



WINCHMORE HILL WARD FORUM

**Thursday, 7th September, 2017 at 7.00 pm in the The Sanctuary at
the Palmers Green United Reform Church**

Membership:

co : Dinah Barry (Associate Cabinet Member), Elaine Hayward and Ertan Hurer

AGENDA – PART 1

- 1. APOLOGIES FOR ABSENCE**
- 2. UPDATE FROM POLICE**
- 3. PRESENTATION : NEW RIVER/GREEN LANES ENVIRONMENTAL IMPROVEMENT SCHEME - CLAUDIA INNES, THAMES WATER (Pages 1 - 18)**
- 4. ANY OTHER BUSINESS**

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The New River Path

A walk linking
Hertford with Islington



The route

The New River is neither new nor a river. It is a water supply aqueduct, completed in 1613, to bring drinking water from Hertfordshire to North London. Since 1992, Thames Water has worked with local people and partners to create a 45 km [28 mile] long-distance footpath that follows the course of the New River, linking the inner city to the open countryside. The route follows, wherever possible, the historic water channel, as well as some straightened and piped sections between the New River's starting point near Hertford to its original end in Islington. The route is waymarked throughout its length and all signs display the Path logo.

Hertfordshire Section: 22 km (14 miles)

The Path starts at New Gauge, Hertford, and traverses a variety of attractive landscapes ranging from the expansive Lee Valley corridor to more enclosed sections through Hoddesdon and parts of Broxbourne, before bridging over the M25 near Theobald's Park; this section takes 6-8 hours to walk.

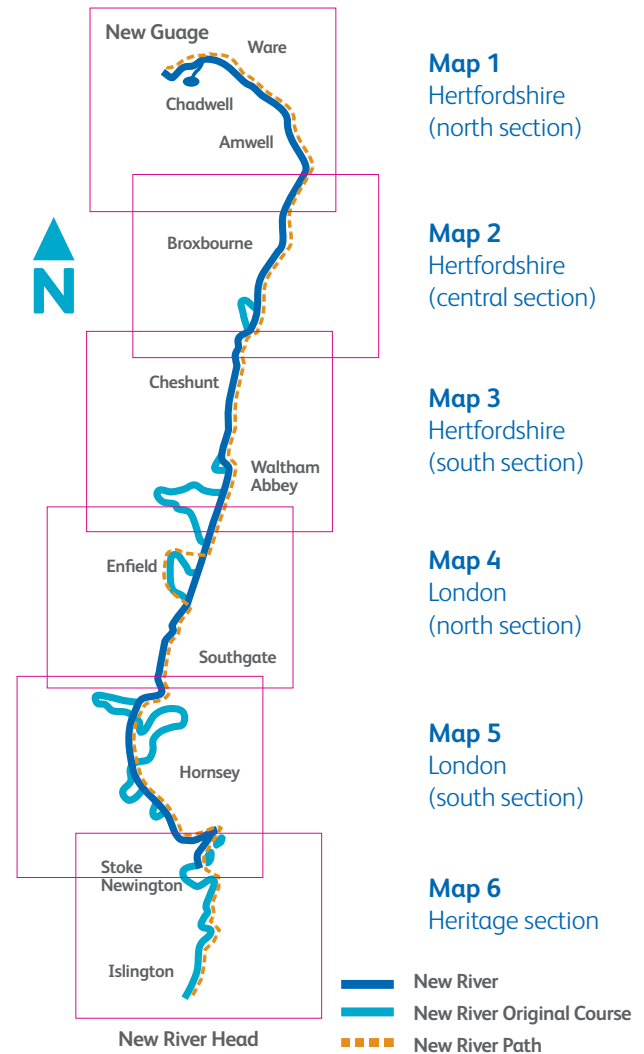
London Section: 18 km (11 miles)

From the M25 the River flows through a series of ever changing scenes, ranging from the enclosed built-up urban corridor to sections of a more open character. This route section ends at the 'Castle', Stoke Newington, and takes 5-7 hours to walk.

Heritage Section: 5 km (3 miles)

Beyond the 'Castle', the Path runs through open spaces and on-street to New River Head. The route follows the historic, but now truncated, New River course although some sections of the original water channel are still evident; it takes 1-2 hours to complete. The walk culminates at a visitor information point at New River Head.

