

Cotswold Archaeology

Upper Neuadd Dam Brecon Beacons National Park Powys

Historic Building Recording



^{for} Skanska

on behalf of Dwr Cymru/Welsh Water

> CA Project:5587 CA Report: 15679

September 2015



Andover Cirencester Exeter Milton Keynes

Upper Neuadd Dam Brecon Beacons National Park Powys

Historic Building Recording

CA Project: 5587 CA Report: 15679

prepared by	Peter Davenport Senior Built Heritage Consultant
date	September 2015
checked by	Richard Morton, Senior Heritage Consultant
date	September 2015
approved by	Richard Morton, Senior Heritage Consultant
signed	
date	September 2015
issue	01

This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.

© Cotswold Archaeology

CONTENTS

SUMM	ARY	.3
1.	INTRODUCTION	.4
	Outline	.4
	Location and landscape context	.4
	Objectives and scope	.4
2	RELEVANT POLICIES AND GUIDANCE	.5
3	METHODOLOGY	.6
4.	RESULTS	.6
5.	REFERENCES	.8
APPEN	IDIX A: OASIS REPORT FORM	.9
APPEN	IDIX B: LISTED BUILDING DESCRIPTION	.10
APPEN	IDIX C CATALOGUE OF DIGITAL PHOTOGRAPHS	.11

LIST OF ILLUSTRATIONS

Figure 1	Location Plan (1:25,000)		
Figure 2	Site plan showing viewpoints of photographs		
Figure 3	The south elevation of the tunnel building (scale 2m)		
Figure 4	Detail of the arches of the doorway into the tunnel building (scale in 0.5m divisions)		
Figure 5	The treatment of the jambs of the inner doorway to the tunnel building (scale 2m)		
Figure 6	The western elevation of the tunnel building (scale 2m) Figure 7 The eastern retaining wall from the spillway base and the lower outfall (scale 2m)		
Figure 8	Photomontage elevation of the eastern retaining wall		
Figure 9	The grassy area to be terracreted to stop erosion by the new outflow from the tunnel (in background, below tower)		
Figure 10	The top of the retaining wall and the grassy area beyond, which will be terracreted, looking south-west (scale 2m)		
Figure 11	The south end of the tunnel just inside the entrance, looking south (scale 2m)		
Figure 12	The north end of the tunnel showing the base of the shaft in the tower and the pipework and control gear. The tunnel is to be driven through the brick work at the far end (cf Fig. 15) (Scale 2m)		
Figure 13	Control mechanisms for the valves in Fig. 12, over the shaft in the east tower at walkway level, looking S (scale in 0.5m divisions)		
Figure 14	Looking up into the shaft in the east tower, at the end of the tunnel to the grating shown in Fig. 13		
Figure 15	The brick voussoirs of the tunnel visible on the north side of the dam and the pipe, valve and control gear, looking south-west		
Figure 16	The north face of the east tower, showing inset steel duct and now-redundant presumed level control valve sites, looking south-west		
Figure 17	Upper Neuadd dam, looking west		

SUMMARY

Project Name:	Upper Neuadd Dam		
Location:	Llanfrynach, Powys		
NGR:	SO 89470 33071		
Type:	Historic Building Recording		

In July 2015, Cotswold Archaeology (CA) was commissioned by Skanska on behalf of Dwr Cymru\Welsh Water to provide a photographic survey of parts of the Grade II* Listed dam at Upper Neuadd reservoir. A Heritage Statement written by CA in May 2015 summarised the history and heritage significances of the dam to support an application for Listed Building Consent for essential engineering works. It was indicated by the Brecon Beacons National Park that listed Building Consent was likely to be forthcoming but that a photographic record of the parts of the dam affected by the proposed works would be necessary in mitigation. This report accompanies and supports that record.

The proposed works entail the removal of the stone, inner order of the arched entrance to the tunnel at the eastern side of the spillway, works to remove the present pipework from within the tunnel, and the removal of the 3m thick brick/masonry "plug" at the north end of the tunnel to allow a direct connection from the reservoir. In addition, works will include the raising of the retaining wall extending south from the east side of this entrance, and the extension in concrete of the flat stone platform in front of the entrance, over which water passing through the tunnel behind the entrance will flow. The removal of the plain stone arched interior order and the works to the apron and retaining wall are to be temporary. The stone work will be stored until required for reinstatement.

