East Anglia Area approach to abstraction licence trading

Terminology of licence trades

Water Trade	A licence holder retains the licence and sells water to another person (this is a 'water trade')
Water Rights Trade	A water rights trade is where a person sells all or part of their water right, as defined by their abstraction licence(s), to another person on a permanent or temporary basis.
Licence Variation	Licence holds applies to make a change to their existing licence Can include water rights trades [Minor variations – very limited circumstances]

Surface water Licence trading approach

Location

The donor and recipient licence ideally should abstract from within the same watercourse and have comparable effects on other surface water features. As a general rule, trading surface water abstractions downstream is simpler and presents less environmental risk than trading water upstream. Another general rule is that the shorter the distance the water is traded the simpler the assessment should need to be. The Environment Agency has produced an online mapping tool to help identify potentially suitable trading partners. Any trading requests are subject to consideration of local effects of abstraction:
https://environment.maps.arcgis.com/apps/webappviewer/index.html?id=c9176c299b734cff9a6deffcf7f40a4e

Season

In general, most surface water trades take place where the donor and recipient licences have the same abstraction season. There is a presumption against moving winter surface water to summer as this only increases the pressure on the environment at the times when flow are lowest. We can consider and encourage moving summer surface water to winter depending on the plan and proposal of each individual licence holder.
We may consider extension of abstraction periods on a case by case basis. This most typically would involve adding the month of October to a direct spray irrigation licence.

Quantities

In licensing trades, as with new abstraction licences, we need to make sure that we don't cause any deterioration in water body status both within the water body / bodies where the trade will take place and to downstream water bodies. The information below provides a guide to the potential for trading in water bodies of a particular Abstraction Licensing Strategy (ALS) water resource availability colour. However please note that the trading of fully licensed quantities in areas where restricted water is available for licensing is highly unlikely due to our duty to prevent deterioration in any waterbody.

High hydrological regime
Blue 
Opportunities for trading water rights will be limited

Water available for licensing
Green 
Allow trades of recent actual abstraction and licensed abstraction, but little demand for trading expected within water body as water available for new abstractions.

Restricted water available for licensing
Yellow 
Quantities of water available to trade may be restricted once levels of actual abstraction reach sustainable limits. We will not permit licence trades in water bodies where we are taking action to prevent deterioration unless the trade is consistent with achieving water body objectives.

Water not available for licensing
Red 
We will only trade recent actual abstraction but no increase in recent actual abstraction is permitted in water body. Licensed abstraction will be recovered for the environment.

HMWBs
Grey 
Opportunities for trading will depend on local operating agreements and local management.

The Recent Actual quantities, available for trading, mentioned in the table above will be based on the 2007-12 annual average use of the donor licence.
The environmental impact of the newly traded water being used will be mitigated by the use of an appropriate Hands Off Flow (HoF). Depending on the location of the new abstraction, if it has not moved far from the donor licence for example, the HoF may be similar to the donor licences'. If the trade has moved the water a large distance the HoF is likely to be different to the one on the donor licence.

Purpose

Trades will ideally be between the same purpose on the donor and recipient licence.
The consumptiveness of an abstraction needs to be the same between the two purposes for a 1:1 trade. If the recipient has a higher consumptiveness, then less water can be traded. Also need to consider the specifics of a licence purposes' consumptiveness. Some uses have a medium consumptiveness factor for charging purposes, but could be high loss to the environment locally. For example, water bottling is medium consumptiveness for charging, but the water could be exported out of the local catchment. We also need to consider how any change in purpose affects the patterns of use and therefore abstraction. For example, swapping abstraction for irrigation purposes that are peaky to more constant all year uses like livestock watering could increase the overall baseload level of abstraction in a catchment.

Licence changes between purposes on the same licence can be considered and would follow the same principles as a trade between licences.
As a general principle, trades from higher loss to lower loss purposes will not receive a conversion factor adjustment.

Rate

If the trading proposal includes a proposed increase in the instantaneous and/or daily rates of the recipient licence then this will require an assessment with regard to any additional effects on the local environment and/or existing protected rights.
If the trade is proposing to move water upstream then a reduction in instantaneous, hourly and daily rates in proportion to the size of the watercourse/flow is likely.

Consequently if the trade is proposing to move water downstream then we may consider granting an increase in instantaneous, hourly and daily rates depending on a local assessment of features.

Supported Rates

We would be unable to grant any trade which would potentially increase the use of our groundwater support schemes. This would primarily apply to any licence that pays supported rates.

Level Based (Fenland) Catchments

Trading can only take place within the same fenland source of supply, i.e. Middle Level, Counter Drain, Hundred Foot & South Level. No increase in overall daily rates can be considered. Applications for trades will be dealt with on a case by case basis and may not be permissible in areas where there are existing resource issues. Agreement from the relevant drainage boards will be required before any trade is agreed.

