



Topic Paper: **The Cotswold Water Park:  
Possible Futures**

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20 November 2007

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"The Cotswold Water Park ([www.waterpark.org](http://www.waterpark.org)) is a vast, diverse and fragmented region. Its 44 square miles of wetland exist on the old flood plain of the River Thames, created by human intervention through gravel and sand extraction. By 2050 it will be the largest manmade wetland complex in Europe; the key contributory factor to this is commercial and industrial activity. The most prolific fossil site in the UK is in the Water Park. It is ecologically highly significant. 10 of the 143 lakes already have SSSI status, due to the aquatic flora that thrives in the lime rich waters."

## Acknowledgements:

The Cotswold Water Park Society has been working for 10 years to enhance the opportunities for communities' awareness and enjoyment of the Water Park, to highlight and work with public authorities and private companies to enhance the biodiversity of the Water Park, and to provide local inspiration for land recovery.

In Our Element is the strategic art programme for the Cotswold Water Park Society. In Our Element commissions artists to work with the biodiversity and community education team of the Water Park Society to help create an ecology where imaginative thinking and cross disciplinary working can support and enliven participation in and sensitivity to an unique place.

liminal is a cross-disciplinary partnership between architect Frances Crow and sound artist David Prior. For more information please see [www.liminal.org.uk](http://www.liminal.org.uk)



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## Introduction



Lake 96: The origins of the Cotswold Water Park

## Introduction: Our Approach



Top: experiencing the gravel works  
Bottom: Newly restored lake no.301

In June 2007 we were asked by the Cotswold Water Park Society to contribute to the Scott Wilson Masterplan which looks at a 20-year strategy for the Cotswold Water Park. For the purpose of this study we have concentrated mainly on the Western extent of the Cotswold Water Park, however the ideas that are explored in this document could as easily be applied to the Eastern and Central areas.

In this document we have looked at the opportunities for development within the Cotswold Water Park that may not be revealed by conventional masterplanning techniques. We present a series of proposals that have evolved from our personal experiences of the site between July and October 2007 and as such, this document is a personal interpretation of the area and the ideas are to be seen as catalysts for thought as much as proposals for actual projects.



Gravel Pit at Lake 97

## Introduction: Context

The distinctive quality of the contemporary landscape of the Cotswold Water Park comes directly from the mineral extraction that began in the 1960's and is set to continue for the next 20 years.

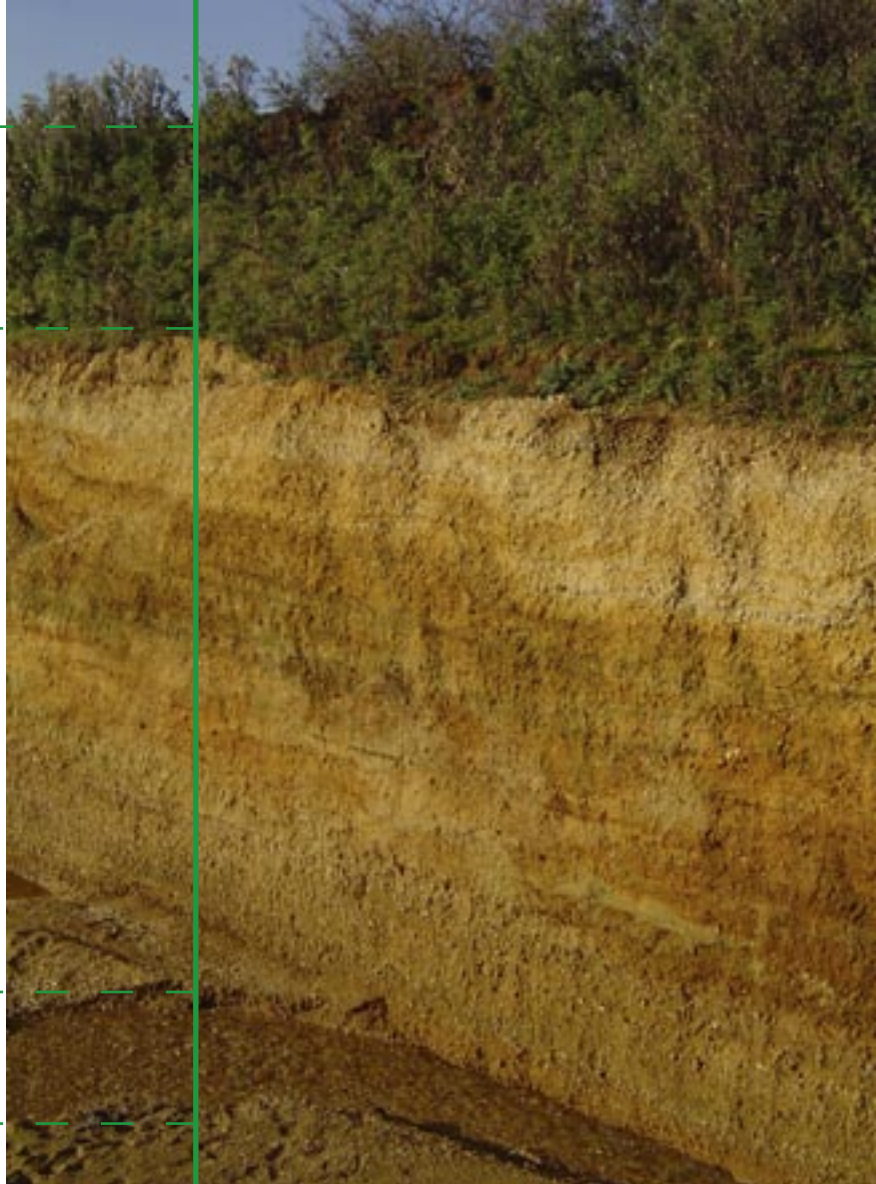
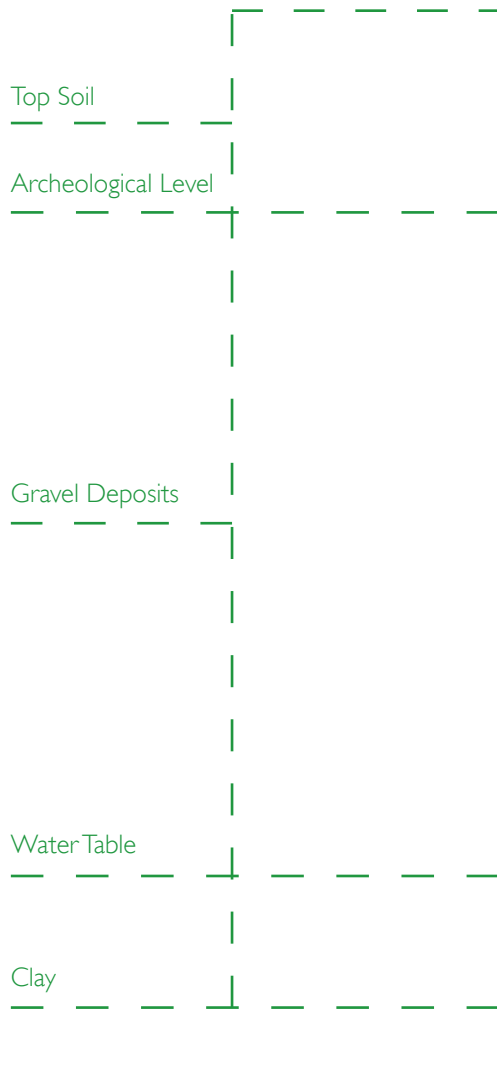
This industrial work, on what was previously agricultural land and water meadows, has created an artificial landscape of what is currently around 150 man-made lakes.

