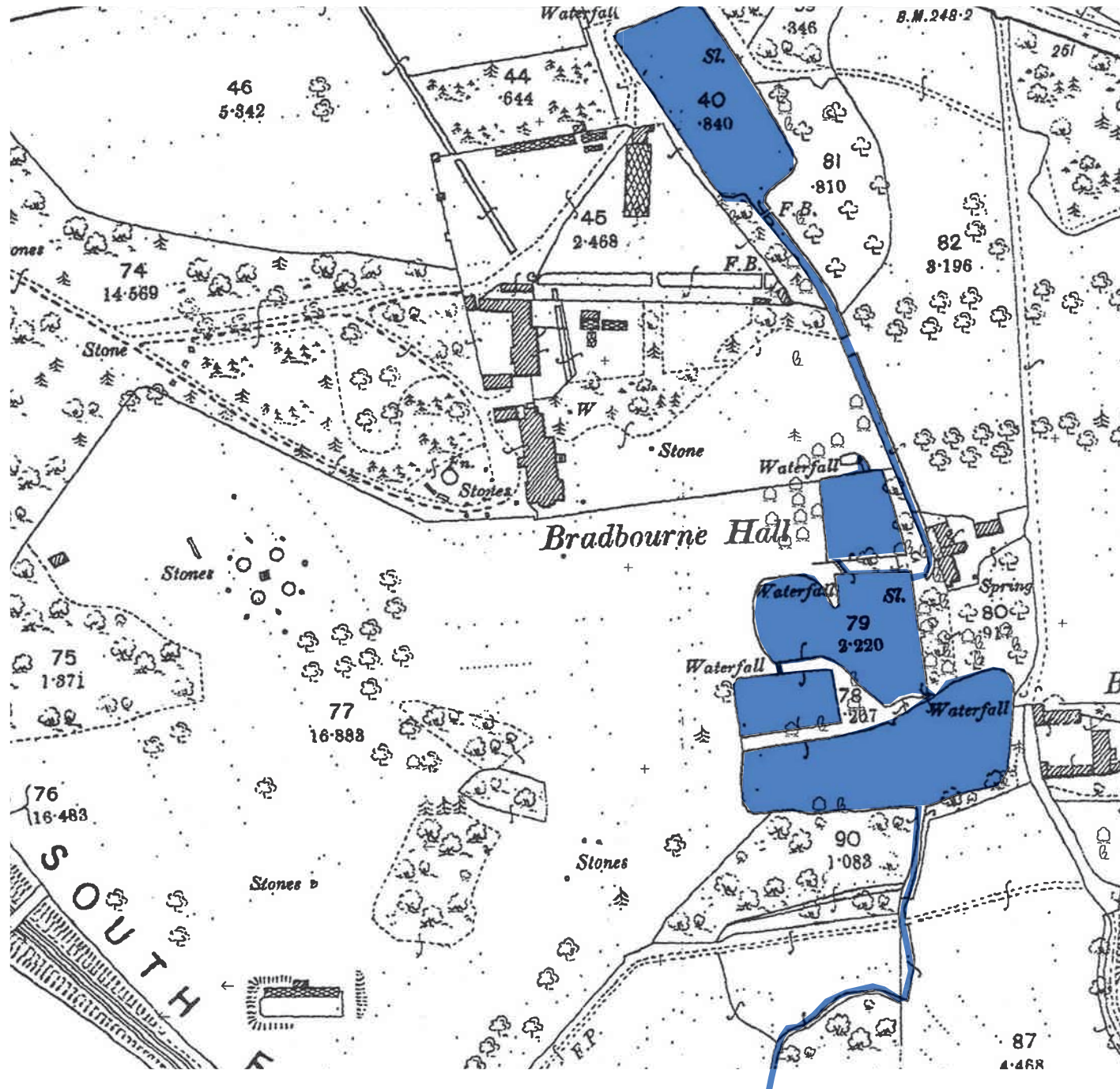


2. Tithe Map. Sevenoaks Parish (1840)

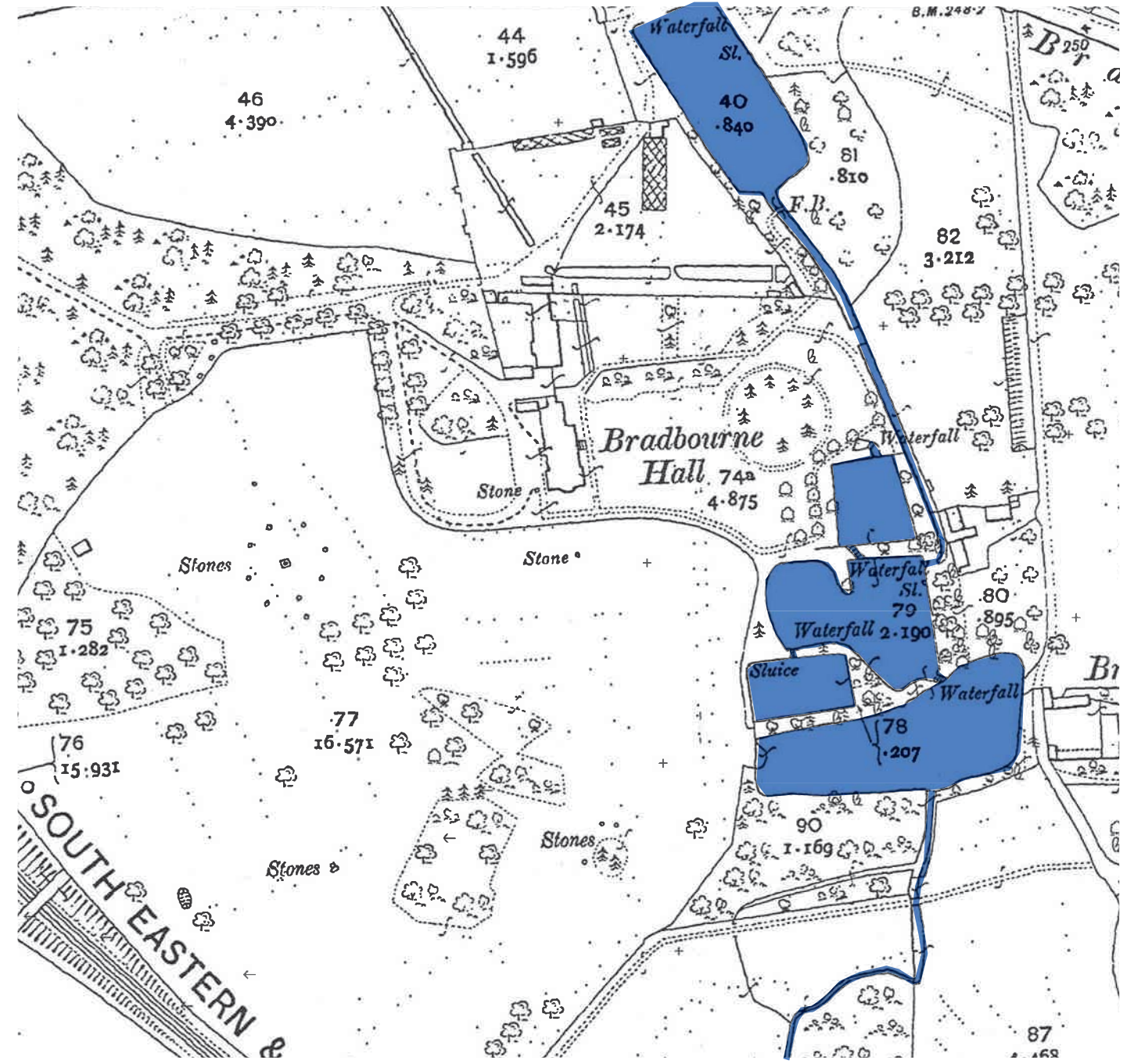


3. Mid 19th Century

1. Published by Harry Margary, Lympne Castle, Kent
2. Kent Compendium of Historic Parks & Gardens 2011 - 2013 review of Sevenoaks District
3. Produced using ESRI (UK)'s MapExplorer 2.0 - <http://www.esriuk.com>

