

# STOUR & COLNE NEWSLETTER

## Autumn 2020

***Welcome to the autumn 2020 edition of the Stour & Colne newsletter, containing updates on water quality, the metaldehyde ban, Countryside Stewardship, local Environment Agency and Catchment Sensitive Farming information, the Farming Rules for Water, ammonia emissions, wildlife connectivity and more.....***

### Stour & Colne water quality updates

#### *River Stour - Steve Derbyshire, Essex & Suffolk Water (ESW)*

Similarly to the wet autumn and winter of 2019, the autumn of 2020 has so far seen pesticides being detected at high levels due to the heavy rainfall and localised flooding. The first spikes of metaldehyde were seen across the catchment in early October continuing into November. Levels of propyzamide across the catchment are likely to rise sharply in the near future as soil temperatures become suitable for applications. These increased levels are expected to last throughout the autumn and winter into February 2021 as they did in the same period last year. Levels of clopyralid during 2020 have generally remained low but spiked on occasions in mid-June to late August associated with the higher than average rainfall events. As we experience each year, levels of glyphosate were high in the post-harvest pre-drilling time frame. All of these increases in pesticide levels generally occurred after heavy rainfall events clearly demonstrating the influence that rainfall has on the pesticides found in the rivers.

The wet weather has also meant that ESW are experiencing high levels of nitrates in the rivers, the River Stour has seen high levels from mid-October and into November. This means that water from the river cannot be used directly for supply at our treatment works. This also means that although there is a good flow in the river only a small amount of the available water can be used to fill Abberton Reservoir during the start of the usual autumn / winter reservoir refill period.

#### *River Colne - Gary Hodgetts, Anglian Water (AW)*

In a year where sporadic flows and low river volumes have been experienced, the rain received over the last couple of months has seen catchment connectivity return. As a result of surface water runoff metaldehyde has started to build, especially in the highly connected Upper Colne and Toppesfield Brook sub-catchments. To date exceedances have been associated to rainfall events and AW have been able to dilute those concentrations with water from the metaldehyde free ***Slug it Out*** trial catchment. This has enabled us to continue filling the reservoir - a priority while water quality fluctuations are shorter lived. Other than metaldehyde, AW have seen a localised increase in clopyralid (from a previously unconnected tributary) and the appearance of prosulfocarb, which is likely part of an early grass weed strategy. We expect to see other products coming through as the season progresses at which point abstraction management will be utilised.

For more information on Anglian Water's Catchment Management approach 'Local Solutions to Local Challenges' visit [www.anglianwater.co.uk/in-the-community/protecting-our-environment](http://www.anglianwater.co.uk/in-the-community/protecting-our-environment)

## Metaldehyde slug pellets to be banned from Spring 2022



A ban on the outdoor use of metaldehyde slug pellets is to be introduced across from spring 2022. Defra farm minister Victoria Prentis said the decision to ban the use of the pesticide on farms and in gardens, except in permanent greenhouses, was being taken “in order to better protect wildlife and the environment”. It follows advice from the UK Expert Committee on Pesticides and the Health and Safety Executive about the risks that metaldehyde poses to birds and mammals, especially birds, toads and hedgehogs. Ms Prentis said: “The scientific evidence is clear – the risks metaldehyde pose

to the environment and to wildlife are too great. “The government is committed to building back greener and the restrictions on the use of metaldehyde are another step towards building a cleaner and greener country for the next generation.”

**Phase out period** - The use of metaldehyde will be phased out over 18 months to give growers time to adjust to other methods of slug control. It will be legal for manufacturers to supply metaldehyde products until 31 March 2021. Onward sale by distributors and use of the products will then still be allowed for a further 12 months until 31 March 2022.

