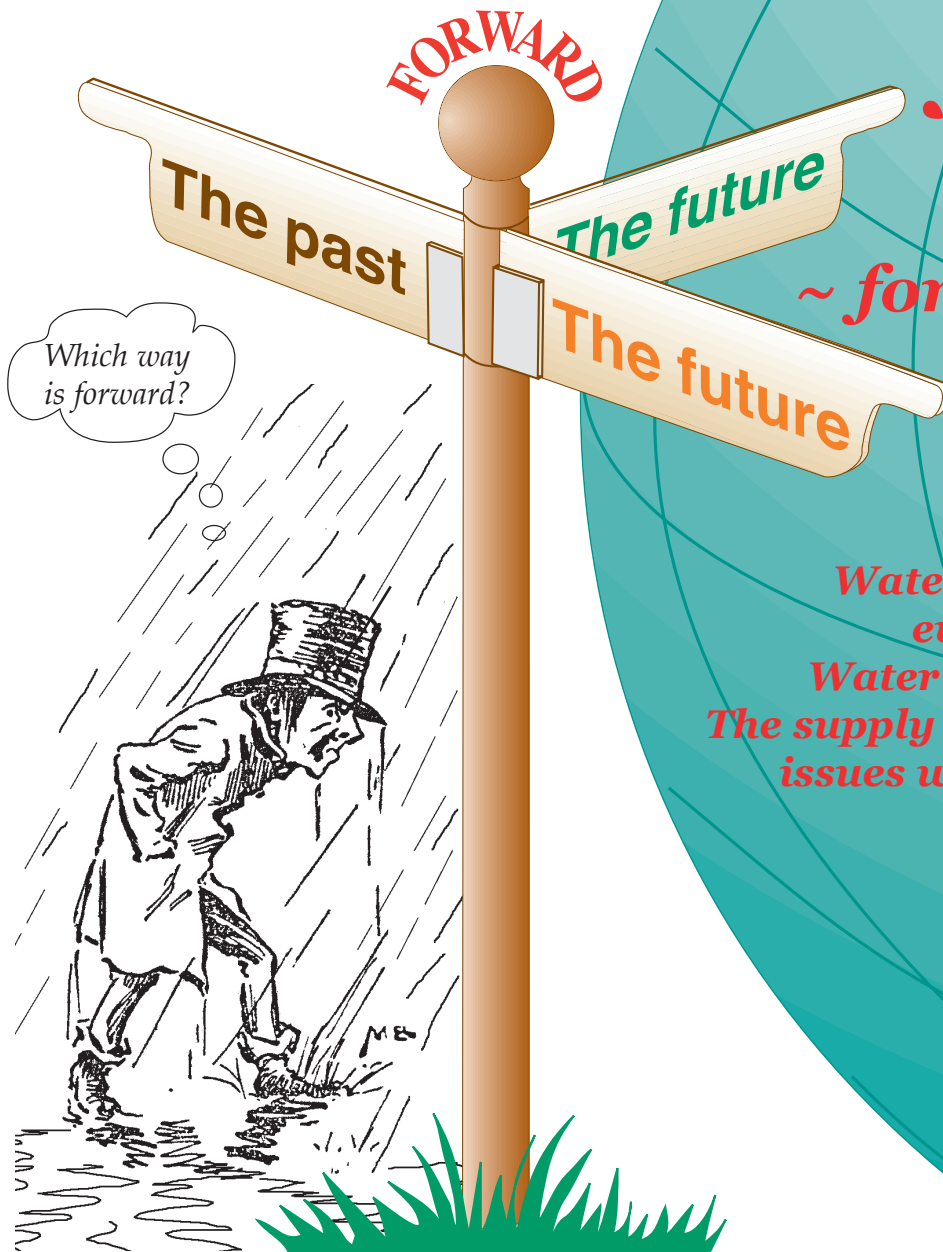


Water for a city

*~ forward thinking
in the past?*



*Water is important to people
everywhere in the world.
Water is vital to development.
The supply of water is one of many
issues we have in common with
other communities.*

100 years ago Birmingham was facing a major water crisis ... difficult decisions had to be made.

This leaflet introduces some of the key issues and background to a local history case study about Birmingham's water supply.

Use the key questions on page 3 to explore different aspects of the case study and the issues it raises.

Development Education Centre [Birmingham]

in partnership with

Severn Trent Water

Forward Thinking Initiative
Tide~

Why did Birmingham need a new water supply?