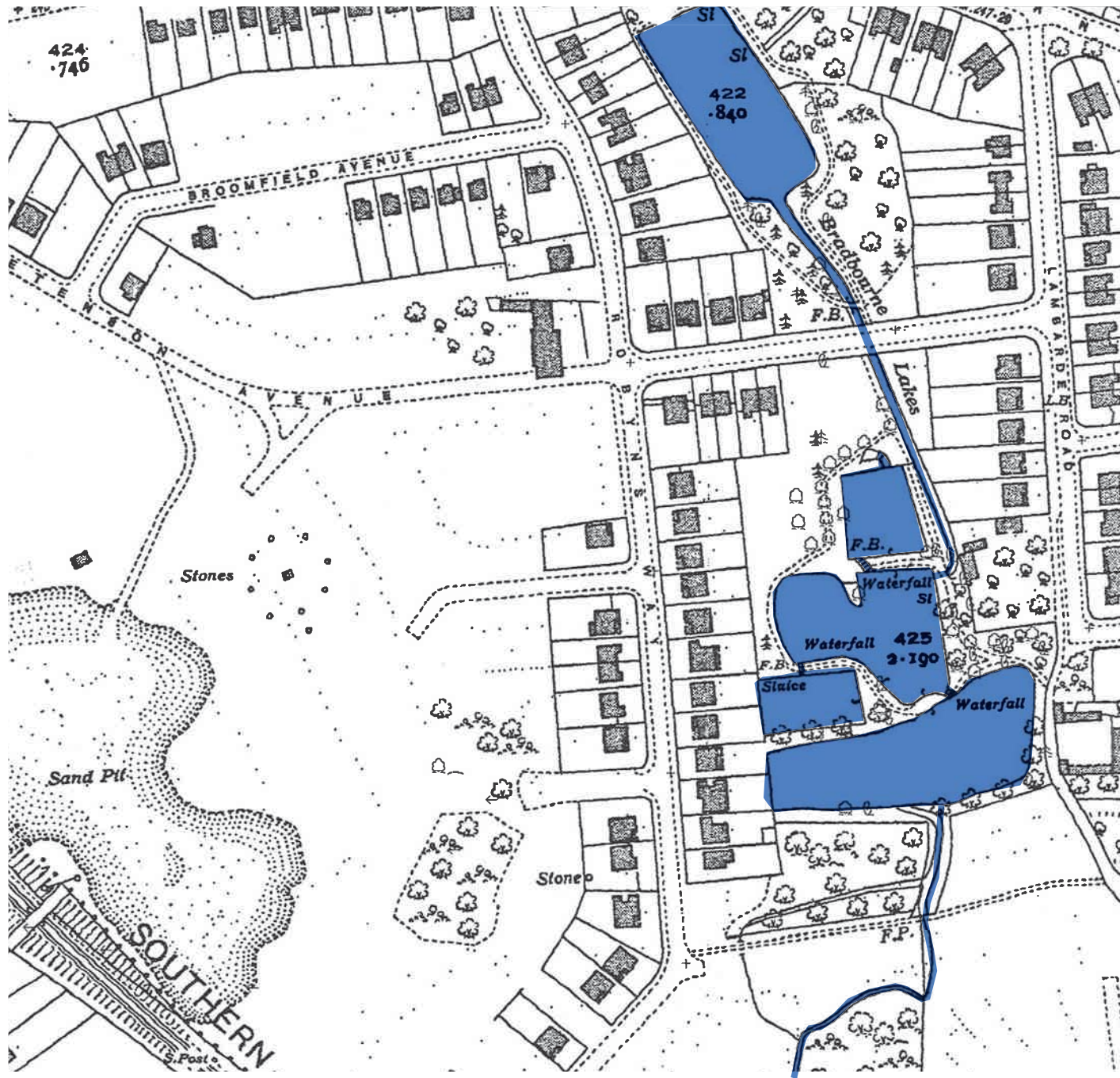


4. Late 19th Century



5. Early 20th Century

4-5 Produced using ESRI (UK)'s MapExplorer 2.0 - <http://www.esriuk.com>



6. Late 20th Century



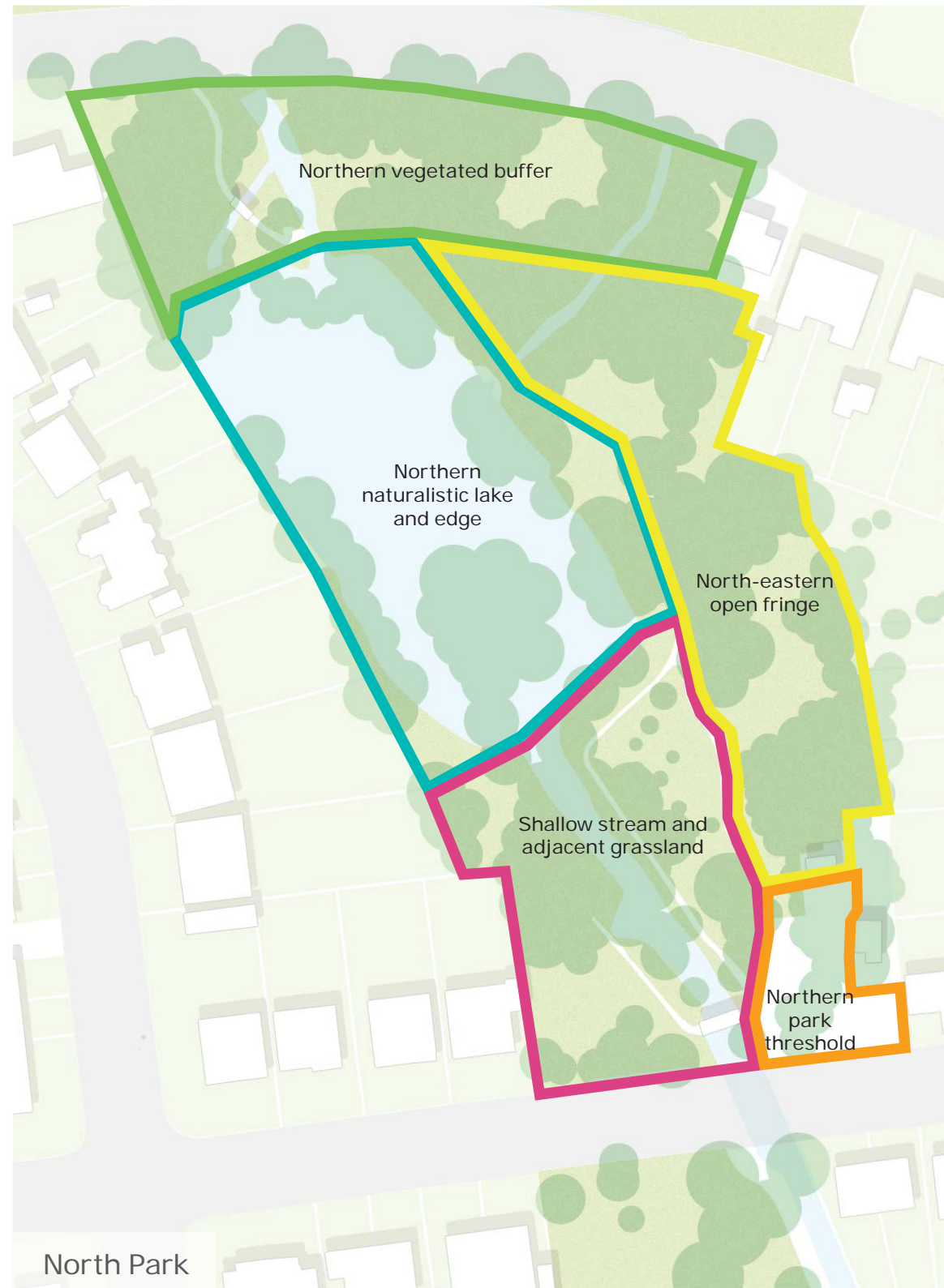
7. Early 21st Century

6-7 Produced using ESRI (UK)'s MapExplorer 2.0 - <http://www.esriuk.com>

4 - Character

Outline Character Areas

The park has been split into broad areas of similar character, in order to assist with any proposals that may or may not be suitable within each of those spaces.



North Park

Northern vegetated buffer:

- Dense woodland buffer bordering Bradbourne Vale Road (A25) screening vehicular traffic from view.
- Includes the northern most stream that outfalls towards Sevenoaks Wildlife Reserve further north.
- Incorporates a narrow woodland path to the northern gate.



Northern naturalistic lake and edge

- Large open lake with a more natural character than the others in the southern park.
- Naturalised lake edges fringed with mature and veteran trees.
- Back gardens face on to the lake from the western edge, making the lake publicly accessible on three sides only.



North-eastern open fringe

- Long thin strip of land along eastern boundary adjacent to back gardens.
- Open grassland interspersed with trees and clumps of hazel coppice
- Includes a small overflow from the adjacent lake, in the form of a shallow ditch.



Shallow stream and adjacent grassland

- Shallow, accessible stream and island, with stone edge of varying condition.
- Adjacent grassland with small clumps of trees.
- Pedestrian bridge on to a dead-end path. Paths are narrow and informal in nature.



Northern park threshold

- Entrance space into northern park, including entrance boards.
- Includes space previously housing toilet block and library.
- Space used for storing of recycling bins.



South Park

Eastern open grassland and specimen trees:

- Open area of amenity grass interspersed with individual specimen trees.
- Contains the monolith stone and some interpretation.
- Space used for various events and functions as more of the 'front door' and arrival space into the park.



Ornamental Lake

- Rectangular lake, ornamental in character and used for model boating.
- More formal in character with a brick upstand edge to the entire perimeter.
- Includes an ornamental cascade in and out of the main pool, with a focal point for seating around paving at the main outfall.



Canalised stream

- Outfall stream along the eastern boundary that takes the main overflow over an ornamental waterfall from the southern upper lakes.
- Stream is brick and stone lined but in varying degrees of physical condition.
- Planting lines the embankments which is quite dense in places.
- The stream continues under Betenson Avenue into the north park.



Southern naturalistic lakes with structured edges and walking routes





- Collection of three lakes to the southern most end of the park which are more naturalistic in character.
- Predominantly natural edges which, due to erosion, have been restrained and strengthened in places with brick upstands or steel shuttering.
- The South Lake and Central Lake both have a small inaccessible central islands, generally with overgrown vegetation.
- The lakes are inter-connected with a range of cascades and sluices, which eventually flow either into the ornamental lake or the overflow stream.

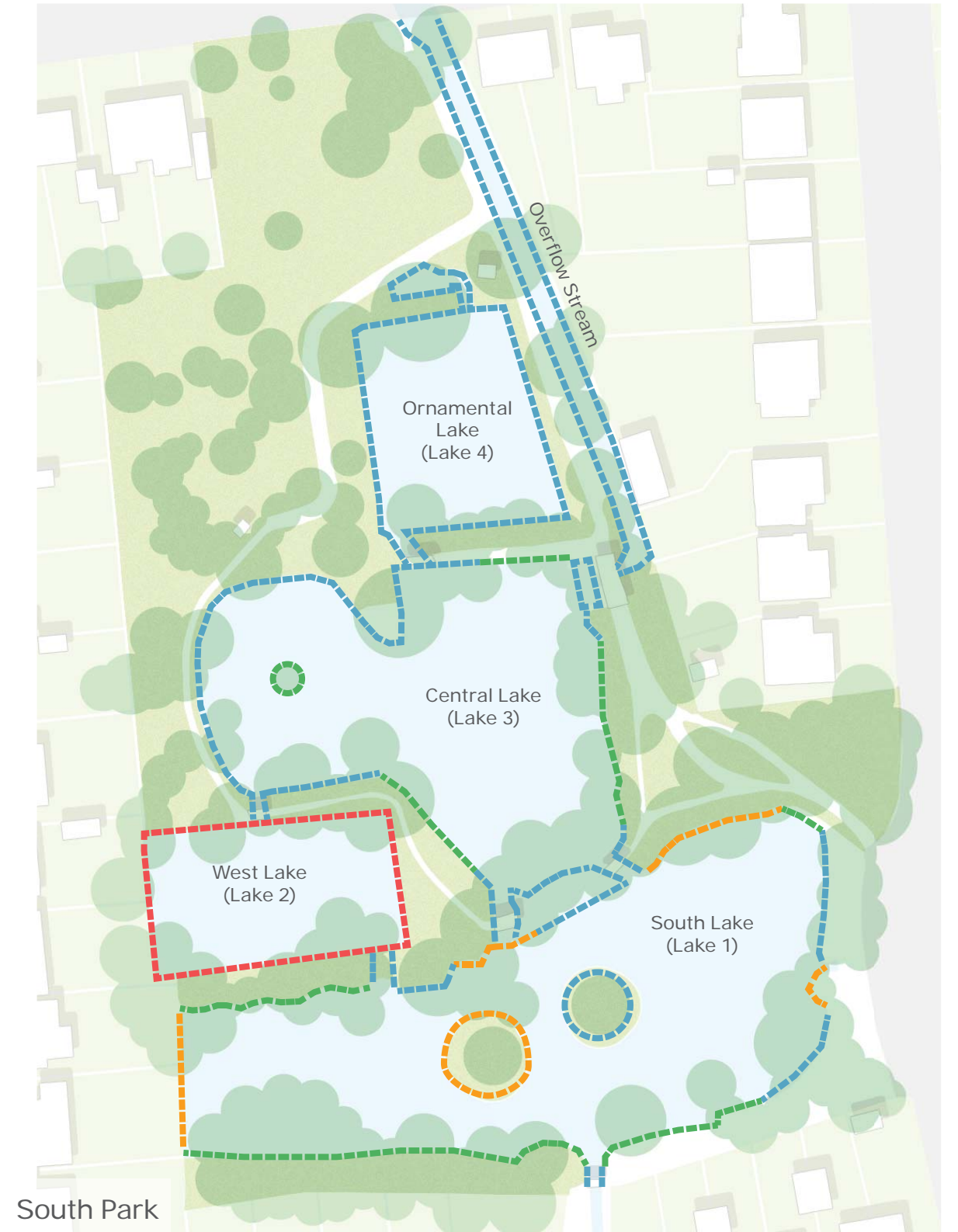


- Narrow winding paths in poor condition weave between each of the lakes - the Darenth Valley footpath SU11 runs through both North and South parks..