In the meantime, metaldehyde products should be used in accordance with their labels and users should follow the: [Get Pelletwise - Best Practice Guidelines](#)

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## Countryside Stewardship – Now is the time

*Jim Woodward, Farmacy Plc.*

Environmental schemes provide three benefits:

- Income for land managers
- Provide habitat for plants and animals
- Protect resources – soil and water

If you have area of land that were in Entry Level Scheme, used as EFA (Environmental Focused Areas) are at risk of erosion, near a water course or simply do not perform under cropping then putting them in Countryside Stewardship (CSS) would be a good option.

With the background of reduced direct support through the Single Farm Payment (SFP) from 2021 to zero in 2027 the value or importance of funding via CSS is likely to increase for some growers. Revisiting CSS now is very timely.

It is worth mentioning Environmental Land Management Schemes (ELMS). These were mentioned as part of the recent Agriculture Bill and many growers have said they are waiting to see what ELMS is like and not doing CSS now. DEFRA has said on many occasions if you enter CSS and ELMS is rolled out you can transfer to ELMS from CSS without penalty. It is also worth pointing out that ELMS will be trialled between 2022 and 2024 and will not be rolled out until 2025 and then have it fully running in 2027. Therefore, if you entered a CSS agreement starting 1<sup>st</sup> January 2022 it will end on 1<sup>st</sup> January 2027.

If you miss the next start date of 1<sup>st</sup> January 2022 then the next start date is a full 12 months later. Again, it is worth mentioning that there is no guarantee that CSS applications will be offered for the 2024 start date.

**Recommendation** – *With potential funding changes and Brexit the scheme you can access now is the one to go for.*

We are here to support you in making a CSS application and managing for the following 5 years. Yes, you can do an application yourself but learning all the ins and outs of CSS to make one application is a big undertaking.

**Action** – *In the next couple of weeks think about areas of your farm that are not cropped, perform poorly or are awkward to farm. Take this area and multiply it by £500 for each hectare. This is a very rough ready reckoner for the value of a potential CSS.*

Want to move forward with CSS? Get in contact and we will visit and go over your options and look at the feasibility of your scheme.

E-mail: [jim.woodward@farmacy.plc.uk](mailto:jim.woodward@farmacy.plc.uk) or Tel: 07970 271 180

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## Environment Agency (EA) update

### Water Resources - Hydrological update – October 2020:

- Exceptionally wet month in Essex – up to 176 mm rain (Chelmer); notably wet elsewhere 90-110mm typical.
- Norfolk catchments also notably wet in September. Drier further south. Lower Stour and Tendring remaining the driest area over the last year.
- Soil moisture deficit is 15-20mm and is 4-5 weeks in advance of average ‘wetting up’ and 10-12 weeks in advance of a dry ‘drought’ winter.
- Groundwater fed rivers in Norfolk are at notably high levels- a response to 2 consecutive very wet months. Despite October being the wetter month in the south the more runoff dominated rivers in Essex and Suffolk reached above normal levels reflecting a slower response to soil moisture deficit reduction due to lower September rainfall. All catchments are now responding quickly to small rainfall inputs.
- Groundwater level data shows recovery and recharge at most locations including the confined Essex and Suffolk Chalk which has been below normal levels for many months.
- Most farm reservoirs have been able to start filling at the start of the winter fill season while public water supply reservoirs are filling slowly due to constraints imposed by poor water quality, flow rates are not the constraining factor.

### Water Resources - Prospects:

- Current catchments conditions across the area are much in advance of the last 3 years where a sequence of dry autumn and spring periods resulted in subdued groundwater levels particularly in confined chalk. The current prospects for recharge to normal or above conditions are much more favourable this year.
- Currently our status is one of recovering drought /prolonged dry weather
- Worst case over winter of 60 % of long term average rainfall would still result in a return to normal hydrological conditions next spring over most of Norfolk. The confined Essex and Suffolk chalk would remain below normal but should not fall to indicative drought level next year.

