

RBMP Water body information sheet for water body 100326 in Solway

General details

| | |
|-----------------------------|--|
| Water body name: | Loch Ken/River Dee Marshes |
| Water body Identifier code: | 100326 |
| Area: | 6.98 km ² |
| Water body category: | Lake |
| Baseline: | Y |
| River basin district: | Solway Tweed |
| Area advisory group: | Solway |
| Catchment: | River Dee (Solway) |
| Associated protected areas: | Loch Ken - River Dee Marshes - SPECIAL PROTECTION AREA |
| Associated groundwater: | Dee Valley Sand and Gravel |
| Responsible body: | SEPA Dumfries & Galloway |
| Heavily modified: | Yes |
| Artificial: | No |
| Typology: | Lowland Large Low alkalinity Deep |
| National Grid Reference: | NX 71182 68189 |
| Latitude: | 54.99158 |
| Longitude: | -4.01496 |

Current status of this water body

We have classified this water body as having an overall status of Moderate ecological potential with Medium confidence in 2008 with overall ecological status of Moderate and overall chemical status of Pass.

It is important to note that the five classification ecological potential classes for Heavily Modified Water Bodies (HMWBs) and Artificial Water Bodies (AWBs) combine the level of mitigation measures for water levels and flow and physical habitat with measurements of the biological and chemical water quality. For example, a HMWB could have all the mitigation measures in place for the use (eg hydropower) to allow it to reach good ecological potential, but if water quality is poor due to elevated phosphorus levels, its overall ecological potential assessment could be moderate, poor or bad depending on the severity of the impact.

RBMP Water body information sheet for water body 100326 in Solway

This overall classification of status is made up of many different tiers of classification data. A complete set of classification data for 2008 is shown at the end of this document.

Targets for the future status of this water body

We have set environmental objectives for this water body over future river basin planning cycles in order that sustainable improvements to its status can be made over time, or alternatively that no deterioration in status occurs, unless caused by a new activity providing significant specified benefits to society or the wider environment.

For this water body we have set the overall environmental objectives for the first, second and third River Basin Management Planning (RBMP) cycles as:

| | | | | |
|--------|-------------------------------|----------|----------|----------|
| Year | 2008 | 2015 | 2021 | 2027 |
| Status | Moderate ecological potential | Moderate | Moderate | Moderate |

We have established an ongoing programme of monitoring in order to identify pressures on our water bodies. The pressures listed below contribute to this water body's failure to meet good ecological status. River basin planning allows us to plan improvements for particular parameters over time. We have collaborated with others to identify measures which will act to protect or improve our water environment in order that all water bodies reach good status over successive RBMP cycles.

Pressures and measures on this water body

The pressures listed below contribute to this water body's failure to meet good ecological status or potential. River basin planning allows us to plan improvements for particular parameters over time. We have collaborated with others to identify measures which will act to protect or improve our water environment in order that all water bodies reach good status over successive RBMP cycles.

The following table shows our collated information on the pressures on this water body, their causes and the measures which could be introduced to mitigate their effects. We have also indicated the current funding status of the measure; with projected measures being potentially funded and agreed measures having funding in place. Finally, we have included information on the potential or actual owner of the measure, the date it will be effective and information on the justification for extending the deadlines or for setting an alternative objective, where appropriate.

| Pressure | As a Result of | Assessment Parameter | Objective | Reasons for Failure |
|---------------|----------------|--------------------------------|------------------|---|
| | Measure | Funding | Owner | Effective date |
| Alien Species | | North American signal crayfish | Moderate by 2015 | Practical constraints of a technical nature prevent |

RBMP Water body information sheet for
water body 100326 in Solway

| Pressure | As a Result of | Assessment Parameter | Objective | Reasons for Failure |
|---------------------------|---|------------------------------|------------------|--|
| | Measure | Funding | Owner | Effective date |
| | | - Pacifastacus leniusculus | | implementation of the measure by an earlier deadline |
| Diffuse Source Pollution | Mixed farming | Phosphorus | Moderate by 2015 | Implementation of the measure by an earlier deadline would impose disproportionate burdens |
| | Non-urban land management measures | Projected | Farmer(s) | 31/12/2020 |
| Morphological Alterations | Production of renewable electricity (NB nuclear and pumped hydro are not renewable forms of electricity generation) Impounding - weir / dam | Single pressure - Shore | Good by 2015 | |
| | Improve Modified Habitat | Neither Agreed nor Projected | Scottish Power | 31/12/2007 |

Future work

Additional work to identify pressures and to develop and implement measures to mitigate their impacts will continue over subsequent river basin cycles.

