

SITE:  
North Mymms Water Treatment Site, Warrengate Road, Brookmans Park, Hatfield, AL9 7TU

PROPOSALS:  
Installation of new plant and machinery to enable new water treatment process at existing treatment plant and all associated works at site of recently demolished plant building.

## SITE HISTORY

S6/2000/1482/FP  
Erection of new water treatment plant  
Granted 12/02/2001

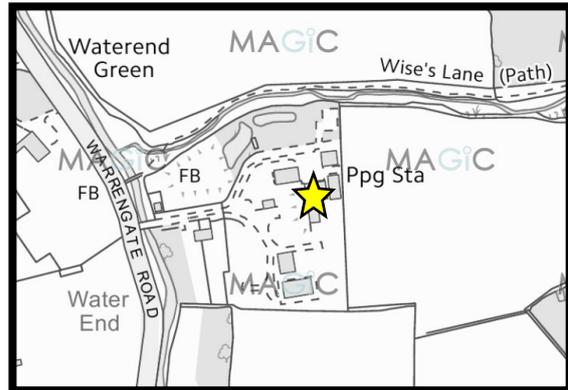
S6/2001/0841/FP  
Erection of 25 metre high telecommunications Mast and associated development  
Granted 15/02/2002

S6/2009/1167/FP  
Glass reinforced plastic kiosk to house chemical delivery equipment and cross site ducting  
Granted 19/10/2009

6/2015/2528/OUTLINE  
Outline planning permission for the enhancement and installation of additional treatment, including the demolition of buildings, with all matters reserved.  
Granted 14/04/2016

## SITE DESCRIPTION

1. The site is an existing water treatment plant owned and managed by Affinity Water. There is existing plant and machinery at the site, including an office building. The operational site is located within a fenced compound approximately 100m from Warrengate Road.
2. The site is located on Warrengate Road, to the east of the A1(M), and to the south of Welham Green and Hatfield. The site is accessed from Warrengate Road via an existing dedicated access point. A pair of semi-detached dwellings are found to the front entrance to the site, to the south of the main operational area.
3. The site contains various types of plant and machinery for water treatment, including:
  - Sludge beds
  - Bunded reservoirs and pools
  - Electricity sub station
  - Pump House
  - Well House
  - Chemical House
  - Clarifiers
  - Treatment tanks
4. The treatment site is located in a rural area, and is bounded on the western side by the Mimmshall Brook. The site is bounded by mature vegetation and surrounded by agricultural land. The north boundary is fenced and the land level drops down to Ray Brook and a public right of way. To the east is secure fencing and there is another public right of way running along an open field.



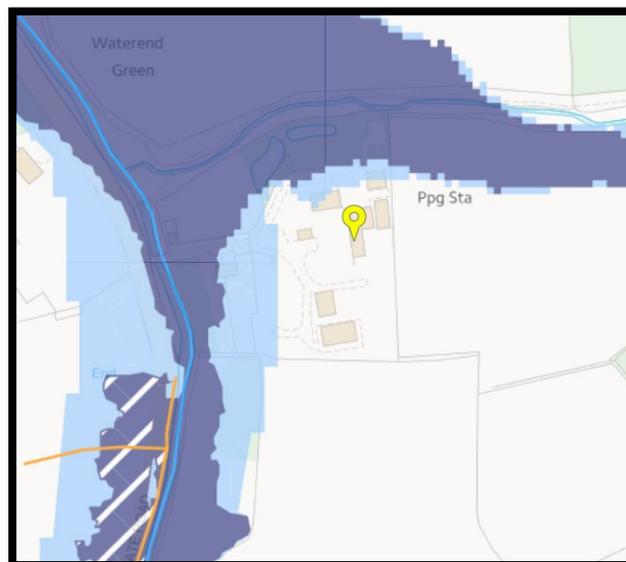
Application site, shown at yellow star

<https://magic.defra.gov.uk/MagicMap.aspx>

5. The proposed development is to be located partially on an existing grassed area, and is located at the site of recently demolished buildings to make way for the proposed plant. No alterations are required to access points or the internal road systems.

