MEI LOCI

CONDITION APPRAISAL

THE DUCK POND, BOSCAWEN PARK

TRURO, CORNWALL

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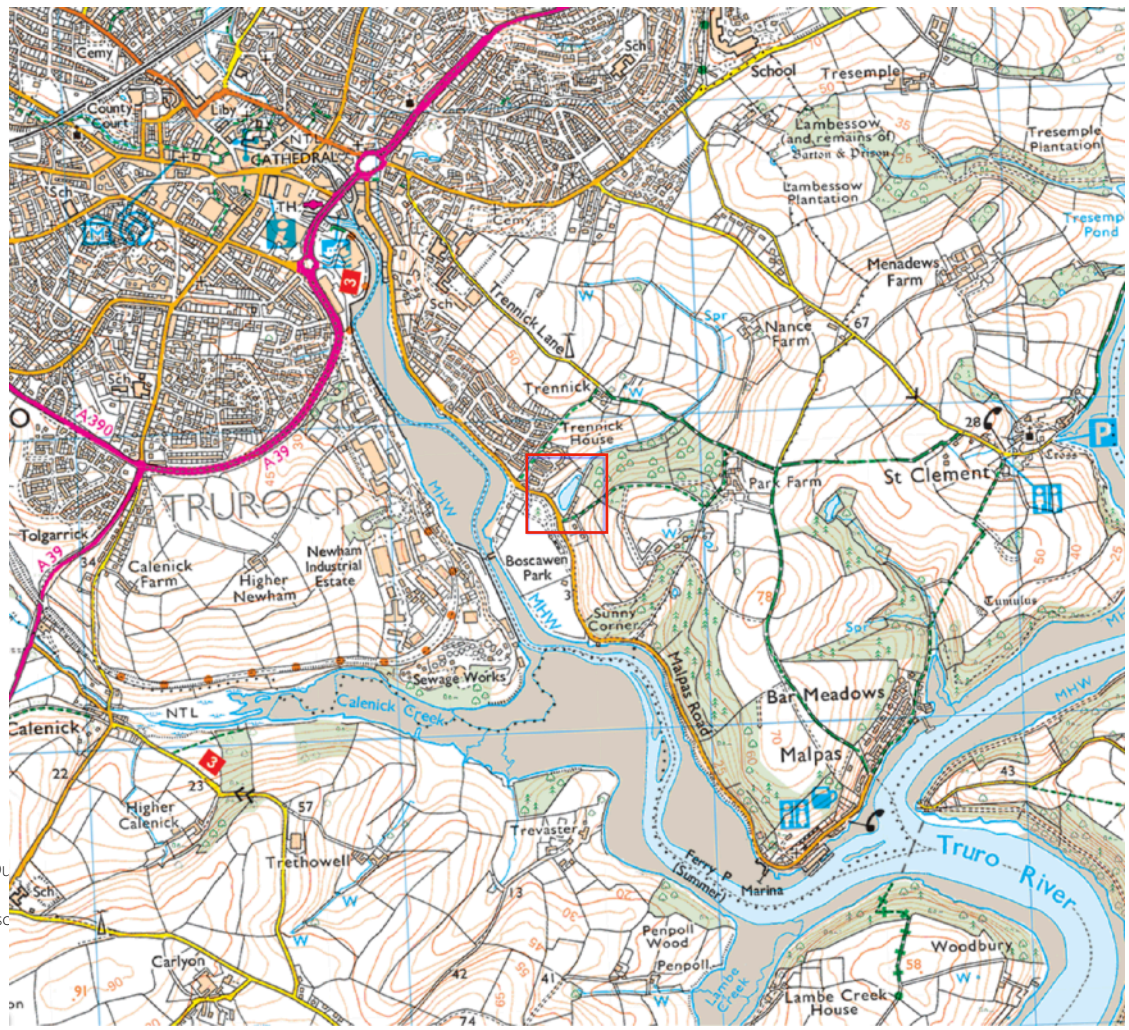
1.0 Condition appraisal: Duck Pond at Boscawen Park

1.1 The duck pond at Boscawen Park is a key feature of the park's landscape, but it is currently facing significant issues due to silt buildup, and structural damage to some stone banks. This initial survey details the existing conditions of the pond and identifies areas in need of maintenance, repair, or further investigation.