The photographs were taken digitally in .Raw format at 18mpx resolution. The archive contains this data and a set of files converted to .jpeg (.jpg) format. This data has been submitted on CDs. An Excel spreadsheet forms the catalogue and this has been included on the CD and in hard copy at the end of this report. A selection of photographs accompanies this report.

1. INTRODUCTION

Outline

- 1.1 In July 2015, Cotswold Archaeology was commissioned by Skanska, on behalf of Dwr Cymru/Welsh Water to provide a photographic Historic Building Record to fulfil an anticipated condition of Listed Building Consent for proposals to carry out works on the Upper Neuadd Reservoir Dam, Llanfrynach, Brecon Beacons National Park, Powys (centred on NGR SO 89470 33071 – Fig. 1).
- 1.2 The Dam was built as an addition to the earlier (and now Lower) Neuadd reservoir of 1880, and was completed in 1902. The dam needs remedial works, but in the short term, works are proposed to make the structure stable while longer-term solutions are prepared. The works have been approved in principle by Mrs Ffion Bevan, Senior Planning Officer (DC) to Brecon Beacons National Park, and she has indicated that planning permission is not required. However, as the dam is Listed Grade II*, Listed Building Consent (LBC) will be required for the works. This report is designed to accompany the photographic record.
- 1.3 The survey was conducted on Tuesday 1st September 2015 by Peter Davenport.

Location and landscape context

- 1.4 The dam is located in the Taf Fechan valley high in the Brecon Beacons at 430m AOD (Fig. 1). The valley runs north-west to south-east, so the dam faces out to the south-east (Fig. 2). The hills either side of the valley reach 700m before rising northwards to 873m at the head of the valley at Pen y Fan and Corn Dû (Fig. 3). It is the highest reservoir in the valley, Lower Neuadd being just below and Pontstycill reservoir, the lowest, just above Dowlais.
- 1.5 The surrounding area is rough grassland/moor, although the valley below Lower Neuadd is heavily wooded with commercial conifers, actively managed and cropped. Around Lower Neuadd reservoir itself, the woodland is sparser and more mixed with alder and pine dominant, rather then the spruce below. On the lower slopes near the reservoirs and especially around the valley bottom there is much rhododendron.

Objectives and scope

- 1.6 The main objective of the survey were:
 - To record those elements of the dam that would be affected by the works;

- The take a small number of extra photographs of areas indirectly affected and for context
- To record the viewpoints of each photograph on a plan

2 RELEVANT POLICIES AND GUIDANCE

Planning Policy Wales (Edition 7: 2014)

- 2.1 Paragraph 6.5.9 recognises the importance of protecting the historic environment and states that:
 - "Where a development proposal affects a Listed Building or its setting, the primary material consideration is the statutory requirement to have special regard to the desirability of preserving the building, or its setting, or any features of special architectural or historic interest which it possesses"

Local Development Plan (2013)

- 2.2 Policy 15: Listed Buildings, says that:
 - All listed building consent applications will be determined in accordance with National Policy as set out set out in Circular 61/96.
 - Proposals for planning permission which impact on a listed building or its curtilage including the alteration, extension or change of use, whether internally or externally, will only be supported where it can be shown that there will be no significant harm to the special historic or architectural character and setting of the building or historic features.
 - Conversion / Alteration / Extension / Change of Use of a listed building: The conversion, alteration, extension or change of use of a listed building will only be permitted where the following criteria are satisfied:
 - a) The proposal conserves the contribution made by the building to the character of the National Park.
 - b) The materials and finishes used in the building works are compatible in all respects with those of the existing structure,
 - c) The proposal conforms to all other relevant policies of this plan and national guidance,
 - d) The development would not have a detrimental effect on the setting of a listed or traditional building.

3 METHODOLOGY

- 3.1 The methodology employed during this assessment was based upon professional guidance including the *Standard and guidance for the archaeological investigation and recording of standing buildings or structures* (ClfA 2014).
- 3.2 General and detail images were taken of the areas directly affected and elevational information was also recorded photographically of the tunnel building and the retaining wall. Other more general images were recorded of the central dam structures, i.e. the towers and spillway. The viewpoints of the photographs were recorded on a site plan provided by Skanska (Fig. 2)
- 3.3 The photographs were taken digitally in .Raw format at 18mpx resolution with a Canon EOS 600D. The archive contains this data as well as a complete set of these files converted to .jpeg (.jpg) format. This data has been submitted on CDs. An Excel spreadsheet forms the catalogue and this has been included on the CD and in hard copy at the end of this report. A selection of photographs accompanies this report.