As part of the mining work the land has to be 'restored' to "return the land to an acceptable landform and after-use."\*

In what follows, we have taken this extraction and restoration process as a metaphor to explore proposals for the Cotswold Water Park and in so doing, raise questions as to what constitutes 'acceptable restoration' when considering the future identity of the Cotswold Water Park.

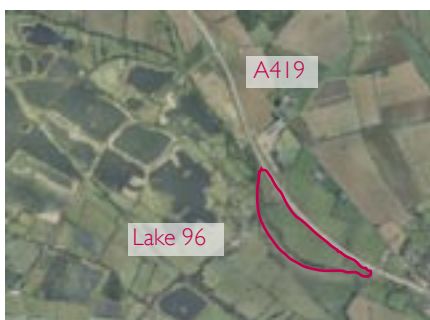
\* Good Practice Guide for Mineral Site Restoration and Enhancement. Surrey County Council, November 2002, p10

## Extraction and Restoration



Geological layers of a gravel pit

## Extraction 01: Anatomy of a Gravel Pit

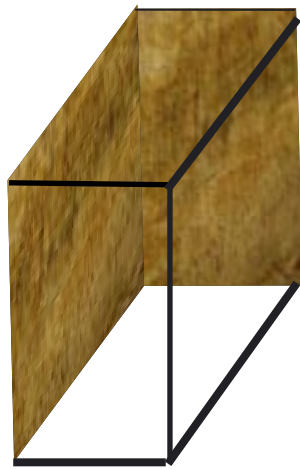


We visited Lake 97 on 5 October 2007. Rod Smart, the site Foreman introduced us to the extraction works and explained that as with all gravel pits in the Cotswold Water Park today, this pit is dug 'dry' down to the clay layer. The first stage of the extraction process began on a green field and over a period of about eight months the field was cleared of topsoil, digging down to the Archeology level. Once the Archeologists had carried out their examination of the site, the digger driver began the process of gravel extraction. Four and half years later, the digger driver is still working the pit and he reckons there is another one and half year's work to do.

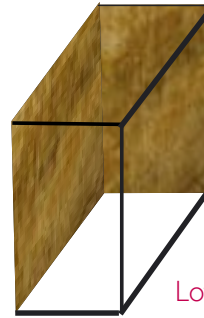
Once the clay layer is reached, all the gravel will have been exhausted. The sides of the pit will be sloped with clay and the pumps will be switched off and over six to seven months the pit will fill with water and become a lake.

Top: Location of Lake 97 shown as a green field, © 2007 Infoterra Ltd & Bluesky. Retrieved from Google Earth on 14 November 2007  
Bottom: Digger extracting gravel from Lake 97 on 5 October 2007

