



British
Waterways
Scotland

£1

EXPLORING SCOTLAND'S LOWLAND CANALS AND THE MILLENNIUM LINK PROJECT



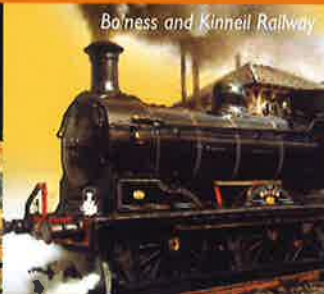
Discover the
waterscape.com

Destination Falkirk

Discover the Falkirk Area, located at the heart of the lowland canal network



Birkhill Caverns



Bo'ness and Kinneil Railway



Town Centre Steeple



The Falkirk Wheel

shopping attractions leisure
history people events

einkaufen sehenswürdigkeiten
freizeit geschichte menschen
veranstaltungen

shopping attractions touristiques
loisirs histoire les gens
manifestations

winkelen attracties vrije tijd
geschiedenis mensen
evenementen



Town Centre Farmers' Market



Historic Callendar House

For further information please contact either of the two local information centres

Falkirk, 2/4 Glebe Street
Tel: 08707 200614
(open all year)

Bo'ness - Car Park, Seaview Place
Tel: 01506 826626
(open May - end Sept)
www.visitscottishheartlands.com
www.falkirkinspired.com
www.falkirk.gov.uk



The Dunmore Pineapple



British Waterways Scotland,
Lowland Canals, New Port Downie, Lime Road,
Tamfourhill, Falkirk FK1 4RS
Tel: 01324 671217
Email: enquiries.lowlands@britishwaterways.co.uk



Published on behalf of British Waterways by:
Graphic Design, The Old Station,
Coastal Road, Hest Bank, Lancaster, LA2 6HN.
Regional Tel: 08707 200055
Regional Fax: 08707 200056
Email: graphicdesign@zoom.co.uk

DISCLAIMER

Whilst every care and attention has been taken to ensure total accuracy in this guide, neither British Waterways nor Graphic Design can accept any responsibility for any errors or omissions, nor for any consequence arising from the use of this guide, therefore it is advisable to check all times and offers beforehand. The advertising of any establishment does not imply an official recommendation from either British Waterways or Graphic Design.

CONTENTS

Introduction	2
Waterways Code	4
Forth & Clyde Canal	
Bowling and Clydebank.....	6
Glasgow and Port Dundas	8
Kirkintilloch	12
Auchinstarry and Twechar	16
Bonnybridge.....	20
Falkirk and The Wheel	21
Linking with the Firth of Forth	22
The Union Canal	
Edinburgh Quay and the suburbs	24
Ratho and Almondell	26
Philipstoun to Broxburn	34
Muiravonside and Linlithgow	36
Linking the Union and Forth & Clyde Canals	38
Specialist Interests	
History.....	40
Wildlife and Angling	46
The Antonine Wall.....	52
Starting Boating	56
Millennium Link.....	58
British Waterways statement.....	64

The Falkirk Wheel
Tamfourhill, Falkirk, FK1 4RS
Tel: 01324 619888
Email: info@thefalkirkwheel.co.uk
Boat Trip Booking Line: 08700 500 208

British Waterways Scotland, Canal House,
1 Applecross Street, Glasgow, G4 9SP
Tel: 0141 332 6936
Fax: 0141 331 1688
Email: enquiries.scotland@britishwaterways.co.uk
www.scottishcanals.co.uk



INTRODUCTION

It is my great pleasure to welcome you to Scotland's Lowland Canals.

Rich in engineering history and seafaring tradition, it is just a few short years since these canals were nearly lost to all of us forever as they lay derelict, with over 30 major obstructions, some stretches filled in with rubble, others built over by structures such as the M8 motorway.

Only a handful of people - real canal enthusiasts and engineers - fully understood just how much these 200 year old inland waterways could contribute to the country's social and economic regeneration and just how accessible they could be to everyone for boating, walking, cycling, angling, wildlife spotting or simply just for great days out.

With more than 7million towpath visits to the Forth & Clyde and Union over the last year, I am immensely proud of what has been achieved so far and hope you will explore and enjoy the canal experience too. Always

remember the SAFE message - Stay Away From the Edge. Your safety always comes first with British Waterways Scotland.

There are some great places to stop along the canals already, but what really excites me, as the person responsible for the canals, are all our fantastic plans for the future of these wonderful waterways. Boats for hire, boat sales, events on towpaths and on the water, refreshment and clean-up facilities, more moorings, new marinas and shops, bicycle hire, luxury holiday hire boats the list just goes on and on. And all of this before we even mention the incredible Falkirk Wheel which is, of course, a truly awesome day out in itself.

Everyone at British Waterways Scotland; all the Local Authorities and Enterprise companies; all the businesses, canal volunteers in local communities and the canal Societies are doing everything possible to make Scotland's canals an asset for the future, but we still need your help and support.

We value your views on your canal experience and have Visitor Comment cards which you can complete and return FREEPOST to us. There are staff along the canal who will be only too pleased to answer your questions and pass your comments on. And, the Lowland Canals office can also be contacted if you have any suggestions and ideas for ways in which we can improve your visitor experience.

These are YOUR canals - please care for them well and we will all be able to enjoy them for at least another 200 years!

RICHARD MILLAR

MANAGER, LOWLAND CANALS

Edinburgh Canal Centre

RATHO

- Lunch & Afternoon Tea Cruises
- Dinner Cruises
- Murder & Mystery Cruises
- Wedding Ceremonies
- Long Distance Holiday Cruises
- Full Services For Boaters



Tel: 0131 333 1320

E.mail: info@bridgeinn.com

www.edinburghcanalcentre.co.uk

27 Baird Road, Ratho, Midlothian, EH28 8RA

WATER OF LEITH VISITOR CENTRE

24 LANARK ROAD EDINBURGH
www.waterofleith.org.uk



Descend the steps from the union canal and explore Edinburgh's hidden natural asset the Water of Leith, flowing beneath the Stateford aqueduct.

Experience our fantastic interactive exhibition on the river's heritage and wildlife.

CAFÉ AND GIFT SHOP



OPENING TIMES
10.00 to 4.00
EVERYDAY
APRIL TO SEPT
(Closed Mon & Tue
Oct to Mar)
0131 455 7367



MODEST ENTRANCE CHARGE FOR THE EXHIBITION



In Operation since 1980

CRUISE ON:

GYPSY PRINCESS - JANET TELFORD
NEW 55 PASSANGER BOAT / AUTUMN 2004
AUCHINSTARRY - KIRKINTILLOCH
BISHOPBRIGGS - CLYDEBANK - GLASGOW
& ALL PIONTS BETWEEN & BEYOND

PRIVATE CHARTERS:

ORGANISE SOMETHING DIFFERENT FOR
YOUR NEXT OUTING, WE WILL ENDEAVOUR
TO ACCOMMODATE YOUR IDEAS

Check our website for events and
membership details.

www.forthandclyde.org.uk
Telephone 0141-772-1620





THE WATERWAYS CODE

British Waterways has developed this code to ensure that canals are safe for all their users and that their environment is safeguarded for future generations.

EVERYONE

- Protect the waterway environment - keep noise to a minimum and don't damage the vegetation or banks.
- Take home everything that you brought with you, and leave the site as you found it.
- Never dump rubbish, sewage or oily bilge water into the water or onto the bank.
- Clean up after your dog and keep it under control.
- Don't light fires.
- Things can go wrong on canals. If you see something dangerous such as serious damage to structures or water escaping, please dial 0800 4799947

- Report pollution, fly tipping or fish in distress to the Scottish Environment Protection Agency (SEPA) on 0800 807060.
- Report birds in distress to SPCA on 0131 3390111.
- Seek permission from the Lowland Canals waterway office to organise a special event or educational visit.

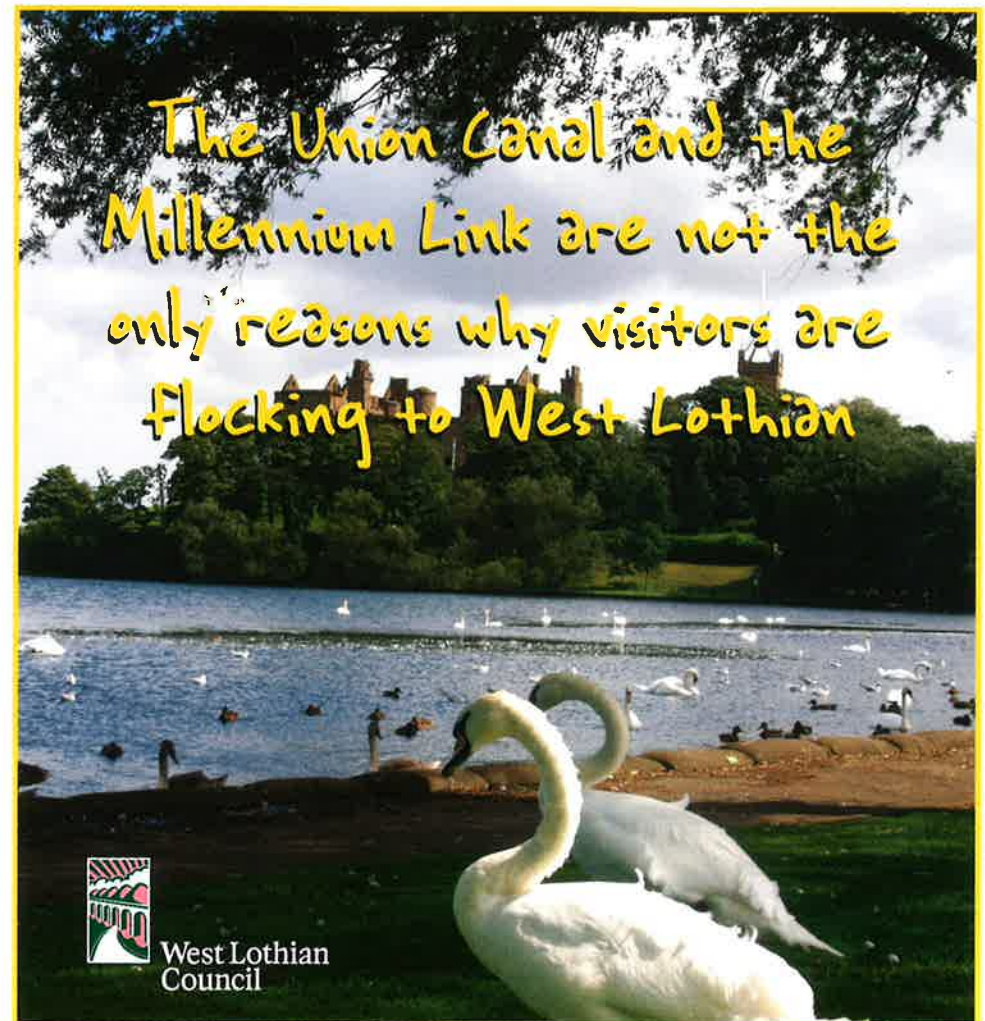
BOATERS

- Avoid creating a breaking wash and don't run your propeller whilst moored.
- Don't obstruct locks, bridges, water points or turning points.
- Slow down when passing moored or unpowered boats.
- You and your crew must understand how to operate your boat and navigate locks and bridges.
- Children and nonswimmers should wear a life jacket or buoyancy aid.

UNPOWERED CRAFT

- Make sure your craft is suitable for the waterway you are using and that you are competent to use it.
- Larger craft need deeper water and room to manoeuvre so keep to the side of the channel where the helmsman can see you.
- Lock weirs and sluices are dangerous. Don't stay aboard your craft in a filling or emptying lock - carry it around or if it is too heavy, use lines to keep control.

A more detailed booklet called 'The Waterway Code for Boaters' is available from British Waterways Central Office: British Waterways, Willow Grange, Church Road, Watford WD1 3QA



History, culture, country parks, great restaurants and pubs and, of course, shopping are all just a stone's throw away in West Lothian's canal-side towns, Broxburn and Linlithgow.

For year round tourist/visitor information call 0131 473 3800 or visit www.westlothian.gov.uk/visiting or visit Linlithgow Tourist Information Centre, April to September, Telephone 01506 844600.

West Lothian Council – Economic Development - Town Centres Management



FORTH & CLYDE CANAL

BOWLING AND CLYDEBANK

The section of the Forth & Clyde canal linking the City of Glasgow with the Clyde estuary was completed in 1790, and was the last part of the waterway to be built.

Bowling Basin remained open throughout the canal closure between 1963 and 2000, and was used as a harbour for privately owned small craft.

It is overlooked by the handsome Custom House, which dates from the early days of the canal when Glasgow's trade with the west was conducted via the canal, as the seagoing ships of the time could not reach the city as the River Clyde had not yet been deepened.

The Bascule Bridge which spans the canal between the two lower basins is an original, but it is dwarfed by the disused Caledonian Railway swing bridge, a listed monument, which carried one of the two competing railways from Glasgow to the northern Clyde coast.

The sea lock facing across the River Clyde to Erskine Park is the original (No 39), but it was discontinued when a new sealock (No 40) was built giving access to and from the river via Bowling Harbour.



To the west is Dumbarton, easily reached by boat, train, car or cycle. It has its own maritime history, as the Denny shipyard built many well known ships. The famous clipper Cutty Sark was built on the western bank of the River Leven, just below the road bridge, although no sign of this enterprise can be seen today. A visit to the Denny Ship Model Experimental Tank, now run as a museum, gives a valuable insight into the research and development of ship design down the years. You will find it on the main street just east of the town centre.

The towpath from Bowling to Clydebank is part of the Glasgow to Loch Lomond Cycle path, and as you travel eastwards you come to Ferrydyke Bridge, another restored original bascule bridge, a lock keeper's cottage, and the western end of the Antonine Wall.

The Erskine Bridge towers over Lock 37 at Old Kilpatrick, and the Saltings Nature Reserve lies just to the east, close to Ferry Road swing bridge, which gave access to the former Erskine Ferry.



The nature reserve is almost hidden in secluded riverside wetlands, between the river and the canal, and this interesting habitat can be explored on a raised wooden walkway.

Further east, Dalmuir Bridge and its 'Drop Lock' is a major new Millennium Link feature. This ingenious structure enables boats to pass beneath the road by lowering them in a lock chamber, and then raising them again to canal level, and it is the first lock of this kind in Britain, and possibly the world.

Just around the corner is Trafalgar footbridge, and after crossing the Glasgow to Helensburgh railway line the canal skirts around the southern perimeter of the former Singer Sewing Machine factory, now a modern industrial estate.

