



The Moors at Arne, Coastal Management Project

Surface Water Drainage of Ridge

May 2018

What are we doing?

The Environment Agency is working with the RSPB and Natural England to adapt approximately 150ha of The Moors at Arne into a diverse wetland habitat.

The scheme will involve the construction of new tidal embankments further inland than the existing ones. Once in place, the land in front of the new embankments will be opened to the action of the tides and with this new saltmarsh habitats will be created. The new tidal embankments will be robust and the scheme will give greater flood resilience for local people and property.

Drainage survey

As part of the development of this project, a survey has been carried out of the surface water drainage network within Ridge. The survey was in two parts:

- Part 1: 2 weeks of CCTV survey work plus 1 week of combined jetting, drain clearance and CCTV surveys (of those pipes that had been blocked) and the collation of manhole data sheets for all of the manholes.
- Part 2: GPS survey of the surface water manhole covers.

The survey did not include the Wessex Water foul sewer system, but did include the Dorset County Council Highways drains, the Wessex Water surface water drains, all other surface water drains that were found and some land drains that were found.

This has allowed us to create a plan of the surface water drainage network and a comprehensive record of the condition of the drains. The jetting unit removed 7 tonnes of silt and roots from the pipes.

What is a surface water drainage network?

Surface water comes from rain falling onto hard surfaces, such as house roofs, roads and driveways. It is often collected into drains or ditches. Manholes should be constructed where pipes change direction, or join together, to make maintenance easier. Together these drains, manholes and ditches make up a surface water drainage network.

Who is responsible for keeping drains and ditches clear?

Some of the drains are managed by Dorset County Council Highways and some of the drains are managed by Wessex Water – both of whom are Risk Management Authorities.

Other drains within Ridge are not managed by a Risk Management Authority and will be the responsibility of landowners to maintain.



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For further information about managing local flood risk go to the Dorset for You website – Managing Flood Risk in Dorset: <https://www.dorsetforyou.gov.uk/article/403896>.

Were all the drains cleared?

There was no existing plan of the whole surface water drainage network before this survey was done, so it is difficult to know whether all the drains have been found. If you know of a drain that does not appear on the plan, then we would be very happy to survey it and add it to the network.

Two lengths of pipe were not cleared, which were significantly blocked. Both are believed to be additional pipes to the primary system and may have been abandoned in the past due to being blocked.

What happens next?

Arne Parish Council and the Environment Agency are planning to work together, with Dorset County Council Flood Risk Team (the Lead Local Flood Authority), to explore any opportunity for further adoption of drains by Wessex Water and / or Dorset County Council Highways.

What about groundwater and land drainage?

Groundwater is water that flows through the ground - this water may have soaked into the ground some distance away. Some of the drains that were picked up by the drainage survey were land drains, which are perforated pipes designed to intercept the groundwater and direct it into ditches or a piped network.

The Moors project team have installed several monitored boreholes within The Moors site and Ridge. The boreholes contain data loggers that record the groundwater level every 30mins. This data is being gathered for a period of several months and will be used to assess any impact the project proposals could have on the groundwater flood risk.