Lot 1: Atlantis



Lot 2: The Deep



A field of miniature gravel pits

## Restoration 01: Anatomy of a Gravel Pit

### DIG YOUR OWN GRAVEL PIT

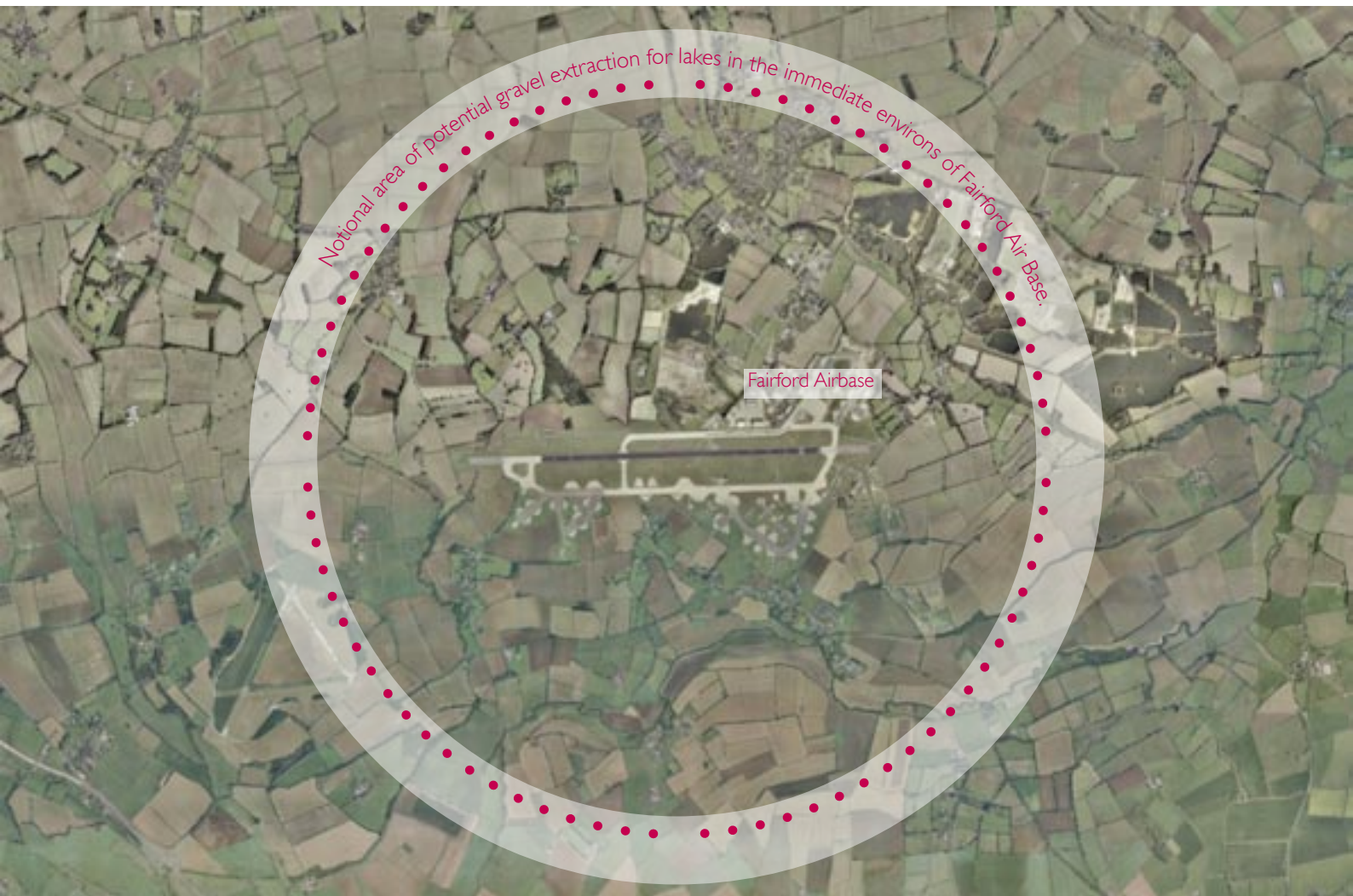
1. Take a green field
2. Divide the field into lots 2m x 2m wide
3. Number each lot
4. Make an open invitation to the general public to bring a pic-nic and a spade.
5. Spend the day digging a miniature gravel pit
6. Each group can then name their gravel pit
7. The public can then return to the miniature pits to see them filling with water over time. They may also consider adding additional elements that make them their own.

“You don’t get many people coming out here, it can get a bit lonely”\*

Our own experience of watching the extraction process first-hand was a powerful reminder of where the essence of this landscape lies. In response to Keith’s plight, we would like to propose a gravel pit picnic at which the public would be invited to dig a field of miniature gravel pits, thus highlighting the geology of the area and the anatomy of the Cotswold Water Park.

Through the creation of this artificial landscape of miniature gravel pits, the nature of the industrial process and the impact it has had on the area covered by the Cotswold Water Park will be highlighted. By digging the ground, the public will take ownership of the land and by naming their miniature lake will transform a small numbered lot into a place with a character of its own.

\* quote from Keith the digger driver on Lake 97



Notional area of potential extraction sites for lakes in the immediate environs of Fairford Airbase: base image © 2007 Infoterra Ltd & Bluesky, Retrieved from Google Earth on 14 November 2007

## Extraction 02: Bird Strike Zone



The 13km consultation zone around Fairford Air base is poetically referred to as the 'Bird Strike Zone'. Although the whole of the Cotswold Water Parks is affected by this situation, it is the lakes within the immediate environs of the airbase that pose the greatest threat to its operation. Within this area, the activities of birds need to be minimised to avoid disruptions that could potentially interfere with Fairford's operations.

The Cotswold Water Park makes a significant contribution to the extensive and diverse population of wetland bird species in Britain and this is a significant reason for visitors to come. However, if the ecological aspirations of the water park compromise the operations of the American airbase, a conflict of interest arises.

