

WILDSPACE! PROJECT

Local Nature Reserve Management Plan

Marden Quarry



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Approved by: J. Hunter (NTC)

Date: 07/07/06



North Tyneside Council



Supported by



Local Nature Reserve Management Plan

Site Name: Marden Quarry

Location: Marden Quarry, Cullercoats, North Tyneside

Postcode: NE25 8RE

Grid Reference: NZ356715

Area: 5.94 ha

Date of Declaration: June 2005

Nature of L.A. Legal Interest: Freehold

Other Designations: SNCI

Site Description:

Marden Quarry covers an area of approximately 5.94 hectares between Whitley Bay and Tynemouth. It represents virtually the only exposure of magnesian limestone north of the River Tyne and is of interest as a northern outlier of this series. The site holds an interesting senescent elder scrub, limestone grassland flora and a valuable wildfowl pond. The site occupies a disused limestone quarry and reservoir dating back to the late 17th century, converted to an informal nature park and opened in 1977.

An overview of the site and surrounding area can be gained from the series of maps located in the Appendix section of this Management Plan.

Diversity:

The site comprises an artificial wildfowl pond that was created at the base of a previous industrial site and is representative of only a few sites of exposed magnesian limestone in the area. The quarry contains a number of meadow and grassland areas, elder scrub and a small area of mature woodland. The site also contains an area that is subject to seasonal flooding at the western fringe of the pond. The reserve holds significant ornithological interest; breeding bird species include mute swan, mallard, moorhen and coot, willow warbler, dunnock, blackcap and wren. Moreover, the site is particularly well known for its thrush population. Song and mistle thrush are both residents, whilst the recorded blackbird population is the largest in the county.

Naturalness:

The site was formed due to previous limestone quarrying activity dating back to the late 1600's. The site was converted to an informal park and opened in 1977.

Rarity:

Marden Quarry is one of a number of sites in North Tyneside designated as a Site of Nature Conservation Importance (SNCI). Its main features of interest relate specifically to the type of vegetation habitat located on site, i.e. magnesian limestone grassland, as this is the only known site within North Tyneside to hold this type of habitat.

Fragility:

Due to its location within an urban setting there is a significant risk of disturbance. Changes to the surrounding area could effect vegetation and food sources for wildfowl. The area is also susceptible to littering, acts of vandalism and antisocial behaviour.

Typicalness:

The park represents an example of a reclaimed industrial site with ecological value.

General Management Aims:

- To preserve and enhance the conservation and wildlife value of the site.
- To manage and enhance the habitat for wildfowl.
- To facilitate public access for the enjoyment of nature, non-detrimental to wildlife interests.
- To develop and maintain the site for educational use.
- Increase the public's understanding and appreciation of the site.

Site Maps:

1. Map 1 is an Ordinance Survey map that shows the boundary of North Tyneside Council, the scale is approximately 1:80,000. The location of Marden Quarry Local Nature Reserve, within the context of North Tyneside, is indicated by the presence of the coloured polygon to the east of the map.
2. Map 2 is the same Ordinance Survey map at a 1:5,000 scale and illustrates the actual boundary of the site, included in the site's declaration as a Local Nature Reserve in June 2005.
3. Map 3 shows the location of the pond at a 1:5,000 scale, as in Map 2. However, additional detail of the site is supplied through the overlaid aerial photograph. As can be seen from this view, the reserve is dominated by the large wildfowl pond, which contains a number of large islands that offer a disturbance free haven for wildlife in what is a popular urban greenspace. The wooded area, within the reserve boundary, to the west of the pond is the area dominated by senescent elder scrub.

Specific Management Aims:

1. Preserve and enhance the site as a haven for wildfowl.
2. Preserve and enhance wildflower meadow areas within the wooded area to the west of the site, including those sections of magnesium limestone grassland.
3. Carry out management of the woodland and elder scrub, allowing for natural regeneration and development of ground flora.
4. Maintain public access and the park's amenity value.
5. Maintain a clean and pleasant environment, and increase the public's appreciation and understanding of the site.

