

**Planning Applications with Navigation Implications:
Creation of Fen and Installation of Temporary Fish Barriers to Facilitate Lake
Restoration**

Report by Planning Assistant

Summary: Planning application for the creation of reedbeds by pumping lake sediment into geotextile to create bunds, back-filling the areas behind with more sediment, and planting these areas with locally sourced fen vegetation, together with the construction of temporary fish barriers at Hoveton Great Broad, Hudsons Bay and Wroxham Island, River Bure, Hoveton and Wroxham

Member's views are sought on the proposals.

1 Background

- 1.1 The application site covers areas around the margins of the waterbodies of Hoveton Great Broad and Hudson's Bay, both in the parish of Hoveton, and around Wroxham Island, in Wroxham parish. These sites are located around a meander in the River Bure that forms a 'U' shape east of the settlement of Wroxham and Wroxham Broad and north of Salhouse Broad. Hoveton Great Broad is a large broad sitting within this 'U' separated from the main river by carr woodland; to the northwest is the smaller broad of Hudson's Bay. Due west of Hudson's Bay, across the river, is Wroxham Island, a narrow band of land defining the edge of Wroxham Broad from the river, with openings to the Broad at the northern and southern ends of the Island.
- 1.2 Hoveton Great Broad and Hudson's Bay are private broads within the Hoveton Estate and there is no public access to the water or surrounding land. They form part of the Bure Marshes National Nature Reserve and Natural England, the applicant, operate a seasonal nature trail on the southern edge of Hoveton Great Broad, accessed by moorings on the main river. There is a locked gate that gives private access by water from the main river. These two broads are also designated Ramsar, SPA, SAC and SSSI.
- 1.3 Wroxham Island is approximately 700 metres long and varies in width to less than 10 metres at some points. On the river side (east), there are two sections of Broads Authority 24 hour moorings. On the western side, within Wroxham Broad, there is a starting point used by the Norfolk Broads Yacht Club which is based on the western side of the Broad, and the Club also has a number of moorings posts in the water to the southwest of the Island. Wroxham Broad is in private ownership with public access permitted, it does not form part of the public navigation.

2 The Planning Application

- 2.1 Comments are sought from the Navigation Committee on the planning application submitted to the Broads Authority.
- 2.2 This planning application proposes development to facilitate a lake restoration project to improve water quality in Hoveton Great Broad and Hudson's Bay. Both waterbodies are currently assessed to be in an 'unfavourable no change' condition and failing to meet 'good ecological status' as defined under the Water Framework Directive. The two broads have turbid water conditions with a decline in macrophyte (aquatic plant) abundance and diversity from historic conditions; considered to be a result of the high nutrient content of the sediment. In order to improve water quality, it is proposed to remove nutrient rich sediment from both broads and biomanipulate the system to 'tip' it back to a clear water, macrophyte-dominated condition.
- 2.3 The project would involve removing approximately 300mm of sediment from the two broads, pumping this into geotubes around the eastern edges of Hoveton Great Broad and the western side of Wroxham Island to create bunds, backfilling these bunds with further sediment and planting them with fen vegetation, installing fish barriers at all entrances to the two broads, removing all fish and, once water quality has improved, removing the fish barriers. The geotube method is very similar to that used recently in the restoration of Salhouse Spit and it is only the laying of the geotubes to create bunds, backfilling to create new fen areas and the fish barriers which require planning permission.
- 2.4 The geotubes would each measure 6-8 metres in diameter when filled, they would be secured in position with alder poles and would be planted with turves of vegetation that would be sourced from within the National Nature Reserve area. Three new areas of fen would be created around the eastern end of Hoveton Great Broad, measuring 4.29 hectares. The same technique would be used along the length of the western bank of Wroxham Island creating a further 1.67 hectares of fen to reinstate areas that have been eroded. Sediment would be pumped to Wroxham Island from Hudson's Bay and Hoveton Great Broad by a 0.25 metre diameter pipeline laid temporarily across the bed of the river.
- 2.5 To facilitate the biomanipulation, seven temporary fish barriers are proposed: four on entrances to the two broads from the river and three where these broads connect to a dyke network to the north. These would consist of rows of gabion baskets filled with flint and faced with locally sourced alder pole piling. The top of the barriers would be at mean high water level. The largest opening to be closed is approximately 15 metres wide and public access is currently prevented here by a line of timber poles and this would be retained, with the fish barrier placed on the Broad side of it. These barriers would allow water to flush through, but would keep the fish, that would be removed from the two broads by electro-fishing and other methods, out in the river.

- 2.6 The project is intended to take place in two phases over successive winters with the fish barriers being installed in the second phase and retained for up to ten years. The sites would be monitored for a ten year period and a post-restoration management plan is proposed.
- 2.7 Plant would access the site by water through one of the existing openings from the river to Hoveton Great Broad. By land, the site would be accessed from the A1062 through the private roads of the Hoveton Estate.