Top: Footprints in the clay at the gravel extraction site of Lake 97  
Bottom: Recently restored Lake 301



Notional area of potential extraction sites for lakes in the immediate environs of Fairford Airbase: base image © 2007 Infoterra Ltd & Bluesky, Retrieved from Google Earth on 14 November 2007

## Restoration 02: Bird Strike Zone



Historically the landscape has been developed to provide a habitat conducive to inhabitation by wetland birds. To discourage birds from nesting in the area, it might be possible to create a landscape that is uninhabitable by birds or at least unattractive to them.

The level of the water table in the area means that the pits will naturally form into lakes if left on their own. We suggest that we could intervene with this process and like Christo's building wrappings or Olafur Eliasson 1998 project Green River alter the existing natural formation by colouring the water RED in the area designated as our notional 'Threat Zone'.

Top: Water of Lake 103 dyed Red to indicate the notional 'Threat Zone'



Signage on the Spine Road.

### Extraction 03: The Spine and the Strip



On our initial visit to the Cotswold Water Parks we drove North along the A419 and took the Spine Road to the 'Tourism Centre' and had a coffee at 'Coots Cafe'.

We knew we were in the Cotswold Water Parks because a highway agencies standard brown tourist sign had indicated this to us.

Driving along the Spine Road there are a series of haphazard signs that indicate the private uses of the different lakes in the area.



The Spine Road itself is a straight relief road that, as the name suggests, acts as the 'backbone' to the Cotswold Water Park and originally was the main arterial route for the transportation of the extracted gravel from the lakes in the area.

Top: Junction between A419 and the Spine Road © 2007 Infoterra Ltd & Bluesky. Retrieved from Google Earth on 14 November 2007  
 Bottom: Cotswold Water Park welcome sign



Las Vegas Welcome Sign: © Roger Williams

### Restoration 03: The Spine and The Strip



We suggest that the Spine Road might take a cue from 'The Strip' in Las Vegas, both metaphorically and in certain ways in reality. Both are the result of private enterprise endeavoring to provide commercial leisure activities and both form a main route *through* and *to* the activities that take place in the area.

Imagine:

- The Spine as a destination in itself
- The Spine becoming the place that orientates visitors around the area
- The Spine's signage as distinctive and linked directly to the identity of the Cotswold Water Parks.
- The Spine becoming a place to visit at night as well as during the day.



Top: Imagined Iconic 'Waterparks' Welcome Sign located on the Spine Road and A419 junction

Bottom: Las Vegas Strip at Night: Jon Sullivan (pdphoto.org)



Road Sign indicating location of lakes using the lake number.

## Extraction 04: “I Am Not A Number”\*



The Lakes throughout the Cotswold Water Parks are known by their number; originally assigned as part of the minerals extraction process.

Additional names have been attached to the Lakes depending on usage Keynes Country Park (32), South Cerney Sailing Club (16) and WMSki (11) to name a few. In other cases more abstract names have been introduced, including, Cleveland Lakes (74, 68a and 68b) Waters Edge (10) and Lower Mill Estate (57) amongst others. However, the tourist map and the signposts all indicate the location of the lakes by their number.

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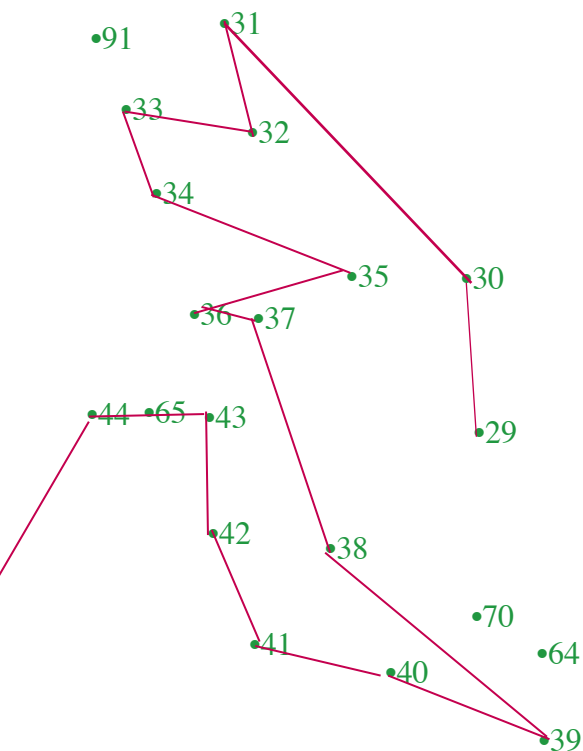
In ‘The Prisoner’, the 1960’s TV series, numbers are used to hide the identity of the characters and their past lives. In the case of the Cotswold Water Park the identification of lakes by their number has the same effect, as has the extraction process by literally erasing the landscape.

Top: Erased landscape at lake 97  
Bottom: Number 9 : the number the prisoner was know by  
\* quote from The Prisoner; the 1960’s TV series.



Proposal for a 3 dimensional lake number on Lake edge.

## Restoration 04: I Am Not (just) A Number



Dot-to-Dot map of a 'dog' walk

We propose that the lakes original identities should be returned to them while acknowledging that part of that identity now is the result of the extraction process.

The New York street grid provides a way of mapping the city with numbers. These numbers have come to represent things in their own right, with 42nd Street and 5th Avenue conjuring quintessential images of the city. In the same way the numbers, if celebrated could become a distinctive characteristic of the area. These numbers could be placed in the landscape acting as visual signs locating the lakes.

A map created by moving from lake number-by-number as in dot-to-dot could provide alternative routes through the Park. GPS and Ordnance Survey grids may also provide some clues to alternative readings of the Cotswold Water Parks.