4. RESULTS

- 4.1 The most detailed coverage of this report was of the arched doorway into the tunnel building, as this was the only visible external area that will be partly demolished. Several apparently duplicate shots were taken to try to take best advantange of natural lighting. Elevation views as well as details of the stonework were taken (Figs 2-6).
- 4.2 As the eastern retaining wall will be altered this was photographed on both sides and, as well as general views, a series of straight-on exposures were made to allow the construction of a photomontage elevation record (Figs 7 and 8).
- 4.3 Beyond the apron, i.e., south, is a flat, grassed area, which will be terracreted and take the water flowing out of the opened-up tunnel into the pool at the base of the spillway (Figs 9 and 10).
- 4.4 Inside the tunnel building the tunnel is nearly all brick-lined concrete, with some rock-finished stone work near the entrance (Fig. 11). It contains two large steel pipes which orginally took water from different levels of the reservoir. The western one still

does it seems, feeding the present outfall below the apron. Both had valves controlled from the tower at walkway level (Figs 12-13). Another large-bore pipe rose up into the shaft at the north end rising into the tower. This has been long disconnected (Fig. 14).

- 4.5 The northern end of the tunnel to be opened up is just visible above the present water level on the north side of the dam. More pipes and control gear remain here (Fig. 15).
- 4.6 This all appears to be part of a level control system, now not functioning (Fig. 16).

5. **REFERENCES**

Cadw 2011 Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment in Wales (Cardiff)

Cadw 2014 Planning Policy Wales. Ch 6 Conserving the Historic Environment (Cardiff)

- Chartered Institute for Archaeologists 2015 Standard and Guidance for Historic Environment Desk Based Assessment
- Chartered Institute for Archaeologists 2015 Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures

Dams of Wales 2015 www.damsofwales.com accessed 4th May 2015

Encyclopaedia Britannica

http://www.britannica.com/EBchecked/topic/150337/dam/72085/The-19th-century accessed 5th May 2015

English Heritage 2006 Understanding Historic Buildings: a guide to good recording practice (Swindon)

Cartographic sources

1920	Ordnance Survey Map,	1:2,500
1937	Ordnance Survey Map,	1:2,500
1955	Ordnance Survey Map,	1:1,250
1970	Ordnance Survey Map,	1:2,500

APPENDIX A: OASIS REPORT FORM

PROJECT DETAILS

Project Name	Upper Neuadd Dam. Brecon Beacons Na	ational Park, Powys	
Short description	In July 2015 Cotswold Archaeology (C	(A) was commissioned by	
Short description	In July 2015, Cotswold Archaeology (C Skanska on behalf of Dwr Cymru/W photographic survey of parts of the Grad Neuadd reservoir. A Heritage Statement summarised the history and heritage si support an application for Listed Build engineering works. It was indicated National Park that listed Building Co forthcoming but that a photographic reco affected by the proposed works would b This report accompanies and supports	A) was commissioned by elsh Water to provide a de II* Listed dam at Upper written by CA in May 2015 gnificances of the dam to ing Consent for essential by the Brecon Beacons onsent was likely to be ord of the parts of the dam be necessary in mitigation.	
	works entail the removal of the stone, entrance to the tunnel at the eastern sid remove the present pipework from w	inner order of the arched le of the spillway, works to ithin the tunnel, and the	
	removal of the 3m thick brick/masonry "p tunnel to allow a direct connection from works will include the raising of the reta	lug" at the north end of the the reservoir. In addition, ining wall extending south	
	from the east side of this entrance, and the the flat stone platform in front of the en- passing through the tunnel behind the removal of the plain stone arched interi the apron and retaining wall are to be the	he extension in concrete of ntrance, over which water e entrance will flow. The or order and the works to emporary. The stone work	
	will be stored until required for reinsta were taken digitally in .Raw format a archive contains this data and a set of fill format. This data has been submit	tement. The photographs at 18mpx resolution. The es converted to .jpeg (.jpg) ted on CDs. An Excel	
	CD and in hard copy at the end of t	s has been included on the his report. A selection of	
Project dates	May and 1st September 2015		
Project type	Photographic Historic Building record		
Previous work	Heritage Statement by CA 2015		
Future work			
PROJECT LOCATION			
Site Location	Llanfrynach, Powys		
Study area (M ² /ha)			
Site co-ordinates (8 Fig Grid Reference)	SO 89470 33071		
PROJECT CREATORS			
Name of organisation	Cotswold Archaeology		
Project Brief originator	none		
Project Design (WSI) originator	Cotswold Archaeology		
Project Manager	Richard Morton		
Project Supervisor	Peter Davenport		
	Dam		
	N/A	Oristant	
PROJECT ARCHIVES	(museum/Accession no.)	Content	
Physical	N/A	N/A	
Paper	N/A	N/A	
Digital		Digital photos, pdf report	
BIBLIOGRAPHY			
Cotswold Archaeology (2015) Upper Neua Recording Report No: 15679	dd Dam, Brecon Beacons National Park, Po	wys: Historic Building	