The canal passes under Kilbowie Road Bridge to Clydebank Shopping Centre, complete with its two pedestrian bridges, which are lifted one at a time so as not to interrupt pedestrian traffic. Here too is McMonagle's 'Sail-thru' fish and chip takeaway which has become a famous canal port of call for both sailors and landlubbers.

Other Clydebank attractions are the UCI Clydebank Cinema, and Clydebank Museum.

The canal now winds its way from Clydebank through the western suburbs, under Great Western Road to Bearsden Road, where at Lock 27 there are two pub/restaurants, and mooring facilities.



THINGS TO DO AROUND BOWLING AND CLYDEBANK

Auchentoshan Distillery Visitor Centre

01389 878561

Clydebank Museum 01389 738702

Denny Ship Model Experimental Tank
01389 763444

Dumbarton Tourist Information Centre
01389 742306

McMonagle's 0141 951 2444

Saltings Nature Reserve

UCI Clydebank Cinema 0870 010 2030



GLASGOW AND PORT DUNDAS

The most important canal features in Glasgow are the magnificent Kelvin Aqueduct and Maryhill Locks flight, which raise the waterway through some 40 metres. Between Locks 22 and 23 is the site of Kelvin Dock, a shipyard and dry-dock where small ships were built from 1789 until it closed in 1949. The very first 'puffer' was built here in 1857, as were D-Day landing craft during WWII.

You can walk, cycle or navigate along the lock-free Glasgow Branch to Shields Wharf and the city. The first bridge after Stockingfield is at Ruchill Street, which was re-constructed some 15 years ago. Nearby are the Charles Rennie Mackintosh designed Ruchill Church Hall, which was built in 1898, and Queens Cross Church, built the next year.

The canal then crosses Bilsland Drive aqueduct, which like those at Maryhill Road and Possil Road, was rebuilt on a grander scale in the late 1800s to accommodate the new Glasgow tramway system.

Firhill Bridge is also known as the Nolly Brig, and overlooks Partick Thistle's football stadium. Nearby Firhill Basin was part of a large complex of timber pounds in which timber was stored afloat for seasoning. It is now used for water activities, and is something of a nature preserve as well. The nearby Stop Lock (a single set of gates) was one of many built during World War II to contain the canal waters in the event of bomb damage.

By 1777 the canal had reached a new terminus at Hamiltonhill Old Basin, now overlooked by the modern BW Scotland HQ building. The older buildings nearby date from the earliest days of the canal. The waterway next crosses Possil Road aqueduct, below which part of the original structure of 1790 is still visible.

The warehouses at Spiers Wharf, built as grain mills and a sugar refinery, and later used as bonded stores, are now residential flats, and the magnificent Georgian Canal House, now occupied by a firm of architects, was once the canal company office. These are fine monuments to the vision and endeavour that created this waterway.



This section affords unobstructed views across the city towards Kelvingrove, Glasgow Science Centre and Glasgow University, and is close to the city centre and the M8 Motorway. A short walk away are Glasgow's shops, galleries, theatres and restaurants.

Port Dundas was once the Port of Glasgow, and was also the junction with the Monklands Canal. A new initiative by British Waterways and Glasgow City will restore and redevelop the Port Dundas area over the next few years.

The entrance to the Monklands Canal was in the southernmost corner of Port Dundas, and although that waterway is now buried beneath the M8, a piped water supply to the Forth & Clyde still flows along the former route, supplying the summit reach.



Kelvin Walkway

The Kelvin Walkway passes beneath the historic Kelvin Aqueduct at the foot of the Maryhill Lock flight. The link from the towpath to the walkway involves a steep descent by way of steps or an uneven and narrow path.

The walkway at this point is a good quality asphalt surfaced path as far as Maryhill Road to the north, where it leads on to Milngavie and the start of the West Highland Way, approximately 9 km from the Canal.

Heading south, the path is well surfaced into Kelvingrove Park, from where it leads (approximately 6km) to the Clyde Walkway, connecting eastwards along the north bank of the River Clyde. It passes through a pleasant tree lined valley close to Glasgow Botanic Gardens, Kelvingrove Museum and Art Gallery, and via the Clyde Walkway, the Scottish Exhibition and Conference Centre, Bell's Bridge, and the Glasgow Science Centre.


FTH FALKIRK TOWN HALL



Music
Theatre
Film
Visual Arts
Conference
Community

Your first stop for local, national and international entertainment.
10 minutes by car from the Falkirk Wheel
Bus no 3 every 15 minutes
Phone 01324 506860
www.fthentertainments.org

THE CANAL INN



CANAL STREET, CAMELON,
FALKIRK FK1 4QU
TEL: 01324 612597

Central Scotland Forest Trust Working with partners to create the... Central Scotland Forest

Sites along the Canal that we've helped to create
All worth a visit!

Kilsyth Town Walk
(view the wonderful, diverse surrounding landscapes)

Banknock Access Network
(a series of pathways by the canal)

Muiravonside - between Falkirk & Linlithgow
(magnificent timber stairway & bridge from the canal to Muiravonside Country Park)

Winchburgh Cut
(sail through a newly landscaped 12m high, steep-sloped cut)

For more information or a leaflet about the Central Scotland Forest and the Trust phone: 01561 622016 or visit www.csft.co.uk

Glenborough,
Grangemouth FK3 8XJ
Tel: 01324 474 836
Fax: 01324 665 861
Web: www.grangemanor.co.uk
Email: info@grangemanor.co.uk



Set in well-tended gardens on the outskirts of Grangemouth, the hotel features an award winning restaurant.

Accommodation is either in the gracious ambience of the bedrooms in the original house, or in the spacious and handsomely decorated rooms of the recent extension.

Enjoy imaginative cuisine prepared with the finest fresh ingredients ("Scottish with a French flavour") in the hotel's restaurant 'Le Chardon', or experience the character and charm of 'Wallace's', our bistro bar, set in the refurbished former stables.



Kirkintilloch the canal capital of Scotland



Enjoy the stunning scenery and spectacular views of the Campsies, and the walkways and cyclepaths along the Forth and Clyde Canal.

The Canal passes through areas of natural beauty and through the centre of Kirkintilloch with its remarkable Industrial Heritage, much of which centred around the Canal.

Visit the award winning Auld Kirk Museum in Kirkintilloch and learn about the boatyards that launched the Famous 'Puffers' into the Canal at Townhead Bridge.

www.eastdunbarton.gov.uk
Tel: 0141 578 8000





KIRKINTILLOCH

Kirkintilloch lies approximately midway along the Summit Reach of the Forth & Clyde Canal. This busy town is known as the 'Canal Capital of Scotland' and the waterway passes right through the centre, convenient for all amenities.

The summit reach of the canal is a tranquil sixteen mile stretch of rural waterway, with superb views of the hills to the north. The Roman built Antonine Wall crosses the canal four times on this stretch.

Townhead Bridge was built as part of The Millennium Link project, and is symbolic of the canal's renovation. Nearby is the Nicolson Bridge and the Luggie Aqueduct, the former a new structure, the latter having been built in 1774 to cross the Luggie Water, a tributary of the River Kelvin to the north. Later, the Campsie Railway used the same arch, commemorated by a simulated railway track pattern in the restored pavement.

A former basin just west of Hillhead Bridge was the very first canal terminus. Known as Hillhead Harbour, this was as far as the new canal from Grangemouth had reached by 1773. Other historic locations nearby include the former stables at Lambhill, Glasgow Road Bridge, and Shirva. These stable blocks housed the horses which, in relays, pulled the 'swifts' (fast passenger boats).



There are two museums in Kirkintilloch, the Auld Kirk Museum and the Barony Chambers Museum, and if history is your special interest, the Thomas Muir Museum in Bishopbriggs should not be missed. Thomas Muir was an advocate and a radical, and was one of the 'Scottish Martyrs' of the 1790s.

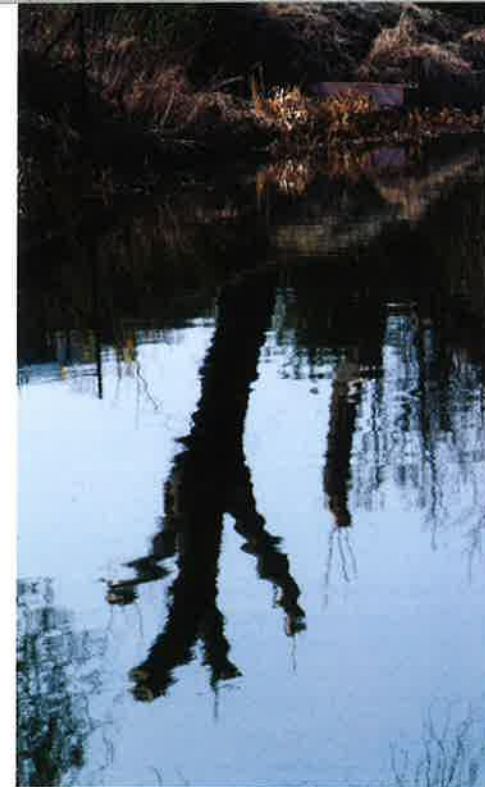
For something completely different you can visit the Pro 10 Pin Bowling, in Kirkintilloch.

WALKING AND CYCLING

Setting out along the towpath to the west offers the choice of walking 2 kilometres to the Stables Inn, or twice that distance to Cadder Bridge.

Just to the west of Kirkintilloch is the Seagull Trust boathouse, and the former site of J&J Hay, who built and operated 'puffers' on the canal.

The next landmark is Glasgow Road Bridge and the possibility of refreshment at the Stables Inn, which as its name suggests, was another horse change point. Hungryside Bridge carries the road to Torrance across the canal, and at this point the River Kelvin is just a few hundred yards to the north.



From here it is a couple of kilometres to Cadder, where there is an old mill opposite the former bridge keeper's cottage, and the canal crosses the line of the Antonine Wall at the sharp bend, with the site of a Roman fort located on the bluff to the south.

Through Cadder village and past the church there is a footpath to Balmore, which crosses the River Kelvin on the way.

Heading eastward from Kirkintilloch the canal and towpath run between the A803 and the eastern outskirts of the town. Just over 2 kilometres from the last bridge, where the road swings away from the canal, is the site of another Roman Fort.

Another walking or cycling option is the Strathkelvin Railway Walkway, which follows the track of the old railway alongside Luggie Water to the Kelvin, and then skirts the foot of the Campsie Fells. Full information is available in the leaflet "Cycle Routes in East Dunbartonshire", published by East Dunbartonshire Council.



Within the town the recently restored Peel Park offers stunning views to the Campsies, and is a venue for public events, concerts and other entertainments.

Auld Kirk Museum, Cowgate, Kirkintilloch. 0141 578 0144

Peel Park, Nr The Cross, Kirkintilloch 0141 578 0144

William Patrick Library, High Street, Kirkintilloch. 0141 776 7484

Castle Cary

House Hotel

Castle Cary, standing on the watershed of Scotland's central belt and on the shortest route between Forth and Clyde. It is uniquely placed to cater for business men and women and also please guests who simply want to relax and enjoy Scotland.



We are a private hotel with 70 comfortable rooms, which have been built mainly in the form of cottages surrounding the main hotel building. These have an ensuite bathroom or shower, central heating, direct dial telephone, tea making facilities, also colour television and trouser press.

Tel: 01324 840 233 Fax: 01324 841 608
Web: www.castlecaryhotel.com
E-Mail: enquiries@castlecaryhotel.com
Castle Cary House Hotel, Castle Cary Road,
By Cumbernauld, Glasgow,
G68 0HD Scotland



Linlithgow Canal Centre

(Linlithgow Union Canal Society)
Manse Road Basin, Linlithgow.
Tel: 01506 671215

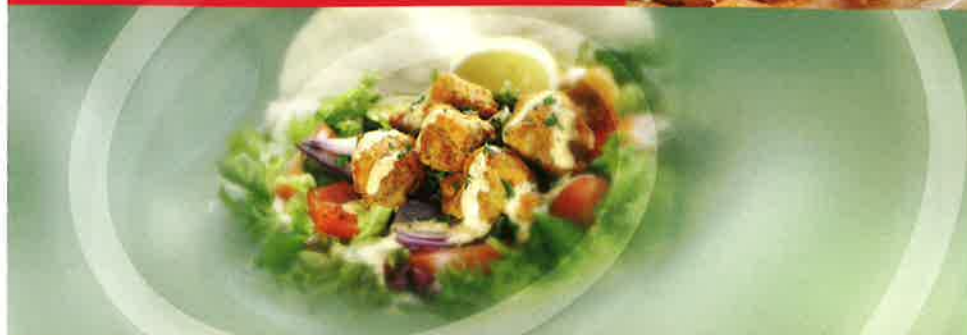
Open 2pm - 5pm Saturdays and
Sundays till October. Also weekdays
July & August town trips only.



The Centre offers boat trips on either
'Victoria' town stretch 1/2 hour or to the
Avon Aqueduct 2 1/2 hours.
There is a tea room and a Canal Museum
with a sales stall. Trips to the Falkirk
Wheel are run on last Sunday
of the month. Booking
required. 4hrs. Boats available
for charter at other times.
www.lucs.org.uk



Quality value



The Rosebank
Main Street
Camelon
Falkirk FK1 4DS
Tel: 01324 611 842
Fax: 01324 617 154

Great value all day everyday!

- Make your day in Falkirk special at the Rosebank
- Great range of food available all day
- Disabled facilities
- Patio area
- We can cater for pre-booked coach parties

Beefeater
RESTAURANT & PUB



Superb Home Cooking
available daily in the
**Carriage
Restaurant**



offering a warm and friendly
atmosphere serving

**LUNCHES • HIGH TEAS
DINNERS**

**PUBLIC BAR, RESTAURANT
15 EN-SUITE ROOMS**

Featuring
KARAOKE/DISCO
Thursday, Friday & Saturday 8pm 'til late

FUNCTIONS CATERED FOR
Festive Live Entertainment throughout December
BOOK YOUR PARTY NIGHT EARLY!

2 STIRLING ROAD, LARBERT
RESERVE YOUR TABLE
TELEPHONE 01324 562886

STANDING WAVES LEISURE

CANOEING AND KAYAKING FOR ALL

We can offer all types and levels of canoeing and kayaking

- Family days out - boats and equipment to suit babies, children and adults.
- Guided trips - experience the beauty of Lowland Canals from a new perspective.
- Instructional sessions - by the hour, day, weekend or longer.
- Special Needs and disabled - equipment and instructors suitable for all groups.