Lake 301

## Extraction 05: “The Landings”

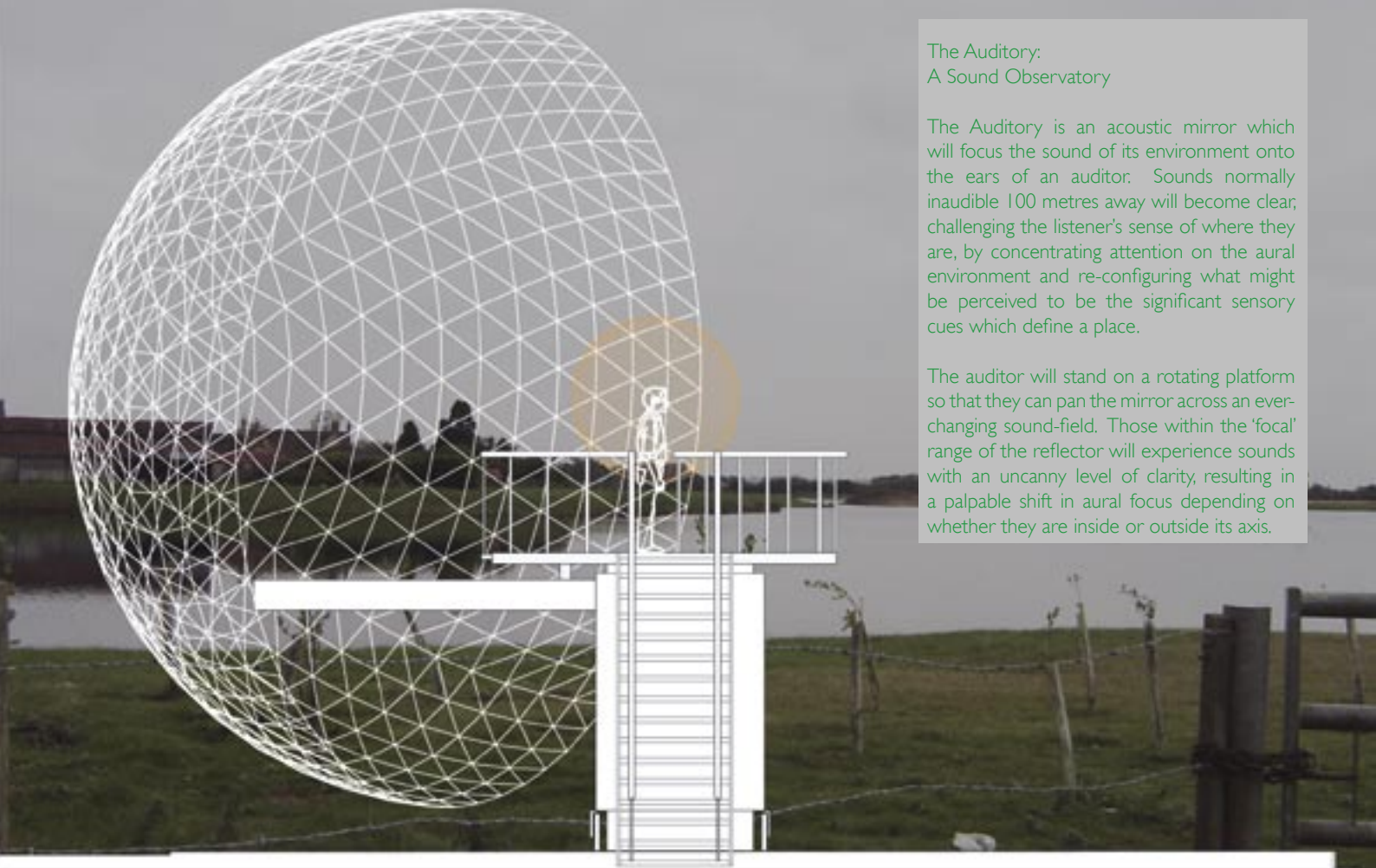


“The Landings” is one of the newest ‘luxurious lakeside holiday homes’ developed by The Watermark company, one of the main developers in the Cotswold Water Park. Described in the sales material on their website as “**De-tached, Vermont Style New England Lodge[s]**”<sup>\*</sup> The development introduces an American vernacular architecture to the Water Park which apparently draws little influence from the indigenous buildings of the surrounding Cotswold villages of South Cerney, Cerney Wick and Ashton Keynes.

We suggest that the planners should continue to keep an open mind to development proposals within the Cotswold Water Park. However, where developments are obviously not referencing local vernacular styles, that planner might exercise more rigorous scrutiny as to how a proposal contributes to a sense of place.

Top: The Landings ‘Holidays and Short breaks in the Cotswold Lakes’, published by The Watermark.

<sup>\*</sup> extract from The Watermark website [http://www.watermarkclub.co.uk/sales\\_folder/landingsdetails.htm](http://www.watermarkclub.co.uk/sales_folder/landingsdetails.htm) retrieved 15 November 2007



The Auditory:  
A Sound Observatory

The Auditory is an acoustic mirror which will focus the sound of its environment onto the ears of an auditor. Sounds normally inaudible 100 metres away will become clear; challenging the listener's sense of where they are, by concentrating attention on the aural environment and re-configuring what might be perceived to be the significant sensory cues which define a place.