Birmingham appointed a Water Committee with the task of finding a solution to its 'water problem'. In 1890 James Mansergh recommended a proposal for a scheme in the Elan Valley. He later went on to become the engineer in charge.



A view of the Water Committee, Town Crier [1892]

Water cycle
Natural system



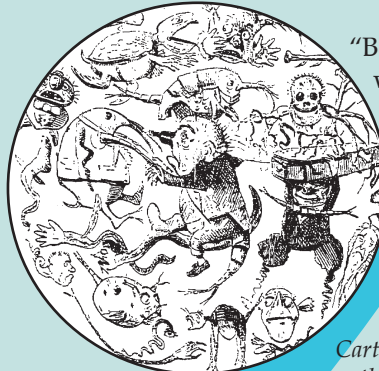
The Dart [1897]

"Birmingham at present is imperfectly supplied with water from several independent sources. There are several public wells or pumps in the town, from which the water is obtained by the neighbouring inhabitants; and many private water carts traverse the town, from which it is purchased by the cottages at an half-penny the can full."

Source: Rawlinson Report General Board of Health, 1849

Birmingham 1890 :

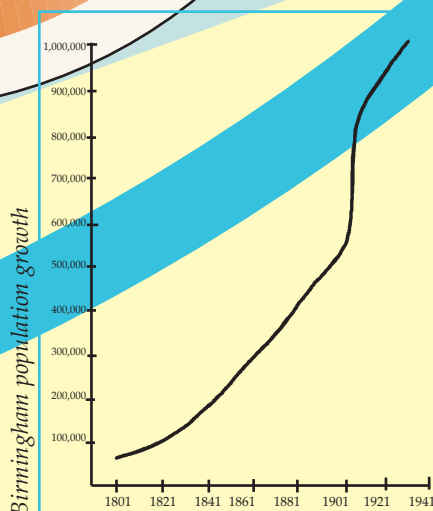
- a growing population
- growing demand for water from industry
- pollution in many of the wells
- concern about health issues ... particularly in the inner city



"Besides having a slight milky tint, this water had particles, evidently of organic origin, diffused throughout it; all which, however, careful filtration removed. The water smelled like sour dough, or like a beer cellar, and had a corresponding taste."

Source: Rawlinson, 1849

Cartoon from Punch [1850] of water as seen down the recently invented microscope. There was growing awareness of the health risks from poor quality water.



Cheapside, approx 1900

Using the information in this leaflet find and note evidence which helps to answer the key questions below:

Why did Birmingham need a new water supply?

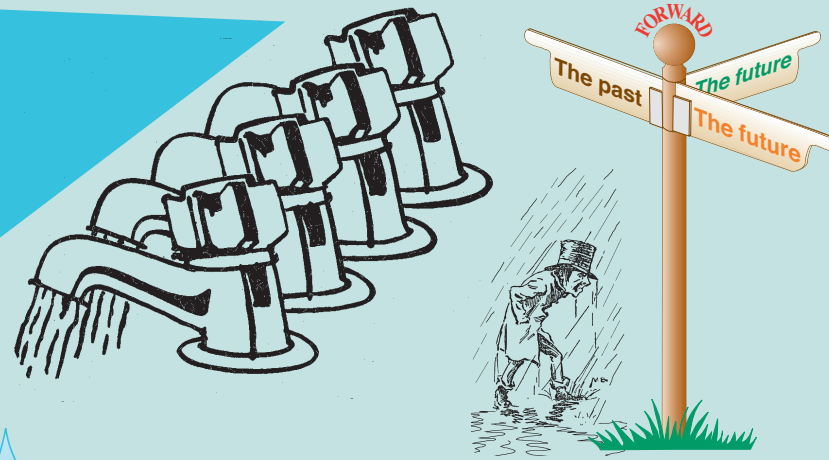
What were the effects of the Elan Valley Project on Birmingham?

How did it change people's lives?

If you could have a "one to one" with the planners of the scheme, what questions would you ask them?

Quick Quiz

1. Who wrote a report to the General Board of Health highlighting the poor supply and quality of water in Birmingham?
2. Where did Birmingham get its water before the Elan Valley scheme?
3. Which Birmingham politician, first as Mayor and later as an MP, played an important role in bringing about the Elan Valley scheme?
4. Who was the civil engineer in charge of the whole Elan Valley scheme?
5. What year was the Bill passed in Parliament allowing work to begin on the dams?
6. How many counties does the Elan Valley pipeline pass through on its way to Birmingham?
7. Name 3 other towns or cities in the UK which have built dams to provide a water supply.