Specific Management Objectives:

1.
 - i) Monitor water quality in the pond for visible signs of deterioration.
 - ii) Monitor water depth, as reduced levels will result in shrinkage to the overall area of open water.
 - iii) Monitor and control stands of *Typha latifolia* (reedmace) and other invasive vegetation species using appropriate management techniques.
 - iv) Allow limited flooding of grassed areas around the edge of the pond during the winter, to encourage wading birds.
 - v) Explore the potential for marginal planting around the pond to enhance nesting opportunities for wildfowl.
2.
 - i) Carry out an annual cut and rake every Aug/Sep of all meadow areas located within the woodland to the west of the site, in order to restore and preserve areas of limestone grassland.
 - ii) Monitor and remove encroaching scrub in meadow areas.
 - iii) Survey meadow areas to monitor sward diversity.
 - iv) Explore options for further development of ground flora through plug planting and sowing of appropriate limestone grassland seed mix.
3.
 - i) Monitor natural regeneration of wooded areas and carry out thinning where necessary in order to open up woodland glades.
 - ii) Monitor regeneration at the woodland edges and prevent further encroachment of scrub into meadow areas.

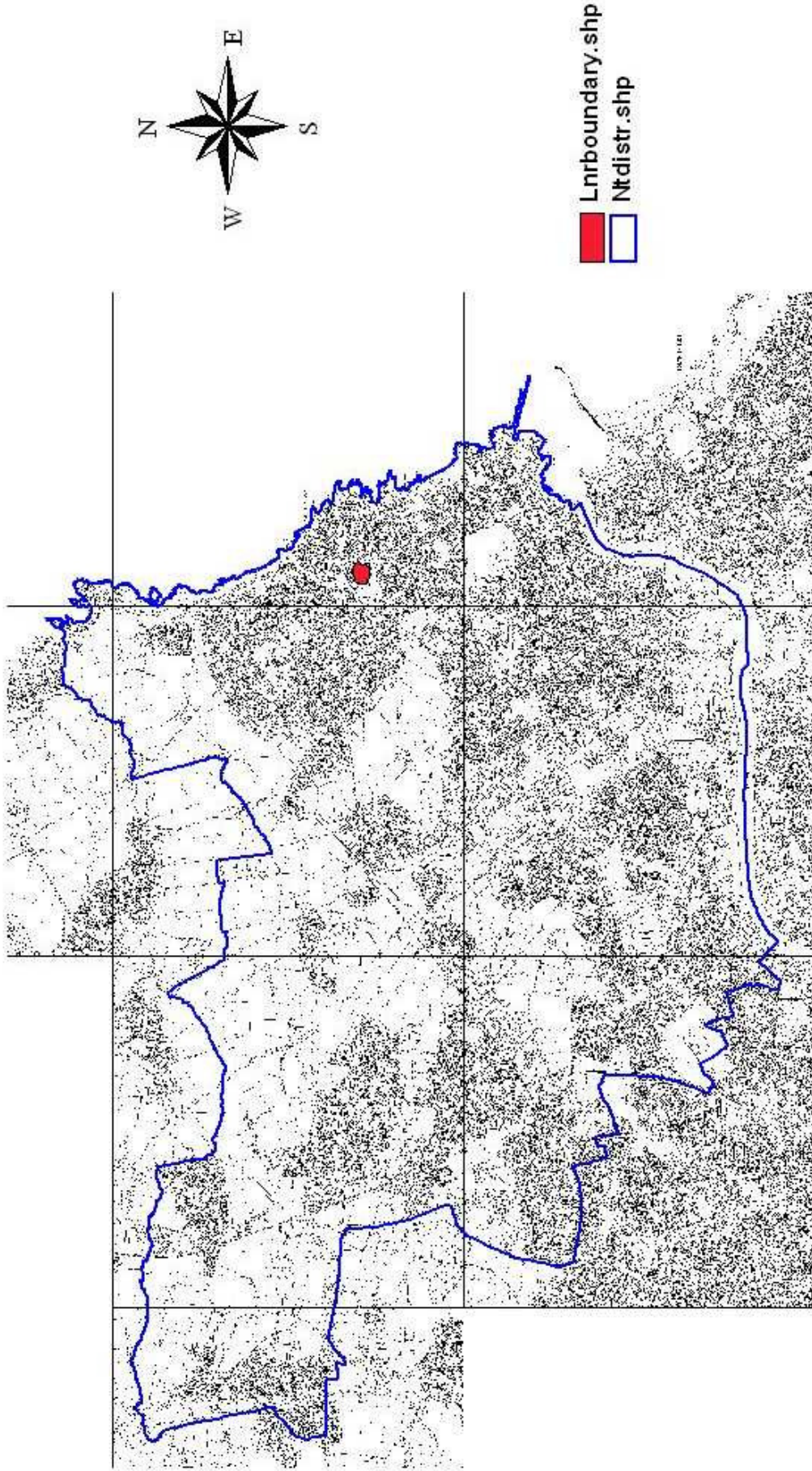
- iii) Carry out thinning in densely wooded areas to allow light to penetrate through to ground level, allowing for development of ground flora.
 - iv) Explore options for further development of ground flora through plug planting and sowing of woodland seed mix.
 - v) Carry out habitat improvements within the woodland, including installation of bird and bat boxes, and creation of habitat piles from deadwood produced from thinning work.
 - vi) Monitor bird and bat populations through regular surveying.
4. i) Monitor erosion of footpaths and carryout improvements where necessary.
- ii) Cut back vegetation encroaching and overhanging pathways throughout the site.
- iii) Monitor condition of all fences and countryside furniture and carry out repairs as necessary.
- iv) Maintain areas of amenity grass with frequent cuts throughout the growing season.
5. i) Monitor and remove rubbish, litter and any other items dumped on site.
- ii) Monitor incidents of antisocial behaviour and liase with park warden, community groups and police to ensure a 'safe' environment for all.
- iii) Facilitate educational visits through improvements to access routes and interpretation.
- iv) Raise public awareness by holding events (e.g. bat walks, moth trapping, butterfly events and wildflower walks).