- Reasonable worst case of 80 % of long term average rainfall could see Norfolk groundwater fed rivers above normal by spring and normal conditions elsewhere. 100% of long term average rainfall should now result in above normal conditions over most of the area by next spring.
- No problems anticipated with water supply for filing farm and public water supply reservoirs by next spring
- Despite the vastly improved prospects this winter we need to consider current groundwater conditions. Norfolk aquifers give no indications of potential risk even under the drier scenarios. However the confined chalk in some areas remains below the levels being recorded when we entered the dry weather incident. We will need to await further recharge later in the season to be able to move out of recovery. Whilst we can now be very confident of this happening – unusual weather patterns can and do occur which would leave these areas in a similar state to that experienced in 2020.

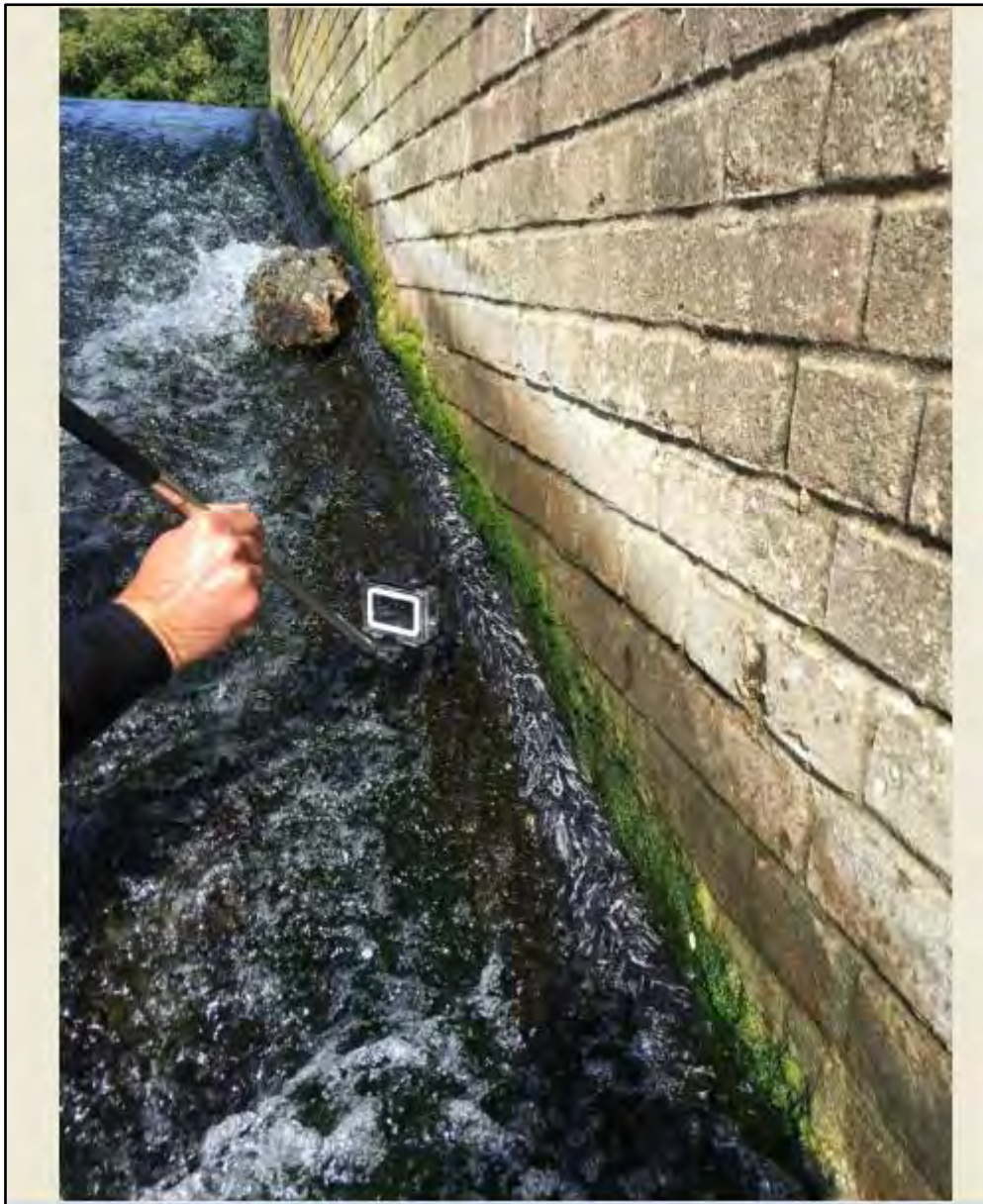
### River Stour Habitat Enhancement Projects