Complete classification for this water body in 2008

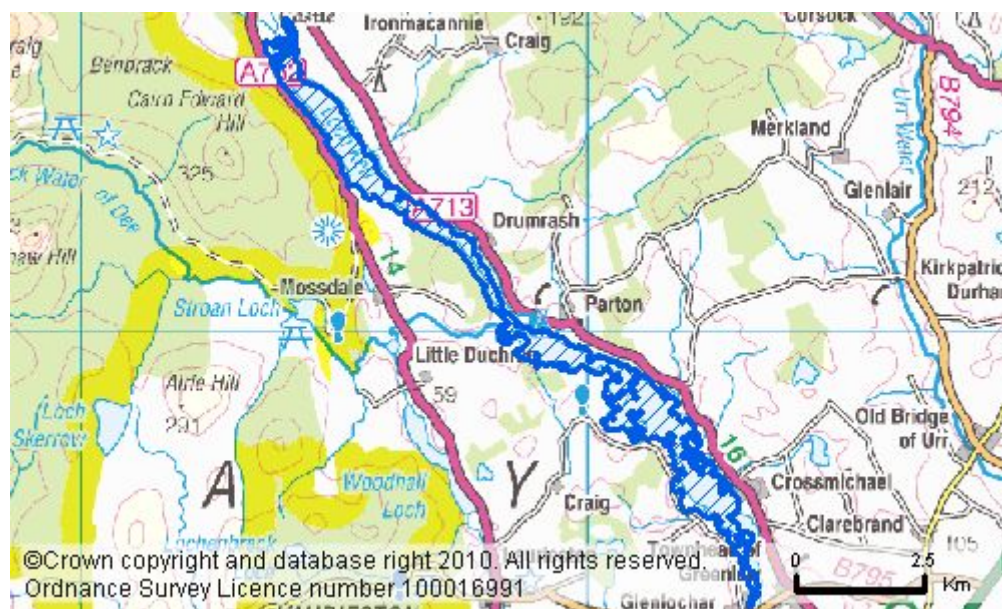
| Parameter | Status | Confidence of Class |
|---------------------|-------------------------------|---------------------|
| OVERALL STATUS | MODERATE ECOLOGICAL POTENTIAL | MEDIUM |
| Pre-HMWB status | Moderate | High |
| Overall chemistry | Pass | Low |
| Priority substances | Pass | Low |
| Lead | Pass | Low |
| Overall ecology | Moderate | High |
| Physico-Chem | Moderate | High |

RBMP Water body information sheet for
water body 100326 in Solway

| Parameter | Status | Confidence of Class |
|----------------------------|---------------|----------------------------|
| Dissolved Oxygen | High | Low |
| Total Phosphorus | Moderate | High |
| Salinity | High | High |
| Acid Neutralising Capacity | High | High |
| Biological elements | Moderate | High |
| Phytobenthos | High | Low |
| Macrophytes | High | Low |
| Benthic invertebrates | High | Low |
| Macro-invertebrates (acid) | High | Low |
| Macro-invertebrates (CPET) | High | Low |
| Alien species | Moderate | High |
| Fish barrier | High | Low |
| Phytoplankton | High | High |
| Chlorophyll a | High | High |
| Cyanobacteria | High | Medium |
| Specific pollutants | Pass | High |
| Ammonium | Pass | High |
| Hydromorphology | Good | Medium |
| Morphology | Good | Medium |
| Hydrology | Good | Medium |
| Water quality | Moderate | |
| Morphological pressures | Good | |

Location of this water body

You can find the geographical location of this water body by searching on water body ID in the interactive maps at www.sepa.org.uk/water/river_basin_planning.aspx



SEPA Contact Details: rbmp@sepa.org.uk
© 2009 Scottish Environment Protection Agency