



Severn Trent Water - Llandinam Trunk Main Project

Through our strong relationship and the AMP 5 Lot 1 Clean Water Capital Delivery framework, Enterprise was asked to install a new 450mm diameter duplicate treated water pumping main between Llandinam Water Treatment Works (WTW) and Llandinam Service Reservoir (SR). Other aspects of the project included:

The installation of a new independent outlet mains from each compartment of the Llandinam SR. Laying new 450mm diameter duplicate treated water gravity main between Llandinam SR and an existing 10" water main north of the village of Abermule. This included two small river crossings, several road and rail under-pass crossings.

The duplication of connections between the existing 18" main and distribution DMA supply zones was such that these areas can now be re-valved to allow them to be fed from the new 450mm gravity main.

Providing a number of cross-connections between the existing 18" trunk main and the new treated water gravity main

between Llandinam SR and Abermule to increase flexibility in the event of either part of, or a section of main being out of service for maintenance or due to a burst.

A number of challenges were presented during the project as the route of the main, being so large in length, entered a number of ecological and archaeological sites. Enterprise conducted a number of archaeological surveys with sites ranging from pre-historic to the post-medieval period, and had a full time archaeologist present at all times when stripping top soil.

The proposed route affected an area populated by a number of protected species like otters, badgers and Great Crested Newts. The route therefore had to be fully evaluated and precautionary measures taken in accordance with published guidance.

There were a number of constraints on commissioning, including restricted shut down times at Llandinam SR, night shuts on the existing main and phased

commissioning of the new main ensuring that water supplies were maintained to customers and in coordinated warnings to large scale customers.

Relationships were developed with STW operational staff ensuring that all constraints were satisfied and the project benefits were delivered. This was primarily conducted during the feasibility stages of the project ensuring that the requirements for commissioning the new main were understood.

The main was constructed and the commissioning plan was further developed, in partnership with the client and the designer. A good example of this early collaboration can be demonstrated by the success of the connection works at Llandinam SR. This work was completed within the required period with no loss of supply to customers. There were a number of minor route changes which were discussed and agreed with local operational staff, who because of their engagement early-on in the project, had a good understanding of the scheme and

were able to make decisions locally without comprising delivery dates.

This complex project displays our capability to work on large capital schemes, in sensitive and rural areas, under extreme conditions and with the following stakeholders involved in the project:

- Local Authorities
- Environmental Agencies (DEFRA / English Nature)
- Highway Authorities
- Councils
- Other contractor's
- Our client
- Our client's customers
- Landowners
- The local community