The EA have been working with a landowner on the River Stour in Bures on a river habitat enhancement project. The creation of berms and backwaters will increase habitat diversity and provide refuge and feeding areas for fish and especially fish fry as well as habitat for wetland plants and invertebrates. These works will help increase the resilience of the river to the effects of our changing climate.



### Fisheries

- Environment Agency Fisheries Officers are researching novel methods such as using spat rope to improve eel and elver upstream migration over hard barriers such as Judas Gap in the lower Stour (see photo below). This is part of a project aiming to improve eel pass design and performance on a range of structures which are barriers to eel migration. It is hoped that this new low cost technique can also be used at other structures until a more permanent solution can be identified. If you have in-river structures that are preventing eel and elver movement please get in touch. [will.akast@environment-agency.gov.uk](mailto:will.akast@environment-agency.gov.uk)



- While on patrol on the River Stour in Sudbury recently our Fisheries Enforcement Officer was alerted to the presence of an illegal crayfish trap. An otter had been seen caught in the trap but it managed to escape. If you see set lines or traps please report these to the Environment Agency incident management hotline on 0800 80 70 60.
- In August various Environment Agency teams responded to a significant fish kill at Cattawade on the Stour. Approximately 20,000 fish were killed as a result of low dissolved oxygen levels due to low flows, high temperatures and aquatic plant breakdown. A significant number of fish (5000+) were saved due to the deployment of aeration equipment and the removal of surface aquatic plants using floating booms (see photos below). All of our rivers have been under significant environmental stress over the summer as a result of low flows and high temperatures. Anything we can do to reduce water usage and improve river habitats will help our wildlife cope with hot summers and our changing climate.
- EA officers worked throughout the summer monitoring the rivers. This data helps highlight areas under stress, so limited resources can be directed to prevent environmental harm. One example of working closely with a landowner was on the river Colne where we loaned equipment to raise the dissolved oxygen level through aeration, upstream of a mill structure preventing an environmental incident.



## Farming Rules for Water

Are you complying with the Farming Rules for Water? The Environment Agency has moved from its advisory position towards one of more likely enforcement now that the Farming Rules for Water have been in place for over a year.

## Farm emergency action plan leaflet

Emergency action planning is an important part of any farm business. In an emergency would you know how to contain any pesticide spills, fire water or where slurry would go if the lagoon leaked? Containing any spills, leaks or fire water on site can greatly reduce the impact of any incident on the environment, the clean-up cost and the risk of enforcement action. The Environment Agency have produced a short leaflet to help you plan for an emergency on your farm. This is available from Christabel Carr. Please contact Christabel on [christabel.carr@environment-agency.gov.uk](mailto:christabel.carr@environment-agency.gov.uk) for your copy.



Lineasearch before U dig [www.lineasearchbeforeudig.co.uk](http://www.lineasearchbeforeudig.co.uk) is a free to use online search service that any individual can use to check their works against over ninety asset owners' utility assets. These assets include hundreds of thousands of kilometres of underground and overhead pipelines and cables in the electricity, gas, high pressure fuel/oil, heating, water and fibre optic networks. The service is designed to be used by anyone that needs to know where utility assets (pipelines and cables) are in order to work safely. Enquiries can be for simply checking what is there for future requirements or for immediate use, i.e. for an urgent excavation. Works can be of any scale from a highway scheme to simply replacing a garden fence.