Lake character

Each of the lakes has a different character from one another, including different edge treatments. Therefore any proposals should reflect this and be appropriate to their setting individually and collectively.

-  Ragstone/brick edge
-  Metal shuttering
-  Shuttering with brick coping
-  Natural edge



South Lake (Lake 1)

- Large lake to the southern end of the park. Most naturalistic in character with some edge areas to the south and west that are inaccessible to the public.
- Receives the main inlet from Thames Water and the tributary from the River Darent, as well as water from adjacent natural springs.
- Site of inflow from circulation pump.
- Has three main outlets in the form of waterfalls and sluices.
- Has two small inaccessible islands with overgrown vegetation.
- Seems to have received the most amount of lake edge reinforcement, with a mixture of natural earth banks in places, and some areas with concrete reinforced steel shuttering.
- Is surrounded by mature trees, many with overhanging branches over the water.

West Lake (Lake 2)

- Rectangular lake with steel shuttered edges capped with a brick on edge coping.
- Is fed from natural springs and one inlet from Lake 1 and features one outlet channel into Lake 3.
- Surrounded by dense tree cover and ground vegetation, and is the most enclosed lake feeling much darker than the others.
- Feels like the most under-used lake, only being publicly accessible on the north-east bank (approx 30% of its total perimeter).

Central Lake (Lake 3)

- Large odd shaped lake, the result of two individual lakes being joined together sometime in the past.
- The west side has a greater sense of formality to it, with a brick coping to its perimeter, a more open edge character, and a centralised circular island. The east side is less formal and features a large amount of overhanging self-seeded trees which have assisted with the erosion and destruction of the lake edge.
- The east edge features one of the more prominent

ornamental features in the form of a large waterfall into the overflow stream.

- The lake is fed from three inlets from Lakes 1 and 2, and has two outlets into Lake 4 or the overflow stream.
- There is a footpath to the entire perimeter, and all edges (except for a few areas of overgrown vegetation) are accessible.

Ornamental Lake (Lake 4)

- The most ornamental lake is rectangular and has a more formal setting than the others, with ragstone and brick edging.
- It is fed via one inlet from Lake 3 only, and has one outlet over an ornamental water cascade which then enters a below ground pipe that leads to the overflow stream and another under the footpath.
- Has some tree canopy coverage from surrounding trees, but is fairly open in character.
- A small gargoyle is located in the south-eastern corner.
- Has a footpath to the entire perimeter, and all edges are accessible.

North Lake (Lake 5)

- More naturalistic in nature than the other lakes, but a fairly rectangular shape.
- Only fed from the main overflow stream from the southern park.
- Has three overflow points via sluices and weirs, which drain towards Bradbourne Vale Road to the north of the park, and towards Sevenoaks Wildlife Reserve further north.
- Predominantly restrained with a brick/ragstone edging, although most edges are fairly inconspicuous from overgrown vegetation.
- There is a large inaccessible vegetated island towards the southern end.



North Lake



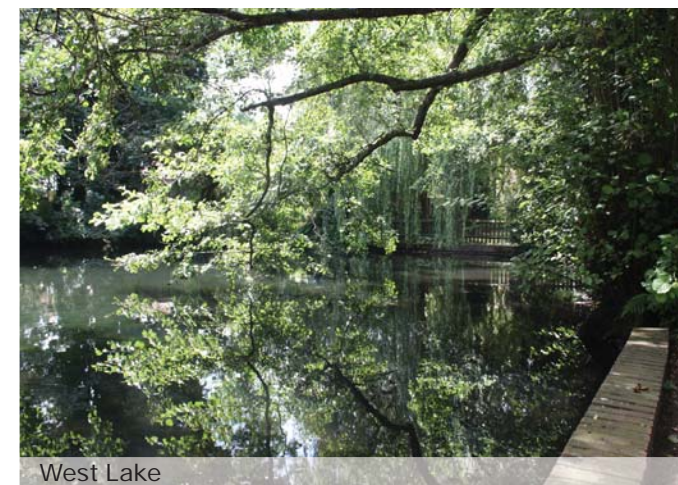
North Lake



Ornamental Lake



Central Lake



West Lake



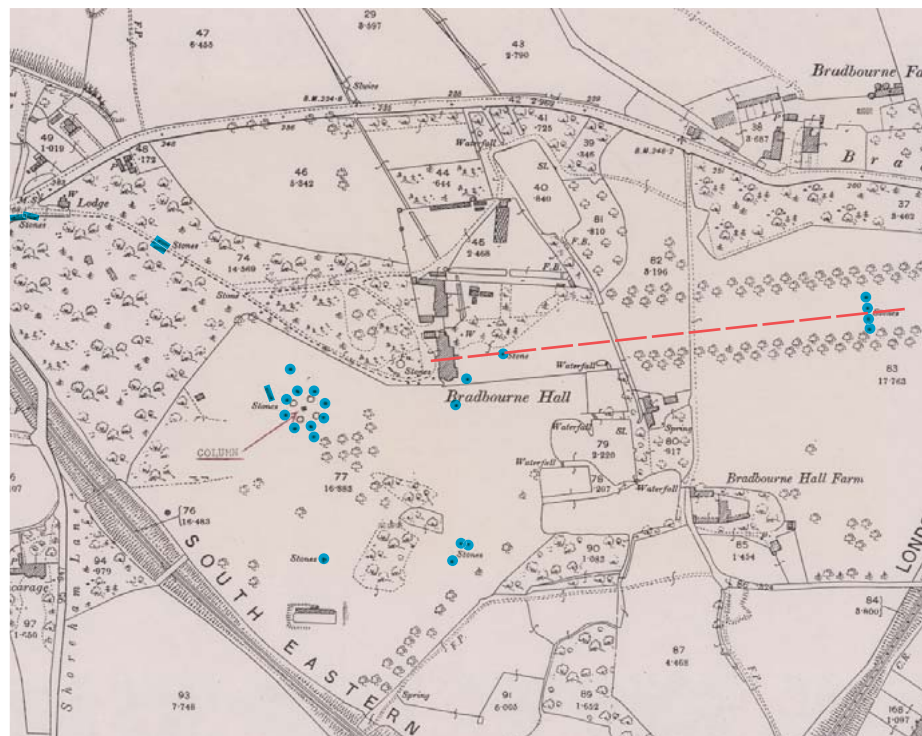
South Lake

5 - Key Features

Historic Value

- Good example of a picturesque landscape
- Francis Crawshay's druid legacy survives - seen in the presence of a stone monolith in the garden of 5 Pontoise Close, which is described by English Heritage as a "tall Doric column of red Cornish granite", as well as other standing stones dotted around the back gardens of nearby residents and the impressive monolith in the south park itself, moved from its original setting in the garden of 22 Robyns Way a decade ago.
- Interesting historic estate with a large Hall, now lost below the surrounding streets and houses.

The park and the immediate local area has a rich and diverse history which is currently under-exploited and generally unknown. But there are many surviving remnants of the previous estate including the lakes themselves, standing stones, various ornamental water features, and several veteran trees.



Late 19th Century - Location of druid stones within the Bradbourne Estate

Picturesque landscape

Stone monolith within the south park

Ecological Value

- Standing water
- Broad-leaved woodland
- Grassland
- Hazel coppice
- Bare earth
- Flowing water - waterfalls
- Specimen and veteran trees - several remaining from the historic estate

The park currently offers a lot in terms of ecological value, from a variety of water fowl to invertebrates, but this could be significantly enhanced through a number of simple interventions. Generally increasing the biodiversity of the park through development of a range of habitats may attract a mixture of new species that could help improve the water quality through oxygenation. If oxygen is present throughout the water at all times, beneficial aerobic microorganisms and insects feed on the organic sediment which will ultimately result in a cleaner lake bottom.



Historic hazel coppice



Areas of bare earth suitable for nesting birds and invertebrates



London plane tree, listed on the Kent Heritage Trees list - 5890



Flowing water and marginal plants



Standing water with overhanging tree canopy

Cultural Value

- Ornamental lake used by model boating enthusiasts
- A space for social events, such as Easter egg hunts, picnics and music concerts
- A unique park with an identity and character of its own
- Volunteer working parties organised by the BRA
- A strong and passionate local community who care about the future of the park

The park is a much loved local resource for a wide variety of community members. The Bradbourne Residents' Association (BRA) organise bi-monthly working parties to help maintain the park. They also organise social events such as Easter egg hunts, picnics and music concerts.

There are other numerous historic events and activities that are either no longer popular or are becoming increasingly difficult to sustain, such as the affect the lake silting has on the use of the ornamental lake for model boating.



Members of a BRA working party



Sevenoaks Scale Model Boat Club



Santa visits the lakes



Christmas market stalls



Easter egg hunt

6 - Main Issues

Site wide issues

Bradbourne Lakes faces a number of challenges, with several areas and park features that require repair or restoration. Below and the following pages highlights some of the main issues faced:

Lake Silt

The lakes are heavily silted up due to leaf drop from overhanging trees. This has implications on the local ecology and recreational use such as paddling in the shallower sections, and the sailing of model boats which has traditionally been a popular pastime. Currently, the required capital works to get the lakes back into good condition are far beyond existing maintenance budgets. Silt samples were taken in 2014 by Sevenoaks Environmental Consultancy Ltd, in order to help with future dredging proposals. The samples and laboratory analysis recorded potentially elevated concentrations of sulphates, sulphur, ammonia, speciated PAHs (Polycyclic Aromatic Hydrocarbons) and TPH (Total Petroleum Hydrocarbons). Additionally WAC (Waste Acceptance Criteria) analysis indicated that due to elevated concentrations of sulphate, antimony, loss of ignition (LOI) and total organic carbon (TOC) the lake silt would be likely to be classified as 'non-hazardous' for disposal to landfill. Additionally the volume of silt for each lake was calculated by measuring the depth in several locations. The average depth and volume is shown opposite.