Groundwater Licence trading and aggregation approach

Location

The donor and recipient licence need to abstract from the same aquifer and have comparable effects on surface water features, for example, rivers and groundwater dependent wetlands. As a general rule, abstractions should be located in the same surface water body. The Environment Agency has produced an online mapping tool to help identify potentially suitable trading partners. Any trading requests are subject to consideration of local effects of abstraction:
https://environment.maps.arcgis.com/apps/webappviewer/index.html?id=c9176c299b734cff9a6deffcf7f40a4e

Season

In general, trades can only be where the donor and recipient licences have the same abstraction season. There is a presumption against moving summer groundwater to winter groundwater as this doesn't necessarily lead to an environmental benefit.

We may consider extension of abstraction periods on a case by case basis. This most typically would involve adding the month of October to a direct spray irrigation licence.

Quantities

Tradeable quantities on the donor licence are the 2007-12 annual average Recent Actual quantity.

Temporary trades

To restrict trades of headroom on a licence and prevent increase in actual uptake, donor licences will be capped to either maximum peak annual use or recent actual use depending on the duration or recurrence of the trade of the licence.

Temporary trade arrangements where the donor licence is capped to its maximum annual use will be limited to a single one year period for a donor licence (i.e. not year on year), and would

be subject to local groundwater conditions. Any subsequent trade of a licence, or a trade with a duration of more than one year will be capped to its recent actual use.

For temporary trades:

1. Your licence will be capped to maximum peak annual use on the donor licence. The standard period for this quantity is the maximum annual use between 2005-2015 and rounded upward to the nearest 1000m3. For direct irrigation purposes, the period is 2000-2015.
2. your tradeable quantities are from the 2007-12 6 year annual average quantity
3. the traded quantities will come off the equivalent 2000-15 max peak quantity for the duration of the trade.
4. As part of a temporary trade, the permanent donor licence will need a downward variation to its 2005-15 (2000-2015 for irrigation) max peak, minus the traded quantities for the duration of the trade.
5. The quantities on the donor licence would revert to their pre-trade values at the end of the trade

For recurrent trades or trades that are greater than 1 year in duration:

1. Your licence will be capped to the 2007-12 six year annual average quantity on the donor licence.
2. your tradeable quantities will be limited to the 2007-12 six year annual average quantity
3. the traded quantities will come off the 2007-12 six year annual average quantity for the duration of the temporary trade.
4. As part of a temporary trade, the donor licence will need a downward variation to its 2007-12 six year annual average quantity, minus the traded quantities for the duration of the temporary trade.
5. The quantities on the donor licence would revert to their pre-trade values at the end of the trade

Permanent trades:

For permanent licence trades, the donor licence would lose any licence quantities above its 2007-12 recent actual level. If all of the 2007-12 recent actual quantity was traded, then the donor licence would cease to exist.

Purpose

Trades will ideally be between the same purpose on the donor and recipient licence.
The consumptiveness of an abstraction needs to be the same between the two purposes for a 1:1 trade. If the recipient has a higher consumptiveness, then less water can be traded. As a general principle, trades from higher loss to lower loss purposes will not receive a conversion factor adjustment. Also need to consider the specifics of a licence purposes' consumptiveness. Some uses have a medium consumptiveness factor for charging purposes, but could be high loss to the environment locally. For example, water bottling is medium consumptiveness for charging, but the water could be exported out of the local catchment. We also need to consider how any change in purpose affects the patterns of use and therefore abstraction. For example, swapping abstraction for irrigation purposes that are peaky to more constant all year uses like livestock watering could increase the overall baseload level of abstraction in a catchment.

Licence changes between purposes on the same licence can be considered and would follow the same principles as a trade between licences.

Rate

If the trading proposal includes a proposed increase in the instantaneous and/or daily rates of the recipient licence then this will require an assessment with regard to any additional effects on the local environment and/or existing protected rights. This may require a pumping test to be undertaken to assess the additional effects of higher rates of abstraction.

Groundwater Licence aggregation approach

The general principles related to licence trading would also apply to licence aggregation requests. This includes whether an aggregation is temporary or a permanent arrangement. Temporary aggregations will apply for one year and limited to a single one year period for the licences (i.e. not year on year). Examples of aggregating licences include:

- Adding a new point of abstraction to the licence (subject to local assessment)
- Adding an additional purpose to a licence
- Combining multiple licences

Subject to passing the tests for licence trading, the following approach will be applied to licence aggregation applications:

Permanent Aggregations

1. Both licences are reduced to their respective 2007-12 annual average Recent Actual quantities.
2. These recent actual quantities are combined and applied to both licences to give the new maximum quantity for each licence.
3. A new aggregate is applied across both licences that limits the combined abstraction across both licences to the combined recent actual quantities.