Five Year Action Plan:

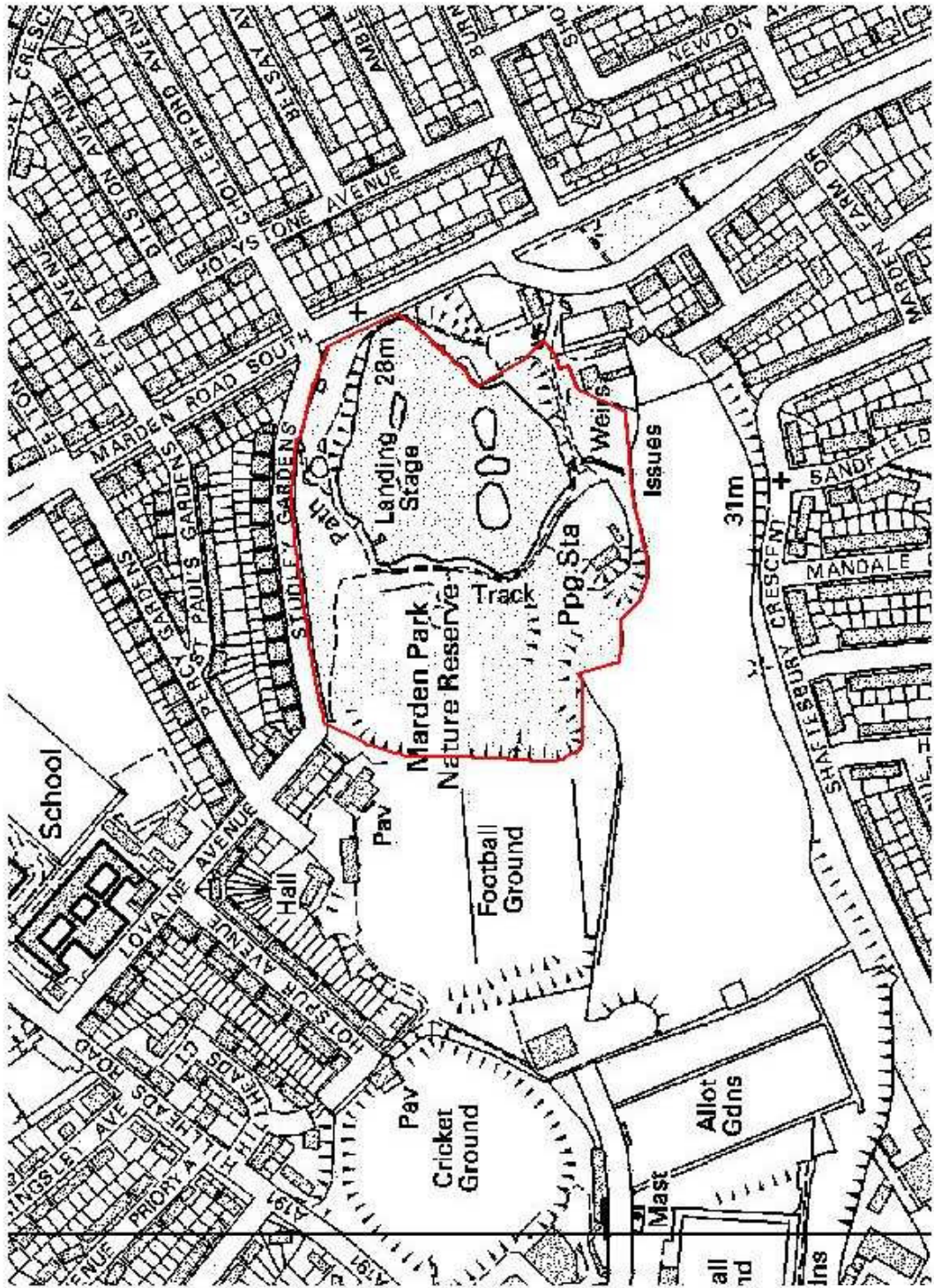
Project/Objective	Year 1	Year 2	Year 3	Year 4	Year 5
Monitor water quality for visible signs of deterioration	/	/	/	/	/
Monitor water depth	/	/	/	/	/
Monitor and control <i>Typha latifolia</i> & other invasive vegetation		/		/	
Limited flooding of grassed pond edge	/	/	/	/	/
Annual cut and rake of meadow areas within the woodland	/	/	/	/	/
Monitor & remove scrub in meadow areas	/	/	/	/	/
Survey meadow areas to monitor sward diversity	/	/	/	/	/
Monitor woodland regeneration & carry out thinning to create glades		/		/	
Manage woodland edge to prevent scrub encroachment into meadows	/		/		/
Thinning of densely wooded areas to allow establishment of ground flora		/		/	
Carry out habitat improvements e.g. bird/bat boxes and habitat piles		/		/	
Survey bird and bat population	/	/	/	/	/
Monitor footpath erosion and carry out repairs as necessary	/	/	/	/	/
Cut back vegetation encroaching and overhanging pathways	/	/	/	/	/
Monitor & repair fences & countryside furniture as necessary	/	/	/	/	/
Maintain areas of amenity grass	/	/	/	/	/
Monitor and remove rubbish, litter and any other items dumped on site	/	/	/	/	/
Monitor incidents of antisocial behaviour and liase with others	/	/	/	/	/
Hold regular events e.g. bat walks, moth trapping, etc...	/	/	/	/	/

Appendix: Site Maps (1- 3)

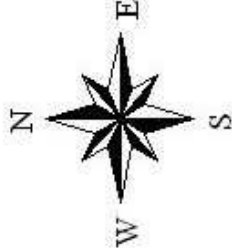
Marden Quarry LNR



Marden Quarry LNR



Marden Quarry LNR



Lnrboundary.shp
Mtdistr.shp