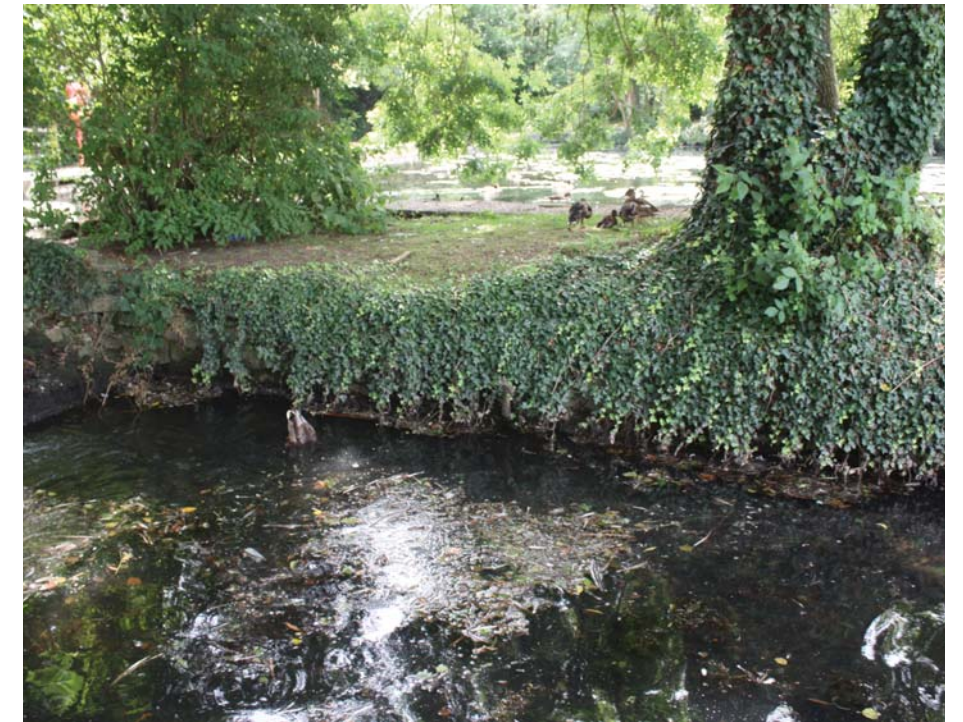
One of the main causes of the silt accumulation within the lakes is due to the natural water courses and residential/road run-off that enters Lake 1 from the southern most part of the park. Following a combined meeting with the BRA, SDC, Thames Water and Kent Highways in 2014 it was agreed that Thames Water would be responsible for routine inspection, maintenance and emptying of the silt traps at the main water course entry point, and Kent Highways would carry out bi-annual cleansing and clearing of appropriate street gullies.

Another contributing factor to excessive silt build-up is from the many over-hanging trees and vegetation that surround the lakes and deposits leaf material and branches straight into the water. Geese feces is another contributing factor.

Silting



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Accumulation of silt and debris within the waterfall area close to the ornamental lake



Excessive silt material within the south east corner of Lake 4

Hydrology



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Waterfall within ornamental lake



Outlet in north lake



Sluice within the central lake



Waterfall in central lake

The five artificial lakes which form Bradbourne Lakes were created on a tributary of the River Darent which flows into the park moving from south to north.

The lakes receive water from a catchment area which makes up much of Sevenoaks. They largely depend on ground water levels although a water pump pumping water from nearby Redlands Lakes is activated when water levels are low due to dry weather. The pump flows directly into the south lake from the north-eastern corner. The lakes are also supplemented by two natural springs on the south-east of the park also flowing into the south lake.

The interconnected chain of lakes are linked through a series of waterfalls, and controlled by sluices to limit flow rates. A number of these flow control features require attention to increase their functionality and aesthetic value.

Wider Hydrological Context



Overgrown vegetation

The trees and shrubs that surround the lakes are overgrown and lack regular maintenance beyond that which is necessary for safety, access or the health of the vegetation. There are numerous self-seeded trees, and in some places their position on the edge of the lake is contributing to the erosion, silt accumulation, and destruction of structural and ornamental features. The BRA organise volunteer working groups (with the agreement of SDC) to undertake small scale maintenance work within the capabilities of the participants, such as cutting back of bushes and small trees. But a thorough arboricultural assessment is required, that seeks to rationalise the existing trees and make recommendations for long-term management.



Overgrown vegetation and trees collapsing into lake



Vegetation beginning to break up wall structures

Eroded Pathways

The majority of pathways in both the north and south park are in need of either resurfacing or complete relaying.

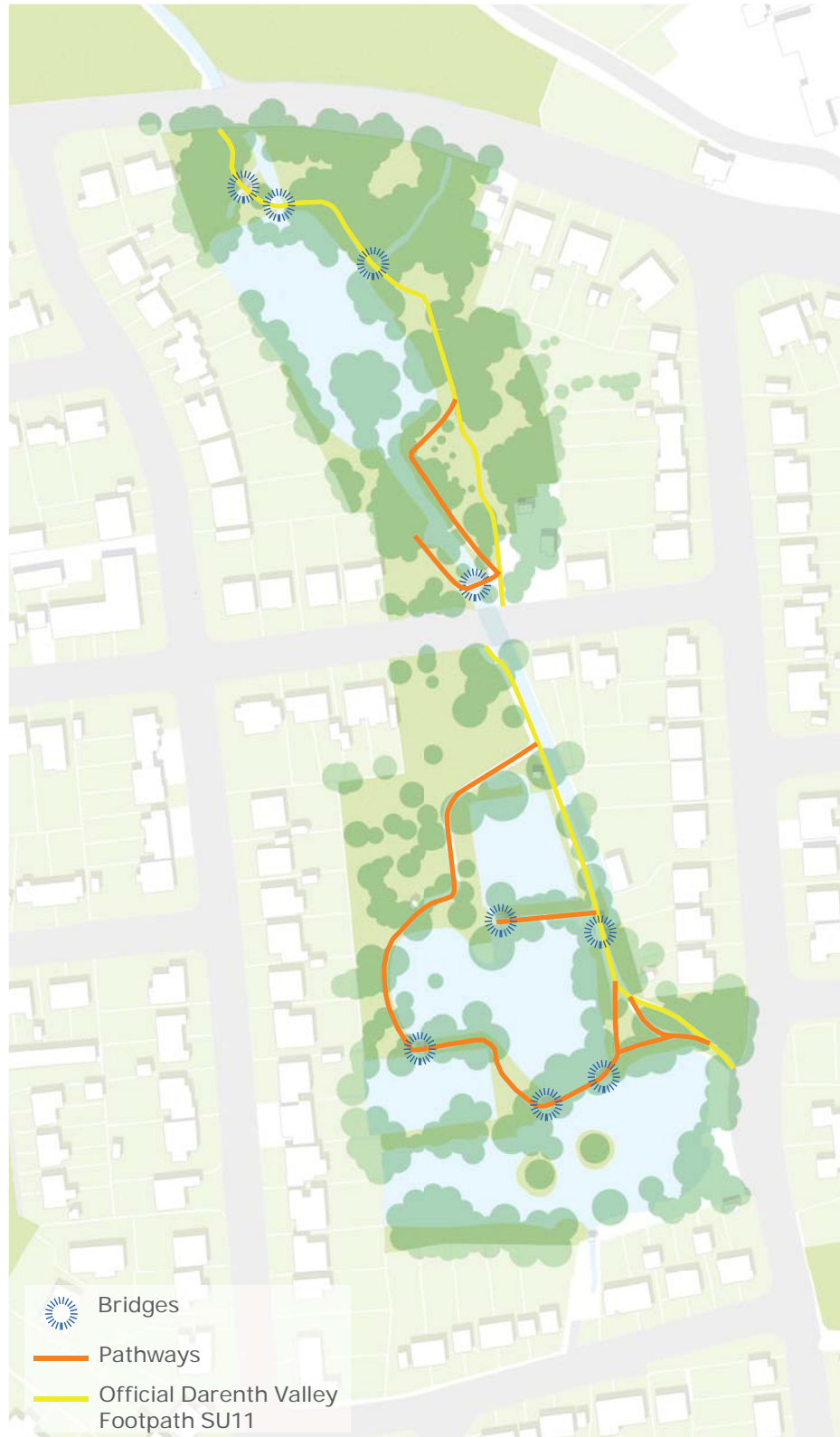
Many of the paths are too narrow to accommodate wheelchairs and push chairs. The surface has also become quite uneven and fractured due to tree root damage. There is an existing circular walking route within the park, although there are sections that are not joined with a hard surface. The park would benefit from a fully surfaced joined up walking route, providing the opportunity for a meaningful circular route.



Macadam paths disintegrating



Pathways with no clear edges



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Bradbourne Lakes Vision Masterplan



Too narrow to accommodate a wheelchair or buggy



Pathways end abruptly



Hazardous crazy paving in need of repair



Damage to macadam due to tree roots

Structural decay of walls, edges and features

Many of the structural features require repair. As trees have naturalised along lake edges they have caused stone and brick work to crumble and collapse into the lake.

Similarly the waterfall close to the ornamental lake has begun to fall into the water.

It is also felt that, once de-silted, the ornamental lake would benefit from a full condition assessment.



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Gargoyle head in need of maintenance



Repairs to stonework required



Eroded lake banks in central lake



Crumbling walls



Collapsed stream wall



Waterfall wall in need of repair



Naturalised trees damaging edges



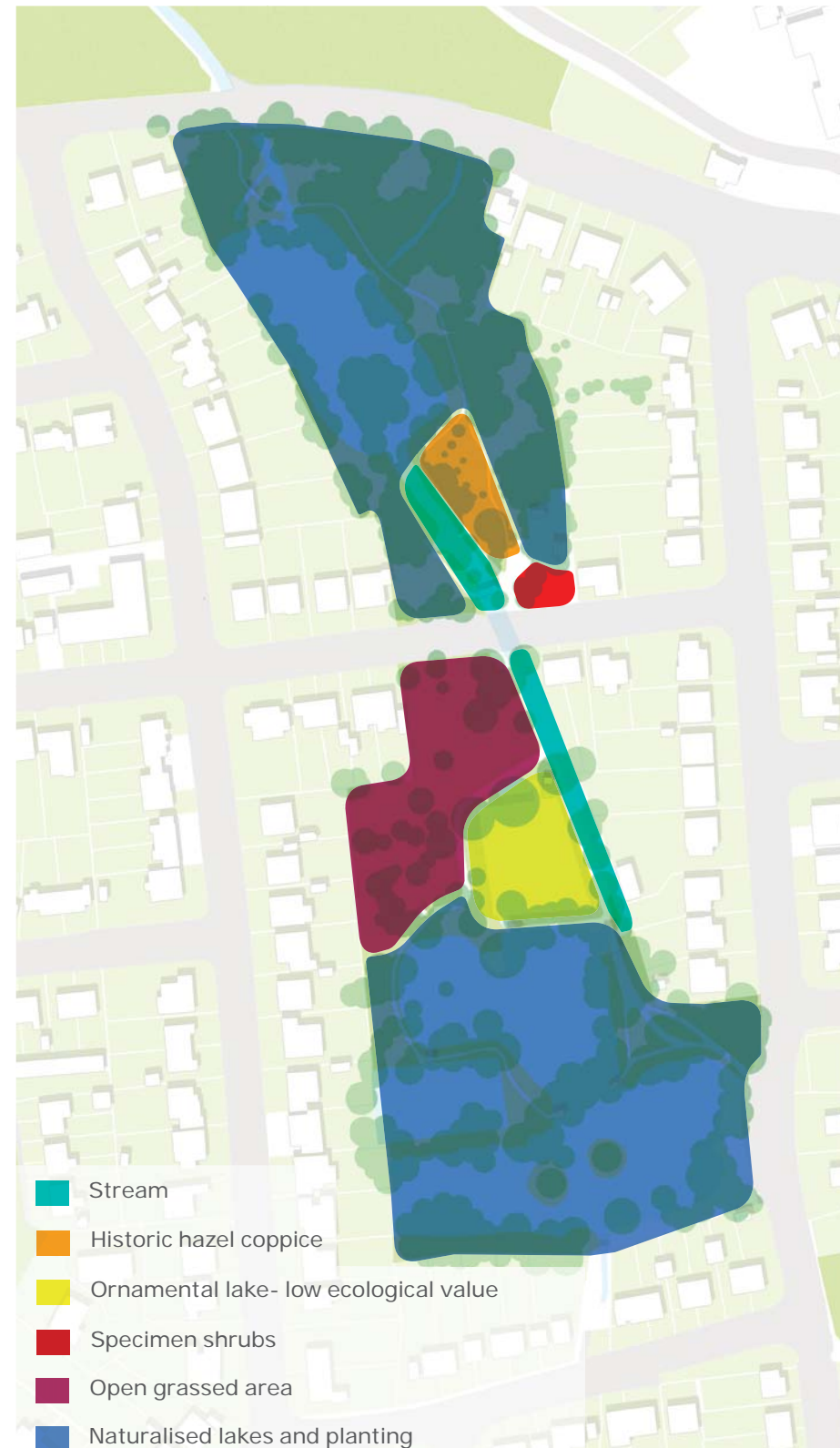
Tree roots pushing out stone walls

Ecology

The park currently offers varied opportunity for ecology and biodiversity through the differing landscape characteristics. Although there are considerable issues with large areas of stagnant water with low nutrient and ecological value. The areas of naturalised planting which bookend the park at the northern and southern sections provide the greatest opportunity for a variety of wildlife habitats.