The route plan below provides the context for the following detailed Path Maps of the 'Hertfordshire', 'London' and 'Heritage' sections.



History

Before 1600 London's water supply was limited to the River Thames, local streams, wells and springs. These sources, often contaminated, were distributed by sellers carrying water in wooden buckets.

In 1600 Edmund Colthurst had the idea to bring water from the springs in Hertfordshire and Middlesex to London. Letters Patent were granted by King James I in 1604, and Colthurst, at his own expense, started to cut a channel from Chadwell Spring. Unfortunately lack of money soon halted these works. In 1606 a Parliamentary Act granted the Corporation of London the power to make a "New River for bringing water to London from Chadwell and Amwell in Hertfordshire".



In 1609 the authority to carry out the works was given to Hugh Myddelton, a goldsmith and merchant adventurer, who proceeded to build the New River over the next

four years. He employed Edward Wright, the mathematician, to survey and direct the course of the River and Colthurst as an overseer. By 1611 Myddelton realised he would not have the money to complete the project. King James I agreed to provide half the cost of the works on condition he received half the profits and that the New River could be constructed through his palace grounds at Theobalds. The King's involvement overcame all opposition from local landowners to the scheme.

Construction

The New River followed the 100ft contour of the Lee Valley in order to maintain its level. The total fall on the 62 km (39 miles) of the original course was only 5.8 metres (i.e. approx. 10 cms per km). Over 200 labourers were paid the equivalent of 4p a day to dig out the New River channel. Skilled carpenters received the equivalent of 6.5p a day to wharf the banks and erect bridges. Banks were raised and strengthened with clay to stop leaks. The water was brought to the city streets via hollowed-out elm pipes. The total cost of the construction was estimated at £18,500.

The impressive feat of engineering was completed in 1613 when a formal ceremony took place at the Round Pond in Islington; this is sited near the present New River Head, just below Sadler's Wells. A play was staged to celebrate the opening which was attended by the Lord Mayor and Aldermen of the City of London. The New River Company was created by Charter in 1619 with Myddelton as the first Governor.



The New River remains an essential part of London's water supply, carrying up to 220 megalitres (48 million gallons) daily for treatment; this represents some 8 per cent of London's daily water consumption.

Both the New River's carrying capacity and its sources of supply have significantly changed over time to meet rising demands for water. The original water sources at Chadwell and Amwell Springs, providing a maximum of 10 megalitres per day, were supplemented by the 1738 Statute that allows up to 102 megalitres to be taken daily from the River Lee. This level of supply was doubled in the mid 1800s with the construction of pumping stations to abstract water from deep wells along the New River.

The course of the New River has also changed with many bends on the original course being straightened by construction of new direct river channels or pipeline sections and the watercourse shortened; it now ends at Stoke Newington, a length of some 38 km (24 miles). This reduced length was offset by increasing the water channel to some 2.5 metres depth and 6 metres width.

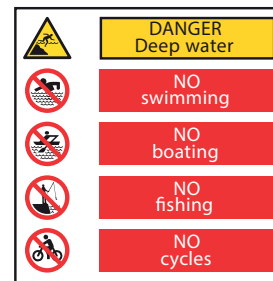
The water level in the New River is regulated by means of sluice gates to meet the requirements of the pumping stations and reservoirs. In addition a series of boreholes, constructed in the 1990s along the New River, enable surplus treated water to be stored in the chalk aquifer (the 'Artificial Recharge Scheme') and then pumped into the New River when extra water is required.

The New River Path was developed over a 12 year period at a cost of over £2 million; of this sum £1.3 million has been invested by Thames Water in the project.

Throughout this time the Company has worked to overcome operational, safety and security issues in partnership with, and with the support of, many organisations; including Groundwork, London's Waterway Partnership, Countryside Agency, New River Action Group, Friends of New River Walk, schools and communities, and all the local authorities along the route.

Route Safety

The grassed riverside Path is restricted to use by walkers, with a few hard surface sections being accessible to wheelchair users. At all river access points, safety notices are displayed which specify precautions:



Users of the route are requested to:

- keep to the path
- not to interfere with wildlife
- keep dogs on leads and avoid fouling
- take litter home
- take care crossing roads

At times, operational work needs to be carried out which may cause Path sections to be closed temporarily.