In 1890 why might I be looking forward to a new water supply? What concerns might I have?

Water ~ vital to the development of the city

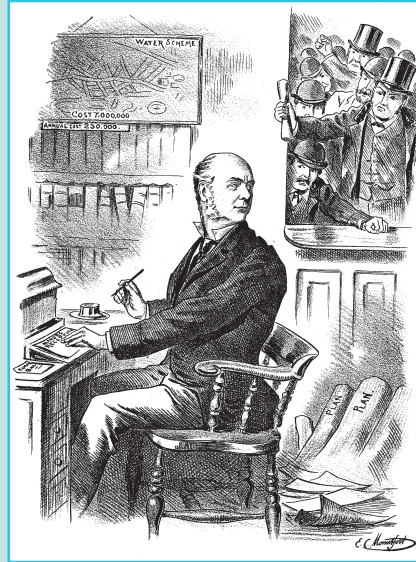
The Elan Valley Project provided Birmingham with considerable quantities of good quality water.

In Birmingham this had implications for

- health, living conditions and the quality of life;
- industrial development;
- the growth of the city.

The scheme also had an impact in Wales. This was a matter for debate.

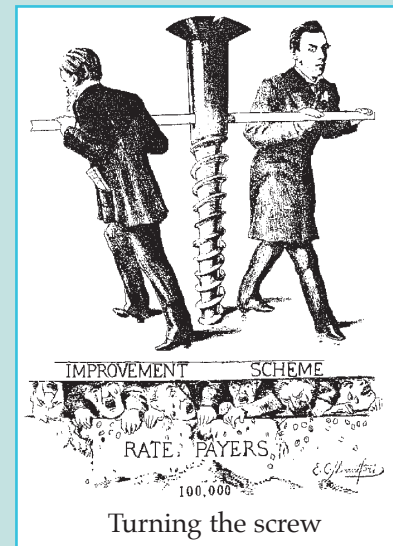
Joseph Chamberlain was an influential Birmingham MP who had a vision about the future of the City. Central to plans for social reform, better health and housing was the need for a good supply of quality water. He took a lead in getting the Bill through Parliament in 1892.



The Dart, 1892

Angry Ratepayer:
"How much is this Water Scheme to cost?"
The Mayor: "Go to --- the Free Library!"

The scheme cost £6,000,000 and meant a sharp increase in the rate for Birmingham taxpayers. This caused some opposition in Birmingham. Those who made their living from supplying water also opposed the scheme.



Turning the screw

Supply of water to Birmingham houses - and water consumption

Year	No. of houses supplied	Av. gross consumption gallons per head per day
1895	131,087	24.60
1905	170,160	24.03
1915	190,693	27.42
1925	202,009	26.90
1935	267,869	28.51
1945	310,231	32.51
1955	350,453	42.04
1965	378,099	55.31
1973	407,200	59.48

What do you think are the main reasons for changes in water consumption?

History of Birmingham Water Dept., 1974



Aston Road, approx 1908



Elan Valley, Garreg Ddu Dam, 1897 approx.

Water cycle
Natural system

There was an impact on the environment:

- in Wales: eg flooding and displacement
- in Birmingham: eg reservoirs, sewage plants. The water supply increased the potential of Birmingham to become a bigger place.



Over 1500 people were employed during the building of the dams. They came from different parts of the UK and Europe.

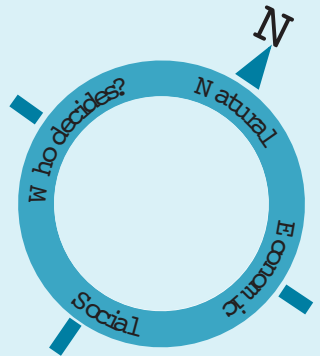
The building of the dam itself had a considerable impact on the people who previously lived in the valley and the workers who came to live there to build the dam. About 20 buildings were submerged when the valley was flooded, including a church, a school and a chapel. A temporary railway was built to import raw materials including the stone for the dams ... which in turn had an impact on other environments.