The varying types of water in the park attracts numerous waterbirds. An ecology study was carried out in 2006 which revealed over 15 types of birds visited the park including - Moorhen, Mallard, Greyleg Goose, Coot, Egyptian Goose and Aylesbury duck. The number of waterbirds visiting the park, though welcome, do contribute to poor water quality, silt and a reduction in broader ecological diversity. The more formal lakes such as the ornamental lake have a lower ecological value while the streams and less formal lakes, namely the north, south and central lakes have greater potential for biodiversity to thrive.

The park is also home to a number of veteran trees which are vital for a wide range of flora, fauna and, in particular, fungi. These veteran trees are traces of the historic Bradbourne Estate which include a scattering of specimen trees and shrubs such as a monkey puzzle tree in the south park, as well as a small hazel coppice and a veteran plane tree in the north. Also, memorial trees such as a Dawn Redwood found in the North park. Other notable tree species include alder and willow which are typical of a waterside location, and also a number of cob and plane trees.



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Waterbirds



Mature tree propped up to prevent uprooting

Other issues

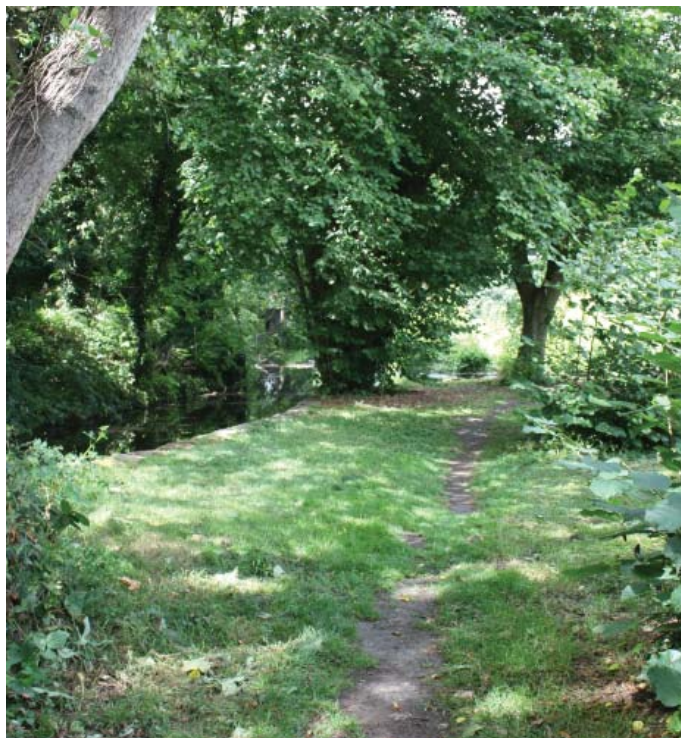
- **Removal or degradation of features that encourage long stay visitors**
The lack of public conveniences was cited in the BRA's survey as deterring some visitors from staying longer and it is believed their inclusion would also help encourage greater attendance at events at the park. Despite the recent addition of new benches, it was felt seating could be improved too which would also likely increase dwell time.
- **Unknown historic value**
The history of the park is poorly known to the local community. The park has a rich and varied history, once being part of a much larger estate, but it is the remains of a history now built over. For instance the north park is home to the second largest plane tree in Sevenoaks, which has been included in the 'focal' first by the Sevenoaks Society. There are some small interpretation panels at the entrances to both the north and south park, but these provide a limited amount of information.
- **Lack of facilities**
The BRA have identified that the introduction of other park features such as a pavilion structure or a small children's play area could enrich the area and provide additional reasons for local people to visit and spend time in the park. There are considerable opportunities to link to wider town footpath/walking routes and the wetlands beyond.



Specimen trees remnants of the historic estate



Impressive veteran trees



Shaded woodland style areas

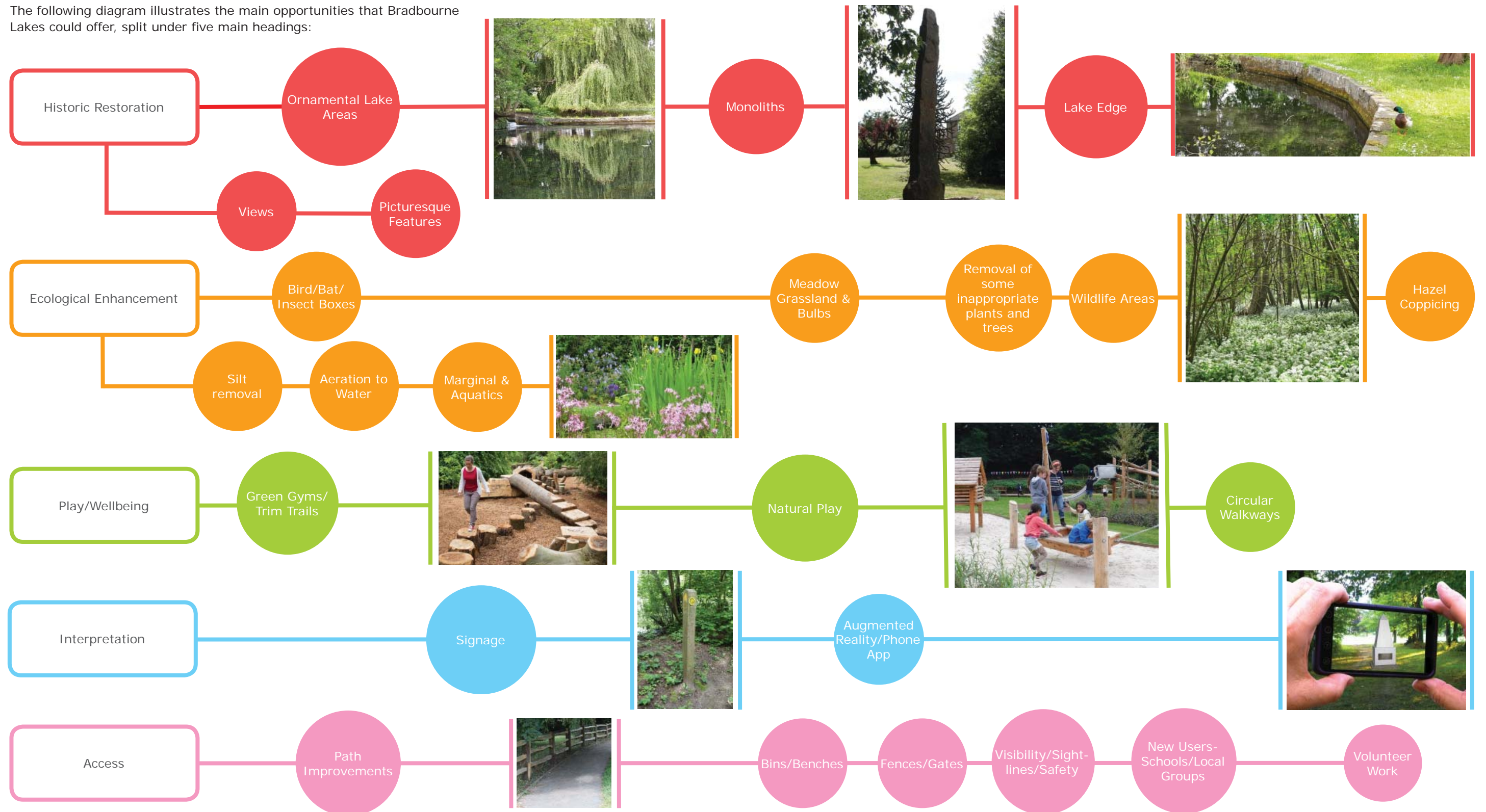


Areas of stagnant water that offer low ecological value

7 - Opportunities & Constraints

Opportunities

The following diagram illustrates the main opportunities that Bradbourne Lakes could offer, split under five main headings:



Constraints

The following list describes the main constraints faced in the development of the Vision Plan and any improvement works to the park:

- Budget - Limitations in available maintenance budget, and an extensive list of costly repair work.
- Funding opportunities - Limitations in available suitable grants; stiff competition for grant money; several applications for specific pieces of work will be required, rather than one large grant.
- Priority - Agreement of what are the most critical pieces of work, and potential difficult decisions to be made on areas for expenditure of limited grant money.
- Lack of interest by local public - Potential limitations in gaining public support outside of the immediate area covered by the BRA; difficulty increasing public interest in visiting the park (audience development).
- Objections/conflicts between members of the public - Potentially differing opinions on the use of the park, expenditure of money, priority items.
- Potential loss of tranquil character - An increase in visitor numbers could negatively impact the tranquil character of the lakes, which could change the primary aspect that most local users like about the park. This could also cause disturbance issues to residents who live adjacent to the park.
- The introduction of toilets may attract rough sleepers/anti-social behaviour - The addition of toilets may require careful thought in terms of their use and management. Are they only available for special events, weekends? Who maintains them?

8 - Proposals

Conceptual Zoning

The following diagram illustrates the proposed zoning areas across the park, in terms of most suitable use and character within each zone:



Vision Plan

Marginal aquatic planting to increase biodiversity and water quality

Restore existing wall either side of stream

Continuation of existing pathway and creation of stepping stones over stream

Monolith stone to form part of augmented reality history trail

Native hedge planting to screen residential fences

Repair waterfall wall

Wildflower planting

New pathways to connect to existing

Water aeration fountains to help move water

Log piles

Re-surface paths

Trim trail

New natural play area

Publicly accessible toilets

Repair existing stream wall

Resurface crazy paving

Desilting of ornamental lake and conservation of the lake edge

Interpretation boards/signs strategically positioned around the park

Re-surface paths

New seating positioned around the park

Management of 'islands' with overgrown trees



Historic Restoration



All areas of wall and edging to be surveyed and repaired. The highlighted sections indicate the known priority areas.



Priority area to be dredged first, to allow use of the lake for events. All silt arisings to be retained and used in the park for forming wetland planting areas. All other lake areas to be surveyed and ranked in terms of priority for silt removal, and assessed against cost.