Contact: Dave & Susan Rossetter, Office 2nd Floor,
Canalbank Estates, Seabegs Road, Bonnybridge FK4 2BP
Tel/Fax: 01324 810888, E-mail: mail@standingwaves.co.uk
Web: www.standingwaves.co.uk



**GLENSKIRLIE
HOUSE
RESTAURANT**
**Glavya Scottish Restaurant
Of The Year 2003/4**



Set in several acres of stunning countryside in the heart of central Scotland, award-winning Glenskirrie House Restaurant is ideally located within 2-3 mins walking distance from Lock 20 on the Forth & Clyde Canal..

A family run business taking the greatest pride in relaxed but efficient and professional service in everything that's done.

Glenskirrie House has been called a "destination par excellence", housing "one of Scotland's most adventurous kitchens".

Kilsyth Road, Banknock, Stirlingshire, FK4 1UF. Tel: 01324 840201, Fax: 01324 841054

Whether it's for an informal lunch in our bar, our critically acclaimed a la carte dining experience or for that special occasion in our banqueting suite we've got the exact ingredients to make your meal memorable.

From business events to family celebrations Glenskirrie House team of chefs know exactly how to please.

www.glenskirriehouse.com



AUCHINSTARRY AND TWECHAR

Auchinstarry Basin, just over a mile east of Twechar, is currently being redeveloped as the first purpose built inland marina on the Lowland Canals, and will soon become a major boating centre with berthing, boatyard facilities, a slipway, and a hotel and pub are also planned for the site.

To the west lie Twechar and Shirva, and to the east Craigmarnoch, and this is altogether one of the most picturesque stretches on the waterway.

It is an excellent point from which to explore the interesting features of the surrounding area, which include two Roman Hill Forts and the Antonine Wall.

At Auchinstarry the new road and bridge by-pass the original bridge location, which can be seen just to the west. Kilsyth is a short walk to the north.

The former mining village of Twechar lies just south of the canal. The new hydraulic lifting bridge was built in 2000 as part of the Millennium Link. Interesting features at Shirva include some ruined stables, and an original aqueduct over Broad Burn, worth a closer look.

Craigmarnoch was the one time destination of the 'Queen' pleasure steamers, which took trippers from Kirkinilloch to enjoy the tea rooms, putting green and other amenities which have long since disappeared.

Wyndford Lock (No 20) marks the end of the summit reach and the eastern extremity of Dullatur Bog, and from here to Lock 16 at Camelon the canal runs close to the line of the Antonine Wall.

WALKING AND CYCLING

The Bar Hill and Twechar circular walk of 5m/8.5km starts and finishes at Auchinstarry car park. Cross the bridge to the towpath, and then walk west for 1.5m to Twechar Bridge, and optionally a further 0.75m to Shirva Farm and disused stables, where you pass under the canal using the aqueduct, or pend and then follow the footpath SE to Twechar.

For the main section of the walk, which climbs to Bar Hill Roman Fort and the adjacent iron age fort, and then follows the line of the Antonine Wall to above Auchinstarry, take the signposted lane up the hill opposite the industrial estate in Twechar.

The Croy Hill and Craigmarnoch walk is 3.5m/5.3km, and again starts and finishes at the car park at Auchinstarry. Follow the towpath for 1.25m to Craigmarnoch, cross the canal, walk a few hundred yards SE towards Dullatur, and take the first lane to the right, which leads to the Antonine Wall. Follow this, via Croy Hill Fort, back to Auchinstarry.

Heading north at Auchinstarry leads to Kilsyth which has shops, pubs, a library and a heritage centre. There are fine woodland walks around historic Colzium House, a mile or so east of the town. The entrance, which can be accessed by footpaths from Kilsyth and from Auchinstarry, is on the A803.

Dumbreck Marsh Local Nature Reserve lies on the north bank of the nearby River Kelvin about 1 mile from Auchinstarry. From the bridge walk towards Kilsyth town and take a sign-posted path off to the left.



This is a peaceful place for gentle walks through open grassland looking over marsh and ponds. It forms part of the important Kelvin valley wetlands and is home to winter ducks and grassland birds including skylark, lapwing and redshank. It is hard to believe that

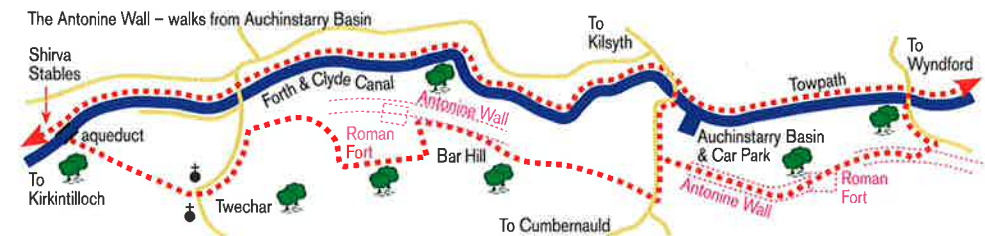
it once lay at the centre of the local mining and mineral industry.

Colzium House 01236 823281

Dumbreck Marsh Nature Reserve
01236 780636



Length - (approx) 7.5 miles



Cosy Cottages



www.cosycottages.info

WARM & COMFORTABLE
Self catering cottages available for rent

Tel: 01524 825060

Ask the experts!

To help make the most of your time in and around the Falkirk Area and the Dumbarton and Clydebank stretches of the Millennium Link, the friendly helpful staff in our Tourist Information Centres will be happy to assist with the following services.



- book accommodation to suit your needs
- provide information on places to see and things to do
- recommend various local guides & maps to help you plan your trip
- arrange tickets for local events
- advise on golf discount passes
- currency exchange

Falkirk Tourist Information Centre
2/4 Glebe Street,
Tel: 08707 200614
info@falkirk.visitscotland.com

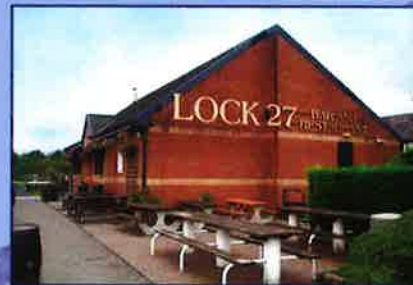
Dumbarton Tourist Information Centre
A82 (Northbound), Milton
Tel: 08707 200 612
info@milton.visitscotland.com



www.visitscottishheartlands.com



LOCK²⁷ Bar & Restaurant



Situated on the banks of the Forth and Clyde Canal just a short drive from the city centre. Lock 27 offers an extensive menu and selection of beers, wines & spirits.

Weather permitting you can eat and drink alfresco in this tranquil setting

Lock 27 Bar & Restaurant
1100 Crow Road, Anniesland, Glasgow, G13 1XX
Tel: 0141 958 0853 - Fax: 0141 579 5010
Email: info@lock27.com - Web: www.lock27.com



BONNYBRIDGE

West of Falkirk is the small town of Bonnybridge. Like many places on the canal, it is on the line of the Antonine Wall, midway between the Roman fortlet at Seabegs Wood and Rough Castle fort to the east.

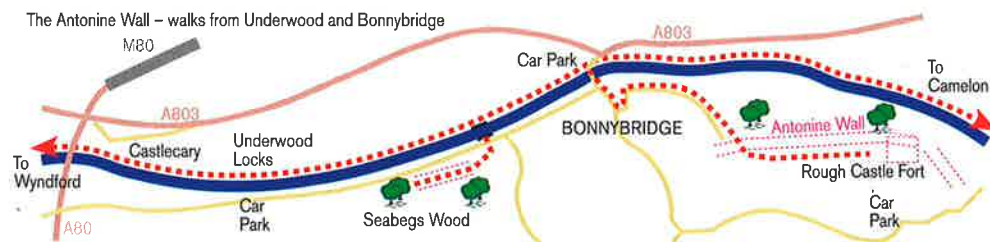
A new lifting bridge has been built at Bonnybridge, but the curious can still see the original canal underpass, an aqueduct that was the only route when the canal was built. It is a little to the east of the present bridge.

WALKS AROUND BONNYBRIDGE

Use car parks near Castlecary, Underwood or Rough Castle, or moor your boat at one of the landing stages. To reach Rough Castle Roman Fort and the Antonine Wall follow the signs in Bonnybridge on the south side of the canal. Midway along the towpath between Bonnybridge and Underwood you can reach Seabegs Wood by passing under the canal through the pend beneath (Grid ref: 816794), or from the B816, which runs beside the south bank of the canal. The fortlet is about half a mile east of Underwood Locks. (see sketch map)

To reach Rough Castle Roman Fort and the Antonine Wall follow the signs in Bonnybridge on the south side of the canal.

Length - (approx) 3 miles



FALKIRK AND THE WHEEL

The Falkirk Wheel is the Lowland Canals' newest and most striking icon. It is not only visible from miles around, but is also cutting edge waterway engineering.

Here boaters can tie up in the Forth & Clyde, or transit the Jubilee Lock into New Port Downie, the spacious lower basin at the Wheel. New facilities for boats and boaters at the Falkirk Wheel include new toilet and shower blocks, and a marine diesel refuelling point. LP Gas is also available, and this is the new location of British Waterways' Lowland Canals office.

All canal users, whether on foot, cycle, or aboard a boat, have free access to the Falkirk Wheel Visitor Centre, which has an information point, a shop, and a café-bar. Amongst the things to do are boat trips through The Wheel, and there is a cycle hire company, so you could easily plan to spend a day here.

Lock 16 is the top lock of the flight through Camelon and Falkirk to Grangemouth, and is also the site of the original Port Downie, which was a large basin occupying most of the area in front of the Union Inn, and was where the Union Canal joined the Forth & Clyde Canal. The modern road curving uphill from the roundabout beside Lock 16 is built on top of the old lock flight which, until 1933, raised canal boats through 33.5m (110ft). This lock sequence took many hours to work through - a transfer now achieved in a fraction of the time by the Falkirk Wheel.

The Union Inn, a fine Georgian building, was strategically positioned as a hostelry for travellers on both waterways, and has now carefully revived its image as a canal-side tavern and restaurant.

Falkirk Tourist Information Centre
01324 620644

Falkirk Wheel 08700 500208

Life Cycles
01506 824373 & 07752 899279



LINKING WITH THE FIRTH OF FORTH

This section of the canal offers something of a cross section of Falkirk's history, as well as a useful short cut for the walker or cyclist.

Just below the new bridge at Lock 16 is the Canal Inn, which predates the Union Inn, and with a tradition of over 200 years, is probably the oldest canalside pub in Scotland.

Four more locks are passed before reaching the rebuilt Camelon Bridge and the new Lock 11. The original Lock 11 can still be seen a little downstream. Camelon Bridge carries the main road west from Falkirk, and the new design allows the towpath to underpass the busy road. The former Rosebank Distillery is now owned by British Waterways and will be redeveloped as a

pub, offices and housing, allowing everyone to marvel at the enormous copper stills.

You may wonder why some locks on this flight had to be repositioned. Originally, many of the roads crossed over the lock chambers on lifting or swing bridges, a convenient dual use of the lock walls as bridge abutments. Now, in order to create sufficient headroom under the new fixed bridges, the bridges either had to be elevated or moved downstream of the locks, or the locks had to move upstream. In most cases it was easier to move the lock than re-route or raise the road, which is why complete new locks were built at Lock 11 and Lock 5.

Look out for the original lock-keeper's cottages, a quaint reminder of times past, at old lock 11, and at Lock 9.



From Lock 10 to Lock 5 the canal plunges through the old industrial heart of Falkirk, once a centre of the iron casting industry. As you descend past Lock 9 the railway bridge crosses overhead, followed by Merer's Bridge and two more locks (Nos 7 & 6) before Bainsford Bridge, where once again the lock (No 5) was moved upstream. There was an ironworks on the north bank near the original Lock 5, but now you will find Stones Bar overlooking the lock, a smart new pub for all canal users to enjoy.

From here it is approximately one and a half miles to the sea lock on the River Carron, in the course of which you emerge from town into country, and finally to the new stretch of canal built as part of the Millenium Link project.

Carron Sea Lock 01324 483034
Grangemouth Museum 01324 483291
Kinneil Museum & Roman Fortlet (at Bo'ness) 01506 778530



THE UNION CANAL

EDINBURGH QUAY AND THE SUBURBS

It is approximately 3 miles (5km) from the rebuilt section of canal at Wester Hailes to Edinburgh Quay, which is in turn just a short distance from the City Centre.

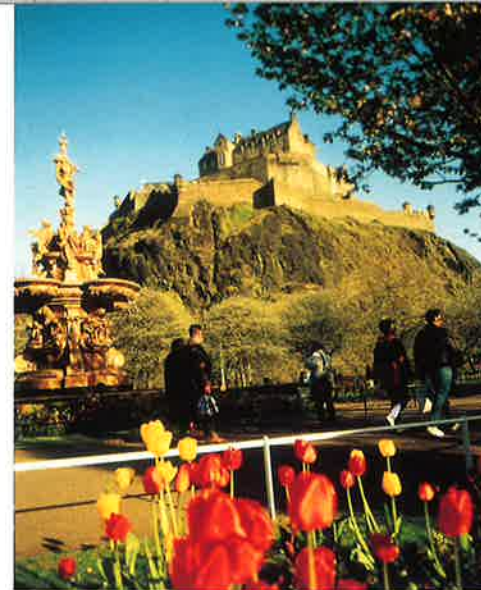
Slateford Aqueduct carries the Union Canal over The Water of Leith and its vital statistics are 65ft (20m) in height and 600ft (183m) in length. Nearby, Prince Charlie Aqueduct crosses the A70 road from Edinburgh to Lanark.

As you get close to the city, sports fields and rowing clubs border the waterway, and the frequency of bridges increases. The last fixed

bridge is Viewforth Bridge (No 1), which appropriately has Edinburgh & Glasgow symbols carved above its keystones.

Leamington Lift Bridge is an unusual structure. It is a hydraulically powered vertical lift bridge which was originally located at Fountainbridge. When Port Hamilton and Port Hopetoun, the two original terminus basins, were filled in and re-developed in the 1920s, the bridge was moved to where it stands today.

Since then, the canal terminus has been Lochrin Basin, just a few minutes walk from Edinburgh's world famous castle. Now, part of the Lochrin Basin area has been redeveloped as Edinburgh Quay, and apartments, offices and restaurants now overlook the basin, where visitor moorings are available to boats visiting the capital



WALKS IN THE WESTERN SUBURBS

Water of Leith Walkway

The Water of Leith Centre, which as well as providing an insight into the river and its ecology, also issues walks maps and leaflets. It is beside the A70 between the two aqueducts, and is accessed from the canal towpath via steps at the east side of Slateford Aqueduct. (map ref: 221708). Northwards towards Murrayfield, Roseburn and Leith the path is suitable generally for both cycle and foot traffic, although there are some main roads to be crossed. Southwards and westwards, the walkway is picked up across Slateford Road beside the Ticked Trout Pub. It leads into Colinton Dell whose steep sides have acted as a natural protection against development and contain high quality ancient or long established woodland, rich in flora and fauna, and then follows the line of Old Balerno Branch Railway back to the canal.