Path map one

Hertfordshire section (north)










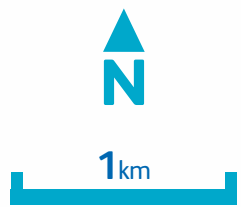
Path map two

Hertfordshire section (central)



MAP 1

-  New River Path
-  Pumping Station
-  Bus Route
-  Railway Station
-  Underground Station
-  Public House
-  Route feature







MAP 3

Path map three

Hertfordshire section (south)



MAP 2

-  New River Path
-  Pumping Station
-  Bus Route
-  Railway Station
-  Underground Station
-  Public House
-  Route feature



1km

MAP 4

Route features

Hertfordshire section

See Maps 1-3 for location of features.

1. New Gauge: starting point of the New River. The Gauge building, constructed in 1856, regulates a statutory maximum water intake from the River Lee of 102 megalitres per day.

2. The Meads: area of unique flood meadow, principally owned by Thames Water, being managed for nature conservation. The combination of ditches criss-crossing the area, floodwater and grazing, managed since medieval times, has created a rich wetland habitat.

3. Chadwell Spring: original source of the New River in 1609, although an initial channel was started in 1604. The Spring yields upto 4.3 megalitres per day with water rising in a 30 metre circular basin, known as the 'banjo'; on the perimeter is a stone monument inscribed with historic dates and river distances.

4. Marble Gauge: structure erected in 1770 to control the water taken from a former intake from the River Lee. Nearby is the prominent timber clad White House Sluice.

5. Broadmead Pumping Station (PS): Grade 2 listed building, constructed in 1885.

6. Amwell End PS: built in 1868.

7. Amwell Hill PS: Grade 2 listed building, constructed in 1847.

8. Amwell Islands: attractive small lake feature with two islands; on one is a stone monument that has an inscribed poem, dated 1818, and entitled Amwell; on the other is sited a pedestal monument dedicated by Robert Mylne to Sir Hugh Myddelton. Opposite can be accessed Emma's Well, considered by some to be the site of the former Amwell Spring.

9. Amwell Church: high above the River a large tomb of the Mylne family is located in the Parish Church grounds. Both Robert Mylne and his son William Chadwell served as the Engineer to the New River Company from the late 1700s until the 1850s and were responsible for many of the major changes to the operation of the New River.

10. Amwell Marsh PS: built in 1884.

11. Rye Common PS: constructed in 1883.

12. Hoddesdon PS: built in 1886.

13. Broxbourne PS: Grade 2 listed building, constructed in 1886.

14. Turnford PS: constructed in 1850. Nearby the Turnford Aqueduct was constructed by Chadwell Mylne in 1855.

15. Theobald's Park: the area of former Royal hunting park adjacent to the New River with prominent Grade 2 listed building on the higher ground