The auditor will stand on a rotating platform so that they can pan the mirror across an ever-changing sound-field. Those within the 'focal' range of the reflector will experience sounds with an uncanny level of clarity, resulting in a palpable shift in aural focus depending on whether they are inside or outside its axis.

The Auditory: A Sound Observatory for listening to birds at the Cotswold Water Park.

## Restoration 05: "The Landings"



The Cotswold Water Park is already recognised internationally for its bird population. By using the Arts Programme we could explore the potential of creating new forms and structures for the the Park that would act as attractions for visitors interested in the arts, in addition to the established bird watchers. For example, if we place the 'Auditory'\* and 'Song Poles'\* in the context of the Cotswold Water Park, we would be providing aural equivalents of the bird hide and nesting box while also heightening the visitor's experience of listening.

A series of recycled telegraph poles are planted in the ground next to the lake. The telegraph poles are hollowed out at different heights to provide nesting sites. Different sized holes allow different species of bird access to the nesting sites. A small video camera and microphone are installed above the nesting sites and these are linked to a speaker and a video screen at the base of the telegraph pole.

A single song pole could be planted within a forest or a forest of song poles could be planted.



Top: Song Poles, bird boxes for the Cotswold Water Park

Bottom: Song Poles: detail showing video and speaker links to the nesting site

\* for more information refer to [www.liminal.org.uk](http://www.liminal.org.uk)



Horizon and restored landscape at Lake 301

## Extraction 06: Artifice and Atlantis



The Cotswold Water Parks is located in the Upper Thames Valley Flood plain. Our visual experience of the Park is one of large, open expanses of flat land and water where the horizon is the dominant feature.

The landscape of the lakes is artificial and has been constructed over the past 40 years. It is set to change significantly over the next 20 to 50 years.

In addition to the everchanging man-made landscape of the horizon, there is an increasing submerged landscape of hidden depths. The gravel can range in depth from a few centimetres to 6 metres, and begin about 1 metre below the surface\*.

This void suggests myths of possible hidden worlds below the water line and new landscapes that could be formed through the process of restoration.

Top: Conveyor belt transporting gravel to sorting site across A419  
Bottom: Extraction of gravel

\* Cotswold Water Park website: <http://www.waterpark.org/leisure/history.html>. Retrieved 15 November 2007



Chateau Villandry Water Garden 1913, Dr Joachim Carvallo. © Kate Crow

## Restoration 06: Artifice and Atlantis



Restoration of the lakes has historically been minimal and while this responds to the guidance provided by development control, opportunities are missed as to the possibility for new and inspiring landscape forms. Taking cues from both Renaissance garden design and the Land Art movement which evolved in the 1960s, we propose that a creative approach to designing landforms could become a significant feature of the Water park and in turn suggest new activities and uses for the land.



The lakes themselves are a blank canvas, but returning them to their 'natural' state is no longer possible following the extraction process. The potential for developing the floor of the gravel pits before they are flooded opens up the possibility of creating an 'Atlantis' of the Cotswold Water Park, a hidden world that, as myth suggests, never existed in the first place. Perhaps 'art diving' or 'divining' could become the new water sport at the Cotswold Water Park?

Top: Mill Creek Canyon Earth Works, King Country, Washington. Herbert Bayer 1979; Lailach, Michael. 2007 Land Art, Taschen, 31.  
Bottom: Athinasius Kirchner's map of Atlantis 1669



Video Still of A419 with gravel sorting in the background

## Extraction 07: Gateways



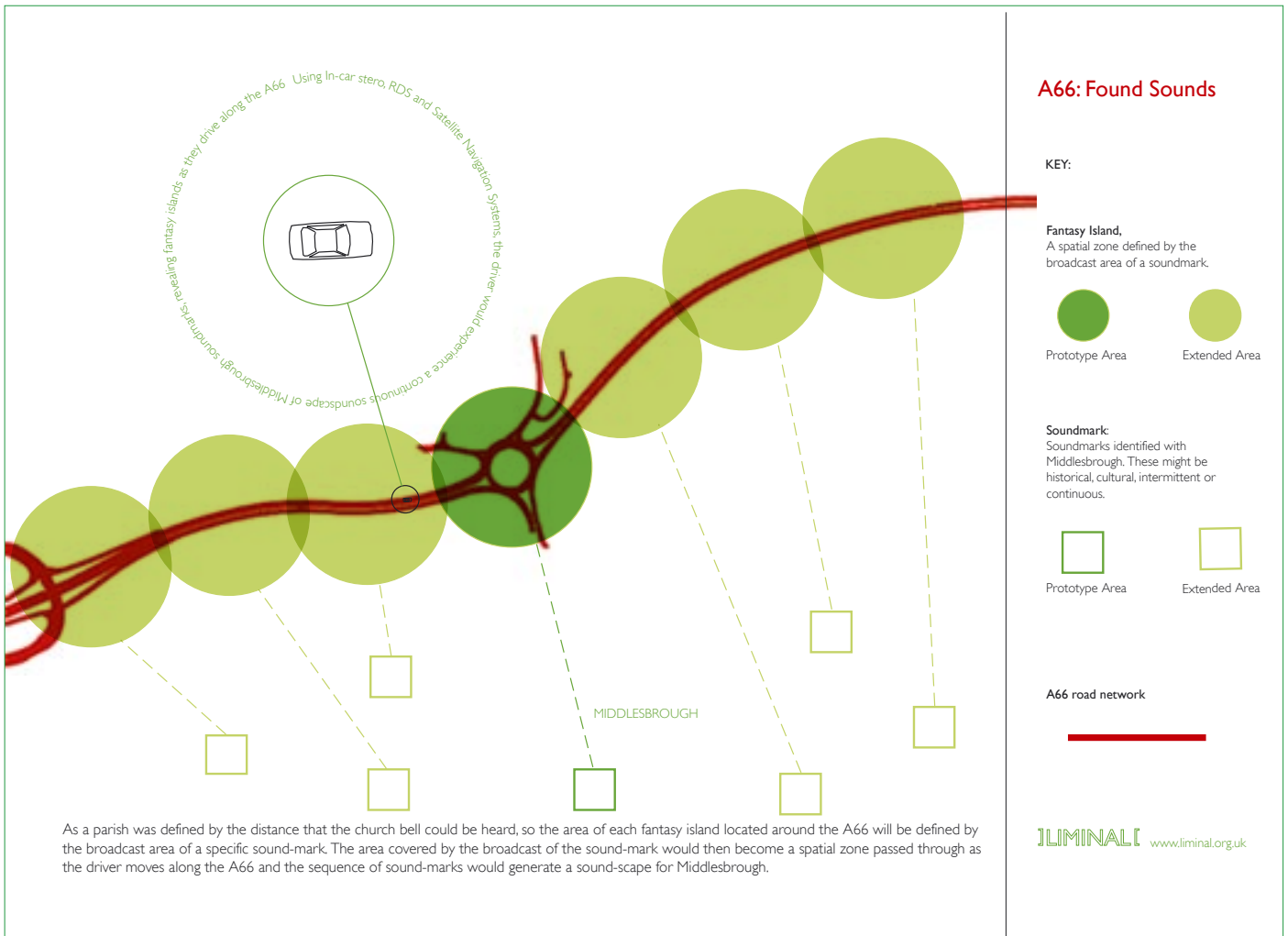
Top: A419 with Lake 86 in background  
Bottom: Lake 301 with A419 in distance