Additional information on the Water of Leith Walkway can be obtained from the Visitor Centre, situated at the foot of the steps down from Slateford Aqueduct, or from their web site (www.waterofleith.edin.org).



CYCLING

National Cycle Route 75 (Forth to Clyde) -

The cycle route joins the towpath at Redhall footbridge (Grid ref: 215704). Heading south across bridge leads to Water of Leith Walkway from Balerno to Leith. Westwards the route continues across Scotland to Gourrock by way of Livingston, Airdrie, Glasgow and Paisley. Eastwards it follows the towpath to the terminus of the Union Canal at Edinburgh Quay.

Canalside across Scotland by bike

Alternatively, you can cycle via the canal towpaths to Falkirk, Glasgow and on to Bowling to connect with the Glasgow-Loch Lomond Cycleway at Clydebank. As the final stages of this route are beside the River Leven, this crossing of Scotland can be accomplished almost entirely beside water.

Other information sources

Lothian Cycle Campaign:

www.spokes.org.uk

Sustrans:

www.nationalcyclenetwork.org.uk



RATHO AND ALMONDELL

Almondell & Calderwood Country Park is about a mile to the south west of Ratho, and the nearest access is from Bridge 20, or if you are boating you can moor between the Almond Aqueduct and Bridge 18 and walk up the footpath beside the Avon.

A major point of interest, apart from riverside walks, is the feeder lade supplying the Union Canal. This runs, like a canal in miniature, for three miles through tunnels and across aqueducts, and is the main water supply for the canal.

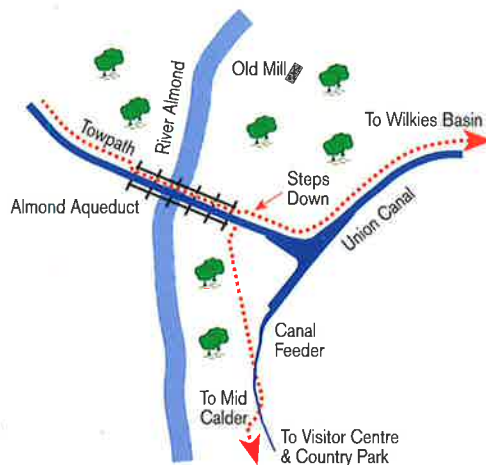
The Almond Aqueduct is the smallest of the Union Canal's major structures. It is 75ft high, with five arches spanning 420ft (128m) - compared to the Avon Aqueduct's twelve and the Slateford Aqueduct's eight. Interestingly, the designers' appear to have used a modular

approach to all three aqueducts, which have a common span of 50ft, used the same elegant arch pattern and pier design, and the same iron trough casting.

Wilkie's Basin is less than a mile east of the Almond, and here the canal is cheek-by-jowl with the M8, the motorway that almost saw this canal's permanent demise! This basin was mainly used for loading stone from the nearby quarries, one of which is now home to the Scottish National Climbing Centre.

Ratho is home to another centre - the Edinburgh Canal Centre - which remained a re-juvenation hotspot during the years of closure. The centre is based at Bridge Inn, from where landlord Ronnie Rusack MBE, a tireless canal campaigner, runs two restaurant boats and a passenger boat. Two Seagull Trust boats are also based here. Thanks to many years of boating activity at this location, boating facilities are, at present, the best on the waterway and the Bridge Inn is a pleasant and popular hostelry.

As the canal wanders eastward towards the outskirts of Edinburgh its pastoral setting is steadily usurped by increasing numbers of roads and bridges, and after passing Hermiston, it crosses the Edinburgh City by-pass on the Scott Russell Aqueduct. This was the site of another vital battle won by the waterway campaigners, who succeeded in getting an aqueduct built instead of the canal being summarily truncated. It is named after the Victorian scientist John Scott Russell who observed the 'solitary wave' phenomenon on the Union Canal.



Almondell Park access from Almond Aqueduct

WALKS AROUND RATHO

Almondell & Calderwood Country Park

The park is tucked into the valley of the river Almond, and stretches from the Almond Aqueduct upstream to the outskirts of Livingston. It may be accessed from the Union Canal via the canal feeder footpath, or of course from its car parks. The main vehicle entrance is off the A89 between Broxburn and Newbridge.

From the canal towpath take the steps leading down from the towpath on the east side of the Almond Aqueduct (map ref: 106706), passing south beneath the aqueduct and following the path near the east bank of the river.

To reach the visitor centre, which offers light refreshments, cross the suspension bridge over the River Almond (Grid ref: 092693).

The park is traversed by the canal feeder, which crosses the river in an iron aqueduct. The park also contains the restored Naysmith's Almondell Bridge.

Ratho

There is an pleasant circular walk between Wilkie's Basin (Grid ref: 120711) and Ratho. Either moor at Ratho, or park in the village, where the towpath has a number of features specifically designed for people with varied abilities, including touch actuated interpretative panels.

Follow the towpath west from Ratho Bridge for just over a mile to Wilkie's Basin, which is close to the M8 motorway, and near Bonnington Aqueduct. The path leaves the towpath at Wilkie's Basin, and the start point in Ratho is just over a mile to the east, back along the towpath.

The alternative path back to Baird's Road in Ratho follows close to the M8 extension into Edinburgh. Badger paths and tunnels can be seen, built to allow these creatures to cross beneath the road which obliterated their ancient tracks. The track also skirts around the northern edge of the National Rock Climbing Centre in Ratho Quarry.

Length - (approx) 2 miles



Magic Cycles

SALES, SPARES, REPAIRS, HIRE

Bikes for adults, bikes for kids.
Full range in stock. All bikes supplied
fully assembled and safety checked.

Repairs to all makes and models carried
out by qualified and competent staff.
From punctures repairs to full overhauls.
Free estimates given.

Cycle hire at competitive rates.
Child seats, tag-a-long, kiddie trailer.
Helmets and locks supplied.

Cycle from Clyde to Forth.
Bowling to Falkirk.

Arch 4 Bowling Harbour G60 5AF
Tel: 01389 873433
Email: cyclesmagic@hotmail.com
Web: www.magiccycles.co.uk

LIFE CYCLES CYCLE HIRE & REPAIR

A family owned business catering
for all levels of cyclist/fitness

OPEN 7 DAYS 9am - 6pm

Our full range of top quality bikes
(bought new for the season) allows us
to cater for the whole family. Whether
you are just out for the day or off on
that family holiday.

- Discounts for group bookings. Prices
on request.
- Deposit will be required.
- Helmets, pumps, bike locks and basic
toolkits included in hire price.

VISIT US AT THE FALKIRK WHEEL or
PHONE LIFE CYCLES ON
01506 824373 / 07752 899279
Email: info@lifecycleshire.co.uk

PAINT IT YOURSELF AT

Craft daft
DROP IN CRAFT STUDIO

SUITABLE FOR ALL AGES & ABILITIES
CORPORATE EVENTS & SCHOOL GROUPS
OPEN EVERY DAY

CLASSES FOR ADULTS & CHILDREN
EXPERT HELP & ADVICE ALWAYS AVAILABLE
BIRTHDAY PARTIES & BLOCK BOOKINGS

HAVE A GO AT

Ceramic Painting, Glass Painting,
Silk Painting, Pyrography, Encaustic Wax,
Forth & Clyde Canal, Glasgow Bridge,
Glasgow Road, Nr Kirkintilloch
(next to Stables Restaurant)
Tel 07958198034 or 01292280844 for
further details

Supported by the
Heritage Lottery Fund

 **CLASSIC CRUISING**
IN
EDINBURGH

SUMMER SUNDAYS

SEE THE LIFTING BRIDGE
AND THE 1821 AQUEDUCT



Also available for charter & group travel
Tel/Fax: (0131) 556 4503
TRY OUR WOODEN ROWBOATS
EDINBURGH CANAL SOCIETY
THE BOATHOUSE ASHLEY TERRACE BRIDGE



www.nollybarge.co.uk

e: thenollybarge@btconnect.com

the nolly barge
flat ground c
187 westercommon road
glasgow, g22 5ne

t: 0141 336 7859
m: 07876 704 072



The Nolly Barge is a 12 berth residential barge
and offers full access for people with
disabilities. We can accommodate up to four
wheelchairs. Activities packages can be tailored
around your groups needs and ability.

Outdoor Activity Packages:

Canoeing/Kayaking
Mountain Bikes
Abseiling/Climbing

Guided Walks & Environmental Education

On Board facilities include:-

Fully Equipped Galley Kitchen
tv/video/dvd/cd/radio
Digital camera
Fully accessible toilet and shower
Art & craft materials

The Nolly Barge, a
community barge based in
Glasgow offering a chance
for fun and adventure on
the Forth & Clyde Canal.

Experts in Control and Automation



Fulfilling Industry's need for quality design and manufacture

The Old Rectory
Main Street,
Kirton, Newark
Nottinghamshire
NG22 9LP
Tel: 01623 835350
Fax: 01623 835375
sales@fairfields.co.uk
www.fairfields.co.uk



Callendar House, Falkirk

- Costumed Interpreters
- Working Georgian Kitchen
- Exhibitions
- Georgian Garden
- Gift Shop
- Conference & Wedding Facilities
- Tea Shop at the Stables
- The Park Gallery
- Free Parking, coaches welcome



Monday - Saturday 10am - 4pm
Sunday 2 - 5pm (April - September)
For further information telephone:
01324 503770 or fax: 01324 503771
www.callendarhouse.org



THE FALKIRK WHEEL

The One. The Only. The Wheel.



The Falkirk
Wheel

The impressive lowland canals – the Forth & Clyde and the Union – meet here at The Falkirk Wheel.

The Falkirk Wheel is the result of a spectacular feat of engineering and incredible ingenuity to re-open the waterways between Edinburgh & Glasgow.

Once you've seen The Falkirk Wheel, you'll understand what a simply ingenious design it is. Basically, it's a rotating arm with gondolas at either end. The Wheel turns and carries boats from one level to another, joining the two lowland canals.

The Falkirk Wheel Experience

Get ready to be lifted by a 115 foot giant!! Boarding at the front of the Visitor Centre you then head towards The Falkirk Wheel itself. Enter into the bottom gondola and then it's up, up and away as you are rotated to the top. You then sail along the top aqueduct, through the Roughcastle Tunnel and then make your return journey. Finish with your descent on The Falkirk Wheel complete with spectacular views and disembark at the Visitor Centre. Boats leave every 30 minutes. The journey takes 40-45 minutes.



The Falkirk Wheel sits in a pleasant landscaped basin. Our educational basin trail and interactive panels allow you to learn more about The Falkirk Wheel with Brass Rubbing Packs (on sale in the fantastic Gift Shop) to create your own souvenir of your day. The Inn Bru Fun Factory outdoor play area is ideal for 5-14 year olds. There is also a seating area for packed lunches and a kiosk for hot snacks.

Did you know?

- The Falkirk Wheel's dramatic shape is the result of a brainstorm between a team of 20 designers, engineers and architects.
- In total, the two gondolas lift 600 tonnes – that's the weight of around 100 African elephants.
- The Falkirk Wheel is designed to last at least 120 years – plenty of time to make another visit!

Don't miss the boat. For up to the minute information on The Falkirk Wheel, boat trip times, charges and events call The Falkirk Wheel booking line on **08700 500 208!** Advance bookings are highly recommended.

Here's what's been said about The Falkirk Wheel:

"It ranks beside The Forth Road Bridge as a civil engineering wonder of the world, something of which Scotland should be noisily proud. It's also a great day out. Go soon!"
Scottish Daily Express

"The Wheel is the showstopper"
The Independent

"It really is well worth a visit"
David Bull, presenter, Tomorrows World July 2002

www.thefalkirkwheel.co.uk





PHILPSTOUN TO BROXBURN

This S-shaped section of canal, from Philpstoun to south of Broxburn, was a necessary diversion if locks were to be avoided, and the extra distance takes much less time than locking down and up again would have done.

Students of canal structures will be intrigued by the via-aqueduct at Philpstoun. The aqueduct carries the canal over a minor road, which in turn is built on a viaduct over Haugh Burn.

Craigton Bridge (No 35) is just a mile or so further east, and you can see the Hopetoun monogram carved on it. The road that crosses here leads to magnificent Hopetoun House, just a mile away, and its grounds.

The canal now curves to the south, and at Bridge No 30 it is guarded by Niddry Castle. The castle was, however, important long before the canal was built, famous for having sheltered Mary Queen of Scots before her final capture and removal for eventual execution in England. Her first and last residences in Scotland were just 6 miles apart!

The Lothians have many prominent landmarks, and the Shale Bings compete strongly with the nearby Forth Bridges and the Avon rail viaduct. The red bings (the word is a corruption of ben, meaning mountain) are the accumulated spoil from oil shale extraction, which was used to produce paraffin at nearby Broxburn. The bings are now scheduled monuments to the Klondyke years of Scotland's industrial past.

If you are travelling by boat the new bridge at Greendykes Road has created a very awkward bend, so consult your British Waterways Skipper's Guide and proceed with caution. In Broxburn boating facilities include Port Buchan Basin north of Bridge 26 (A899), and the nearby British Waterways' yard and slipway.

Fundamental to the restoration of the Union Canal was the realignment of the canal where it had been blocked by the construction of the M8. Fortunately, the motorway climbs slightly as it goes west, so by moving the canal a short way in that direction the necessary clearance was created, albeit at considerable cost!

◆ EDINBURGH ◆
THE CITY OF EDINBURGH COUNCIL

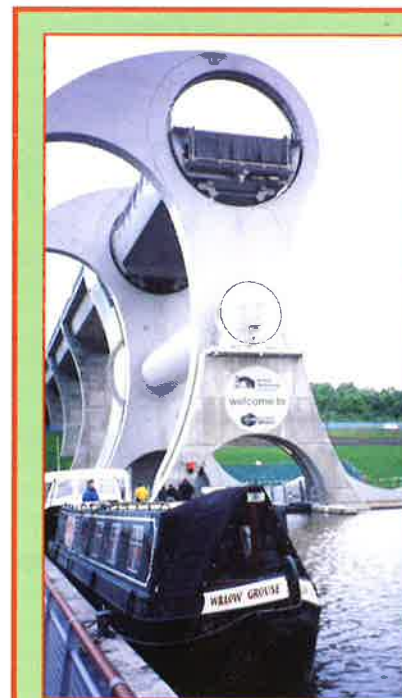
SUPPORTING THE UNION CANAL AND THE MILLENNIUM LINK

The City of Edinburgh Council provides a range of services and support activities which assist users to maximise their enjoyment of the canal in Edinburgh, including;

- Recreation and Leisure
- Tourism
- Environmental Improvement
- Access and facilities
- Local Economic Development
- Community Development and Planning

Contact City Development for assistance or further details.