16. M25 Bridge: the New River flows in lined concrete channels slung below the access bridge over the motorway.

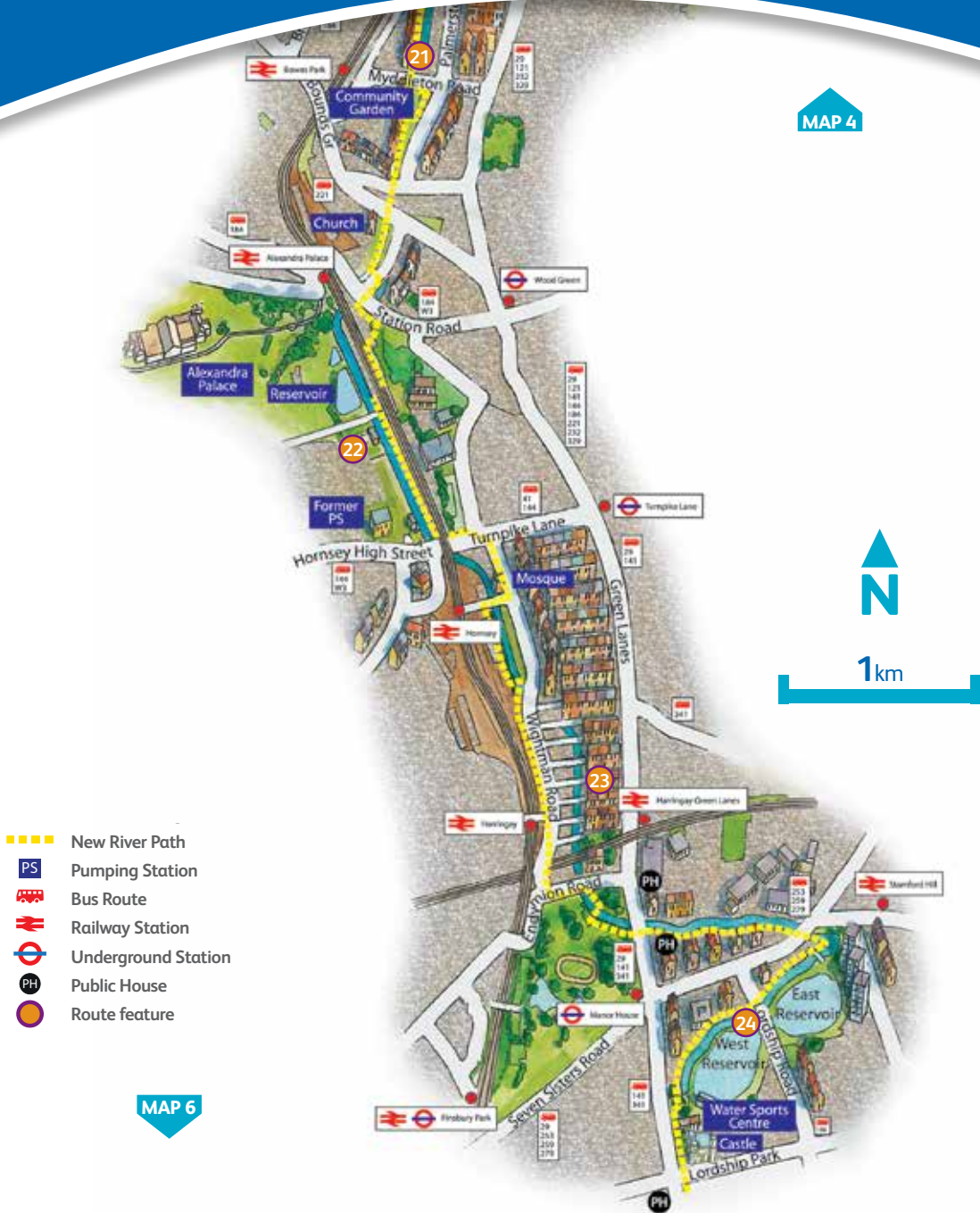


Path map four

London section (north)



Path map five London section (south)



Route features

London section

See Maps 4 and 5 for location of features.

17. Maiden's Brook: following the construction of the 'Artificial Recharge Scheme' (see 'Operation' page), some two thirds of the New River's water is diverted here, in tunnel, to the Walthamstow Reservoirs. Nearby the Docwra Aqueduct, built in 1859 to replace a long loop through Whitewebbs Park, carries the New River in 2 large pipes over the Brook. Further downstream is Hoe Lane PS, built in 1880.

18. Whitewebbs Park: here an alternative Path link to the Enfield Loop is waymarked; this follows the former 'Whitewebbs Loop' where traces of the original channel are still evident.

19. Enfield Loop: the horseshoe loop of the New River through Enfield Town was bypassed around 1900 following the laying of 3 cast iron pipes between Southbury Road and Bush Hill. The redundant watercourse has recently been restored and water levels to the cut-off loop maintained by Thames Water. The Path follows this attractive original route.

20. Clarendon Arch: at Bush Hill a lead lined wooden aqueduct originally carried the New River over Salmon's Brook; this was replaced by a brick arch in 1682. Although this construction was replaced by a clay embankment the historic Arch can still be viewed from a visitor point recently created by Thames Water Downstream is Highfield PS, built in 1885.

21. Wood Green Tunnel: between Bowes Park and Hornsey the New River flows through the Wood Green Tunnel; built in 1859, this tunnel and the raised channel to the north of Bowes Road made the loops through Edmonton and Arnos Park redundant and so reduced the River's length by nearly 1.5 km. Over the Tunnel entrance, on vacant Thames Water land, a new community garden has been created by local residents in partnership with the Company and Haringey Council. To the south the Path is routed through a series of open spaces above the Tunnel.








