

Untreated Water Company Supplies for Irrigation

ERDF WATERR Project Workshop

23rd July 2014

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Composition of the KRB Water Task Group

- **KCC (chair)**
- **East Malling Research**
- **ERDF WATERR project**
- **Environment Agency**
- **Kent Economic Board**
- **A major horticultural business**
- **South East Water**
- **Country Land and Business Association**
- **NFU**
- **Kent Forum**



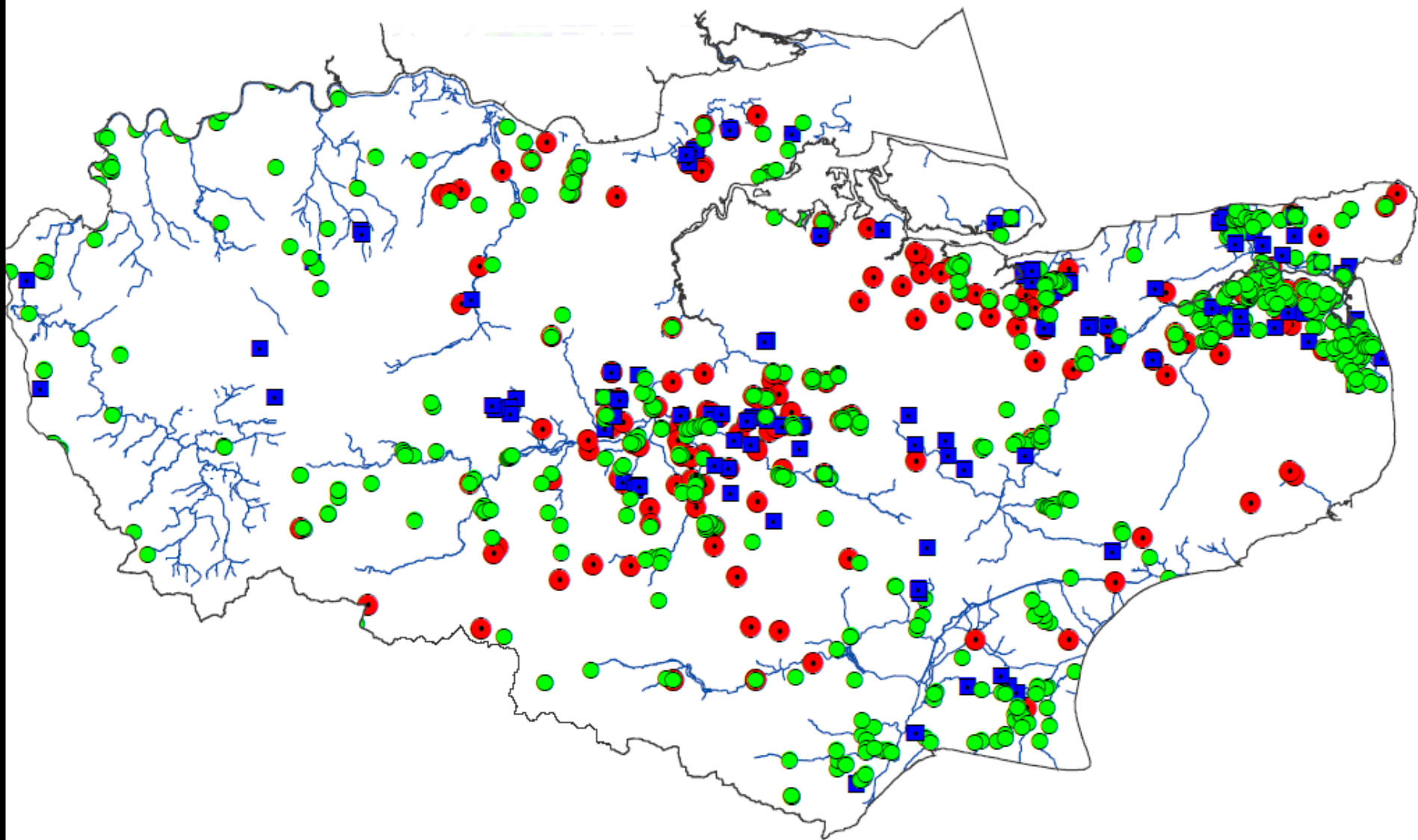
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Licensed Direct Irriation