## Ammonium Nitrate Storage

The explosion in Beirut has focussed attention on ammonium nitrate and the need to store it properly. Government advice on storage is at [www.gov.uk/government/publications/secure-your-fertiliser/secure-your-fertiliser](http://www.gov.uk/government/publications/secure-your-fertiliser/secure-your-fertiliser).

The '5 point plan' should always be followed:

1. Wherever possible use a Fertiliser Industry Assurance Scheme (FIAS) approved supplier.
2. Wherever possible keep in a secure area such as a building or sheeted away from public view.
3. Carry out regular stock checks and report any loss to the Police immediately (call 101).
4. Avoid leaving fertiliser in a field overnight – never leave fertiliser in the field for a long period of time.
5. Remember it is illegal to sell ammonium nitrate without the correct documentation.

### Healthy Bees Plan 2030

Defra has published the [Healthy Bees Plan 2020](#) to protect and improve the health of honey bees in England and Wales. The plan sets out four key outcomes for beekeepers, bee farmers, associations and government to work towards to help protect honey bees, which continue to face pressure from a variety of pests, diseases and environmental threats including the invasive non-native species Asian hornet.

The Healthy Bees Plan 2030 was developed in consultation with bee health stakeholders, and is aimed at sustaining the health of honey bees and beekeeping in England and Wales over the next decade.

### Reducing ammonia emissions from urea fertilizers

DEFRA has launched a [consultation on reducing ammonia emissions from urea fertilizers](#). The consultation, which is open now and closes on 26 January 2021, sets out three policy options for reducing ammonia emissions by regulating the use or sale of solid urea – liquid urea would be excluded from any new rules.

The three options being consulted on are:

- A ban on solid urea fertilisers
- A requirement to stabilise solid urea fertilisers with the addition of a urease inhibitor
- A requirement to restrict the spreading of solid urea fertilisers, allowable only from 15 January to 31 March

This follows a recommendation made in the [Clean Air Strategy](#) (published in early 2019) which set out 'a requirement to take action to reduce emissions from urea-based fertilisers'.

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### Wildlife Connectivity Work

*Darren Tansley, Essex Wildlife Trust*

Essex Wildlife Trust is committed to addressing wildlife connectivity issues on our rivers and two of the most challenging are obstructions to fish passage and the action of invasive species.

The Thames Estuary Fish Migration Roadmap has been a key project for The Essex Rivers Hub catchment partnership over the past two years and is now starting to move from a data gathering exercise to project delivery. In conjunction with the Environment Agency we have identified funding for initial investigation and design work for four obstructions, three of which are on the Colne. To find out more about obstructions to fish passage please check out the interactive online map.

<https://www.thamesestuarypartnership.org/fish-migration-roadmap>



Waterlife Recovery East is a major Regional Scale partnership of NGOs, Government Agencies, Local Authorities, Internal Drainage Boards and Universities looking at the problems for wildlife caused by invasive North American Mink. In particular water voles have been eradicated across many rivers and only through the mink control efforts of Suffolk Wildlife Trust and Essex Wildlife Trusts working with large numbers of supportive landowners were they saved from extinction on the Colne and Stour. Now we are on the brink of a Regional scale mink eradication pilot which will incorporate both of these river catchments. Over the next 5 years we will need the assistance of everyone to make this a reality so for more information about this ground-breaking project check out the new Waterlife Recovery East website.

<https://waterliferecoveryeast.org.uk/>

Please contact Darren Tansley, River Catchment Co-ordinator, ([darrent@essexwt.org.uk](mailto:darrent@essexwt.org.uk)) for more information.