22. Hornsey Waterworks: the treatment works was constructed in 1850. Recent improvements to the filter beds enable upto 60 MI to be taken from the New River for treatment and distribution locally via the north London supply network. The redundant Hornsey PS, built in 1903, has been retained for use as an art gallery.

23. 'The Ladder': between Wightman Road and Finsbury Park the New River is crossed by a series of side roads. This attractive section, known as 'the ladder', has been bypassed at the request of the Council; here, the Path is routed along local roads.

24. Stoke Newington Reservoirs: the East and West Reservoirs, fed by the New River, were constructed in the 1830s to meet rising demands for water. Today the River only flows into the East Reservoir where it is stored and then piped to Walthamstow for treatment. The West Reservoir has been developed into a water sports centre and the former Castle PS, built in 1855, converted into an indoor climbing centre.

Path map six

Heritage section

-  New River Path
-  Pumping Station
-  Bus Route
-  Railway Station
-  Underground Station
-  Public House
-  Route feature



MAP 5



1km



Route features

Heritage section

See Maps 6 location of features.

25. Clissold Park: until the New River was straightened and piped in the 1860s it flowed in open channel from the 'Castle' and through Clissold Park. Today the Park's ornamental waterfilled loop, raised embankment and a former sluiceway still identify the original course of the River.

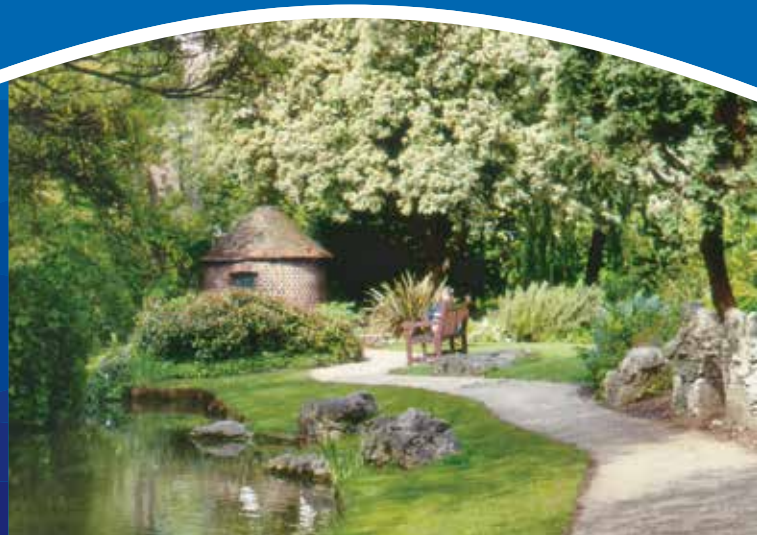
26. Petherton Road: originally the New River flowed openly along Aden Terrace and through the middle of Petherton Road. During the 1860s the watercourse was culverted and later developed as a central greenspace.

27. Canonbury: from St Paul's Road the New River openly flowed through Douglas Road, Canonbury Grove and Astey's Row, with housing being developed alongside in the early 1800s. By the 1890s this section was covered over and the water piped to New River Head. The redundant water channels were retained as attractive features until covered over and developed in the 1950s as a series of public gardens.

28. New River Walk: adjacent to Canonbury Grove is the only remaining section of original New River channel; here, the watercourse has been desilted and the old wooden sides (revetments) carefully restored. Nearby at Astey's Row, a newly created open area has a map of the New River and an inscription taken from the New River Company seal etched into the walking surface.

29. St Peter's Street: below Essex Road, from Astey's Row to St Peter's Street, the New River was always in tunnel and then in open channel, until 1870, through the middle of Colebrooke Row and Duncan Terrace. At Duncan Street the Regent's Canal was constructed in tunnel below the New River. Some 200 metres off the direct Path route is located, at Islington Green, a statue to Sir Hugh Myddelton.

30. Sadler's Wells: at City Road the New River crossed and flowed through Owen's Row, under St John's Street, alongside the original Sadler's Wells Theatre and into New River Head; this open channel was covered over in 1892 and the water piped to New River Head.