1.2 This outline condition survey aims identify the potential works to be undertaken to dredge, clean and repair the duck pond, and any impacts of the landscape and environment of the site and its surroundings, along with measures to mitigate any significant landscape or visual effects resulting from these impacts.

1.3 This should be read in conjunction with the preliminary Ecological appraisal, undertaken by Plan 4 Ecology.

Figure 1- Site location map, Malpas Road, Truro, TR1 1SG:



The Site Area and summary of works required:

1.5 The works site comprises a parcel of land approximately 56m x 140m, on Malpas Road, Truro. The application site is centred at Easting: 149942, and Northing: 031252.

1.6 The current issues identified on site are:

a. Silt Accumulation and Overflowing Silt Trap

b. Mud and Sludge Build-Up

c. Vegetation and Surrounding Land

d. Structural Integrity of the pond edges

Figure 2: *Plan of the duck pond extent of work.*

1.7 Silt Accumulation and Overflowing Silt Trap at the Northern End: The northern end of the pond is heavily silted, with a substantial buildup of mud and silt. The silt trap, designed to catch debris before it enters the main body of the pond, is full and overflowing. This is contributing to the excessive silt deposits in the pond, which have reduced the water depth significantly and are impacting water quality.

1.8 The silt accumulation is leading to poor water circulation and stagnation, which may negatively affect aquatic life. Immediate dredging is recommended to restore the pond's original depth and functionality.

1.9 Mud and Sludge Build-Up at the Southern End. The southern end of the pond is also experiencing some buildup of mud and sludge, particularly around the pond banks and edges. This is likely due to the pond's decreased capacity and water flow, exacerbated by the overflow from the silt trap in the north.

1.10 Vegetation and Surrounding Land. The land surrounding the pond is predominantly planted with a mix of ornamental and woodland species. Notably, there are several very large pine specimens, as well as oak, beech, and ash trees.

1.11 The two ash trees leaning over the western edge of the pond are exhibiting clear symptoms of ash dieback. Removal of these trees is recommended by the Arboriculturalist.

1.12 The small island in the centre of the pond is densely covered with vegetation, including a small beech, willow, and hawthorn. While this provides habitat for birds and other wildlife, the vegetation may need to be managed to prevent overgrowth and maintain the island's ecological balance

1.13 Other Vegetation, reeds, grasses, and shrubs around the pond's perimeter provide essential shelter and nesting spaces for pond birds. These areas appear healthy and well-established, though care should be taken during any dredging or construction works to protect these habitats.

1.14 Structural Integrity and Safety. Some of the stone and granite banks at the southern end of the pond require rebuilding. This work should be prioritised to prevent further collapse, which could lead to more extensive and costly repairs in the future.

1.15 While the pond and surrounding areas are open to the public. Temporary fencing and signage should be erected during remediation work.

Summary of Works and Recommendations:

1.16 Dredging and Silt Removal: Dredging of the pond is required, with an estimated depth of 2 feet of silt and mud to be removed at the northern end and silt trap, particularly from the silt trap. And an estimated depth of 1 foot of silt toward the southern end.

1.17 Bank Repairs: The stone and granite banks along the southern end should be rebuilt to restore the pond's structure and prevent further erosion.

1.18 Tree Management: The two ash trees with dieback should be safely removed, and the surrounding large pine, oak, and beech trees should be monitored for health and stability.

1.19 Habitat Protection: Careful consideration must be given to the existing vegetation, particularly the island and pond boundary plants, to protect the wildlife that relies on these habitats. Care should be taken to avoid works during bird nesting season, and when aquatic creatures may be hibernating.