Licensed Winter Storage Irrigation

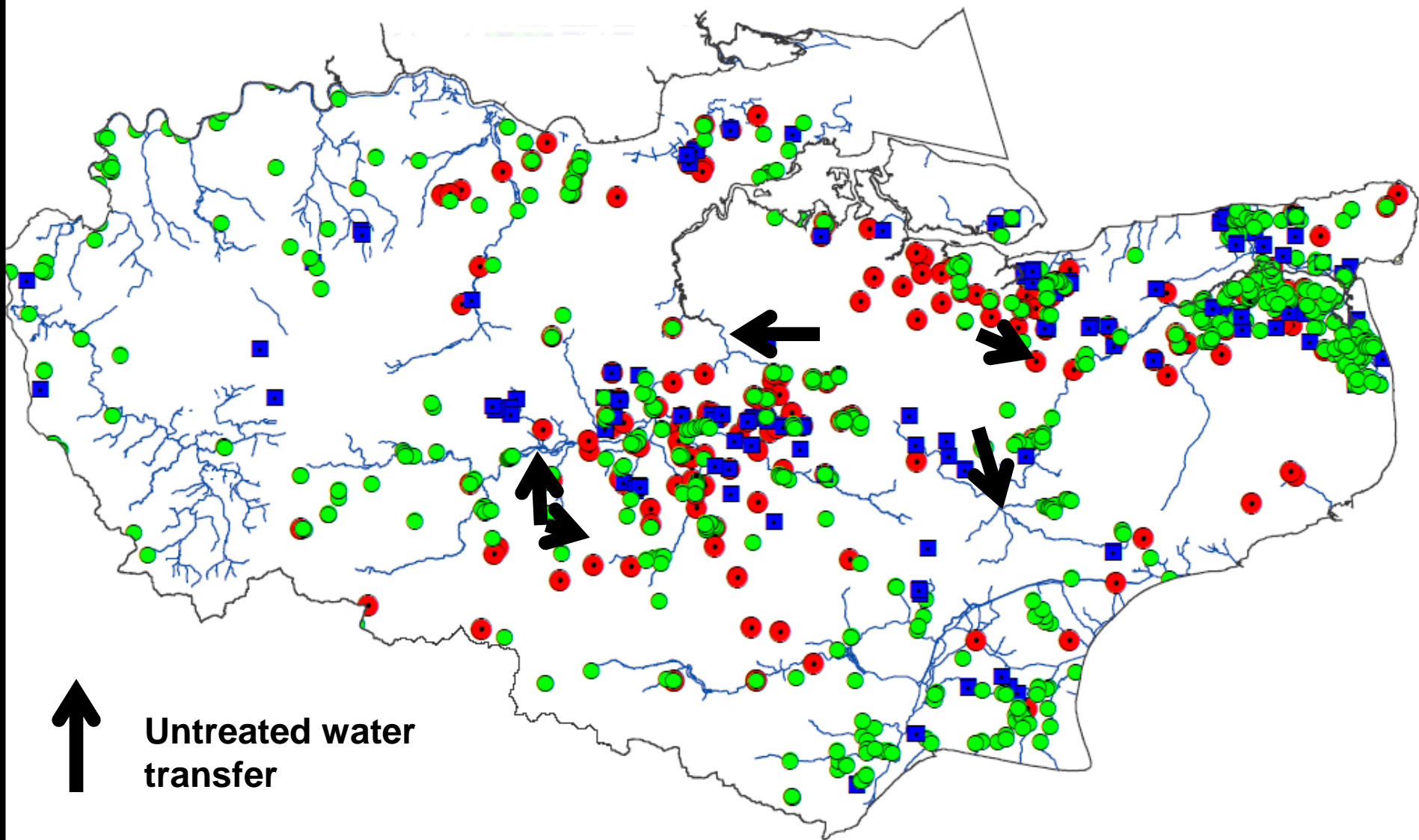
Trickle Irrigation



Licensed Direct Irrigation

Licensed Winter Storage Irrigation

