A clear solution for farmers
CATCHMENT SENSITIVE FARMING

Priority Catchment Targeting Summary
March 2011 – March 2014

River Basin District: South East Catchment: The Stour Total Area: 921 km²

Catchment Introduction
The Stour catchment is predominately groundwater fed across over two thirds of its area with complex interconnectivity between surface and ground waters.

Its geology is mainly chalk which contains principal groundwater aquifers. These aquifers are classified as Drinking Water Protected Areas. In Kent, 74% of drinking water is groundwater derived. Drinking Water Standards stipulate that nitrate should not exceed a level of 50mg/l.

Above these aquifers lie vulnerable unsaturated zones. Where cracks and fissures have formed in the chalk this can allow rapid flow to groundwater and the chalk can also act like a sponge for certain pollutants, especially nitrate. The thin soils above the chalk also increase the vulnerability as there is reduced buffering / holding capacity.

Reasons for designation
The Isle of Thanet and the East Kent Chalk Drinking Water Protected Areas are considered to be of poor chemical status due to inputs of nitrates, pesticides, solvents and hydrocarbons.
Agriculture is considered one of the many sectors responsible for these nitrate and pesticide inputs.
All the groundwater aquifers within the catchment are also considered to be of poor quantitative status (rainfall may not replace the amounts abstracted resulting in low groundwater levels) thus potentially compounding the poor chemical status.

The catchment was also designated due to the Stour Estuary Shellfish Water Protected Area which is partially fed from the catchment and considered to be of poor chemical quality. This water quality is important as it directly affects the shellfish flesh as they are filter feeders, e.g. mussels, scallops and oysters. It is thought that agricultural activity may be affecting this water quality through livestock faecal matter inputs into surface waters resulting in raised bacterial levels in the Shellish Waters, e.g. E-Coli.

Priorities
1. Nitrate and pesticide levels within the Isle of Thanet and the East Kent Chalk Drinking Water Protected Areas.
   High (agricultural) pesticides recorded include Bentazone, Glyphosate, Carbendazim, MCPA, Carbetamide, Chlorotoluron, Clopyralid, Cyanazine, Trifluralin and Dalapon.
2. Levels of livestock faecal matter within the Stour and its main tributaries.
3. Soil management upon the chalk to slow the pathway to the Drinking Water Protected Areas and reduce overland flow to surface waters.
4. Water resource management to reduce the effects of chemical pollutants within the aquifers.

Objectives
- Reducing inputs of nitrates and faecal matter to water-bodies by:

    - promoting best practice in nutrient planning and application, including muck and fertilizer and more precise farming techniques,
    - reviewing farm infrastructure to improve dirty water, muck and slurry management,
    - ensuring best practice regarding in-field manure storage,
    - reducing livestock access to watercourses and providing alternative drinking supplies,
    - encouraging the use of buffer strips next to watercourses where appropriate,
- Reducing inputs of pesticides to water-bodies by:
    - promoting best practice of in-yard activities, including loading and washing down facilities,
    - promoting appropriate use of products and application timing,
    - encouraging correct calibration of sprayers and spreaders,
    - encouraging the use of buffer strips next to watercourses where appropriate,
- Reducing soil movement and increasing the natural "buffering capacity" of the soil by:
    - promoting best practice in soil management and reducing soil erosion, runoff and compaction,
    - if appropriate, increasing soil organic matter levels,
- Improving water resource management by:
    - promoting water storage,
    - promoting water usage efficiencies and recycling

Delivery

A range of group events and farm specific 1:1 visits, including:

- Pesticide handling and Bio-bed demonstrations
- Farm infrastructure on farm walks
- Water resource management events
- PA4 Pelleter applicator training
- Spreader and sprayer calibration
- 1:1 Farm Infrastructure visits

These services will be supported by an annual capital grants scheme and regular updates through catchment newsletters. Activity will also be undertaken within Natural England to ensure that resource protection options within Environmental Stewardship are used to reduce water pollution where appropriate.

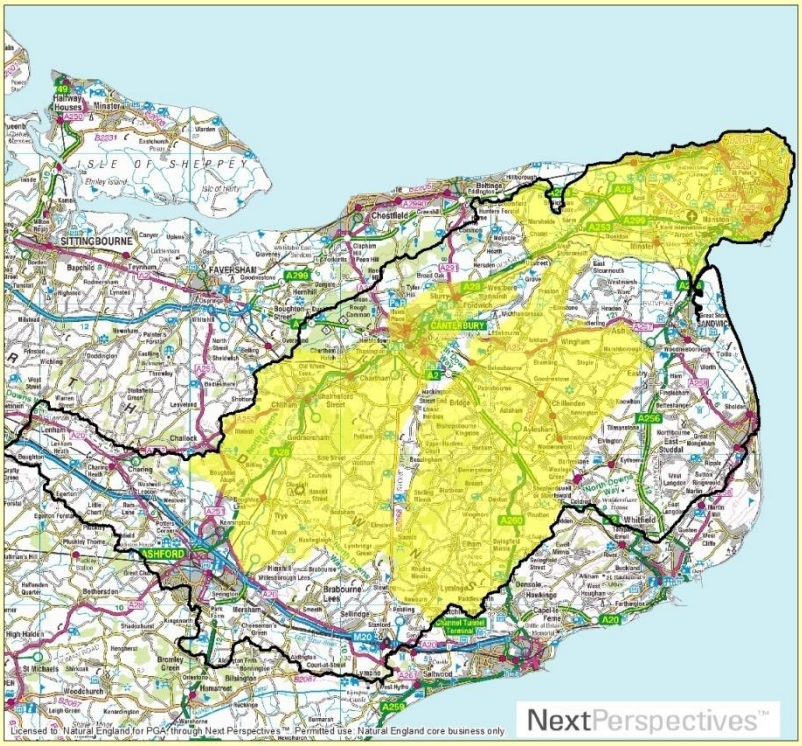
These CSF services must compliment the series of Environment Agency/ADAS events for groundwater bodies concentrating on soils and Think Manure and nitrate awareness.

Targeting

Targeting is focused around:

- The Isle of Thanet and the East Kent Chalk Drinking Water Protected Areas, prioritising delivery to farmland around Source Protection Zones and Safeguard Zones, i.e. land around drinking water abstraction points,
- The Stour and its main tributaries.
- Other potentially risky locations, e.g. certain farming activities, SPZs outside of target sub-catchment or locations which have been passed on from other agency inspections.

Priority is given where these themes overlap and where multiple issues may be addressed.



The Stour Catchment

Legend

The Stour Catchment

Stour Target Area