Temporary Aggregations

1) Starting point would be to reduce each licence to their individual historic peak quantities. The standard period for this quantity is the maximum annual use between 2005-2015. For direct irrigation purposes, this period is 2000-2015. Figures are rounded up to the nearest whole 1,000 m3.
2) The next step is to assess what quantities can be transferred across each licence in terms of the maximum annual use. As with licence trading, the donor element would be taken from the 6 year annual average Recent Actual quantity. Figures are rounded up to the nearest whole 1,000 m3. This is the annual average quantity abstracted between 2007-12 on each licence. This will provide the maximum amount that can be taken from an individual licence (similar approach to the recipient licence on a trade).
3) To limit the risk that overall abstraction increases over annual historic levels, the licences would then be aggregated together to the sum of the historic peaks in a single year. This uses the year in which the sum of the uptake of the 2 licences combined is greatest in the period 2000-2015 or 2005-2015 (depending on the licence type).
4) The quantities on the licences would revert to their pre-aggregation values at the end of the aggregation.

Example **for a temporary aggregation** (one year) using licence details below:

Licence 1	**Direct spray irrigation**
Fully licenced limit	150,000 m3
Historic Peak (2000 – 2015)	100,000 m3 Taken in 2003 rounded up to the nearest whole 1,000 m3
Recent Actual usage (2007 – 2012)	70,000 m3 (69,815 rounded up to the nearest whole 1,000 m3)

Licence 2	**Direct spray irrigation**
Fully licenced limit	280,000 m3
Historic Peak (2000 – 2015)	190,000 m3 Taken in 2015 rounded up to the nearest whole 1,000 m3
Recent Actual usage (2007 – 2012)	135,000 m3 (134,558 rounded up to the nearest whole 1,000 m3)

Historic abstraction usage (m^3)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Licence 1	98,556	88,210	87,549	99,564 Max peak	79,541	81,890	67,132	46,912	72,630	81,257	56,912	81,636	79,541	58,594	69,852	95,410
Licence 2	131,569	126,275	107,796	93,347	90,728	154,711	67,647	146,323	119,682	172,927	170,880	41,764	155,772	143,562	154,711	189, 111 Max peak
Combined annual usage	**230,125**	**214,485**	**195,345**	**192,911**	**170,269**	**236,601**	**134,779**	**193,235**	**192,312**	**254,184**	**227,792**	**123,400**	**235,313**	**202,156**	**224,563**	**284,521** Highest combined usage

Recent Actual period

Calculating aggregated quantities

Step 1 – reduce each licence to its max peak annual quantity

Licence 1	Licence 2
100,000 m3	190,000 m3

Step 2 – calculate transferable quantities between the two licences

Licence 1	Licence 2
Recent actual tradeable quantity = 70,000 m3 Licence 1 max annual use becomes: 100,000 + 135,000 = 235,000m3	Recent actual tradeable quantity = 135,000 m3 Licence 2 max annual use becomes: 190,000 + 70,000 = 260,000m3

Step 3 – calculate the annual aggregate between the two licences

285,000 m3

This is the highest single year combined usage between 2000-15 (284,521 m3 in 2015) rounded up to the nearest whole 1,000 m3.

Overarching principles for groundwater trades/aggregation

Groundwater licence trades/aggregation can only take place between groundwater licences that affect the same surface water bodies.

All requests will require an assessment of the local effects of the trade and may be subject to additional conditions, for example, to protect local water dependant wetlands.

If it is proposed that the instantaneous and daily rates are going to increase these will need assessment with regard to environmental receptors and existing protected rights. This may require a pumping test.

The relative consumptiveness of the abstraction's purpose needs to be the same between the two licences for a one to one trade in quantities. If the recipient has a higher consumptiveness, then less water can be traded. Also need to consider the specifics of loss factors. Some uses have a medium loss factor for charging purposes, but could be high loss to the environment locally. For example, water bottling is medium loss, but the water could be exported out of the water body/country

There is a presumption against moving summer groundwater to winter groundwater abstraction as there is not necessarily have the same environmental benefit due to the lag factors on groundwater abstraction and impact on environmental receptors.

There is also a presumption against moving water from a winter to a summer abstraction season. We may consider extension of abstraction periods on a case by case basis.

Priority Catchment trading pilot

As part of the Abstraction Reform Priority Catchment projects, we are trialling new approaches to trading under the Environment Agency/Defra Water Abstraction Plan 2017. In 2020 we launched a trial on Temporary Seasonal Trades. The application window for these trades closed at the end of April 2020, but will reopen in March 2021.

More details about the Priority Catchments can be found on the .Gov website here: https://consult.environment-agency.gov.uk/water-resources/water-resources-priority-catchments/

More detail about the Temporary Seasonal Trades project can be found on the .Gov website here: https://consult.environment-agency.gov.uk/water-resources/water-resources-priority-catchments/user_uploads/temporary-seasonal-trades-briefing-note-february-2020.pdf

East Anglia Area Water Resources
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