The basic facts

- Birmingham purchased 71 square miles of land in Wales for the water scheme
- It took 12 years to build the Elan Valley dams
- 4 dams were initially built [a fifth was added 50 years later]
- The water travels from Wales to Birmingham using the power of gravity
- The pipeline is 73 miles long
- It takes approx. 3 days for water to travel from Wales to Birmingham
- The dams were formally opened in 1904
- Birmingham receives approx. 80 million gallons of water per day from Wales.

Development Compass Rose

This is a useful tool for thinking about different factors influencing an issue.



N ~ Natural
about the impact on the environment

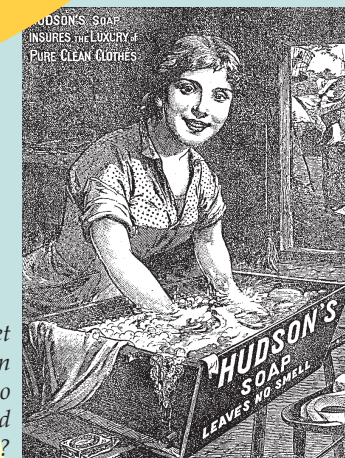
E ~ Economic
about finance, trade & industry ... & ownership

S ~ Social
about people, social groups, culture & social activity

W ~ Who decides?
about politics, power & who benefits from decisions

What was the effect on Birmingham's industry?

What was the effect on Birmingham's industry?



An advert for soap. Water supply opened up the market for soap manufacture. What are the implications of an increased water supply for how water is used. How do you think the use of water in people's homes has changed ... how does this effect the way people live?

W

Who decides?

Natural

Economic

E

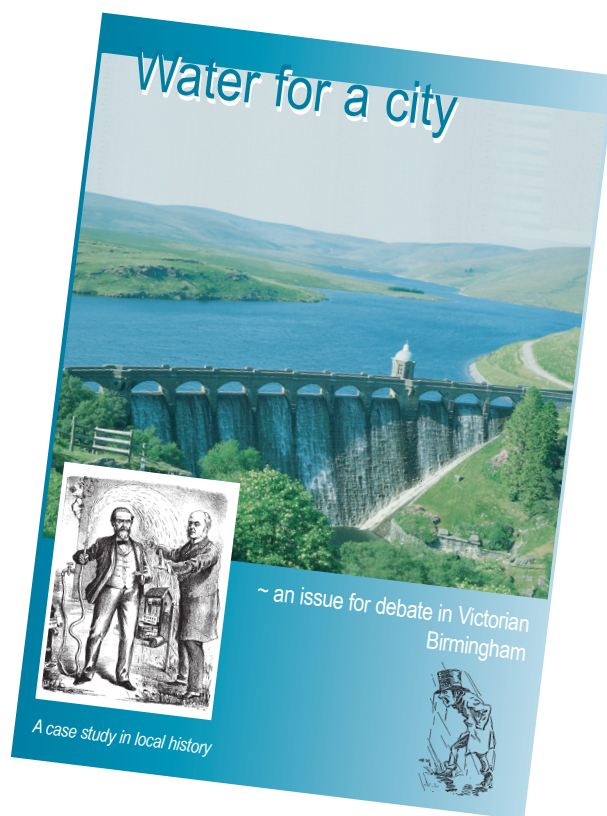
Social

S

This leaflet forms part of a set of materials, *Water for a City ~ an issue for debate in Victorian Birmingham*. The materials have been produced by a group of 16 secondary history teachers. They provide a case study investigating Birmingham's water supply.

Water for a City materials include:

- A handbook for teachers.
This includes suggestions for activities to support students' investigation into this case-study. It contains photocopiable material, cartoons, quotes and a range of evidence to support research into a number of key questions [see inside leaflet].
- A set of 8 photographs.
- Copies of this leaflet designed for students' use.



History departments from the following schools have been involved in the Tide~ project which has produced *Water for a City*.

Archbishop Ilsley RC
Kings Norton Boys
St Edmund Campion RC
St Paul's Girls
Shenley Court
Swanshurst
Turves Green Boys'
Windsor High [Halesowen]

Water for a City is a contribution to the Tide~ Forward Thinking Initiative.

The Forward Thinking initiative provides a variety of opportunities for teachers to work together to plan, implement and evaluate work which responds to the challenges facing us as we seek to meet the educational needs of young people growing up in an increasingly global context.

These materials have been produced as part of a Tide~ curriculum project in partnership with Severn Trent Water.



Tide~ is a network of teachers and educators working in Development Education. Please contact us for further information about projects, conferences and resources at:



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