For development issues and activities phone: **0131 529 3730**
For access and environmental issues phone: **0131 469 3751**



Ride the Wheel
**Narrowboat Hire
in Scotland**
Capercaillie Cruisers

Tel: 0131 449 3288

Email: hamish@capercailliecruisers.co.uk
www.capercailliecruisers.co.uk



MUIRAVONSIDE & LINLITHGOW

The Union Canal meanders eastward through the suburbs and villages of Falkirk, passing Almond Castle, and then just west of Bridge 49 is Causewayend, where the railway from Glasgow via the Slamannan coalfield, 8 miles to the west, was completed in 1840.

It brought passengers and coal to be shipped to Edinburgh. This was also the site of the Almond Ironworks. It is difficult to imagine that this now overgrown location once played an important part in Scotland's early transport and industrial development.

Muiravonside Country Park is just a little way up the B825 from Bridge 49, and it covers 170 acres of woodland, parkland and gardens, or can be accessed from the aqueduct (see sketch map). The park offers a wide variety of amenities including nature trails, picnic sites, camping areas, walks and a visitor centre. The park's restored farm buildings house ponies, pigs and goats, and there is a duck pond and chicken runs. A Ranger Service provides talks and guided walks. (See sketch map)

Round the next bend is the elegant Avon Aqueduct. Its twelve arches span the River Avon 86 ft (26.2m) below, and at 810 ft (247m) from end to end, it is the second longest structure of its kind in Britain. It was designed by Hugh Baird, with advice from the great Thomas Telford, and they incorporated, as in all the Union Canal aqueducts, a new method of forming the water channel of cast iron, a much lighter and more reliable system than masonry and clay.

Woodcockdale Stables, between Bridges 47 and 48, saw large quantities of building material and road stone being shipped to Edinburgh during the last quarter of the 19th century. It must have seemed at times as though the whole of Central Scotland was being dug up as coal, iron ore, oil shale, building stone, lime and anything else of value was extracted.



LINLITHGOW

Linlithgow is a historic town, birthplace of Mary Queen of Scots in the early 15th Century at Linlithgow Palace. St Michael's 13th Century church is another impressive building, and is a fine example of Gothic architecture. Its tower is crowned with an unusual aluminium structure, added in 1960 - it is easier to see than describe!

Linlithgow Union Canal Centre is located in the former stables at Manse Road Basin, and is operated by the Linlithgow Union Canal Society, one of the organisations which deserves credit for helping to keep the canal available for recreational use during the years of closure. The Society's canal boat trips, canal museum, tea room and souvenir shop all contribute to a pleasant atmosphere and are worth a visit. The Society operates two boats from Manse Road Basin, one of which cruises to the Avon Aqueduct.

This Royal Burgh, with its shops, restaurants and pubs, as well as Linlithgow Palace and Loch, is most easily accessed by boaters from Manse Road Basin (Map ref: NT 004769).

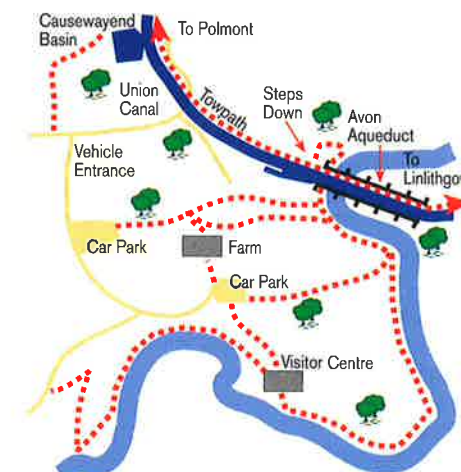
WALKING AND CYCLING

Walking or cycling along the towpath around Linlithgow gives excellent views across the town, and the 2.3 mile walk around the Loch, with its abundant wildlife and fine views of the palace and the church, is one of the best in the area.



MUIRAVONSIDE COUNTRY PARK

The park may be accessed from the canal by steps (part of the River Avon Heritage Trail) leading down immediately to the west of the Avon Aqueduct at map ref 966759. This link was recently constructed by the Central Scotland Forest Trust and opened by HRH The Princess Royal in July 2002. The steep flight of timber steps and ramps lead down to a new footbridge and then into Muiravonside Country Park which is managed by Falkirk Council. There are various paths through the park as well as a farm and visitor centre with café.



Muiravonside Park access from Avon Aqueduct



LINKING THE UNION AND FORTH & CLYDE CANALS

The aqueduct from the wheel to the south first passes through Roughcastle Tunnel, which takes the waterway under both the Antonine Wall near the site of the former Rough Castle Fort, and also under the main Glasgow to Edinburgh rail line.

Once through the tunnel, which also provides public footpath from the wheel area to the Union Canal towpath, the South Basin provides turning space for the trip boats operated by The Falkirk Wheel, and for mooring whilst waiting to transit Locks 1 and 2, which are now the only locks on the Union Canal, in contrast to the original flight of eleven which this remarkable structure replaces.

The Seagull Trust provides access to the water in boats specially modified for people with disabilities, and their boathouse is located on the south bank of the canal at Bantaskine. Although the railway obscures the view to the north, the town centre of Falkirk is not far

away, and can be reached beyond the next bridge under the railway, as can Falkirk High train station.

Things to see and do around Falkirk include a visit to Callendar House, which apart from being an award winning museum and art gallery, gives a fascinating insight into many aspects of life down the centuries. The grounds are extensive, and the Georgian Garden recreates the ambiance of the times when the Union Canal was being built.

Callendar House, in the shape of its owner William Forbes, had a major influence on the construction of the Union Canal - he would not allow it to pass through his grounds, forcing the construction of the 633 metre Falkirk Tunnel.

Eastward from Falkirk

From Lock 1 the Union Canal runs at a constant level of 240ft (43m) above sea level to Edinburgh. It is technically a Contour Canal as it follows a constant level, and when it was proposed it was nicknamed "the Mathematical River".



After the first bridge you come to the aqueduct carrying the canal over Greenbank Road, and just east of this was Port Maxwell. This facility, a 550 yard extension built in 1823, shortened the distance passengers transferring between the two canals had to walk.

The junction where the eleven lock flight joined the Union Canal is now rather difficult to spot; lock 6 was under the railway bridge, and locks 7-11 were in the area between the railway and the canal.

After the tunnel is Glen Bridge (No 61), known as the Laughin' and Greetin' Bridge. The happy and miserable faces carved on either keystone represent the feelings of the contractors as one faced the relatively easy task of building a canal eastward over farmland, whilst the other contemplated 600 metres of tunnelling through the hill to Falkirk.

Callendar House Museum 01324 503770
Falkirk Cineworld 01324616920

WALKING AND CYCLING

Bantaskine Park, Falkirk

This canalside park lies south of the Union canal not far from Falkirk High Station, and may be accessed from the towpath by way of the most westerly of the masonry arch bridges on the Union Canal, close to the Seagull Trust boathouse.



Walk through Bantaskine Park westwards to Greenbank Road. This point is the historic western termination of the Union Canal, and the Battle of Falkirk Monument may be reached by turning left and is approximately 1 km along Greenbank Road.

Do not try to return along the towpath here as it is cut by the Union Canal extension to the Falkirk Wheel after a couple of hundred metres. Instead, continue northwards down Greenbank Road beneath the new Canal aqueduct and turn right onto the track immediately before the railway arch. This track follows the line of the original lock flight linking the Union and Forth & Clyde Canals.

On reaching the towpath continue eastwards for 1.25km to the starting point at Bridge 62.

Callendar Wood, Park and House

The park may be accessed from the Union Canal by taking a path from the towpath west of Bridge 59 (at 894782), or parking near the entrance off Callendar Road. From the canal go underneath the railway arch over the Glen Burn and across the small footbridge over the burn. On reaching Glenburn Road, Callendar Park may be reached by taking the paths (stepped in places) through the Hallglen housing estate. Steps can be avoided by taking the alternative route via Glenburn and New Hallglen Roads.

Callendar House itself lies at the opposite (north) side of the park.



HISTORY

FORTH & CLYDE CANAL

Roads in mid-eighteenth century Scotland were dreadful, but with most communities of any size on the coasts, estuaries or navigable rivers, the bulk of the country's commerce was moved by ships. The Forth & Clyde Canal extended these coastal shipping routes by making the east and west coasts more accessible to each other and allowing the west of Scotland to trade more easily with northern Europe. It did the same for Ireland and the British east coast.

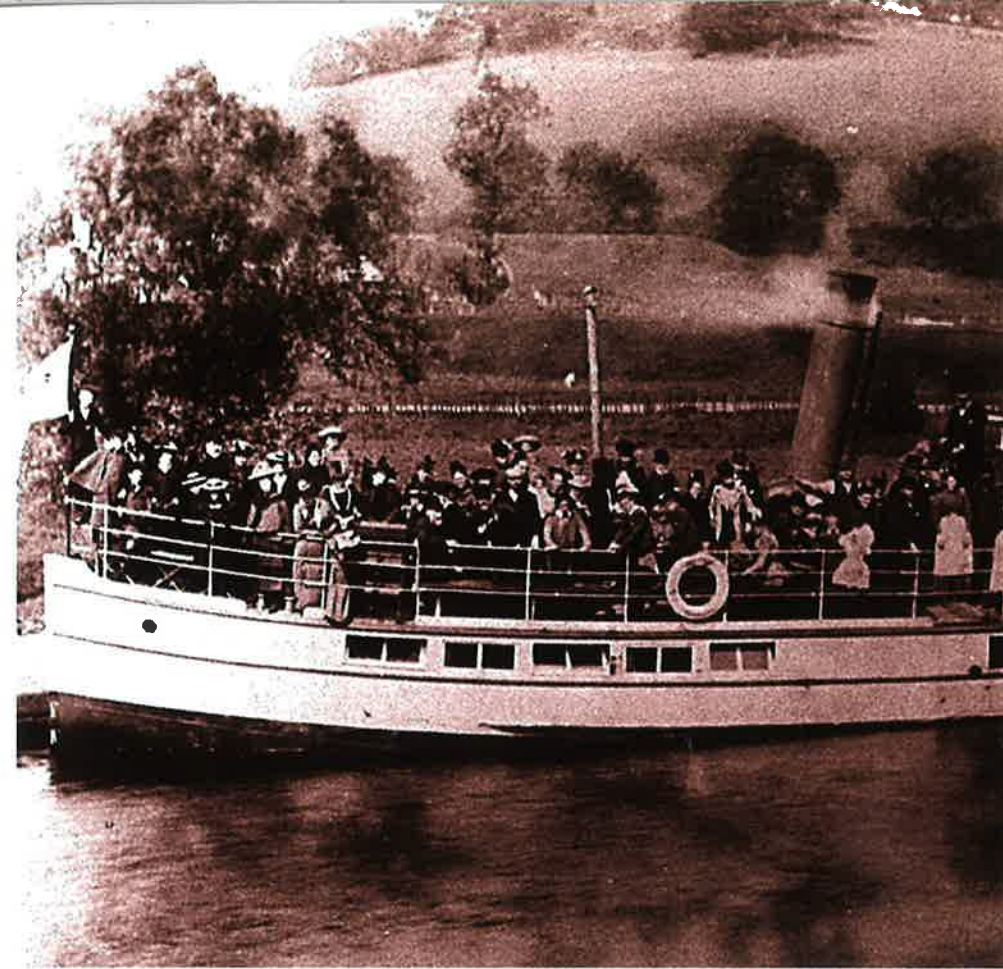
The canal, as approved by parliament, ran to the Clyde from the Carron River, a navigable tributary of the Forth. A branch canal to Glasgow was also planned. The principal engineer was the highly regarded John Smeaton, but he was based in Yorkshire and so a no-nonsense Scot, Robert Mackell, supervised the work on the ground. Construction began at the eastern sea-lock on 10 June 1768. There was no town there, but as the canal developed, the new port of Grangemouth grew up around it.

The engineers pushed the canal up past Falkirk to its summit at Wyndford Lock, Lock 20. They encountered serious difficulties crossing the Dullatur Bog, but managed to



complete the canal to Kirkintilloch by 1773, and Stockingfield, on the edge of Glasgow, by 1775. Their work stopped because the money had run out, but Glasgow's merchants raised the finance to have the branch canal to Hamilton Hill made by 1777. Funding to finish the main line, however, did not become available until 1785, by which time Mackell had died and Smeaton was old, so a new engineer, Robert Whitworth, was appointed. By 1790 he completed the canal to Bowling - including construction of the great Kelvin Aqueduct - and at the same time extended the Glasgow Branch to a new terminal, Port Dundas.

Port Dundas grew rapidly, trading mainly with east coast and European ports. The canal acted as a magnet for industry, commerce and innovation: the world's first practical steamboat, Charlotte Dundas, was tried out between Lock 20 and Port Dundas in 1803, and in 1819 Scotland's first iron boat, the Vulcan, started service as a passenger boat.



Passenger services operated from the outset, but declined rapidly in the 1840s after the advent of railways. Some boats clung on, the last being a little steamer, Rockvill Castle. She stopped in 1880, but in 1893 her former owner's son, James Aitken, put Fairy Queen, the first of a popular fleet of pleasure steamers, on the canal. She was followed by Fairy Queen (2), May Queen and in 1905, Gipsy Queen, which cruised on after the withdrawal her smaller sisters, until 1939.

The Forth & Clyde was a big canal and its size helped cargo carriers to withstand railway competition. The development of screw propulsion allied to steam power helped too. After the successful adaptation of a canal lighter in 1856 many others were built at

canalside boatyards. These steam lighters, or puffers as they were better known, were popularised in Neil Munro's stories about the Vital Spark and her roguish skipper Para Handy.

During World War 1 the Admiralty closed the upper Forth ports, including Grangemouth, which stifled the canal's trade. After the war, motor traffic increased, the bridges became traffic bottlenecks and many were replaced by steel swing or lifting bridges. In 1962 parliament decided to save construction costs on the A80 Denny by-pass road by closing the canal. The culvert built for the road at Castlecary was the first of many that chopped the canal into small sections.