## SITE CONSTRAINTS

6. Part of the Water Treatment site is included within Flood Zones 2 and 3.
7. The application site, where the proposed works are located, falls outside both of these areas. The land to the south-west of the site and west of Warrengate Road, benefits from flood defences.



Application site, shown by yellow pin

<https://flood-map-for-planning.service.gov.uk/confirm-location?easting=522341&northing=204654&placeOrPostcode=North%20mymms>

8. Other constraints for the site are found as follows:
- London Areas Greenbelt
  - SSSI Impact Risk Zone
  - Nitrate Vulnerable Zone (surface water and groundwater)
  - Watling Chase Community Forest
  - Drinking Water Safeguard Zones
  - Source Protection Zones

## BACKGROUND

9. The existing water treatment plant provides drinking water to Brookmans Park, Potters Bar and Barnet. There is raw water abstraction from four borehole sources, one being at North Mymms and three remote sites. The North Mymms borehole is passed through a clarification process and is dosed with Poly Aluminium Chloride (PACL). The last stage of treatment is the Ultra Filtration building before being sent into the supply.
10. Affinity Water has an undertaking with the Drinking Water Inspectorate (DWI) to construct and commission a new treatment process to remove metaldehyde by March 2020. Affinity Water require the treatment solution to take account of the raw water quality data and deliver the required metaldehyde and turbidity levels, without adversely affecting the existing treatment process and final water quality.
11. The water supplied from the water works has previously been found to exceed the drinking water standard for the pesticide metaldehyde. This is the active ingredient in slug pellets which are heavily used in agriculture. Although Affinity Water have sufficient treatment in place, they have agreed with the DWI to install additional treatment to enhance the treatment capability and reduce the risks from pesticides further.
12. A previous outline planning application for these enhanced treatment processes was approved (subject to conditions) in 2016, although no reserved matters details were submitted following this approval. The scheme as submitted rationalises the need for the additional treatment plant and equipment required and includes the full details of the proposed equipment.
13. The proposals for the new equipment will be contained within the existing working area and will not alter the access or site boundary. The metaldehyde treatment plant will be in place of the recently demolished filter block and sedimentation tanks.
14. The equipment required is listed as follows:
- i. Diversion of the Tyttenhanger raw water source allowing for independent flow to site
  - ii. A single Actiflo Carb AS5 unit for the treatment of 9.09 MLD Tyttenhanger Detailed Design flow
  - iii. Actiflo Carb Recycle Pumps and hydrocyclone
  - iv. PAC Storage Silo and conveyor system
  - v. A new plant building housing:
    - Polymer makeup units and dosing system
    - Actisand bag discharge unit, wetting hopper and eductor system
    - PAC metering and eductor system
    - PACL dosing pumps
  - vi. A wastewater recovery plant comprising:
    - Combined lamella settler, sludge thickener and flocculation tank
    - Recycle pump and sludge transfer pumps

- Thickened sludge holding tank and mixing pumps
- Centrifuge Detailed Design pumps
- De-Watering Centrifuge housed in new plant building
- vii. New kiosk housing a new motor control centre (MCC).

15. The proposed buildings measure as follows:

- a. New treatment building floor space 190m<sup>2</sup>
- b. New MCC kiosk floor space 55m<sup>2</sup>
- c. Overall New slap area 570m<sup>2</sup>

16. The site is unmanned and the processes are an automatic operation. There will be personnel on site for deliveries and removal of waste only.

17. The waste expected from the processes are as follows:

- a. Centrate discharged to sewer (see mass balance report)
- b. Cake discharged into skip on site and then disposed of by Affinity Water
- c. Commissioning flows / out of spec raw water discharged into existing recovery tank
- d. Surface drainage will be to existing sewer connection

18. The proposed development will not increase the requirement for additional personnel, and will not alter the existing operational hours.