APPENDIX B: LISTED BUILDING DESCRIPTION

Authority	Powys	Record No 84824
National Park	Brecon Beacons	Date Listed: 28/07/2005
Community	Llanfrynach	Date Amended
Locality	Neuadd	Date Delisted
		Grid ref: 302915 218769
		Grade II*

Dam at the Upper Neuadd Reservoir

Location

Name:

Situated in the Taf Fechan valley some 9.6 km SW of Llanfrynach.

History

Dam to Upper Neuadd reservoir opened 1902, designed by George F. Deacon engineer of London, assisted by T. F. Harvey, Borough Engineer Merthyr Tydfil. Holme & King contractors. Deacon was also engineer to the Liverpool Water Board and designed the tower at Lake Vyrnwy in the 1880s and that at Norton (Cheshire). The architecture at Vyrnwy is based on the Gothic of William Burges, here Deacon seems to have been influenced by the massive detail of the American architect H. H. Richardson.

Exterior

Long dam of massive rock-faced squared blocks with tooled edges. Long straight dam with sloping face and quarter-round moulded stone coping, each side of centre spillway-dam flanked by two towers. Spillway is bridged by walkway on seven stone piers rising from the sloping face of the very high rock-faced stone main dam, the face curving out at base to a more gentle slope. This is flanked by raised sections to similar slope which carry the two towers. The W tower is much larger, square-plan, with banded rusticated angle piers, modillion cornice broken forward around piers, and tapered square finials at each corner, around stone spire. The S front has a large 3-light mullioned window with arched head, stone voussoirs, sandstone mullions and massive cast-iron glazing bars. W and E sides have low doors protected by stone balconies on the S. W tower is much shorter, square neo-classical building with the same banded rusticated angle piers, modillion cornice, but heavy blocking course above gabled to S. Low S lunette window with stone voussoirs and cast-iron glazing bars. Door each side with stone balcony on S. Extending from the base of the E side of the dam, below the main tower is a massively designed tunnel-outlet in Piranesi style, the arch framed in gargantuan rustication, the W side tapered, and the corbelled parapet with low centre gable over bronze plaque recording the completion of the dam in 1902. Brick tunnel lining. A platform in front of the tunnel covers an arched water outlet on the W side.

Listed

Graded II* for its special interest as an architecturally-designed dam of spectacularly massive construction and definite character.

APPENDIX C: CATALOGUE OF DIGITAL PHOTOGRAPHS

COTSWOLD ARCHAEOLOGICAL TRUST

PHOTOGRAPHIC REGISTER (Digital)

