### Kent Catchment Flood Risk Management Scheme Update

### Burneside, Staveley, Ings and upstream measures



The Environment Agency has proposed a three phase Flood Risk Management Scheme to better protect residential and business properties from flooding in the Kent catchment. We are starting our detailed design phase for Burneside, Staveley, Ings and the upstream storage locations. Below is a snaptshot of some of these benefits being delivered as part of the three phase scheme;







Businesses employing 6,105 people better protected



New trees planted – six new trees planted for every one removed

Community facilities better protected



Hectares of habitat & recreational space improved

**Dec 2019** 



Funding approved to deliver all three phases

Summer 2020



Data gathering and detailed design starts

Winter 2020



Consultation opportunity



Phase Two & Three Planning

Autumn 2021 Summer 2022



Construction starts

We are proposing to deliver a Flood Risk Management Scheme that will protect homes and businesses from flooding in the villages of Burneside, Staveley, and Ings. Raised flood walls finished in local stone combined with grass embankments will provide the communities with increased flood protection. Flood walls and embankments will be set back where we can to make space for water and retain riverside access and views. In addition, we will be delivering a scheme on Stock Beck to divert excess flows on the outskirts of Kendal, and Upstream Storage in two locations which will hold back excess flood water in the upper catchment. These measures will reduce the amount of flow through the villages and Kendal town.

## Natural Flood Management Projects

#### Stock Beck, Kendal

#### This project is delivering:-

- storage ponds to hold water
- diversion pathways to divert water
- long leaky dams to slow the flow
- tree planting to stablise land and soak up water.

This is the start of a number of other opportunities to deliver more in the catchment





### Town View, Kendal

- This project is delivering:-- earth bunds to hold water
- leaky dams to slow the flow
- tree planting to stabalise land and soak up water.

This project is designed to address the surface water flood risk in the area.



### Staveley

#### This project is delivering:-

- re-connection of floodplains
- flow routing to divert excess water
- run-off attenuation to allow water to be stored.

This project is designed to reduce flooding from both river and surface





#### Peatland restoration

Restoring 50 hectares of peatland in the Upper Kent catchment providing a number of benefits including:-

- 164 tonnes of carbon storage each year
- additional water storage capacity
- improved habitat for specialist species
- helping the catchment become more resilient to climate change



#### **Contact Us**

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**Jacobs** 



### Burneside, Staveley, Ings and upstream measures



## **Data gathering**

We are continuing to develop our scheme designs for Burneside, Staveley, and Ings (Phase Two) and for the upstream storage locations (Phase Three) ahead of our planning permission submission in Autumn 2021. To inform our detailed design of the schemes we need to undertake a number of data gathering activities, these activities are important as it informs our understanding of the area and ultimately the design of the scheme. We will be starting to undertake these activities in July 2020 and these will continue until the end of the year.

## What are the data gathering activities?

The data gathering activities we will undertake will be delivered over a number of months. Each activity builds up a clear picture of the environmental habitat, geography, key features, underground services and ground conditions of the area. We will be concentrating firstly on delivering the Environmental Surveys and the Topographical Surveys which will commence this month...

Environmental Survey – These ecological surveys are vital in helping us to understand the wildlife present in the area and the best ways to try and avoid impacts from the construction of our scheme.

We will be specifically focussing on identifying the presence of otters, badgers, bat and bird nesting sites as well as aquatic surveys that will identify the presence of sensitive species within the river system.

Trees will also be surveyed that fall within the vicinity of our scheme design. We will be assessing root systems, stems and canopies as well as hedgerows that could be impacted by our scheme. These surveys will be undertaken by an arboriculturalist who has extensive knowledge and expertise in this area.





White-clawed crayfish © Environment Agency

**Topographical Survey –** This survey of the land identifies features using Global Positioning System (GPS). This system enables us to display property, land features and physical boundaries on a scaled survey drawing. This plotted drawing will help the design of the scheme by providing a clear display of the site constraints and opportunities.



Topo Survey Equipment ©JCWhite

We will also be undertaking some in river inspections and surveys on the River Kent and Gowan as part of our ecology surveys. These surveys will provide us with a better understanding of the habitat within the river system.

# Community consultation

The data we will be collecting will inform our detailed design of the scheme. We will have gathered sufficient information by Autumn to present our initial design drawings and plans in Winter 2020. We will publicise the date of these consultation events later in the year.

# Working with our partners

We are also working closely with United Utilities as we develop our flood scheme design alongside their sewer improvement programmes and Cumbria County Council on their surface water improvement programmes.







