The Poole Harbour Catchment Initiative (PHCI) is a local partnership that formed in 2012 to protect and improve the health of the water environment. The water environment encompasses all rivers, streams, wetlands and groundwaters that drain into Poole Harbour. Importantly, it also relates to all land within the catchment that has an impact on the natural water cycle.

The initiative continues to help identify the local problems facing the water environment and has developed a shared Catchment Plan that identifies solutions to these problems. The partnership helps to communicate, share information and coordinate actions at a local catchment level to address the key water issues in a collaborative way.

Why was the initiative formed?
The initiative was one of the first pilots in England to trial the Catchment Based Approach. Each pilot was tasked with developing a stakeholder engagement process to identify the key water issues and solutions in their catchment.

During the pilot stage, the PHCI was originally known as the Frome & Piddle Catchment Initiative; this name was changed in May 2013 when the boundary of the catchment was extended to incorporate all rivers and streams that drain into Poole Harbour.

After the success of the pilots in 2013, the UK Government committed to supporting the Catchment Based Approach. All catchments in England are now being encouraged to engage with stakeholders at a local catchment scale. The UK Government are keen for the catchment partnerships to work together to help deliver the Good Ecological Status needed for our water environment to comply with the European Water Framework Directive.

What are our aims?
The PHCI aims to achieve:
- Sustainable farming, development, water use and sewage treatment that supports healthy rivers and groundwater in the Poole Harbour catchment.
- Recognition of the ecosystem services that the catchment can provide, and help to secure adequate payment to those that manage the land to provide these services.
- Improvement of biodiversity habitats both in the form of naturally functioning rivers, floodplains and wetlands and appropriately located woodland and low-input grassland.
- National environmental standards for the benefit of wildlife and users of these waters and Poole Harbour.

PHCI Overview - June 2014

www.pooleharbourcatchment.co.uk
Key Partners
The partnership has a broad membership and is open to all stakeholders who have an interest in the objectives and delivery of the Action Plan. The initiative is hosted by Wessex Water on behalf of the Environment Agency. Wessex Water employs a Catchment Coordinator on behalf of the initiative and their work programme is managed by the PHCI Steering Group.

The following organisations are represented on the Steering Group, which meets quarterly:
- Catchment Sensitive Farming
- Dorset AONB
- Dorset County Council
- Dorset Wildlife Trust
- Environment Agency
- FWAG SW
- Frome, Piddle and West Dorset Fisheries Association
- Game and Wildlife Conservation Trust (GWCT)
- Natural England
- RSPB
- Wessex Water
- Westcountry Rivers Trust
- West Dorset District Council

Because of the multitude of agricultural related actions identified in the Catchment Plan, an Agriculture and Land Management Group formed in 2014. This farmer-led group meets separately from the Steering Group, and also includes members from the Watercress Growers Association, local agronomists and land agents.

Catchment information
The Poole Harbour catchment is one of three sub-catchments in Dorset, located in the South West of England. The catchment includes the Rivers Frome, Piddle, Sherford and Corfe Stream, draining a combined land area of around 820 km².

The Frome and Piddle rivers rise in the Dorset Downs and flow through the chalk lands before reaching the tertiary floodplains which are predominantly made up of clay and gravel deposits. The Sherford River flows across the tertiary floodplains and drains into the harbour via Lytchett Bay to the north of the Harbour. The Corfe River rises in the Purbeck Hills, where soils are well drained over the chalk, and then flows into the Harbour from the south.

Poole Harbour is one of the largest and shallowest natural harbours in the world, with an area of approximately 38km². The Harbour is of exceptional ecological value and protected by an array of environmental designations. Despite this, the Harbour is highly eutrophic due to the excess of nutrients disturbing the natural balance of the water environment.

The Poole Harbour catchment is predominantly rural, with the exception of the City of Poole. The catchment is uniquely valuable in many ways, to the people who live and work within it, to the many thousands of people who visit every year and to the wildlife and nature that it supports.
Key Issues
The following five key issues were identified during the stakeholder engagement process and apply to the whole of Poole Harbour Catchment:

1. **Nitrogen**
   High levels of nitrogen and phosphorus in waterways is undesirable as it leads to excessive growth of algae which smothers native plants and reduces oxygen levels in the water, which can affect fish.

2. **Phosphorus**
   When soil is lost from land and drains into the rivers it adds to the naturally arising sediment levels already present within the rivers. This excess of sediment is harmful to fish, invertebrates and plants as well as carrying increased levels of phosphorus.

3. **Sediment**
   Historic alterations and impoundments to the river channels for flood alleviation, agriculture, highways and milling have altered the natural shape of the channel. Changing the natural path of the rivers can reduce habitat quality, prevent fish migration and reduces the potential for the rivers to naturally self-maintain their structure and function.

4. **Historic channel and habitat alterations**
   Historic alterations to the river channels for flood alleviation, agriculture, highways and milling have altered the natural shape of the channel. Changing the natural path of the rivers can reduce habitat quality, prevent fish migration and reduces the potential for the rivers to naturally self-maintain their structure and function.

5. **Water quantity**
   Low flows as a result of abstraction and/or channel diversion can affect the ecology and the aesthetics of a river, high flows increase the risk of flooding.

Solutions
During the pilot stage the partnership identified a long list of solutions; some of which were already underway. However, many new ideas were also discussed and agreed. All of the ideas put forward were reviewed to produce a short list from which the PHCI Action Plan was developed.

The following actions were identified as being some of the most cost effective ways to address the key issues facing the Poole Harbour Catchment:

- Best practice agronomist (soil/land management) advice for farmers
- Additional incentives for farmers (to include cover crops)
- Additional nitrogen removal at Poole Sewage Treatment Works
- Additional phosphorus reductions in the Frome catchment
- Small scale woodland creation
- River channel habitat restoration and fish barrier assessment and/or removal

The Action Plan is updated annually and has been developed to support and add to the wealth of effective work already underway in the catchment. The Action Plan is available to download from the website: www.pooleharbourcatchment.co.uk
Working together
The PHCI is helping to bring together all of the people, plans and strategies that influence the water environment in the Poole Harbour Catchment.

It is vital that we adopt a more strategic approach to delivering benefits for the issues facing the water environment. The PHCI will focus on improving the communications between all of the different organisations and partnerships to ensure that we all agree on what we want to achieve in the catchment.

Ultimately we need to ensure we are collectively delivering improvements in a more joined up way through the work already being delivered within the catchment.

The way forward
The PHCI has just updated the Catchment Plan for the whole of the Poole Harbour area, this is a detailed document identifying the problems within the catchment, and assessing the effective ways of addressing them. The Catchment Plan is now available to download from our website:
www.pooleharbourcatchment.co.uk

The partnership will continue working in a collaborative way to find new ways of delivering the agreed actions in an effective, sustainable and joined up way.

The Catchment Plan will be reviewed in 2016 and 2021 to ensure it remains effective and responds to the changing environment within the catchment.

The agreed actions will contribute to the River Basin Management Plan, which is the statutory plan to deliver the standards for the European Water Framework Directive in the South West. The Action Plan will also influence the local land use and other environmental strategies that are being developed by local partners/organisations.

Contact information:
If you would like to learn more about the PHCI, or get involved please contact:
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Or visit our website where you can download a copy of the Catchment Plan/Action Plan:
www.pooleharbourcatchment.co.uk