## NATIONAL PLANNING POLICY 2018 (NPPF2)

19. The NPPF2 was published in July 2018, the first revision of the NPPF since its original publication in 2012. This sets out the Government's planning policies for England and how these should be applied. The planning system is designed to contribute to the achievement of sustainable development, with three overarching and interdependent objectives – economic, social and environmental.

20. Planning law requires applications for planning permission to be determined in accordance with the development plan, unless material considerations indicate otherwise. The NPPF expects that decision-makers at every level should seek to approve applications for sustainable development where possible.

21. Section 13 discusses Protecting Green Belt land. The fundamental aim of Green belt policy is to prevent urban sprawl by keeping land permanently open. There are five purposes of the green Belt and it is considered that inappropriate development is harmful to the Green Belt and should not be approved except in very special circumstances. Paragraph 145 states that new buildings are inappropriate development in the Green Belt, however it sets out exceptions where this may not apply. This includes, at (g) the partial or complete redevelopment of previously developed land, whether redundant or in continuing use, so long as it does “...not have a greater impact on the openness of the Green Belt than the existing development...”

22. Paragraph 146 also goes on to list other forms of development what are not inappropriate in the Green Belt so long as they preserve its openness and do not conflict with the purposes of including land within it. This includes (b) engineering operations.

23. Planning decisions must also be able to contribute to and enhance the natural and local environment. This includes the following:

- e) *“Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans”*

## WELWYN HATFIELD DISTRICT PLAN (2005)

24. The Welwyn Hatfield District Plan was adopted in 2005, with a number of its policies saved in April 2008. The Local Plan has recently been submitted for examination, but as it has not yet been formally adopted, carries limited weight in decision-making at this time.

25. Policy SD1 considers Sustainable Development and matches the aims and objectives of national policy.

26. Policies GBSP1 and GBDP2 deal with Green Belt, confirming the maintenance of the Green Belt and also highlighting towns and settlements which are excluded from the Green Belt. These policies seek to protect the Green Belt in the same way as the NPPF, and follows the national policy.

27. Policy R7 look to protect ground and surface water. It acknowledges that the aquifer in the district is essential to provide water supplies for domestic, industrial and agricultural use. This policy confirms that *“Planning permission will not be granted for development which poses a threat to the quality of both surface and/or groundwater. Where proposals are acceptable the use of sustainable drainage systems will be encouraged, dependent on local site and underlying groundwater considerations.”*

28. Policy R8 -Floodplains and Flood Prevention – is also relevant. Although located outside a recognised floodplain, the application site is close to flood zones 2 and 3. Development outside the floodplains which would result in an increase in flooding downstream because of increased run-off will not be permitted.

29. Policy R9 directly considers the conservation of Water Resources. This policy recognises the need to promote sustainable water management. Policy R9 says that:

*“Permission will not be granted for proposals that:*

- i. *Would be detrimental to existing water abstractions, fisheries, amenity and nature conservation;*
- ii. *Would cause adverse change in flows or levels in the groundwater, or any rivers, streams, ditches, springs, lakes or ponds in the vicinity.*

*Proposals should be consistent with the long term management of, and co-ordinated with, the provision of new water supply and disposal infrastructure.”*

30. Policies R18 and R19 look to ensure that the effects of local air quality and amenity are protected from noise and vibration. There is Supplementary Design Guidance which is expected to be adhered to.

31. Section 7 of the Local Plan look at Design. In particular, Policy D1 looks at Quality of Design and D2 Character and Context. These aim to ensure a high quality of design where development respects and relates to the character and context of the area in which it is proposed. Policy D8 also looks at landscaping, requiring the retention and enhancement of existing key landscape features in the landscaping schemes where possible, or replacement planting if not.

32. The SDG explains that the impact of a development will be assessed taking into account its bulk, scale and design and how it fits in with the existing buildings and surrounding area. It also sets out measures to assess the sustainability of developments against various criteria.