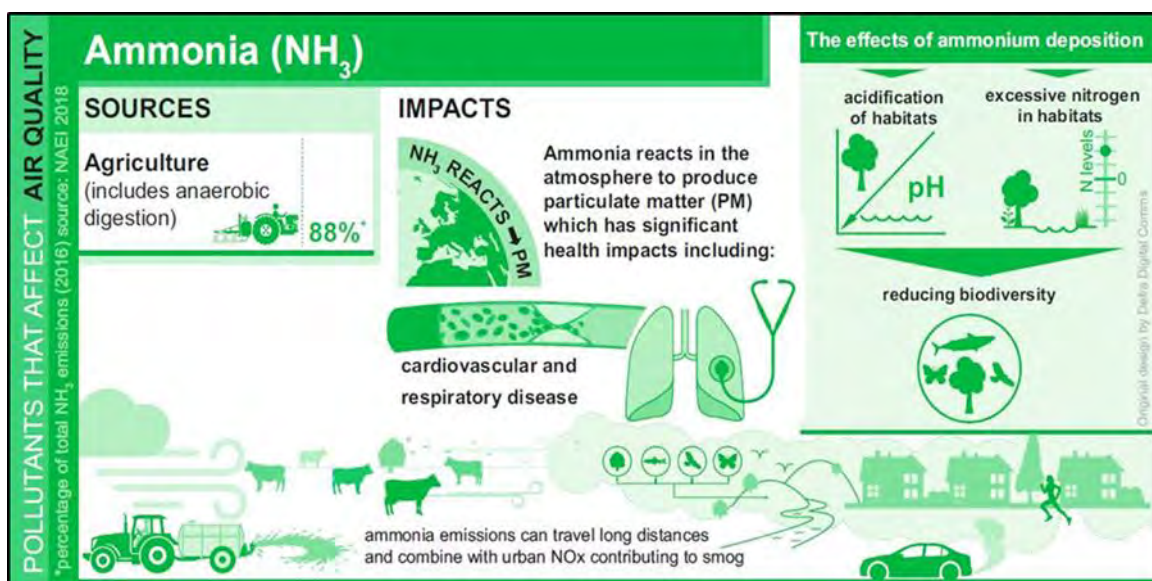
## Reducing Ammonia Emissions from Agricultural Sources

*Patrick Welsh, Air Quality Lead Advisor, Catchment Sensitive Farming*

Ammonia (NH<sub>3</sub>) is a naturally occurring gas containing nitrogen. However in situations where emissions of the gas are allowed to build it becomes a key atmospheric nitrogen pollutant.

Ammonia is the only aerial pollutant that has not declined significantly since 1970. Levels in the atmosphere have gone up since 2013 due to various factors such as intensification of the dairy and beef industry, increased use of urea fertiliser and an increase in anaerobic digestion.

The gas is detrimental to both human health, causing respiratory and cardiovascular illnesses, and to the environment causing nutrient enrichment and acidification of sensitive habitats and loss of associated species.



Agriculture is the dominant source of ammonia emissions with the majority emitted during storage and spreading of manures, slurries and fertilisers. The reactive gas is released when urea in urine (or uric acid in poultry) comes into contact with enzyme urease in faeces. Losses increase when the material comes into contact with air, particularly on warm or windy days. The more that this occurs, the more nitrogen is lost as ammonia, meaning the material is a less effective fertiliser and loses value.

Ammonia is nitrogen lost to the air! Therefore, measures to reduce ammonia emissions and improve overall nutrient management practices can reduce the amount of manufactured fertiliser needed.

The government has committed to reducing ammonia emissions by 16% (compared to the baseline of 2005 emissions) by 2030 under the Clean Air Strategy published in 2019. Due to the concerns about the impact of ammonia on health and sensitive habitats, farmers are being encouraged to look at ways to reduce ammonia emissions.

Key mitigation proposals being considered and consulted on with the farming sector include:

- the implementation of low emission spreading by 2025;
- covering slurry and digestate stores by 2027;
- design standards for livestock housing;
- incorporation of solid manure and digestate on bare land within 12 hours of spreading;
- extension of permitting to include dairy and intensive beef.