Areas between lake inlet/outlets to have small silt traps/barriers/filters





Ecological Enhancement





 Clumps of British native marginal and aquatic planting to oxygenate and filter the water. Silt arisings used to form planting areas.

 Naturalised lake edge using faggots, coir rolls held in place with timber posts and planted with British native wetland plants.

 Main viewing points from lake edge across lake.

 Existing boundary planting to be maintained and enhanced with wide British native mixed hedge to screen residential fences.

 Swathe of wildflower meadow planting, suitable for wet soils.

 Standing and fallen log piles in quiet inaccessible areas, providing habitats for mosses, lichens and fungi, as well as many insects.

Additional bird and bat boxes to be mounted in large mature trees.

Selective tree removals and general arboricultural work.

Tree re-planting strategy, areas to be confirmed.



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Play/Wellbeing



Young children's natural play area



Circular walking/jogging route



Timber trim trail equipment (positions indicative)



Reinstatement of publicly accessible toilet in the form of an off-grid eco composting and waterless toilet. More info here: www.natsol.co.uk



Repair of stonework and integration of stepping stones through shallow stream to form a playable stream crossing



Interpretation



New, expanded park signage and interpretation boards



Smaller interpretation panels






Augmented reality phone app, to display 3D features of the historical estate via a mobile phone



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Access



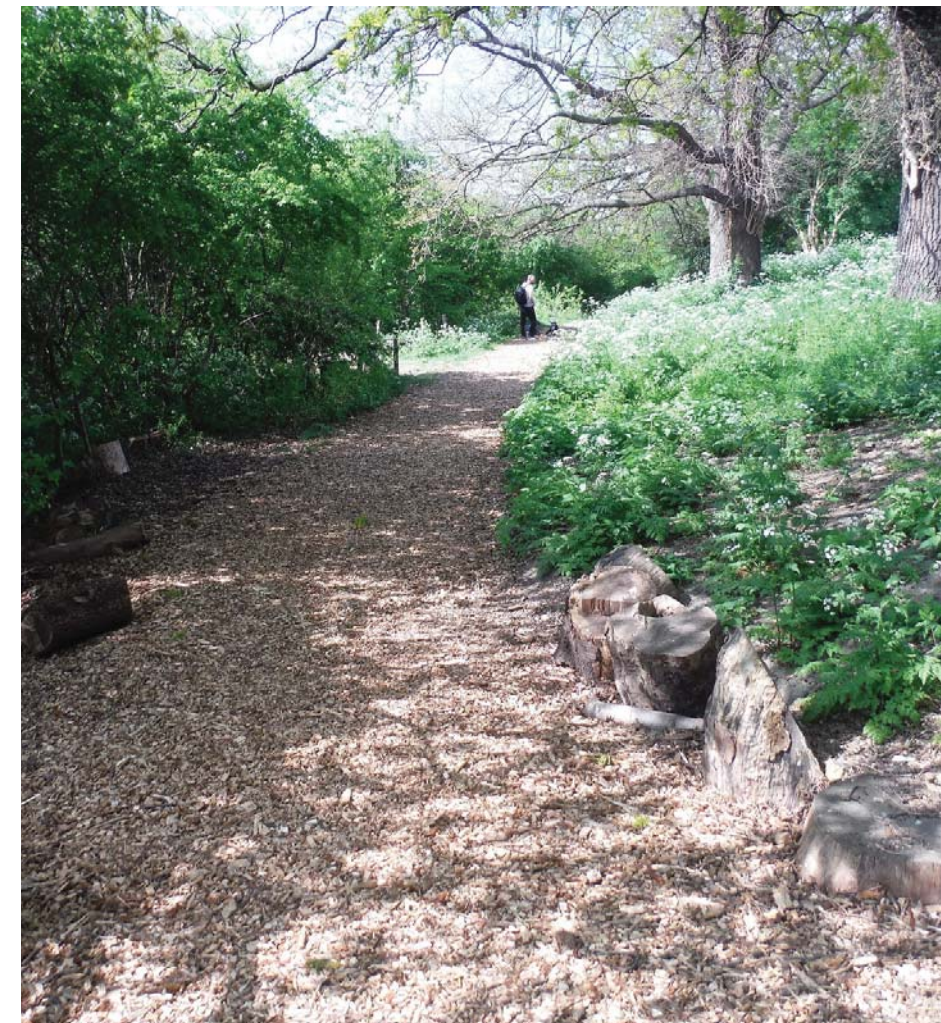
-  1.5m width macadam footpath with softwood timber edges, to provide a robust, maintainable surface.
-  1.2m width self-binding gravel path (hoggin) with earth banded edges. A cost effective paving surface to give a less urban character and allow some flexibility around protruding tree roots.
-  Area of restored crazy paving, lifted and relaid.
-  Replacement timber benches with back and arm-rests
-  Picnic benches



Precedent Schemes



Walthamstow Wetlands



Woodberry Wetlands

9 - Public Consultation Event

Consultation

A public consultation event was held in the park on Thursday 9th August and Saturday 11th August 2018, at which park users were invited to share their comments on the vision plan proposals. This was coupled with an online survey which was open until Friday 24th August 2018. The following pages show the consultation boards displayed and circulated for comment, along with a breakdown of the survey results.

Bradbourne Lakes - A vision for the future

Introduction

Introduction

Sevenoaks District Council are looking at ways of improving Bradbourne Lakes and we would like your views.

In 2012, the Bradbourne Residents' Association (BRA) carried out a visitor survey that recorded a strong desire for restoration. In 2015, an application was made by Sevenoaks District Council to the Heritage Lottery Fund for a grant to restore the park, which unfortunately was unsuccessful.

In July 2017, it was agreed to employ design consultants to prepare a Vision for the park and earlier in 2018, LUC were appointed. This consultation is the first step towards production of the Vision and seeks your comments on draft proposals to repair and restore the park in order to provide a high quality open space that is accessible to all for future generations. The Vision for the park will then be used as a basis to bid for external funding to help pay for the works.

The following display boards show the draft proposals for Bradbourne Lakes and we are very keen to hear what you think. Please make sure you complete a comment form before you leave.

You can also view and comment on the proposals at www.sevenoaks.gov.uk/bradbournelakes

The deadline for comments is 12 noon on Friday 24 August 2018.

Site overview

Bradbourne Lakes is a tranquil local park of historical significance, comprising a series of five ornamental lakes with waterfalls, cascades and a circular walking route set in areas of open space, dense overgrown vegetation, clumps of trees and some striking veteran trees.



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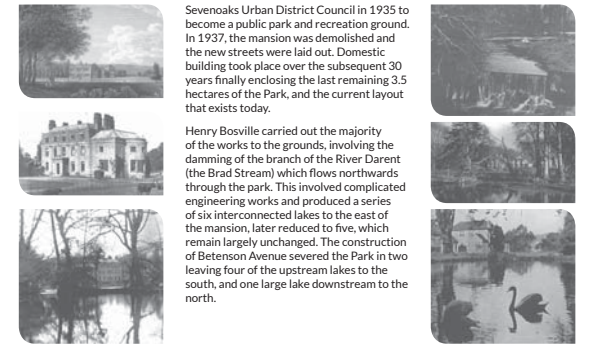
Bradbourne Lakes - A vision for the future

History

Bradbourne Lakes was formerly part of the Bradbourne Park Estate, first laid out between 1740-1761 by Henry Bosville as a picturesque landscape of lakes and waterfalls, forming the setting for the house of the same period.

In 1870, Francis Crawshaw purchased the estate and retired to Bradbourne Hall. He had an interest in Druids and brought to the grounds and surrounding area of Bradbourne many stone monoliths from within the British Isles. These were erected in lines and circles according to Druid practice and still survive today, mostly within the back gardens of the surrounding houses.

In 1896, Major William Gore Lambarde inherited the estate and by 1926 had sold off the contents followed by the house the following year. The land was eventually passed to the New Ideal Homesteads Company with the land surrounding the chain of artificial lakes being passed to



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Bradbourne Lakes - A vision for the future

Features & issues

Features

- Historic value**
 - Good example of a picturesque landscape
 - Francis Crawshaw's druid legacy survives - seen in the presence of a stone monolith, as well as other standing stones dotted around the back gardens of adjacent residents homes
 - Interesting historic estate with a large hall, now lost below the surrounding streets and houses
- Ecological value**
 - Standing water
 - Broad-leaved woodland
 - Grassland
 - Hazel coppice
 - Bare earth
 - Flowing water - waterfalls
 - Specimen and veteran trees - several remaining from the historic estate
- Cultural value**
 - Model boating lake used by enthusiasts
 - A space for social events, such as Easter egg hunts, picnics and music concerts
 - A unique park with an identity and character of its own
 - Volunteer working parties organised by the BRA
 - A strong and passionate local community who care about the future of the park

Main issues

- Lake silting**
 - The lakes are heavily silted up due to leaf drop from overhanging trees. This has implications on the local ecology and recreational uses
- Overgrown vegetation**
 - The trees and shrubs that surround the lakes are overgrown. There are numerous self-seeded trees and their position, on the edge of the lake, is contributing to the erosion, silt accumulation and destruction of structural and ornamental features
- Eroded paths**
 - The majority of pathways are in need of either resurfacing or complete relaying. Some paths need joining up
- Structural decay**
 - Many of the structural features require repair. As trees have colonised along lake edges, they have caused stone and brickwork to crumble and collapse into the lake
- Ecology**
 - The park currently offers varied ecology and biodiversity habitats, but there are issues with large areas of stagnant water with low nutrient and ecological value
- Lack of facilities**
 - The introduction of other park features, such as toilets or a small children's play area, could enrich the area and provide additional facilities for local users
- Historic value**
 - The history of the park is not widely known to the local community



Bradbourne Lakes - A vision for the future

Draft Vision

This plan describes the Vision for Bradbourne Lakes. The following board provides more detailed proposals.

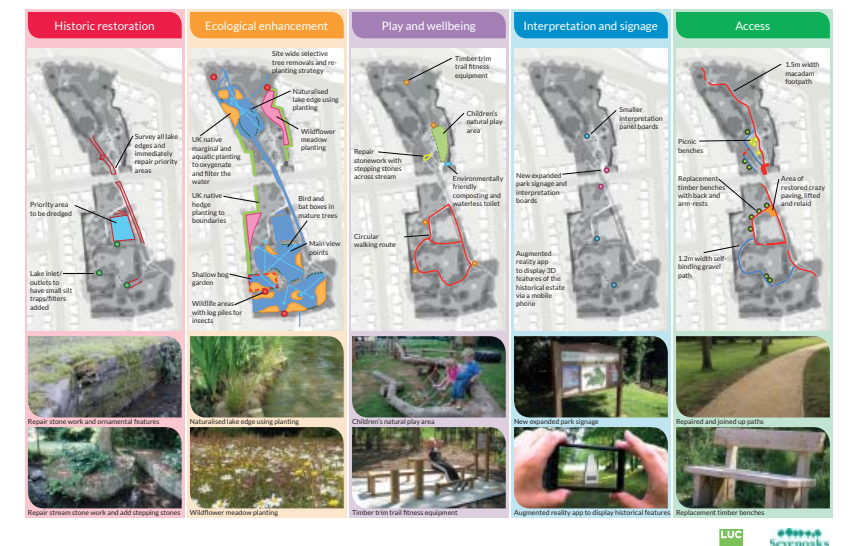


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Bradbourne Lakes - A vision for the future

Draft detailed proposals



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Results

Bradbourne Lakes - Survey Sheet

How often do you visit Bradbourne Lakes? Daily Weekly Monthly Every 6 months First visit

How far did you travel to visit Bradbourne Lakes? 0-2 miles 3-6 miles 7-10 miles 10+ miles

What do you like about the draft proposals?