3 Navigation Issues

- 3.1 The proposed fen creation areas and fish barriers are not within the public navigation.
- 3.2 Hoveton Great Broad and Hudson's Bay are not open to navigation by the public and this proposal would not change that position. The proposed fish barriers would continue to prevent any public access from the river for the duration of their retention (up to ten years). A Management Plan is proposed to be agreed by condition should planning permission be granted and this would include a monitoring programme for the fen and appropriate contingency measures. It could also include the removal of fish barriers and any necessary restoration if considered appropriate.
- 3.3 The applicants (Natural England) have indicated that a second, subsequent planning application is proposed which would include a canoe access route on Hoveton Marshes to the northeast of Hoveton Great Broad. The intention to propose this second application is not a material consideration in the determination of the planning application and the acceptability of the current application is not, in planning terms, contingent on the submission or determination of that second application. Increased public access would be welcomed in principle, but any planning application will be considered on its own merits.
- 3.4 Wroxham Broad is open to navigation by the public by agreement. The fen creation proposal here would reduce the navigable area, but the objective of this is to restore eroded areas and reinforce the Island to maintain the integrity of Wroxham Broad as a separate waterbody from the River Bure.
- 3.5 The only part of the proposals within the public navigation is the pipeline to pump sediment from Hoveton Great Broad and Hudson's Bay to Wroxham Island which would pass along the river bed and appropriate warning signage on the river is proposed.

4 Conclusions

- 4.1 Member's views are therefore sought on the principle of the fen creation and temporary fish barriers, impacts on public navigation and any other matters of relevance to navigation. Any comments will be considered as part of the planning process.

Background papers: BA/2014/0248/FUL

Author: Maria Hammond
Date of report: 4 August 2014

Broads Plan Objectives: None

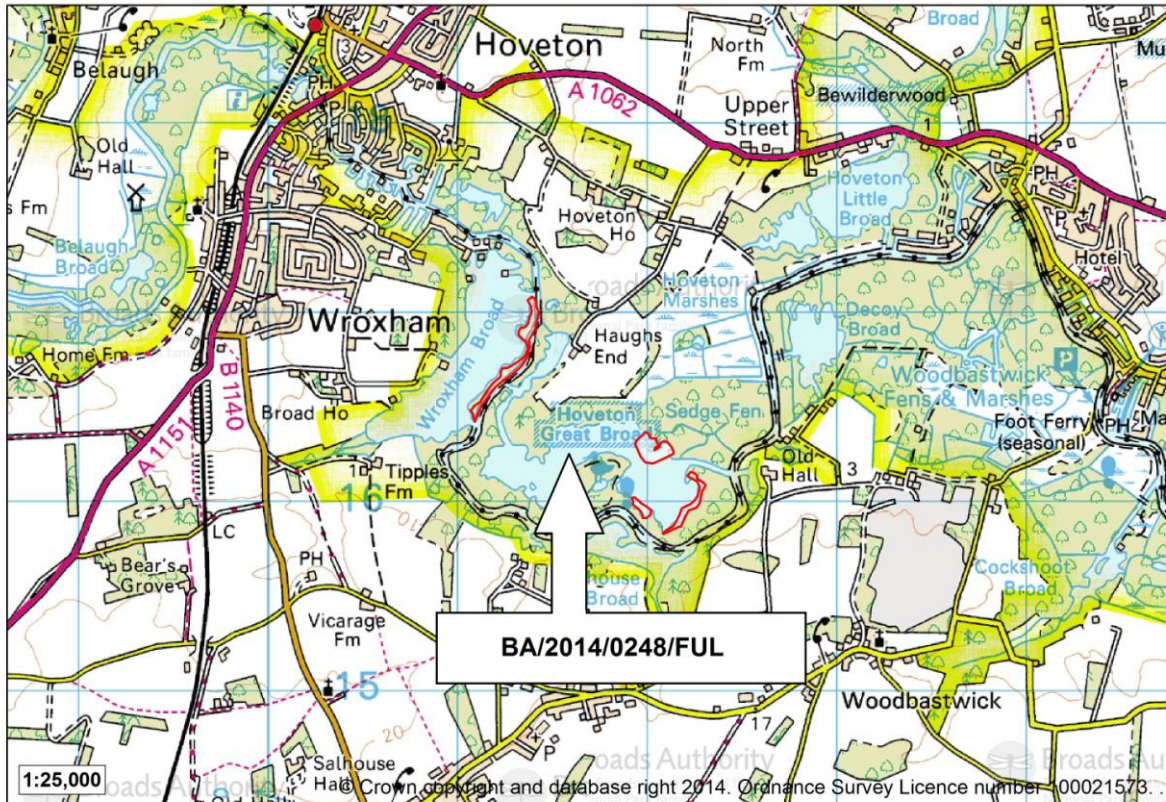
Appendices: APPENDIX 1 – Area and Location Maps

APPENDIX 1

BA/2014/0248/FUL

Haughs End Road
Lower Street
Hoveton

The creation of reedbeds by pumping lake sediment into geotextile to create bunds, back-filling the areas behind with more sediment, and planting these areas with locally sourced fen vegetation, together with the construction of temporary fish barriers



BA/2014/0248/FUL

Haughs End Road
Lower Street
Hoveton

The creation of reedbeds by pumping lake sediment into geotextile to create bunds, back-filling the areas behind with more sediment, and planting these areas with locally sourced fen vegetation, together with the construction of temporary fish barriers