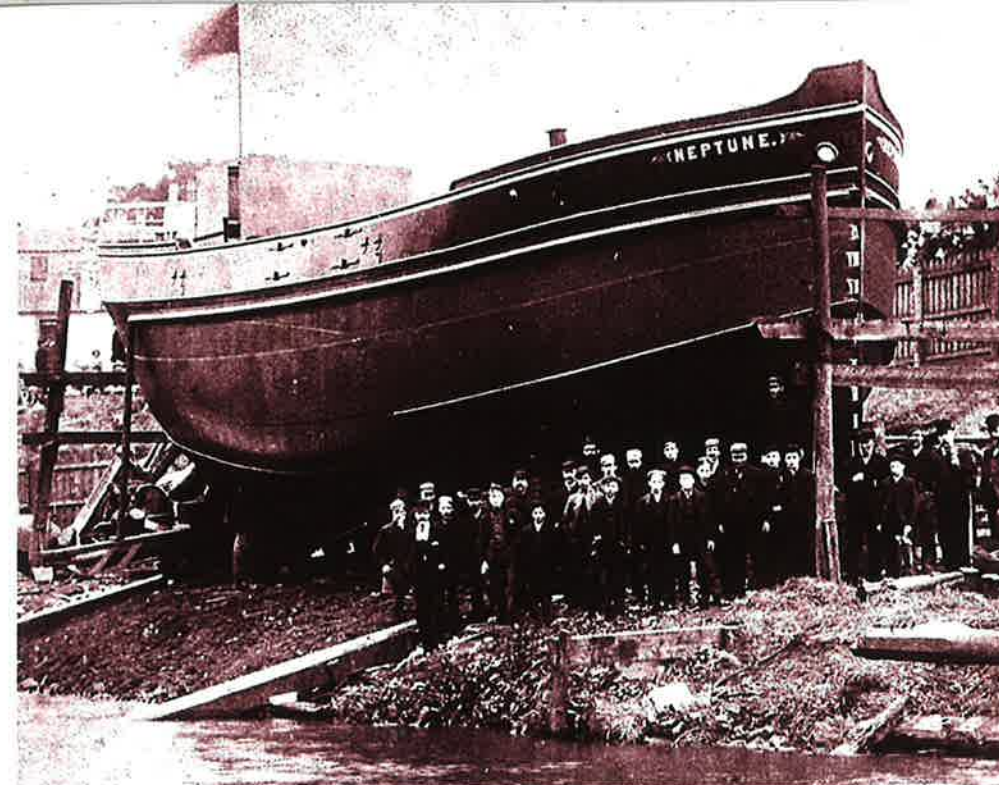


Decay and decline set in, but in the early 1970s people started to campaign for restoration. They held clean-ups and rallies, and refloated old boats to give trips on the canal. Local authorities took notice and drew up a set of planning guidelines for the canal. This Forth & Clyde Canal Local (Subject) Plan led to towpath and navigational improvements, while encouraging housing and commercial developments. Bridges were rebuilt as part of projects based around Glasgow and Clydebank. But the Local Plan made another huge contribution. It established a partnership of public authorities and the voluntary sector, working together to improve the canal environment. It was the basis for the scheme that ultimately achieved full restoration: The Millennium Link.

THE GLASGOW & EDINBURGH UNION CANAL

Edinburgh was in an odd position in the late 18th century. It sat next to a huge coalfield and yet faced fuel shortages and high costs. The coal owners operated a cartel to keep prices high and export most of their output at a fat profit. Coal carters were also noted for dishonesty and giving short measure. These difficulties contrasted with Glasgow where canals had opened up new coalfields and reduced fuel prices.

Various schemes were advanced for a canal from Leith to the Clyde, but construction costs and concerns over long-term viability deterred investors, and they finally lost interest when war started with Napoleon. However, the dreadful winter that destroyed Napoleon's



Grand Army as it retreated from Moscow also affected fuel-starved Edinburgh and prompted more canal schemes. The one that broke the deadlock went from Fountainbridge to Falkirk where a flight of locks was planned to take the canal down the Forth & Clyde. People were suspicious; its designer, Hugh Baird, was resident engineer for the Forth & Clyde, raising fears that Grangemouth would be promoted at the expense of Leith. But the opposition was wrong-footed when the great Scottish engineer Thomas Telford was asked to comment on the route; he described it as 'the most perfect . . . between Edinburgh and Glasgow'.

Telford also advised on the construction of three great aqueducts, over the Almond and Avon Rivers, and the Water of Leith. The engineers also had to make a tunnel under Prospect Hill, Falkirk, to avoid the grounds of Callendar House, and build a three-mile-long lade to run water from the Almond River to the canal. But perhaps their greatest achievement was making the waterway itself, running on

one level for over 31 miles through cuttings and over embankments, with numerous underpasses and overbridges.

Work started at the Edinburgh terminal basin, Port Hopetoun, in 1818. On Hogmanay 1821 the first passage boat, Flora MacIvor, was launched and in January she sailed, with the committee of management on board, from Edinburgh to the tunnel where cutting through the 690 yards of rock was proving harder than expected.

The tunnel was finished in May and a boat made the first passage of the canal, carrying flagstones from Denny. Coal, however, was always going to be the main cargo and collieries near Polmont were soon sending boatloads to the capital. Coal from the Monklands was also reaching the city by way of the Forth & Clyde Canal, the cartels were broken, and prices tumbled. A second city basin, needed to deal with the volume of trade, was named Port Hamilton in recognition of the contribution made by the Duke of Hamilton and his collieries at Redding.



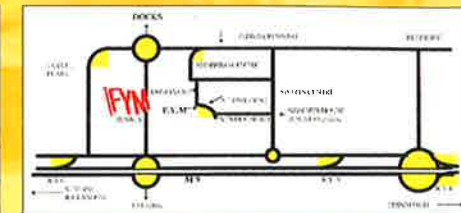
Two former canal navvies, William Burke and William Hare, also achieved some fame - as serial murderers! Less well known, but more significant, was engineer, John Scott Russell. He noticed that when a boat near Hermiston stopped suddenly, the bow wave kept going. He followed it on horseback until it dissipated on canal bends, but he concluded that this wave, if harnessed, could assist ship propulsion. What he couldn't know was that similar bell-shaped waves, electronically generated, would challenge 21st century fibre-optic technology.

Conscious of looming railway competition, the Union Canal Company linked up with a line from Glasgow to Causewayend, but it was unsuccessful and in 1842, when the Edinburgh and Glasgow Railway opened, the canal lost most of its trade. The railway bought the ailing canal in 1847 and by Act of Parliament was bound to maintain it in operational condition - a boon for later generations, but a burden for 19th century shareholders.

The Edinburgh terminal basins were closed in 1922 and the disused Falkirk locks were infilled in 1933, but otherwise the canal remained intact until closure in 1965. Culverts were then installed to improve roads, including the M8 motorway, and a mile of canal was piped and infilled to make way for the Wester Hailes housing scheme. But campaigners stopped plans for another culvert on the proposed Edinburgh by-pass road which was instead spanned by a new aqueduct. As activity grew, principally at Ratho and Linlithgow, it was bolstered by canal side improvements setting the stage for full restoration.

Scotlands Largest Indoor Boat Showroom Forth Yacht Marina Ltd

4-6 South Lumley St., Grangemouth. Tel: 01324 665071, Web: www.fym.co.uk



open 7 days

- New and Second Hand Cruisers, Ribs, Sportsboats, Inflatables, Angling/ Sea Fishing Boats, PWC's, Chandlery and Dive shop.
- Best priced outboards in the UK with full workshop support.



The Architects for the Falkirk Wheel

RMJM 10 Bells Brae Edinburgh EH4 3BJ
T 0131 225 2532
F 0131 226 5117
E edinburgh@rmjm.com
W www.rmjm.com



FCS (Scotland) Ltd

Specialists in Boat Building, Repair
and Marine Engineering

- Boat Building
- All types of repair from cosmetic to complete refit/rebuilds
- Yacht Fitting
- Osmosis repair
- All types of vessels from wood, steel, glass fibre, aluminium, from Canal boats to Ocean going vessels
- Two new designs under development



North Side Workshop, Old Dock, Grange Lane,
Grangemouth Docks FK3 8UB
Tel/Fax: 01324 471535, Mobile: 07833 953 288
E-mail: steve.fcs@ukonline.co.uk
Web: www.fcscotlandltd.co.uk



WILDLIFE AND ANGLING

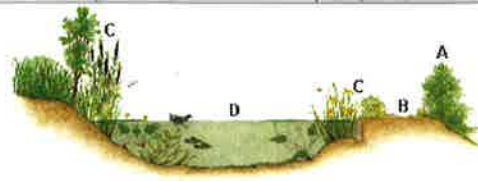
In the two centuries since the Forth & Clyde, Union and Monkland Canals were carved through the farmed and wooded landscape of the central belt of Scotland, these man-made structures have attracted wildlife throughout their length. Some of the plants and animals have found their way naturally into the waterway and others have been 'helped in' by Man's activities. Read on if you would like to find out more about the wildlife that you might come across during a visit to the canal network. Whatever the season or time of day, city or countryside, you will be sure to see life along the canal. In fact, with a potential wildlife safari always on your doorstep, why not take a look?

LOOKING FOR WILDLIFE

No specialist equipment is required to see wildlife on the canal but a pair of binoculars, a hand lens, a pond net and a tray will ensure that the microscopic and the distant get a closer look. If you are keen to name what you see, there are many excellent wildlife guidebooks on the market or in your local library. Whatever you do, please remember to dress for the weather and take care when near the water and lock chambers.

NO PLACE LIKE HOME: THE HABITATS OF PLANTS AND ANIMALS ON THE CANAL

The lowland canal network provides a host of places for animals and plants to inhabit, including the channel and banks, the towpath, woodland and canal structures. In reality, many



of these habitats (homes) merge with each other and animal species move between them. The diagram shows a cross section through a typical canal channel showing habitats, so bear in mind that there are local variations.

- A: Hedgerow
- B: Towpath and grassed towpath verges
- C: Waterway banks with emergent fringe and retaining wall
- D: Canal channel

THE WET CHANNEL

The Lowland Canals cross the catchments of the Rivers Forth, Clyde, Almond and Avon and animals and plants which might otherwise would be geographically separated have come into contact with each other. This, coupled with nearly two centuries of natural colonisation, boat traffic and uncontrolled 'introductions', has contributed to a living "melting pot" and biologically unique waters in Scottish terms.

AQUATIC PLANTS

The canal channels provide ideal growing conditions (light, nutrients, places to grow) for truly aquatic plants. Vegetation surveys along the canals have recorded an impressive 33 species of aquatic plants, making the canals extremely important water bodies for aquatic plant diversity in Scotland.

Rooted in the sediment, yellow water lilies, which occur along half the length of the canal, are easy to spot with their large oval leaves, and prominent yellow flowers in summer. Along with many other pondweed species, the Forth & Clyde canal contains an extremely rare hybrid pondweed, Bennett's Pondweed, of particular interest because the canal area is the only location in the world where it is known to occur.

AQUATIC INVERTEBRATES

With the range of aquatic plants, and other potential habitats such as bottom sediment, water column and surface, the animal life in the channel is very diverse. Fifteen species of mollusc, including the greater ramshorn and the great pond snails, have been recorded from the canal, a clear indication of its mineral rich waters. In amongst the weeds, you may see caddis fly larvae with protective cases of vegetation, shells or stones, beetles, leeches, flatworms, damselfly and dragonfly larvae, water boatmen and the curious water scorpion, whose long tail is actually a breathing tube.

Deserving of special mention are the freshwater sponges. These unusual filter feeding animals take two forms in the canal, either yellow and encrusting or growing like long, green fingers. Old branches, discarded bicycles, and submerged structures are often adorned with sponges.

FISH

With the wealth of plant and invertebrate life, the canals also support good coarse fish populations. The most commonly-seen fish in the canals are pike, perch, roach, tench and eels. Nineteen species have been recorded including the carp, bream, 3-spined stickleback, minnow, ruffe and brown trout. Some fish, like the silver-bodied roach, feed in shoals on weed and small invertebrates. Others, like pike and perch, are carnivorous creatures, feeding almost exclusively on invertebrates, other fish and the occasional duckling!

OTHER VERTEBRATES

The most obvious wildlife on the canal is the wildfowl. On the water, you are most likely to see mute swans, mallard, coot and moorhen, with little grebe and tufted duck less common. The swans often make huge nests out of vegetation and discarded household items. Herons are often seen stalking for fish or frogs in the canal shallows.

Frogs, toads and newts breed in the canal, and massive shoals of tadpoles can be seen in the shallows in early summer. When fully grown, these animals leave the water and forage



amongst the bankside vegetation for invertebrates. Otters have been sighted on the canal, and are most active at night. Pipistrelle and Daubenton's bats are also seen flying over and along the canal at night, searching for an insect meal. On summer days, swallows, swifts and sand martins also take advantage of this aerial insect larder.

WATERWAY BANKS

Waterway banks at the edge of the canal provide some of the greatest diversity of plant and animal life on the canal. The fringing vegetation is dominated by emergent plants whose roots are permanently below the water line, and plants which prefer to root themselves in damp ground above the water line.

Twenty-three species of emergent plants have been recorded along the canals. Reed-sweet-grass with its characteristic glossy, green leaves with boat shaped tips, is the most common, occurring throughout the entire length of the canal channel, along with iris, with its distinctive 'fleur-de-lis' yellow flower. The nationally scarce tufted loosestrife, easily recognised by its paired leaves and stalked yellow flowers, is also common at the waters edge.

Emergent plants provide cover and nesting areas for water birds, food for water voles, a home and hunting ground for amphibians and stems for aquatic insects to emerge and overwinter. Water vole numbers have declined significantly over the last 20 years across the UK. The canal provides suitable food plants for voles but predation pressure from mink appears to keep the numbers down.



GRASSED TOWPATH VERGES

Grasslands along the towpath only exist as a result of management to prevent the invasion of scrub vegetation. A twice-yearly cut (spring and autumn) by British Waterways maintains this habitat, maximises wildlife benefit and allows people relatively easy passage along the towpath. In summer, this grassland supports a wonderful array of plants, many of which provided herbal remedies in the days before the National Health Service. Of these, the pink flowered valerian is known for its stress-relieving properties, and sweet cicely as a cure for flatulence. Meadowsweet was used as an air freshener and cold remedy and was the plant from which the active ingredient for aspirin was first isolated in the early 19th century.

HEDGEROWS AND OTHER FIELD MARGINS

Hedgerows were established when the canal was built to define the boundary of the canal company land. Today, along with canal-side trees, they form an important landscape feature, offering nesting sites and perching posts for birds, including grasshopper warbler, whitethroat, grey partridge, yellowhammer, linnet, bullfinch, blackbird, robin and chaffinch. Hedgehogs, bank voles, shrews and wood mice all use the canal hedgerow habitats for shelter and food.



