

## The River Tame: an Environment Agency Overview

The River Tame is a very important feature in the hydrology of the Sandwell Valley and the Club has always considered liaison with those having oversight of the river as a necessity, especially in the light of the construction of the large balancing lake adjoining the RSPB reserve during the later years of the last century. The following report of a meeting held at the RSPB Centre (Sandwell Valley) on October 7<sup>th</sup> 2015 has been written by Sam Bucknall (a water biologist and member of SANDNATS). It summarises plans and progress in improving a waterway once having a reputation as one of the most polluted in the area.

### Andrew Crawford, Biodiversity Technical Specialist, Environment Agency

#### Restoring the River Tame- Some Examples 1990-2015

The Environment Agency has a wide range of responsibilities, including regulating major industry and waste, treating contaminated land, monitoring water quality and managing flood risk to name but a few. It was previously known as the National Rivers Authority (NRA). In 1989, the NRA as it then was, began a restoration project on the River Tame and work on this has been continuous throughout recent years.

The Tame is a 'flashy' river, so there can be quick fluctuations in water levels, which can impact upon biodiversity and the character of the river. The M6 motorway was built over the River Tame, as it was an open corridor with easy access. The water quality of the Tame was poor at this time. It contained sewage fungus- an indicator of highly nutritious, very poor quality water. Hams Hall Power Station in particular suffered from large mats of sewage fungus. There was virtually no life in the Tame apart from the fungus. Although, at one time the Tame was a salmonid river and there are aspirations for this in the future, the water quality will need to vastly improve first.

Under WFD (the Water Framework Directive), the River Tame is classified as a heavily modified water body. It is currently failing on criteria regarding fish, freshwater invertebrates and ammonia. There is an objective to get to GEP (good ecological potential) by 2027.

There was general agreement that the Tame could be improved in a variety of ways:

- More in- channel morphological diversity
- Removal of weirs
- Reduction in hard banks (linking aquatic habitats helps with the structure of the river and biodiversity)
- Analogues of natural features could be used as a replacement for natural features. This could include braiding, widening, removing revetments, adding bed load, increasing large woody debris, realignment, enhancement creation or associated habitat.

A variety of projects on the Tame have been funded by the Environment Agency (EA). Some of these were carried out by developers under their recommendations. Andrew gave us some examples of projects where the Environment Agency has assisted, or played a leading role.. He also talked about happenings at specific locations on the Tame. A brief review of some of the areas he mentioned is given below.

#### Bentley Mill

The site had sheet piling which was previously checked every 2 months, it's now been replaced with a softer edge which is much better for wildlife. Sheet piling had to be kept in some locations. The water here was rich in copper as there was a copper works nearby. This metal had to be removed from the water.

### Ikea, Wednesbury

This was a very contaminated site. The River Tame has been moved 3 times here- as far as possible into clean ground. Rushes (*Scirpus* sp.) were planted and the area has greened up now with the rushes also spreading along the river.

### Bescot sidings

Bescot is a balancing area. Only a certain amount of water that can pass through before it backs up and is stored to prevent flooding. 'D' ditches were dug around to stop motorbikes getting in. There are now grazing issues. The Environment Agency paid for a row of lime trees to be planted here.

### Perry Hall to Forge Mill

An underpass was put in to get eyes on the river and to hopefully encourage the public to take ownership. This is now part of a cycle track.

The section of the Tame which passes through Perry Hall has hard edges, with a lot of bank reinforcements, including gabion baskets. There is also no fringe of vegetation. The lack of soft banks and vegetation mean that it is difficult for biodiversity to colonise and thrive.

### Chester Road Bridge

Below the road bridge, lots of sand and gravel has been deposited, leading to a serious flood risk. The gravel has been used elsewhere, further downstream.

### Hams Hall

The land at Hams Hall is owned by Eon. The banks of the Tame here had concrete piles 2m long, ½ meter wide and 10cm thick. Recycled concrete was tipped into the river, some had to be left on bridge approaches. The river will gradually move across and become more natural.

### Ladywalk Nature Reserve

Through Ladywalk Nature Reserve, the Tame is thin and self- cleansing. Ladywalk is privately managed by the West Midlands Bird Club.

### River Rea

There is a weir on the Tame by the River Rea and the water 'ponds' behind it are low in oxygen; one way of tackling this was to cut a notch in the weir which helped to aerate the water and make the conditions better for fish. A lengthy section of the River Rea was opened up at Longbridge from culverts.

### The SMURF project (Sustainable Management of Urban Rivers and Floodplains).

The original SMURF project was designed specifically to reduce flooding and pollution on the River Tame. The river was widened following advice from Geoff Petts at Birmingham. The habitat is better now with reeds and true bulrush establishing. A pool and riffle system has also developed. A car was driven into the Tame 30 years ago and as it was too expensive to get it removed, it has remained in situ and is affectionately known as 'Car Island'.

There has been a large project where 700m of gravel was dug out of the Tame. Islands were created, but 2 were destroyed by the flow, 20 cumex of gravel were washed down. Two or Three years after the gravel events, it was a good year for willow. It has established well and created a wet woodland with reeds at the water interface.

Adjoining the A5, there is 'Smiley Face' pool. The river here was pulled back on a larger scale (within Tameside Nature Reserve). The pool is isolated from the river. There was a desire to create shallows and link the river but it is dependent on the gradient. The river was pulled back with a gentle slope which allows creatures to walk in and out. There was a trapezoidal channel prior to the restoration.

**The future of the Forge Mill Farm area of Sandwell Valley as a holding area for water from the Tame is currently being considered with a variety of partners and initial planning has been completed for construction alleviating potential flooding problems envisaged in the coming years.**

*The picture below shows the River Tame in the Sandwell Valley, taken from a point close to the RSPB during 2015 by Andy Purcell (Club Photographer). Water improvement has been very marked over the last 40 years but channel quality issues remain.*