### Gateways

There are a number of access points into the Cotswold Water Parks including the A419, the Thames Path and the Sustrans bike network, which uses the old railway. The most significant gateway into the Cotswold Waterpark for us was the A419 and its junction with the Spine Road.

The A419 passes through the centre of the Park with lakes on both sides of the road. The majority of cars travelling on the A419 are not travelling to the Cotswold Water Park and therefore miss the place entirely.

The Cotswold Water Park covers a 40 square mile area that includes diverse communities, activities and contexts. Consequently a visitor to the Park will only experience one tiny aspect of this complex mix depending on their destination; be that horse riding, cycling, walking, drinking coffee in the cafe, fishing, swimming or staying in one of the local resort areas.



A66: Found Sounds proposal for the Middlesbrough Gateway Competition

## Restoration 07: Gateways

Our A66 project was proposed for the main ring road around Middlesbrough. The Cotswold Water Park has a similar relationship to the A419, with many people passing right through the centre of the Park without realising what they are missing. Using in-car stereo systems, RDS technology and Satellite navigation, drivers on the A419 could experience the Cotswold Water Park in new and unexpected ways.

Recordings made of local soundmarks from across the whole area of the Cotswold Water Park could be 'beamed' across the A419. Each area covered by the broadcast of a soundmark would become a spatial zone passed through as the driver moves along the A419 and the sequence of soundmarks would generate the soundscape of the Cotswold Water Park, thereby creating a significant gateway feature.