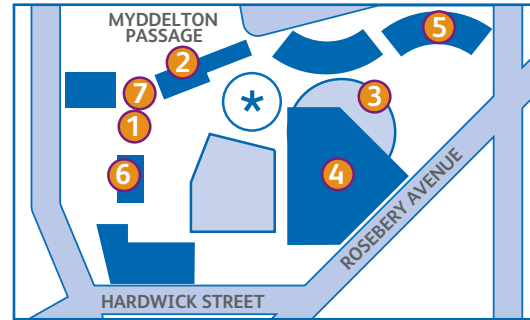


New River Head development

The New River Head site is of national historic importance having been in continuous use for the provision of public water supply for nearly 400 years. The site was originally developed as the terminus of the New River, “bringing in a freshe streame of running water” from Hertfordshire. This end point was a small reservoir called the ‘Round Pond’, situated at an elevation suitable for water to be piped by gravity to houses in the City and surrounding areas. This circular basin was extended and a larger outer reservoir constructed in the early 1700s; these were known as the ‘Inner’ and ‘Outer’ Ponds. The water was initially distributed through some 640 km (400 miles) of connecting elm pipes; by 1820 these were replaced with iron pipes.

The New River flowed in open channel into the site until 1892, when it was put in pipe and covered. In 1946 the water supply to New River Head was truncated at Stoke Newington with the New River ending at the East Reservoir. The New River Head site, however, still retains its association with London’s water supply through both the London Ring Main and the Rising Groundwater Scheme (see next page).

Site features



The features identified, except the borehole, can be seen from the Nautilus House garden(*) and visitor information point, accessible to the public from 8am to 4pm (7pm Summer) via Myddelton Passage.

- 1. Windmill Base:** listed Grade 2, built in 1708, to pump water to an ‘Upper Pond’.
- 2. Engine and Pump House:** listed Grade 2, built in 1768 to house steam engine pumps.
- 3. Inner Pond:** remaining revetment is only fragment of original ‘Round Pond’; listed Grade 2.
- 4. New River Head Building:** listed Grade 2, built in 1919 on part of former round pond; until 1993 was Thames Water offices and still incorporates the relocated New River Company’s 1693 Oak Room, Grade 2*.
- 5. Laboratory Building:** listed Grade 2, constructed in 1938, was used for testing water quality.
- 6. Ring Main:** compound houses the deep shaft and pumps that raise treated water from the Thames Water Ring Main tunnel below. The 2.5 metre diameter tunnel, a major part of London’s water distribution network, encircles London [80 km] and connects with water treatment works to the west of London.
- 7. Borehole:** part of a scheme to reduce rising groundwater beneath London by abstracting water from the aquifer and transferring it by pipe to Stoke Newington East Reservoir.



Getting in touch with us



Online

www.thameswater.co.uk



By telephone

0845 9200 800

Lines are open 24 hours a day



By Textphone

If you are deaf or hard of hearing

0845 7200 898



By post

Write to us at:

Thames Water

PO Box 436

Swindon

SN38 1TU



This leaflet can be supplied in large print, braille, or audio format upon request.



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New River/Green Lanes Environmental Improvement Scheme



Illustration showing the New River site as seen from the Green Lanes/Carpenter Gardens junction

Enfield Council is working together with Thames Water to enhance the small parcel of green space situated between the New River and Green Lanes at Carpenter Gardens/Barrowell Green. The site will be made more accessible to the public and sight lines to Green Lanes will be opened up through removal of self set trees and replanting with high quality trees with a clear stem.

Further landscaping improvements will take place at the Carpenter Gardens/Green Lanes entrance to the site (see above illustration), and a new seating area and footpath through the site will be installed. For further details please refer to the plan overleaf.

Please send any questions to Highway.Services@enfield.gov.uk (stating ref. 'New River/Green Lanes site').



Plan showing the landscape improvements (not to scale)



Planting areas with hardy, colourful plants create year-round interest and contribute to site biodiversity



High quality, robust seats installed at seating area. Cycle stands installed near the entrance off of the pedestrian/cycle path to encourage people to stop and lock bikes safely before walking into the green space.



Boulders installed between trees and footpath to form a 'play on the way' track for children and to stop vehicles from entering the site. Subtle patterns on the boulders link to wildlife on the New River.



A row of pin oaks with striking autumn colour planted along the site boundary. These provide screening for surrounding properties, but through having 2m clear stems they also allow for sight lines into the site from Green Lanes to be opened up.