What do you dislike about the draft proposals?

What do you think are the top three priorities?

- Desilting of lakes
- Removal of overgrown vegetation
- Repair and joining up of eroded paths
- Repair of lake edges and broken structures
- Ecological enhancement and biodiversity improvements
- New facilities such as toilets or children's play
- New signage and history trails

How strongly do you agree or disagree with the following statement: Overall I am supportive of the Vision for Bradbourne Lakes

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree



Bradbourne Lakes - Survey Sheet

How often do you visit Bradbourne Lakes? Daily Weekly Monthly Every 6 months First visit

How far did you travel to visit Bradbourne Lakes? 0-2 miles 3-6 miles 7-10 miles 10+ miles

What do you like about the draft proposals?


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- Desilting of lakes
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- Repair of lake edges and broken structures
- Ecological enhancement and biodiversity improvements
- New facilities such as toilets or children's play
- New signage and history trails

How strongly do you agree or disagree with the following statement: Overall I am supportive of the Vision for Bradbourne Lakes

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree



How often do you visit Bradbourne Lakes?

Daily -	40
Weekly -	33
Monthly -	25
Every 6 months -	7
First Visit -	5

How far did you travel to visit Bradbourne Lakes?

0-2 miles -	93
3-6 miles -	4
7-10 miles -	6
10+ miles -	7

What do you think are the top three priorities?

Desilting of lakes -	96
Removal of overgrown vegetation -	52
Repair and joining up of eroded paths -	60
Repair of lake edges and broken structures -	70
Ecological enhancement and biodiversity improvements -	27
New facilities such as toilets of children's play -	26
New signage and history trails -	2

How strongly do you agree or disagree with the following statement: Overall I am supportive of the vision for Bradbourne Lakes

Strongly agree -	74
Agree -	22
Neither agree nor disagree -	3
Disagree -	3
Strongly disagree -	1

Age:

15 - 1 -	2
18-24 -	6
25-34 -	16
35-44 -	16
45-54 -	17
55-64 -	27
Over 65 -	22

Gender:

Male -	39
Female -	57
Prefer not to say -	3

Is your gender the same as your birth?

Male -	85
Female -	0
Prefer not to say -	4

Disability:

Yes -	3
No -	79
Prefer not to say -	4

If yes, please tell us which of the following applies to you

A Physical impairment -	5
A sensory impairment -	0
A long standing illness of health condition -	2
A mental health condition -	0
A learning disability -	0
Prefer not to say -	5
Other -	4

What do you like about the draft proposals?

New paths & restoration works.

The restoration of the lakes and footpaths making the lakes a pleasant place to visit and walk through.

Like the idea of improving water movement so lakes are less smelly. Would like to make it only for children to play in.

The lakes are going to improve the area.

Potentially restoration has begun. Very good analysis of what is required.

Most other is okay, play area ok.

That they exist & hopefully will be carried out.

The lakes need restoring to their overall condition - that would be a tremendous improvement.

That something is being done to restore the lakes. Development of flora.

Like them all, need to prioritise with infrastructure repairs, most importantly paths, walls etc. Very good.

Infrastructure

Everything, this is long overdue. The many years of SDC neglect has led to the lakes being in the disgraceful state they are today. I particularly welcome new paths and a toilet.

The environment are not having the emphasis on children, a tranquil, peaceful place is essential. Integration of whole community, play and wellbeing.

Good intentions, some proposals are more urgent than others, eg. Water level in draught weather needs attention.

I am impressed with all the development proposals.

Improvement to the paths & walls is essential. Currently very uneven and unsafe. Love the idea of more benches or a natural play area.

Any improvement to the ponds and surrounding land would be great. It would be good to make the park better known to the people of Sevenoaks generally.

There are a thorough plan to restore the lakes and park to make them more acceptable and attractive.

Footpaths are important.

Restoration of lakes and footpaths.

Well thought out and comprehensive. Catering for the needs of all generations.

All looks good, will wild flower area detract from play area.

Restoration of the lake structure and repair.

The simplicity letting the lakes be the showman. The restoration and meadow.

If adopted, it will provide more space, green public spaces will also be enhanced, communities and interaction too.

Glad to see there will be work done on the lakes.

Repairing of the lake and stream edges. Repair of stone work.

Toilets? Natural play area. They are good but not all necessary.

The tidying of the area and more signs.

They deal with enhancing the area further as well. Wildlife focus, urgency of silt & detritus, removal and play area.

Aquatic planting, restore path ways, planting, repair walls.

Clear, concise proposals. All seems very obvious in terms of what needs to be done.

Great to invest in important site for all.

Any proposals to restore the lakes to a natural state welcome.

This survey seems to fail to recognise that Sevenoaks is growing, each month a new flat appears and the people moving in need a green and natural space. This is the only park nearby that has footpaths that are reasonable during winter (the nature reserve gets very boggy). It's very insulting to children to suggest they need something to climb on to be entertained or enjoy nature. The money this would cost would be better spent on

desilting all parts of the lake to protect them for future generations. Other priorities should be looking at the inclusion of some pipes connecting lakes 2/3/4 (like the existing from 1 to 2) for easier draining and maintenance in the future. The responsibilities of Thames Water are not stated here. In previous years people have contaminated the lakes by putting oil down a drain. There are filtration systems that can be used to prevent a big impact. What about these. In addition there is a certain amount of oil that runs off the road. When the toilets were removed from the lake people visited from other areas using public transport. This doesn't happen any more, the park is used by local residents or people in a car, whom are accustomed to popping to the local supermarket for the toilet. This is a common nationally and the only people that would use the toilet are homeless people as let's be honest no-one likes dirty public toilets! I note hedging is listed for the houses backing onto the lakes Northern side. The residents have maintained these areas for decades so consultation with those residents specifically and discussions about who maintains the hedge moving forward or if they are wanted should happen. The fence on the northern side that cuts off one side of the lake has fallen away and should be reinstated. Will changing the biodiversity of the lakes by the addition of microorganisms have any impact? Could this attract bugs that bite? One of the causes of silt build up is leaves and some parks use nets to catch the leaves. The park is well loved and used. Why do these projects always take on bells and whistles and ignore the infrastructure. There are some trees which should be listed.

Acknowledgement that there is an urgent need for repair and maintenance, of trees and lakes. Need for a suitable publically accessible toilet. Pathways need resurfacing and repairing.

The emphasis on improving the ecology and improving the paths, which are currently very unsafe. Improving the natural habitat and water quality is very important. Gives a clear presentation of all the issues involved. Comprehensive vision as to how to improve the Bradbourne Lakes.

That something finally is being planned and some money will be spent, but whose?

Improving the surfaces and lakes.

Plans to repair and improve the look of the lakes area. Plans to make it more usable.

The commitment to retain this area as a natural green space and the recognition of its importance as an area

for wildlife, wellbeing and community.

Natural play area & picnic areas. Open access. Tidying up of area and conservation of wildlife we find there. They recognise the value of the Lakes and set out a sensible plan for restoring them.

Repairs to parts all ready there.

I think they are fantastic and will transform Bradbourne Lakes into a real asset for the community and provide a really lovely retreat for all in Sevenoaks, particularly those with children.

Mainly the play area for the children but to also see it have a new lease of life. It's a major part of the community.

I especially like the fact that the proposal has an area for wildflowers and logpiles for bugs and bumblebees. And a toilet is a great idea.

They seem to be positive. Some of the material is incomprehensible to lay people though.

I love the natural play area. We are lacking in good quality play areas. We would visit the lakes weekly if this was available. (Currently visit every two weeks).

Finally cleaning up a lovely area.

Improving the north lake is much needed and playpark / stepping stones would be a great addition as it's popular with young families. General upkeep is definitely required. Meadow flowers sounds like a nice idea.

The focus on dredging, lake edge repairs and improved footpaths is welcomed as are proposals that make the park more universally welcoming - more benches, picnic tables (but should be by the monolith) and toilets. Some imaginative ideas re: planting - screening residential fences, wildflower and aquatic planting.

All will improve the environment and improve enjoyment of the site.

Restoration and plan for the play-area.

More or less everything.

Proportionate approach to improve a lovely public area. Makes the area much nicer, but keeps the lovely character.

It will be nice to see the lakes "revived".

Would be good to improve the current state of the lakes.

Play area for children.

The Lakes are a good site but it has deteriorated in recent years. If rejuvenated my family would visit frequently. The breadth of the proposals, which seek to maximise public involvement by offering a wide range of activities. Consideration for wildlife, historic value with the combination of making it a place for all to use daily. The reduction of silt and overhanging trees as well as removal of tree branches & leaves from the lakes. A reinvigoration of the natural water flow and reinforcement of the ecological and biological balance in the lakes. The park feels forgotten & neglected and therefore doesn't attract the number of people it could: we should though teach people about duck feeding - there are several pounds of bread dumped into the lakes which don't help.

Think it will be good to utilise the lake and clean it up. All of it!

All family aspects - natural play area is the most important (but also stepping stones, removal of unsuitable plants, toilets). Maintenance and restoration or ecological environment so the area is suitable for wildlife.

Play areas and path improvements and general improvements to wildlife habitats and historic features. I use parks to walking to/ from nursery and general walks with my baby, so anything that improves pram access and safety / interest for little kids is great.

Recognise importance of historic landscape as well as natural environment.

Comprehensive design response encompassing ideas to attract new visitors. This could be a real asset to the wider community complementing the offer at the nearby wildlife reserve.

Approve of some level of restoration, silt removal and making water edges and paths safe but still keeping rustic character.

Returning facilities to original for the benefit of the community.

It will make the Lakes look so much nicer and bring them up to date.

General tenor.

I am enthusiastic about being able to sail model boats there once more. Currently unusable.

Composting toilets. Ecological works.

Like all of them.

Variety of considerations, ecology and more family opportunities such as access to the stream and play area. Boards explaining the history of the site. Circular walking routes. Natural trim trail.

More to do.

All.

All.

All of them.

What do you dislike about the draft proposals?

Could provide interaction for children nature trail? Or appropriate bird feeders etc. stop people using bread. I do not feel that a play area would be suitable as there are already 2 play areas in Pontise Close. Who would up keep and maintain a play area in the lakes?

That all kids play grounds need to be is one sand pit could really cause accidents.

Well being and play areas should mainly be in the sand pits / park in the same pool.

Not sure anyone will use the app, no to toilets.

Can't be funded in one go.

There are no funds to undertake them, would be nice if SDC were present to answer these questions.

It will need equipment investment to achieve all the improvements.

Please don't put in toilets.