SCRUB AND WOODLAND

The undisturbed offside bank in some sections of the canal has developed into scrub and woodland. Ash and sycamore woodland, alder and downy birch woodland and willow woodland are all frequent along the canals. These areas can support good numbers of woodland birds, such as tree sparrow, blackcap and whinchat. Dead trees can also provide roosting sites for bats and perfect conditions for fungi.

BRIDGES, LOCKS AND BUILDINGS

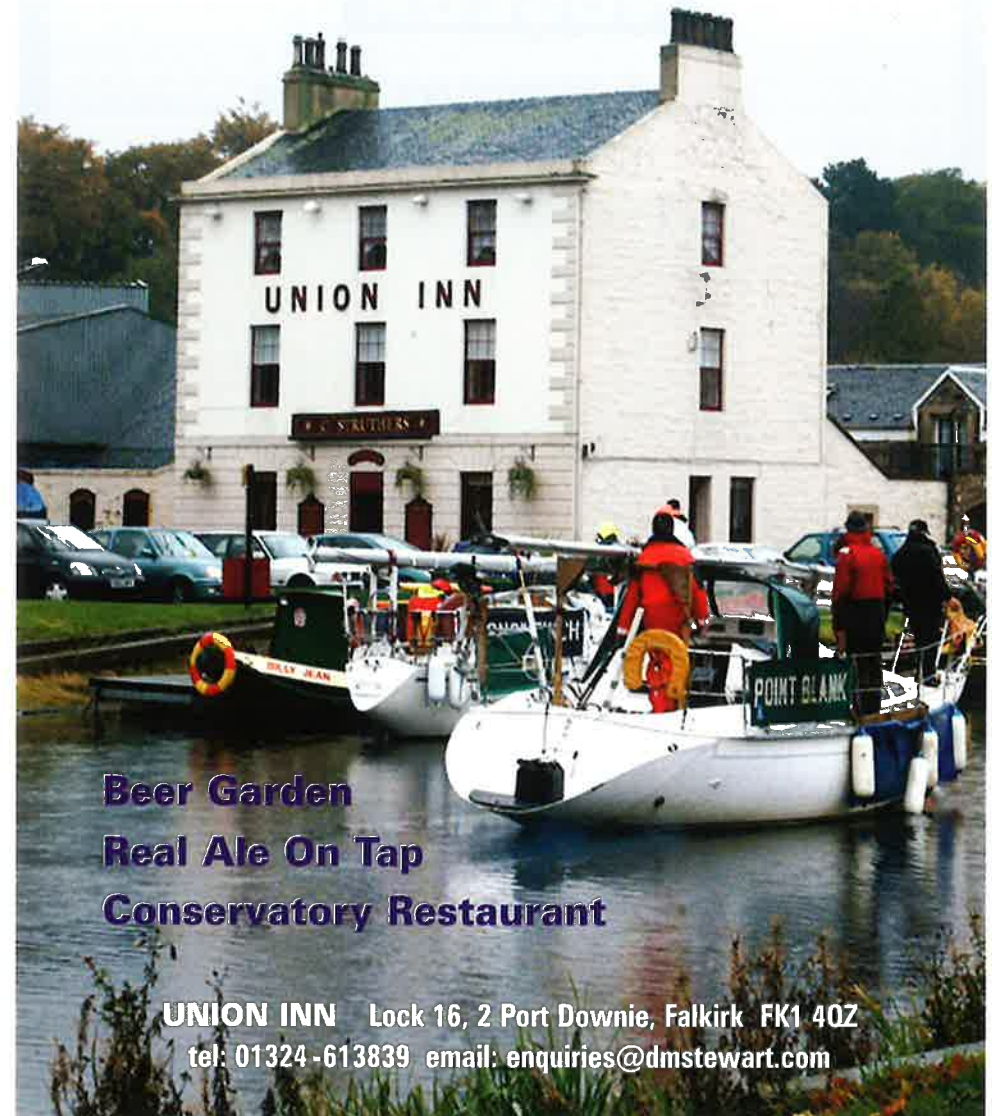
Canal structures are perhaps less obvious wildlife habitats. On closer inspection, you may be surprised by the wide range of mosses, liverworts and lichens on canal-side walls, buildings and bridges. Some of the lichens grow very slowly, and may be as old as the canal itself. Ferns also favour old structures and many grow out of the old wooden piling along the canal edge or stone abutments of bridges.

CANAL WILDLIFE SAFARI DO'S AND DON'TS

- Do** take pictures
- Do** take your litter home
- Do** take care near the water's edge
- Do** keep to the towpath
- Do** enjoy your visit
- Do not** disturb nesting birds
- Do not** overfeed the waterfowl

UNION INN @ LOCK 16

Historic Canal Side Inn at the original junction of the Forth & Clyde and Union Canals. Only 1 mile from "The Falkirk Wheel".



Beer Garden
Real Ale On Tap
Conservatory Restaurant

UNION INN Lock 16, 2 Port Downie, Falkirk FK1 4OZ
tel: 01324-613839 email: enquiries@dmstewart.com



COWGATE, KIRKINTILLOCH, G66 1AB
TEL: 0141 578 0144



Open: Tuesday - Saturday 10am - 1pm & 2pm - 5pm
Closed: Sunday and Monday
Disabled Access

Visit the award winning Auld Kirk Museum and experience a time journey that traces the town from Roman times to the present day. Build your own puffer, crawl through the coalmine and find out about iron foundries, boatyards, graveyards and Roman forts.

Crafts based shop with affordable silver jewellery, books, woodcrafts, ceramics and paintings.

LOWLAND CANALS PHOTOGRAPHIC COMPETITION

ENTRY FORM

NAME:

ADDRESS:.....

.....

.....

.....

TELEPHONE: (Day)

TELEPHONE: (Evening)

TELEPHONE: (Mobile)

CAMERA CLUB NAME & ADDRESS: (If applicable)

.....

.....

.....

.....

.....

ENTRY DETAILS:

List images, giving details of camera, film type, settings, etc. which you consider are relevant

Item 1:

.....

Item 2:

.....

Item 3:

.....

Item 4:

.....

Item 5:

.....

.....

.....

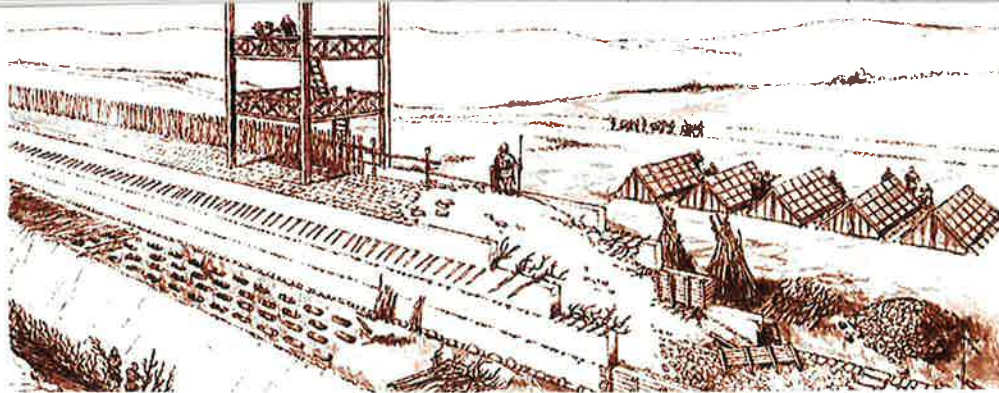
Signed: Date:

.....



Contact us for Competition Rules or submit your Entry:

British Waterways Scotland, Lowland Canals,
New Port Downie, Lime Road, Tamfourhill, Falkirk, FK1 4RS.
Tel: 01324 671217, Fax: 01324 671225.



THE ANTONINE WALL

The Antonine Wall is Scotland's premier Roman monument. It was one of several complex frontier systems that defended the Roman Empire from the barbarian hordes, and the soldiers stationed on these frontiers were on the edge of civilisation as they knew it.

Perhaps the best known of these is Hadrian's Wall, now a World Heritage Site. There is a proposal to give the Antonine Wall and the German frontier the same status.

The Antonine Wall was built around 142 AD at the successful completion of a campaign in southern Scotland undertaken by order of the emperor Antoninus Pius. He was probably motivated by a need for military prestige to strengthen his position as the new emperor of the Roman empire. The Wall, like its predecessor built under the reign of Hadrian, would have been intended to divide the island in two. The area to the south was to be fully integrated into the Roman culture. However, following the death of Antoninus the Roman army withdrew from central Scotland after an occupation of a little over 20 years.

As the Antonine Wall was occupied for such a short time its remains are those of a fossilised mid second century frontier, and represent the ideal at that time. By contrast, Hadrian's Wall was built in the 120s AD, and was then modified for the next two and a half centuries as tactics and warfare changed, making it difficult to untangle what belongs to which period.

The Antonine Wall was a 38 mile (61 km) long barrier built across the narrowest part of central Scotland, from Carriden on the Forth to Old Kilpatrick on the Clyde. The main obstruction was a turf and earthen rampart standing 3.5m high on a stone foundation 4.3m wide, surmounted by a wooden palisade or obstacle. Even today parts of the rampart survive to a height of over 2m at Rough Castle, Bonnybridge. Some 6m to the north of this lay a massive V-shaped ditch, averaging 12m wide and 4.2m deep. It still appears as a spectacular feature at Watling Lodge, just to the east of the Falkirk Wheel. Between the rampart and the ditch was a Roman minefield: small pits with sharpened wooden stakes protruding from them. Caesar describes such pits, which he used in France, and called them *lilia* after their resemblance to the lily with protruding stamens.



Attached to the south side of the rampart were a series of forts to provide accommodation for the garrison whose task it was to control movement across the frontier. At first there were only six of these, spaced at approximately 8 mile intervals as had been the case on Hadrian's Wall. The milecastles of that earlier wall were again used on the Antonine Wall, where they are known as fortlets, placed between the forts at intervals of around a mile. A good example of a fortlet lies in Kinneil Park near Bo'ness, with an interpretation centre nearby. The forts and fortlets were linked by a gravelled road known as the Military Way. This permitted men and supplies to move rapidly along the Wall. For some reason this original blue-print was changed part way through the Wall's construction and the 17 forts we know today were built instead.

Rough Castle, not far from the Falkirk Wheel, is the best preserved of these forts. Here the defensive ditches and ramparts are still formidable obstacles. Some of the *lilia* discovered in 1903 have been left open. At Bar Hill the visitor can see parts of the stone walls of fort buildings, including the headquarters' building, the bathhouse and the latrine block.

A well-preserved bathhouse and latrine can also be viewed at Bearsden in the suburbs of Glasgow. This building had an under floor heating system or hypocaust, the hot air from which passed through cavities in the walls, heating them too!

Roman objects from the Wall are displayed and interpreted at several museums along its line. These include Kinneil Museum, Callendar House and Kirkintilloch Museum. They can also be seen in the Museum of Scotland in Edinburgh, and the Hunterian Museum at Glasgow University.

The Antonine Wall was a frontier system consisting of a number of interrelated components, just as found in modern defences.

Roman Feature	Modern Feature
rampart	security fence
upcast mound & ditch	barbed wire
<i>lilia</i>	mine field
watchtowers	watch & machine gun posts
fortlets	check points
expansions	searchlights
forts	barracks
annexes	ordnance depots

VOLUNTEERS WANTED

TO HELP CLEAR LITTER ALONG
THE FORTH & CLYDE CANAL TOWPATH
AND ADJACENT LAND

For further information please phone
The Waterway Trust Scotland

0141 332 6936

gd Graphic Design

PUBLISHING • PRINTING • WEB DESIGN

Graphic Design are specialist contract publishers and have produced this guide on behalf of British Waterways Scotland and would like to thank the advertisers for giving their support

The Old Station, Coastal Road, Hest Bank, Lancaster, LA2 6HN
Tel: 08707 200055 Fax: 08707 200056



We are situated in the historical port of Grangemouth, conveniently situated close to Edinburgh, Stirling and Glasgow. Privately owned and managed by the Henderson family for over 17 years. Friendly staff and a warm welcome.

You can hold your wedding ceremony in the Leapark Hotel, we have magnificent gardens with Wedding Bower or one of our function rooms - we cater for large and small, more intimate weddings. Stay in one of our bedrooms with four-poster bed.

Conferences in our Garden Suite can accommodate 40-200 people or we have smaller suites for 2-60 people. Full visual services, fax, photocopying and e-mail facilities are available.



- We have 52 well-appointed bedrooms
- Suites with four-poster beds
- Function Suites of various sizes
- Green Room restaurant for full range of meals
- Traditional Scottish High Teas
- Bar lunches/suppers in the Treetops Lounge
- On site parking for 120 cars, coaches welcome

130 Bo'ness Road, Grangemouth, Stirling Shire, Fk3 9BX
Tel: 01324 486733 • Fax: 01324 665412
Email: reception@leapark.com • Web: www.leapark.com



STARTING BOATING

You may have a notion for boating because you have already had a go; but regardless, it is a good idea to get afloat in the size and type of boat you can afford, before crystallising your ideas about what to buy.

TRY A BOAT

Ways to achieve this include asking a friend who has a boat to take you afloat, and possibly enlisting his or her help with the selection process. Alternatively, get in touch with your nearest boat club, as they often hold open days for interested people to try a little boating.

Events like boat shows often include an opportunity to try boating for yourself, usually with a measure of advice thrown in. There is a boat show at The Falkirk Wheel each August, and others are held at coastal marinas as well.



BUDGETING

The first decision you must make is not what boat to buy, but what your budget is. When doing so, remember that regardless of whether the boat is new or used, there will be other expenditure. A used boat will probably require some repairs or refurbishment, and whether old or new, it must be equipped with safety equipment and other extra gear.

If you decide to finance your purchase with a loan you can opt for a personal loan, but if your purchase involves bigger amounts, a marine mortgage will be a more economical alternative.

The final financial factor is running costs, which will include a berth or mooring, insurance, maintenance, and fuel and gas.



MAKING A DECISION

You probably already have a certain type of boat in mind. It might be power or sail, for use on the coast or inland, but whichever you have set your heart on, consider getting advice about your final choice of craft. This advice can come from books and magazines, or better still from a more experienced acquaintance.

Buying new will probably involve a visit to a dealer, who, if he is worth his salt, will keep you on the right lines. After all, he probably wants you to return for successive boats, for almost everyone changes their boat, like their car, at regular intervals!

Buying a used boat requires much more experience. This will ideally come from a marine surveyor, who will assess the condition of the boat and will be well able to advise you on other aspects of its suitability for you.