Photo: Low emissions spreading equipment

Patrick Welsh

If you are interested in finding out more, then Defra in collaboration with the farming industry have produced the **Code of Good Agricultural Practice (COGAP)**, a guidance document for reducing ammonia. It explains the practical steps farmers, growers, land managers, advisors and contractors in England can take to minimise ammonia emissions from the storage and application of organic manures, the application of manufactured fertiliser, and through modifications to livestock diet and housing.

This document is available on the gov.uk website at: <https://www.gov.uk/government/publications/code-of-good-agricultural-practice-for-reducing-ammonia-emissions>

Catchment Sensitive Farming Officers can provide advice and support to farmers to reduce ammonia emissions and help them prepare for the new requirements of the Clean Air Strategy.

For further information and advice on any of the above please contact: Patrick Welsh – mobile: 07825 724228 or e-mail: [patrick.welsh@naturalengland.org.uk](mailto:patrick.welsh@naturalengland.org.uk)

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## Catchment Sensitive Farming (CSF) Update

*Mandi Savage, Combined Essex CSFO*

At time of writing Catchment Sensitive Farming Officers are allowed to undertake farm / site visits again, if agreed with the landowner. All are undertaken with COVID-19 restrictions in mind so socially distanced, outdoors wherever possible (a large barn space is good if weather is inclement), no paperwork to be shared and if travel to another part of the holding is required this is done in separate vehicles.

Face to face events are still off limits so we are looking at ways we can provide our advice workshops via Microsoft Teams or other webinar services, so keep your eyes peeled for e-mails dropping into your inboxes from me. I am hoping to run a session on cover crops and also some bitesize sessions on Nutrient Management Planning and how to complete one for those interested in doing it themselves or just gaining a better understanding of how they are put together. Then as we move into the New Year I will look to run a Countryside Stewardship one to cover the process of applying and any changes there are to the scheme. I would be interested on some feedback of when is the best time to hold these morning, afternoon or evening. So e-mail me with your thoughts please.

If you have any questions or would like a visit to talk about what you can do to improve the water courses on your land please do not hesitate to contact me. [mandi.j.savage@naturalengland.org.uk](mailto:mandi.j.savage@naturalengland.org.uk)

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## Upcoming **FREE** events

### Farm Business Update Meeting in 2021

The popular Farm Business Update (FBU) meetings usually held across East Anglia in January and February will be replaced next year with an online version due to the ongoing COVID-19 pandemic.

## Stour & Colne Catchment Contacts:

**Steve Derbyshire, Essex & Suffolk Water** – E-mail: [stephen.derbyshire@nwl.co.uk](mailto:stephen.derbyshire@nwl.co.uk) / Mobile: 07792 169566

**Gary Hodgetts, Anglian Water** – E-mail: [ghodgetts@anglianwater.co.uk](mailto:ghodgetts@anglianwater.co.uk) / Mobile: 07802 856632 / Twitter: @AWCoastCountry

**Will Akast, Catchment Delivery Manager, Env. Agency** – E-mail: [will.akast@environment-agency.gov.uk](mailto:will.akast@environment-agency.gov.uk) / Mobile: 07827 082260

**Christabel Carr, Environment Agency** – E-mail: [christabel.carr@environment-agency.gov.uk](mailto:christabel.carr@environment-agency.gov.uk)

**Peter Cosgrove, Dedham Vale Project** – E-mail: [peter.cosgrove@suffolk.gov.uk](mailto:peter.cosgrove@suffolk.gov.uk) / Mobile: 07783 684071

**Mandi Savage, Combined Essex CSF Officer** – E-mail: [mandi.j.savage@naturalengland.org.uk](mailto:mandi.j.savage@naturalengland.org.uk) / Mobile: 07917 895101

**Rebecca Inman, CFE / FWAG** – E-mail: [rebecca.inman@fwageast.org.uk](mailto:rebecca.inman@fwageast.org.uk)

**Jake Richards, NFU** – E-mail: [jake.richards@nfu.org.uk](mailto:jake.richards@nfu.org.uk)