1.20 All works as specified are to be conducted under an Ecological Watching Brief. A preliminary ecological assessment has been undertaken for Boscawen Park by Plan4 Ecology, which states:

1.21 *"There is a low risk that amphibians are present in the pond because of duck predation. Dredge the pond in late summer or early autumn, if possible, when aquatic species are less active. The main amphibian breeding period in Cornwall (January – March) must be avoided. Leave dredged material on the bank for 24hrs to allow amphibians to escape and move back to the pond. Across the rest of the site, follow recommendations for reptiles to minimise the risk of injury to amphibians during site works."*

1.22 Implementation of safety measures during the works, including fencing to secure the site work area and providing clear signage to inform park visitors of ongoing activities should form part of the works.

2.0 Contractors Brief and Scope

2.1 Overview:

2.2 The duck pond at Boscawen Park is currently heavily silted, with the silt trap full and overflowing. The northern end of the pond is particularly affected, with significant accumulation of silt and mud. The objective of this project is to dredge the pond to restore its original depth and functionality. Approximately two feet of silt will need to be removed from the pond.

2.3 Scope of Work:

2.4 The appointed contractor will be responsible for the following tasks:

1. Site Setup and Licences

a. Welfare Facilities: Provision of adequate welfare facilities for site personnel, including portable toilets, hand-washing facilities, and a sheltered area for breaks.

b. Public Health and Safety:Implementation of safety measures to protect park visitors, including temporary fencing, signage, and controlled access points to prevent public entry into the work area.

c. Environmental Protection: Measures to prevent any contamination or harm to the surrounding environment, particularly the nearby water bodies, flora, and fauna in line with the preliminary ecological appraisal and environmental legislation.

d. Licences: Arrange for any required licences to be in place prior to works starting.

2. Dredging and clean-up operations:

a. Silt Trap Clearance: Clearing the existing silt trap at the north of the pond, to prevent future overflow and ensure ongoing effectiveness.

b. Depth Removal: Dredging of approximately 2 feet of silt from the northern end of the pond, where silt accumulation is greatest. And dredging of approximately 1 foot to the southern end.

3. Silt Extraction and Removal:

a. Extraction Method: Contractors must provide a method statement detailing the approach to silt extraction, ensuring minimal disruption to the pond ecosystem and alignment with environmental best practices.

b. Material Handling: Temporary storage and drying of dredged material on-site, ensuring that any runoff is contained and does not re-enter the pond or other watercourses. Allowance for dredged material to be left on the banks for a minimum of 24hrs to allow amphibians to escape and move back to the pond in accordance with ecologist recommendations.

c. Disposal: Safe transportation and disposal of dredged silt in accordance with local regulations, ensuring environmentally responsible disposal methods. A waste management plan to be include in the method statement, with any necessary licences to be in place prior to works.

4. Environmental Considerations:

a. Ecologist Recommendations:Adherence to recommendations provided by environmental and ecological consultants, particularly concerning the timing of the works to avoid disruption to wildlife, and methods to protect aquatic and terrestrial habitats.

b. Water Quality Management: Implementation of measures to monitor and maintain water quality during and after dredging, preventing pollution and ensuring the pond remains suitable for wildlife.

3.0 Tender Requirements:

3.1 Project Outcomes and Deliverables:

- Restoration of the duck pond to its original depth, with approximately 1 - 2 feet of silt removed.
- Dredging, and safe disposal of dredged material in compliance with environmental regulations.
- A cleared and fully functional silt trap.
- Removal of 2 no dead Ash trees to the western bank.
- Repair of the stone bank to the southern end of the pond.

3.2 Documents to be submitted with the quote:

a. Method Statement and project timeline: A detailed method statement, with timeline, covering all aspects of the project including site setup, welfare provisions, public safety measures, dredging methodology, and silt removal and disposal.

b. Health & Safety Plan: A Health and Safety Plan, including risk assessments, must be provided, addressing both workers and public protection.

c. Environmental Management Plan: A plan detailing how environmental impacts will be mitigated, including the management of silt, water quality, and protection of wildlife in line with ecologist recommendations

d. Waster management Plan: A plan detailing where dredged material will be disposed to, and methods of transport, with any necessary licences to be in place prior to works.

e. Insurance: Proof of adequate public liability and professional indemnity insurance must be provided.