## PLANNING ASSESSMENT

33. The proposal is to replace existing plant and machinery at the water treatment plant at North Mymms. The recent demolition has made space for the proposed plant to be installed, which allows for an upgraded water treatment system, ensuring the removal of metaldehyde from drinking water. The red line site is contained wholly within the existing water treatment plant, and will make use of land which is currently used for plant and machinery at the site.
34. As the site is located within the Green Belt, the openness and preservation of the Green Belt needs to be assessed. The proposal makes use of 'previously developed land', defined by the NPPF2 as *"Land which is or was occupied by a permanent structure, including the curtilage of the developed land...and any associated fixed surface infrastructure."* It is considered that the application site is therefore not inappropriate development as it falls within the exceptions listed by paragraph 145 of the NPPF2.
35. In addition to this, the proposal is considered not to have a greater impact on the openness of the Green Belt than the existing development. The proposed plant will be slotted into the existing treatment site, between an existing pump house, chemical dosing building and clarifiers. It is concluded that the openness of the Green Belt will not be affected by the proposed new buildings and plant due to the location within the existing operational site boundary and the maintenance of the new buildings at a similar level to the existing. There is arguably a certain amount of shielding which occurs as a result of the location of the new buildings within the heart of the existing site.
36. It is therefore concluded that the principle of development is acceptable as the proposals make use of previously developed land and do not cause harm to the openness of the Green Belt nor conflict with the reasons for including land within the Green Belt.
37. The proposals are for functional buildings within an existing water treatment site. They are to be simple in design and form, in keeping with the immediate site and surroundings. These buildings do not represent any significant harm to the wider local area, being retained within the existing site boundary. The scale of the buildings is dictated by the requirements of the new treatment process. No surplus buildings or plant is proposed, and as discussed above, the new development will slot into the existing treatment site. No existing landscaping planting or features are proposed to be altered or removed and so as seen from the road or nearby public rights of way, the overall appearance will be little altered. It is considered that the application site, together with the wider treatment site, represent acceptable design, function, form and scale.
38. The buildings are entirely in keeping with the existing site and will not cause any unacceptable harm to visual amenity. It is considered that the overall site appearance will not be altered and as such is appropriate.
39. The proposed development is retained within the heart of the water treatment site, located approximately 90 metres to the east of the two dwellings 71 and 73 Warrengate Road.

40. The plant and machinery involved in the process will be functioning constantly (with the exception of failure of plant). Noise levels will be closely monitored. No vibration will result from the processes involved. In addition to this, the buildings are insulated which will provide additional protection to neighbouring properties. The buildings will be constructed and insulated as required by national standards and as such the development is considered to have regard to Policy D1, R19 and the SDG.
41. The access point from Warrengate Road will remain as existing and will not be altered.
42. There is an internal road which serves the treatment plant. This will remain in place, with no additional accesses required.
43. The treatment plant will not require any additional personnel or deliveries as a result of the new buildings, and as such there will be no change to vehicular movements within the site, or on the local highways network.
44. It is therefore considered that the proposals will not cause harm to highways safety or local network capacity.
45. No other changes are proposed, in particular landscaping and boundary treatments.

## CONCLUSION

46. The proposal will allow for an improved water treatment process to be able to release safe drinking water into local homes. This is in accordance with an agreement with the DWI and an obligation to provide a continuous and safe supply.
47. The proposal makes best use of previously developed land within the Green Belt, and as such is not inappropriate development. The openness of the Green Belt and the reasons for including land in the Green Belt is not compromised.
48. The proposal will ensure that an important water authority can continue to operate, and will ensure that a water supply will continue to be provided. This represents a significant economic benefit.
49. Socially, the proposal represents the need for safe piped drinking water, and the development allows for these measures to be carried out. This is a highly important part of the development.
50. In environmental terms, the proposal will enhance drinking water, and also ensure that harmful pesticides are removed from nearby water sources through treatment and disposal. It is considered that this is also a significant and positive benefit of the scheme.
51. Overall, it is considered that the proposed development represents sustainable development which does not cause harm to the Green Belt. It is therefore respectfully requested that the development proposals be granted planning permission.

Rebecca Lock MRTPI MRICS  
16<sup>th</sup> October 2018