Happy boating!

MILLENNIUM LINK

The Millennium Link was a British Waterways led project to regenerate the Forth & Clyde and Union Canals of Lowland Scotland.

BACKGROUND

In 1994 the Millennium Commission published its Criteria for Millennium Projects, and two key requirements were that

- It must enjoy full public support, and
- It must make a substantial contribution to the life of the community it is designed to serve.

The many community, local and national, and canal enthusiast's groups soon realized that a real opportunity to restore the redundant Lowland Canals of Scotland was within their grasp, and it was dubbed the 'People's Project'. It was driven by the vision of coast to coast, city to city navigation.

British Waterways played the key role in the securing of funding, building of partnerships, and the final delivery of the project.

THE TASK

This 110km project included building new structures in harmony with original structures, the full restoration of many of existing structures, whilst ensuring the protection and enhancement of the canal environment.

Former First Minister Donald Dewar cut the first sod in Glasgow on 12th March 1999, and the 3 year construction programme was under way.



PROJECT STATISTICS

- 5.2km of new canal
- 28 new road bridges
- 4 new opening bridges
- 9 opening bridges re-commissioned
- 10 new footbridges
- 9 new locks
- 32 locks refurbished
- 35 pairs of new lock gates
- 38 masonry arch bridges, aqueducts & weirs refurbished
- 2 new aqueducts
- 1 new tunnel
- 30,000 tonnes of dredgings
- 92km towpath upgraded. The project value on completion was £84.5 million.

HIGHLIGHTS

- The opening of the Forth & Clyde Canal on 26th & 27th May 2001.
- The opening of Wester Hailes, Edinburgh (Union Canal) on 25th August 2001
- The opening of the Millennium Link by Her Majesty the Queen on 24th May 2002.



VISION IN DESIGN - DALMUIR DROP LOCK

Dalmuir on the outskirts of Clydebank in Glasgow required a special solution to allow the safe passage of craft under a main highway. A unique Drop Lock was devised to enable boats to pass under the highway by lowering the canal level within the confines of the lock by approximately 2.8 metres, which allowed boats to pass under the road.

NEW AND REBUILT CHANNELS

Some sections of original canal channel were infilled in the early years of closure

Engineering and environmental challenges were solved by using modern construction techniques and materials. Time would not permit the traditional laying of puddle clay, so rolls of synthetic clay overlaid by soil would retain the water.

The longest reconstructed section at Wester Hailes was officially opened on the 25th August 2001. Boats could once again navigate into the heart of Edinburgh.



NEW BRIDGES

Many new concrete bridges had to be built, and a theme was conceived to ensure the new bridges would be readily identifiable as Millennium Link Project bridges.

On the Forth & Clyde canal, where old original bascule (timber decked lifting) bridges were rebuilt, they incorporated a design depicting the hand cranked lifting mechanism. On the Union Canal, rebuilt bridges carry the MM symbol.

RESTORING THE OLD FABRIC

Many of the old locks, bridges, aqueducts, and culverts have been restored, and detailed understanding of traditional materials was required.

- New timber lock gates were constructed.
- Stonemasons were encouraged to inscribe their marks just as the original masons did. You can see examples of old and new marks at Lock 16 on the Forth & Clyde Canal.
- Twenty-four original Union Canal milestones were identified as missing from the old ordnance survey maps, by Historic Scotland, whose apprentice stonemasons at HS's training centre in Elgin constructed new stones as part of their training curriculum.



MAKING THE CONNECTION - THE FALKIRK WHEEL

The Falkirk Wheel is the world's first rotating boat lift, and its primary function is to transfer boats from one canal to the other, overcoming the difference in height between the waterways.

It is 35 metres high, (eight stacked double decker buses) and will move the weight of the structure, water, and boats, a total of 1000 tonnes (100 elephants) almost effortlessly.

At an approximate cost of £19 million the Falkirk Interchange, which includes The Falkirk Wheel, is the jewel in the crown.

THE FUTURE

In regenerating and re-opening Scotland's Lowland Canals British Waterways has created a corridor of opportunity for business, leisure, environmental protection, tourism and much more.



Partnership Expertise in

- civil engineering
- town centre improvements
- sportsfield construction
- hard and soft landscaping
- contract maintenance
- skills training

construction

expertise in your environment

LANDENGINEERING



Partners in Construction

Land Engineering (Scotland) Limited
 Gardrum House
 Fenwick
 Ayrshire
 KA3 6AS

Tel: 01560 600811

Fax: 01560 600818

email: admin@landengineering.co.uk

RIBBONS OF LIGHT



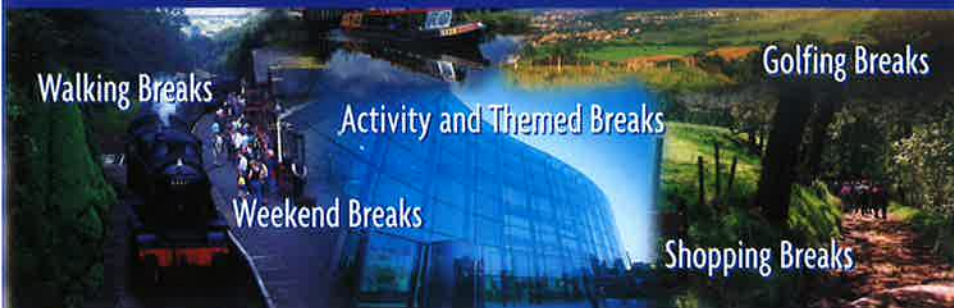
Dougie Vipond introduces you to the projects which made the renaissance of Scotland's Lowland Canals a reality. This One Hour Video/DVD is the definitive guide to the Millennium Link featuring the opening of the Millennium Link, The Falkirk Wheel and an interview with Guthrie Hutton, Canal Historian. **DVD £11.99+p&p - VIDEO £7.99+p&p**

Please Contact: British Waterways Scotland, Lowland Canals, New Port Downie, Lime Road, Tamfourhill, Falkirk, FK1 4RS. Tel: 01324 671217, Fax: 01324 671225.

Guest Houses Self Catering Events Camping and Caravans
Visitor Attractions **Hotels** Pubs & Restaurants
Transport & Travel Shopping Leisure & Sports

The useful guide for all your shortbreak requirements.

shortbreaks-uk.co.uk



gd Graphic Design

PUBLISHING • PRINTING • WEB DESIGN

Graphic Design are specialist contract publishers and have produced this guide on behalf of British Waterways Scotland and would like to thank the advertisers for giving their support

**The Old Station, Coastal Road, Hest Bank, Lancaster, LA2 6HN
Tel: 08707 20055 Fax: 08707 20056**



BRITISH WATERWAYS SCOTLAND

Responsibility for inland waterways in Scotland is a devolved matter, with funding for British Waterways' Scottish activities coming from the Scottish Executive. In Scotland the 137-mile (220km) canal network includes the Caledonian, Crinan, Forth & Clyde, Union and Monkland canals.

British Waterways Scotland works in partnerships with local authorities, voluntary groups, private companies and other government agencies to protect and enhance the waterways and benefit the communities through which they run.

The organisation balances the conservation of the country's heritage and environment with developing commercial opportunities to generate income to reinvest in the waterways for further sustainable regeneration.



"This project is co-funded by ERDF through the Interreg IIIB North Sea Region Programme"

GLASGOW

Canal users will find it well worth their while berthing in Glasgow where there is something for everyone.

For the cultural tourist, Glasgow is home to a number of world-class attractions including Kelvingrove Museum and Art Gallery, the Burrell Collection, the Glasgow Science Centre, the Tall Ship and Glasgow Cathedral.

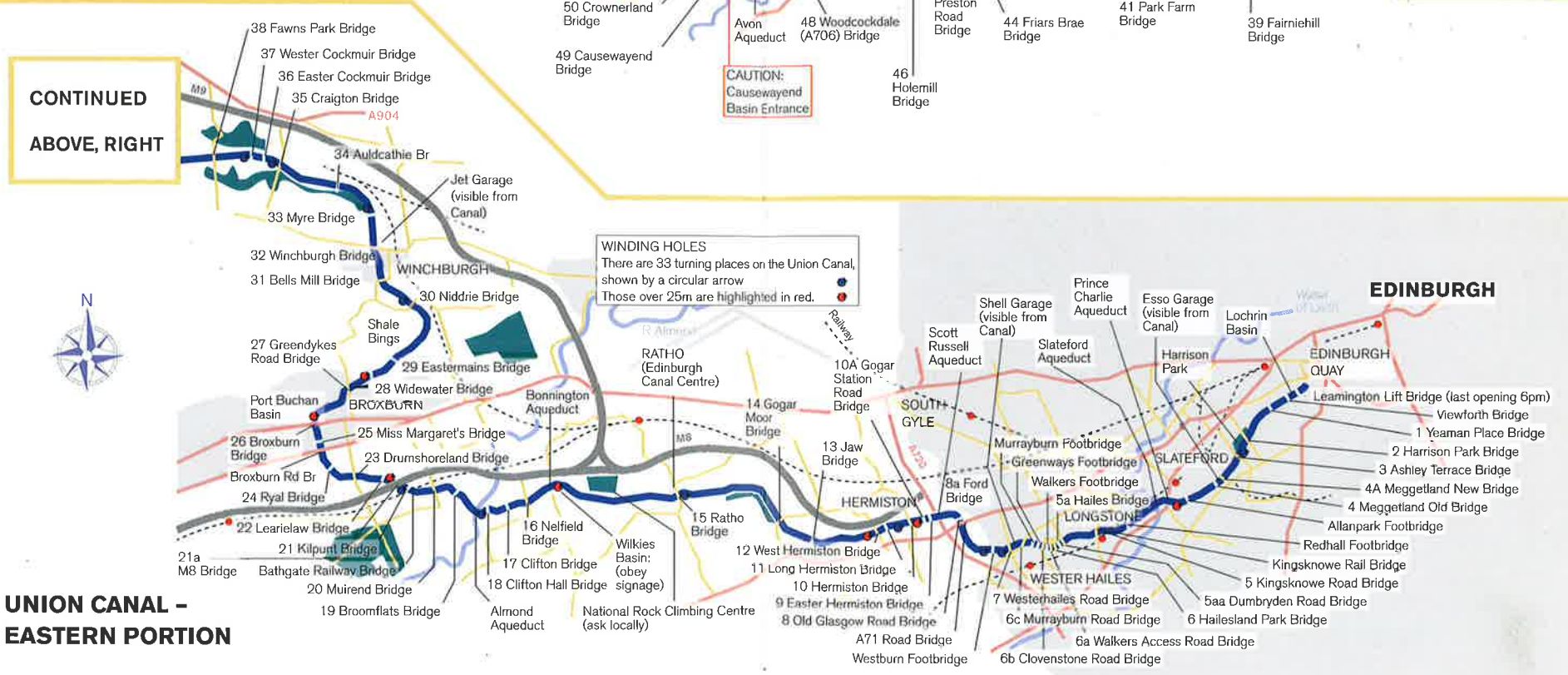
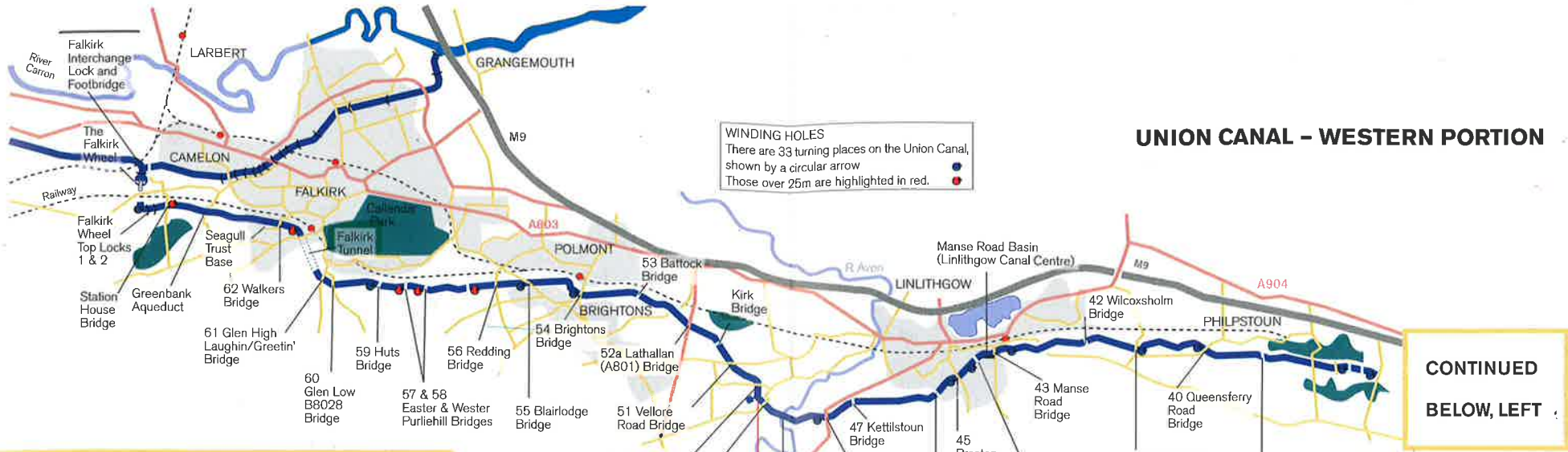
As a retail centre, Glasgow is second only to London in the UK. It has over 500,000 sq. ft of retail floorspace including Buchanan Galleries, Prince's Square and St Enoch Centre, not to mention the wide variety of shops in the city's main shopping thoroughfares, Buchanan Street, Sauchiehall Street and Argyle Street.

There is also a year-round calendar of events which features Celtic Connections, the Glasgow International Comedy Festival, the West End Festival, Bard in the Botanics and the World Pipe Band Championships. To cap it all, Glasgow was recently voted the top regional city for the choice and quality of restaurants, cafes, bars and clubs. And, with over 60 hotels to choose from, it makes the perfect short break destination.

Glasgow

Tel: 0141 287 2000
www.glasgow.gov.uk

UNION MAP





DISCOVER THE WATERSCAPE ON YOUR DOORSTEP



Huddersfield Narrow



Liverpool - Albert Dock



Hobden

You'll find everything you need to make the most of your local waterways on **Waterscape.com**, with hundreds of ideas for great days out by the water. Simply click on a map to find details of waterside attractions, local facilities (including pubs and shops), canal walks and cycle routes.

If you're looking for a longer break or a waterside holiday, **Waterscape.com** also offers Britain's best selection of boating trips and cottage breaks, with online booking and great discount offers available all year round.

waterscape.com

Visit **Waterscape.com** and explore the world of waterways online!