Site Name		Upper Neuadd Da	Upper Neuadd Dam		Proj. No	5587
Site Code			Film No.	1	Acc. No	
Frame no.		Date and Initials	Description; scale 2m unless	otherwise in	dicated	
Orig files in H	RAW format: also sav	ed as ipg. same frame nos.				
IMG_7140	Sept 2015 PD	General view along da	am to central towers to W			
7141	Sept 2015 PD	General view along da	am to central towers to W (no	scale)		
7142	Sept 2015 PD	Deleted	· · · · ·			
7143	Sept 2015 PD	General view along da	am to central towers to W zoo	med in		
7144	Sept 2015 PD	View to SSW from da	m, east end			
7145	Sept 2015 PD	View to SSW from da	m, east end			
7146	Sept 2015 PD	Central zone (spillway	/ and towers), to W			
7147	Sept 2015 PD	Central zone (spillway	/ and towers), to W			
7148	Sept 2015 PD	Water bypass tunnel I	building, to W			
7149	Sept 2015 PD	Rear of E retaining wa	all to spillway, to SW			
7150	Sept 2015 PD	Detail of E face of E r	etaining wall to spillway, to W			
7151	Sept 2015 PD	E retaining wall to spi	llway, to NW			
7152	Sept 2015 PD	E retaining wall step f	ace, to N			
7153	Sept 2015 PD	S end of E retaining w	vall and access steps leading	behind		
7154	Sept 2015 PD	The S end of the apro	The S end of the apron in front of the hypass tunnel building to N			
7155	Sept 2015 PD	N end of the E retaining wall, apron and outfall below, to F				
7156	Sept 2015 PD	The spillway to NW	The spillway to NW			
7157	Sept 2015 PD	Facade and entrance	Facade and entrance to bypass tunnel to N			
7158	Sept 2015 PD	Detail of arches over	tunnel entrance (scale 0.5m d	livisions) to	N and up	
7159	Sept 2015 PD	Detail of tunnel entrar	nce to NE	,		
7160	Sept 2015 PD	Detail of arches over	tunnel entrance (scale 0.5m d	livisions) to	N and up	
7161	Sept 2015 PD	Detail of tunnel entrar	nce to NE	,		
7162	Sept 2015 PD	Entrance to bypass tu	innel, to NE (slightly less cont	rast. cloudv	')	
7163	Sept 2015 PD	Entrance to bypass tu	innel, to N (slightly less contr	ast, cloudv)	,	
7164	Sept 2015 PD	W wall of bypass tunn	nel building, and spillway, to E	, . ,		
7165	Sept 2015 PD	The E retaining wall.	apron and outfall below, to ES	E		
7166	Sept 2015 PD	Entrance to bypass tu	innel, to NE (slightly less cont	rast, cloudy	′)	
7167	Sept 2015 PD	Entrance to bypass tu	innel, to N (slightly less contr	ast, cloudv)		
7168	Sept 2015 PD	Detail of arches over	tunnel entrance (scale 0.5m d	livisions) to	N and up	
7169	Sept 2015 PD	Interior of tunnel to N	(no scale)	,		
7170	Sept 2015 PD	Entrance to bypass tu	innel, to NE (less contrast. clo	oudy)		
7171	Sept 2015 PD	Elevation view 1 E retaining wall				
7172	Sept 2015 PD	Elevation view 2 E ret	aining wall			
7173	Sept 2015 PD	Elevation view 3 E ret	aining wall			
7174	Sept 2015 PD	Elevation view 4 E ret	aining wall			
7175	Sept 2015 PD	Elevation view 5 E retaining wall			—	
7176	Sept 2015 PD	Area S of apron, to NNE				
7177	Sept 2015 PD	Area S of apron. to NI	NE			