Video still of Lake 300 showing visually tranquil environment next to the A419

## Extraction 08: Tranquility

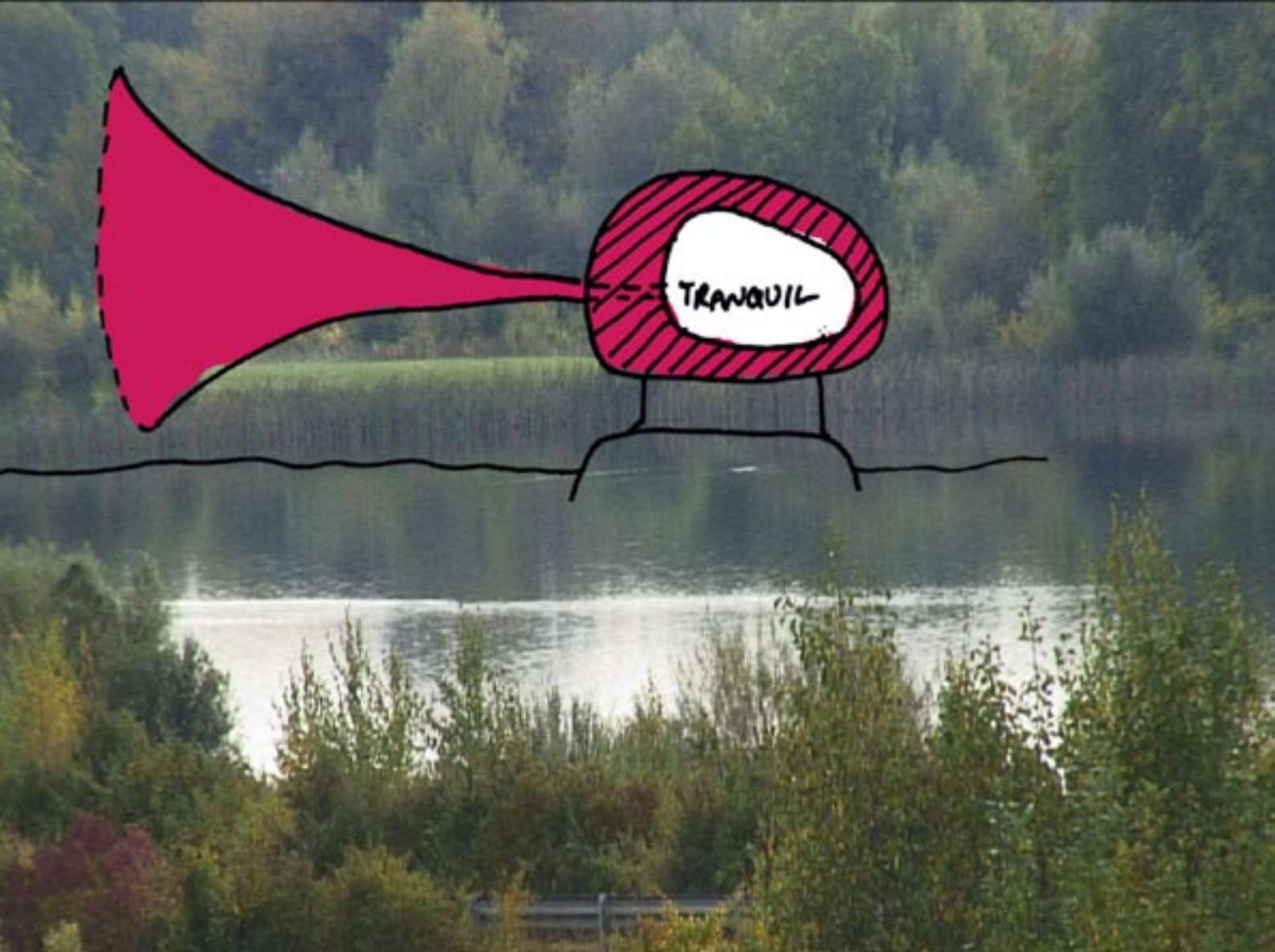


The Cotwolds Water Park is a markedly more attractive place to experience by means of our eyes than our ears. While our eyes are greeted with a scene of tranquility, our ears are subjected to the continual barrage of broadband noise generated primarily by the A419, but also from air traffic and water-sports. As a culture, we are now desensitized to sound to such an extent that unless specifically asked to comment on it, many of us are capable of blocking out unwanted noise, particularly when it is continuous. However, there is a growing body of evidence to suggest that despite our ability to redirect our perceptual focus away from what we do not want to hear, our sonic environment nevertheless makes a significant contribution to our sense of wellbeing in a place.

Noise from the A419 in particular, constitutes a significant compromise to the potential of the CWP to become a site of tranquility. Taking this as a point of departure we propose a poetic response to the problem in the form of a 'tranquility machine'.

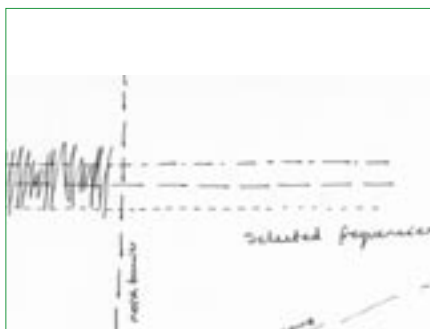
Top: Recording the soundscape in Lake 97

Bottom: Decibel Level reading showing the high levels of noise coming from the A419

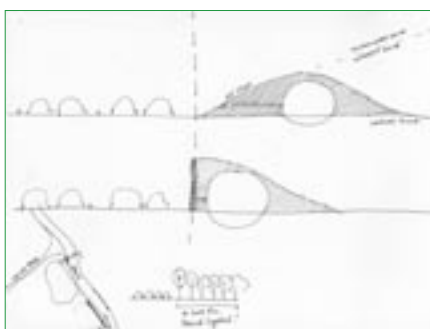


Notional form of Tranquility Machine with funnel collecting road traffic noise.

## Restoration 08.1: Tranquility



The tranquility machine could be free-standing or preferably, embedded into the mass of a road-side noise barrier. It would recycle the noise generated by a busy road into an musical composition which would respond musically to the volume and type of traffic as well as weather conditions. A huge funnel would be situated at the side of the road collecting the sound of the traffic into a listening cave which would be acoustically insulated from the traffic itself.



Between the funnel mouth and the cave, the sound would be subjected to a series of acoustic resonators filtering the incoming noise and 'tune' it to predefined frequencies, creating clearly defined, pitched sound material from the broadband traffic noise. Initial discussions with Arup acoustics suggest a number of potential methods for achieving the desired result.

Top: Diagram describing use of noise barrier to filter broadband noise from the A419 to selected tuned frequencies  
Bottom: Potential form for the Tranquility machine within a 'bund' noise barrier



Road traffic noise generated by the sound of tyres on the road surface

## Restoration 08.2: Tranquility



The tranquility machine is not proposed as a solution to the incursion of noise from the A419 but as an artistic response to the sonic predicament of the site. Indeed, discussions with acoustician and road traffic noise specialist Dr Greg Watts of the University of Bradford revealed that given the vast area in question, traditional noise barriers would have to be prohibitively large to make any significant difference to the ambient noise levels of the Cotswold Water Park.



The most effective solution to a reduction in road noise would in fact be in the resurfacing of the road itself and we would strongly recommend that when such a task is considered, the sonic properties of the new surface would be given the priority they deserve.

Top: Decibel level reading in the gravel pit of Lake 97 below the level of the A419  
Bottom: Decibel level reading in the gravel pit of Lake 97 on the same level as A419

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### Minerals Extraction

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