Happy that there are these proposals.

No suggestion where cash is to come from.

All sounds like an improvement that will encourage people to visit and have a safer and more enjoyable time.

Don't see of need for children's play / area or fitness equipment.

Children's play area and fitness - not needed.

I don't think they will ever be implemented. I don't think the future of the lakes should depend on grants.

Not sure about toilets and child play are due to older people destructing them and also it is turning lakes into nature reserve which we already have.

Please include a covered wooden structure for shelter. Everything creating an open space for the community to build. Toilets should be locked in the evening to deter bringing homeless / drugs to the area.

Need clear too many trees in north lake park.

As listed above I dislike the addition of toilets and play areas when the main issues of how to manage the silt build up and make future maintenance are not covered.

Where can we get the money from?

The eroded bank on the central lake is used by all the birds, especially the ducklings to get in and out of the lake. If the bank is fixed, it would be nice if this was considered.

Nothing.

raising people's expectations beyond what is reasonably possible

Report seems glossy and potentially misleading as to actually what will be done. Local public are actually very interested in what happens to our lakes. We used to have more facilities but removed by the council, ie toilets and park keeper and educational sessions plus holiday activities for children

Toilets.

The key problem of ongoing maintenance is not addressed. Annual tree canopy management and regular lake dredging are both essential.

Parking may cause a problem for local residents.

I wish things had not been left for so long. The Lakes are in a poor state. But there is nothing I dislike about the actual proposals.

No costing no long term costs. If you are going to do paths in the park all should be tarmac for wheel chair use. Play area would need on going maintenance and toilets.

Nothing!

N/a.

I'm not too keen on the timber trim fitness equipment. I come to the lakes to enjoy the wildlife and the tranquility and don't want to see fitness groups having a session there. We have Knole Park and other, bigger areas for things like that.

Wish they were written in everyday language and had been proof read.

The phone app. It's unnecessary and so seems a waste of money. I doubt it would get much use.

Potential for people to hang around park late in new toilets (kids/drugs) unless properly monitored.

Nothing.	of the lakes as a place for all people (and their dogs) to stroll, watch the birds and see the seasons change.	Additional comments?	bird house as at Otford Lakes. In the middle of the lakes or more other interesting things.
While the ornamental lake is a priority, ALL the lakes require dredging. Improving water quality is important but fountains are unnecessary if the existing circulation pump were used properly.	Nil.	Since age of 4 helped my grandad and brother clean and tidy up lakes with the Bradbourne Lakes Association. Be a shame to lose such a caring place.	We need more birds like swans.
Question whether wooden exercise equipment is needed.	Not sure about the public toilets due to adult behaviour in the past.	New signage and history trails would be a good way of informing visitors who are new to the area and encouraging the up keep of the lakes. We are very fortunate to have the lakes at the end of Betenson Av. In this time of constant building. Not only do they provide a place to walk, but a place of quiet to sit and relax and rest.	All the listed priorities overleaf are important! The paths are in a dangerous condition at the moment for people with mobility sight problems and need urgent attention The paths are very dangerous at the moment. Almost impossible for wheel chair users, visually impaired pushing of buggies.
Nothing. N/A	Nothing in particular, but I remain suspicious that, in the interests of 'enhancing' the lakes, too much 'development' may be attempted.		
Nothing.	Nothing.		
Don't think there should be toilets or a children's play area.	Possible disruption to local residents.	Introduce species of geese, ducks with droppd wings, undercover area.	Need to repair stream walls, need bins cleared by picnic / bench areas.
N/A	Dislike that they do not include a cafe. This would make the park more attractive and safer, at least during opening hours. It would also make it easier to hold more events for families. The loos are a step in the right direction but a cafe is needed too.	Should put a bolt in the dog waste bin as lid comes off.	Lakes dredged, paths re surfaced and stream walls repaired.
Doubts about toilet facilities. Good if located with a cafe and open when the cafe is open. There were toilets at the lakes in the past but they had to shut because they were vandalised.	Not sure about the toilets.	Should have a care program for the wildlife.	The area has parks with play equipment for children what it needs to maintain is a green natural space that has been a historical gem.
Nothing, but some of the proposals might generate anti-social behaviours.	Tarmac pathways would prefer a more natural look. Picnic benches - I would worry this might encourage rubbish and incorrect feeding of the wildlife.	Toilet facilities would be advantages provided they are designed to avoid vandalism regularly maintained.	Very thorough , need for an arboricultural survey.
Centralisation of picnic and play area in one area - might become very busy and noisy for residents. some picnic facilities on the other sight might help.	Nothing.	The lakes needs a commitment from revenue budget for maintenance on a regular basis.	I wouldn't be too concerned about rough sleepers using the toilets. There are no homeless people here. Maybe it would be possible to help get funding through the Wildlife reserve, as they are also getting funding for a new visitor center at the moment. When the water quality was better king fishers used to fish at the lakes here, so the link is evident! Hidden areas of bird nesting have been decreasing, as vegetation has been removed, this is important to maintain (safe spaces) as there are far too many cats around! The ornamental lake overflow often gets flooded over the paths recently every winter, the tunnel with the grid, coming off the overflow must also get blocked, this probably needs a clean...) Thank you for all the work.
Nothing. love love love what you did.	Nothing.	The original concept of the lakes has been lost.	No.
	Nothing.	The lakes are an historic & wonderful facility.	Repairs and restoration need to take place before more ambitious ideas are initiated. The lakes could also provide a cycling to school route for local children? Where is the tree survey? Where are the costing? Surely this report could have been done more in depth locally? Where is the money coming from? As a child I played in the lakes, caught tiddlers and had lots of fun, this needs to be encouraged.
	Nothing.	I am really pleased that at long last the SDC is beginning to realise what an asset the lakes are to the town.	
		Ongoing maintenance commitments from several district councils.	
Not sure money spent on new benches, bins, signs or apps is the best use of finances. The existing provision seems fine.		Money provision should not be linked to the development of building nearby.	
		This is a fantastic initiative, please don't let it die. With the amount of money invested in other areas.	
Not keen on adult gyms. Not sure who'd use those in what's a calm space.		As a nurse, and previous district nurse in the area, maintenance of public green spaces is essential for the mental health of people and their carers.	
Nothing.		Stone walls of stream are collapsing.	
Very little. It pains me to say it but with no doubt limited future maintenance budgets it may be good for there to be some revenue generating facilities- cafe or similar - which could help pay for future upkeep. Such a pavilion could be the subject of small design competition.		Please keep it public for all to enjoy.	
There is no need for toilets. There are 2 children's play areas nearby including Pontoise recreation area so feel a dedicated area would detract from the universal appeal		Need plant life, needs water to move. Needs toilet and easy access.	The boating lake needs access from all 4 sides to be usable. Maybe a wooden deck could be constructed along its south side.
		Feel that we could benefit from looking at some sort of	

Over all, I love it. Let's make it happen!

Do your best to maintain what you have already got out of your budget.

I really hope that as much gets put into place as possible and look forward to seeing the vision being put into practice.

Don't overdo it and turn it into Disneyworld.

It's about time something was done.

A masterplan for the Lakes is long overdue and is vital for any funding application, whether for a wholesale restoration or for individual projects. LUC's proposals are not costed. That is the essential next step in this exercise.

This is an area which is part of Sevenoak's heritage and has been disgracefully neglected for far too long.

Would love to see the Swans reintroduced to Bradbourne Lakes, it's not the same without Swans being there. A good idea to improve Sevenoaks facilities but needs money to bring it about.

Thinking about the housing challenges and new developments the area faces we need areas like the lakes to provide somewhere for the community to breath and enjoy nature.

It is a wonderful way to make the Lakes a place for all to enjoy.

We like to come and visit our grandson and use the lake for model boating which at present we cannot do.

No.

So many people use this area and benefit from it - all ages, backgrounds, etc. It is definitely worth investing in and a huge asset to Sevenoaks.

I'm really excited by it, I make special trips to the lakes and will be walking through it daily when nursery starts up again - love it. I think repair of what's there currently is most important but love idea of kids play area too Sevenoaks District Council should work with local residents, the wider public who visit the Lakes and other organisations. The Lakes could make a big contribution to public wellbeing. I have known the Lakes for decades, and a small amount of regular maintenance would have avoided many of the current problems. Whatever the

capital funding that can be secured, a long-term plan and budget for maintenance are essential.

Nothing to add to comments above.

The lakes are a great resource, providing a calm oasis in a busy town. It would be nice to retain their character without becoming too manicured or a centre for exercise or entertainment.

Good idea well done!

It would be nice to see soft lighting in the winter evenings.

Re-enabling model boats will bring in people of all ages and from a very wide area to make good use of the lake.

No.

Need to include a cafe.

The sooner the better, the lakes are in a terrible state.

Maybe more information on the ecology as well as the history.

I spent two years studying the lakes so I have a good understanding of the infrastructure and what's necessary to maintain the lakes.

A few points for consideration: -
How the park fits it with other green spaces in the area:
The survey fails to recognise that Sevenoaks is growing, each month a new flat pops up and the people moving in need a green and natural space. There are childrens play parks near by and a nature reserve that gets very muddy in winter. Bradbourne Lakes are the only place you can have a nice walk on footpath for quite a few of the local residents. In previous surveys residents with health issues commented the lakes helped to provide respite from illness.

The requirements of children:
I have a 7 year old and 16 year old and it's insulting to children to suggest they need something to climb on to be entertained or enjoy nature. I've volunteered at School for lunch breaks and where you have something to climb or balance on you have something to fall off! This play area would require maintenance and the budget can't cope as it is! If the lakes were cleaned children could pond dip as so many other generations have.

There's also an opportunity to work with nature to create tree sculptures with dead trees and tree shapes and arches using pliable branches.

The tech could also be incorporated to teach about the trees/flora/wildlife.

Future Maintenance:

The proposals don't seem to have an eye on future. I suggest they create pipe and blocks between lakes 2/3/4 (Just like the one between 1 and 2) so the lakes can be more easily drained during future clean ups.

Trees create much of the silt and this could be reduced by looking at the trees (missing on the survey) and considering other options like leaf nets or alternative planting.

The responsibilities of Thames Water are not determined as they use the site and moved the grade, adding more silt they should be required to contribute towards the maintenance.

The lakes have been contaminated in the past by oil run off from the road and oil disposal down a drain. There are commercial products on the market to prevent this but some basic models could easily be engineered/fabricated using basic materials.

Toilets.

When the toilets were removed people travelled to the lakes by public transportation and stayed for the day. As part of a national trend people drive more and don't expect toilet facilities, using instead those provided by local supermarkets and cafes which tend to be cleaner and better maintained. To add a toilet now would add little but the potential for the homeless and teens to congregate.

Impact to local residents.

The North lake has a few houses backing onto the lake where there's no access, some of whom have maintained those areas for decades. Hedges are proposed with no consultation as to if those residents want hedges or who will maintain them. The fence that stops the public entering that area has fallen down and needs to be replaced.

Biodiversity.

Will changing the biodiversity of the lakes by the addition of microorganisms have any impact, will this attract more bugs that bite?

The proposals consolidate information that was already available and there are no new suggestions or consideration regarding weather change and the changes in our town.