7178	Sept 2015 PD	Area S of apron to N
7179	Sept 2015 PD	Area S of apron, to N further back with dam
7180	Sept 2015 PD	Area S of apron, to N further back with dam
7181	Sept 2015 PD	Spill way and dam towers to NNW
7182	Sept 2015 PD	Outfall below apron to F
7183	Sept 2015 PD	Entrance to tunnel for inside to SSE (high contrast)
7184	Sept 2015 PD	S end of tunnel from inside to S
7185	Sept 2015 PD	SW end of tunnel interior to SW
7186	Sept 2015 PD	Steps at S and of tunnel to N (scales 1m)
7187	Sept 2015 PD	The N end of the tunnel and pipework to N
7188	Sept 2015 PD	Detail of nine work at N end of tunnel, to N
7189	Sept 2015 PD	North end of tunnel, brickwork to be removed (behind scale), to N
7190	Sept 2015 PD	Tar(2) tank at N end of tunnel, NW corner, to N
7191	Sept 2015 PD	View up into tower (arid at walkway level) from tunnel end. N to left
7192	Sept 2015 PD	Detail of worm gear on the draw off valve, to SE
7103	Sept 2015 PD	Drain and worm dear on removed can to left
7193	Sept 2015 PD	E tower from walkway to W
7194	Sept 2015 PD	Entrance to tower and platform on NI (right): note old ironwork barriers
7195	Sept 2015 PD	Corbelled roof over east tower. N to top
7190	Sept 2015 PD	Valve operating gear in the E tower at walkway level, to S
7197	Sept 2015 FD	Valve operating gear in the E tower at walkway level, to 5
7190	Sept 2015 PD	Valve operating geal in the E tower at walkway level, to E
7199	Sept 2015 PD	pipe and steel panels in N face (no scale)
7200	Sept 2015 PD	Pen Ifan etc N from walkway (no scale)
7201	Sept 2015 PD	Pipes and steel panelling seen in 7199, to SW
7202	Sept 2015 PD	Top of arch to bypass tunnel and associated pipe work, to SW cf 7201
7203	Sept 2015 PD	As 7201 zoomed in (no scale)
7204	Sept 2015 PD	Steel panels in N side of tower, to SW (no scale)
7205	Sept 2015 PD	Upper part of steel panels and platform in N side of tower, to SW (no scale)
Backups	Lower res when m	ain camera threatened to malfunction, all jpg.
P1070141	Sept 2015 PD	Spillway and towers to NW (no scale)
1070142	Sept 2015 PD	West wall of tunnel building to E
1070143	Sept 2015 PD	E tower to NE and up
1070144	Sept 2015 PD	Tunnel building to NW
1070145	Sept 2015 PD	Spillway and towers to NNE (no scale)
1070146	Sept 2015 PD	Tunnel building to NW, from lower down
1070147	Sept 2015 PD	Tunnel building entrance arches to NE
1070148	Sept 2015 PD	Detail of soffit of voussoirs of tunnel building entrance outer arch (scale 0.5m divisions) to NE
1070149	Sept 2015 PD	Tunnel building entrance, to N
1070150	Sept 2015 PD	Tunnel building entrance, to N, zoomed in
1070151	Sept 2015 PD	Detail of arches over tunnel entrance (scale 0.5m divisions) to N and up
1070152	Sept 2015 PD	Tunnel to N
1070153	Sept 2015 PD	Detail of tunnel entrance to NE
1070154	Sept 2015 PD	Detail of tunnel entrance to NE
1070155	Sept 2015 PD	Detail of arches over tunnel entrance (scale 0.5m divisions) to N and up
1070156	Sept 2015 PD	Tunnel building entrance, to NNE, zoomed in
1070157	Sept 2015 PD	Detail of tunnel entrance W jamb to NW
1070158	Sept 2015 PD	Detail of tunnel entrance E jamb to NE
1070150	Sept 2015 PD	
10/0135		



Figure 1. Upper Neuadd reservoir location plan



Figure 2 Site plan showing viewpoints of photographs



Figure 3. The south elevation of the tunnel building (scale 2m)



Figure 4. Detail of the arches of the doorway into the tunnel building (scale in 0.5m divisions)



Figure 5. The treatment of the jambs of the inner doorway to the tunnel building (scale 2m)



Figure 6. The western elevation of the tunnel building (scale 2m)



Figure 7. The eastern retaining wall from the spillway base and the lower outfall (scale 2m)



Figure 8. Photomontage elevation of the eastern retaining wall



Figure 9. The grassy area to be terracreted to stop erosion by the new outflow from the tunnel



Figure 10 The top of the retaining wall and the grassy area beyond, which will be terracreted, looking south-west (scale 2m)



Figure 11 The south end of the tunnel just inside the entrance, looking south (scale 2m)



Figure 12 The north end of the tunnel showing the base of the shaft in the tower and the pipework and control gear. The tunnel is to be driven through the brick work at the far end



Figure 13. Control mechanisms for the valves in Fig. 12, over the shaft in the east tower at walkway level, looking S (scale in 0.5m divisions)



Figure 14. Looking up into the shaft in the east tower, at the end of the tunnel to the grating shown in Fig. 13



Figure 15. The brick voussoirs of the tunnel visible on the north side of the dam and the pipe, valve and control gear, looking south-west



Figure 16The north face of the east tower, showing inset steel duct and now-redundantpresumed level control valve sites, looking south-west



Upper Neuadd dam, looking west



Andover Office

Stanley House Walworth Road Andover Hampshire SP10 5LH

t: 01264 347630

Cirencester Office

Building 11 Kemble Enterprise Park Cirencester Gloucestershire GL7 6BQ

t: 01285 771022

Exeter Office

Unit 8 Basepoint Business Centre Yeoford Way Marsh Barton Trading Estate Exeter EX2 8LB

t: 01392 826185

Milton Keynes Office

41 Burners Lane South Kiln Farm Milton Keynes Buckinghamshire MK11 3HA

t: 01908 564660