Trickle Irrigation

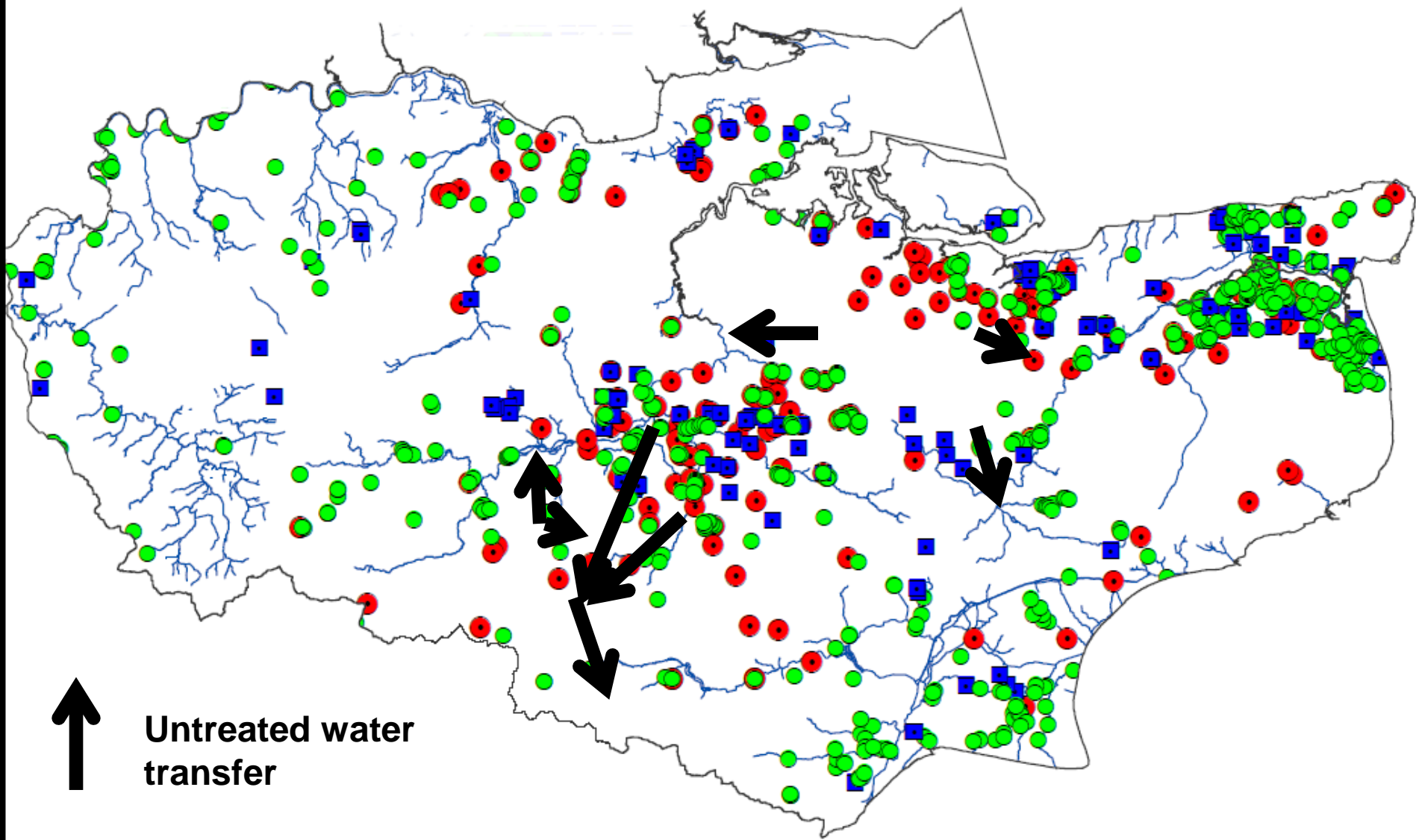


↑
Untreated water
transfer

Licensed Direct Irrigation

Licensed Winter Storage Irrigation

Trickle Irrigation



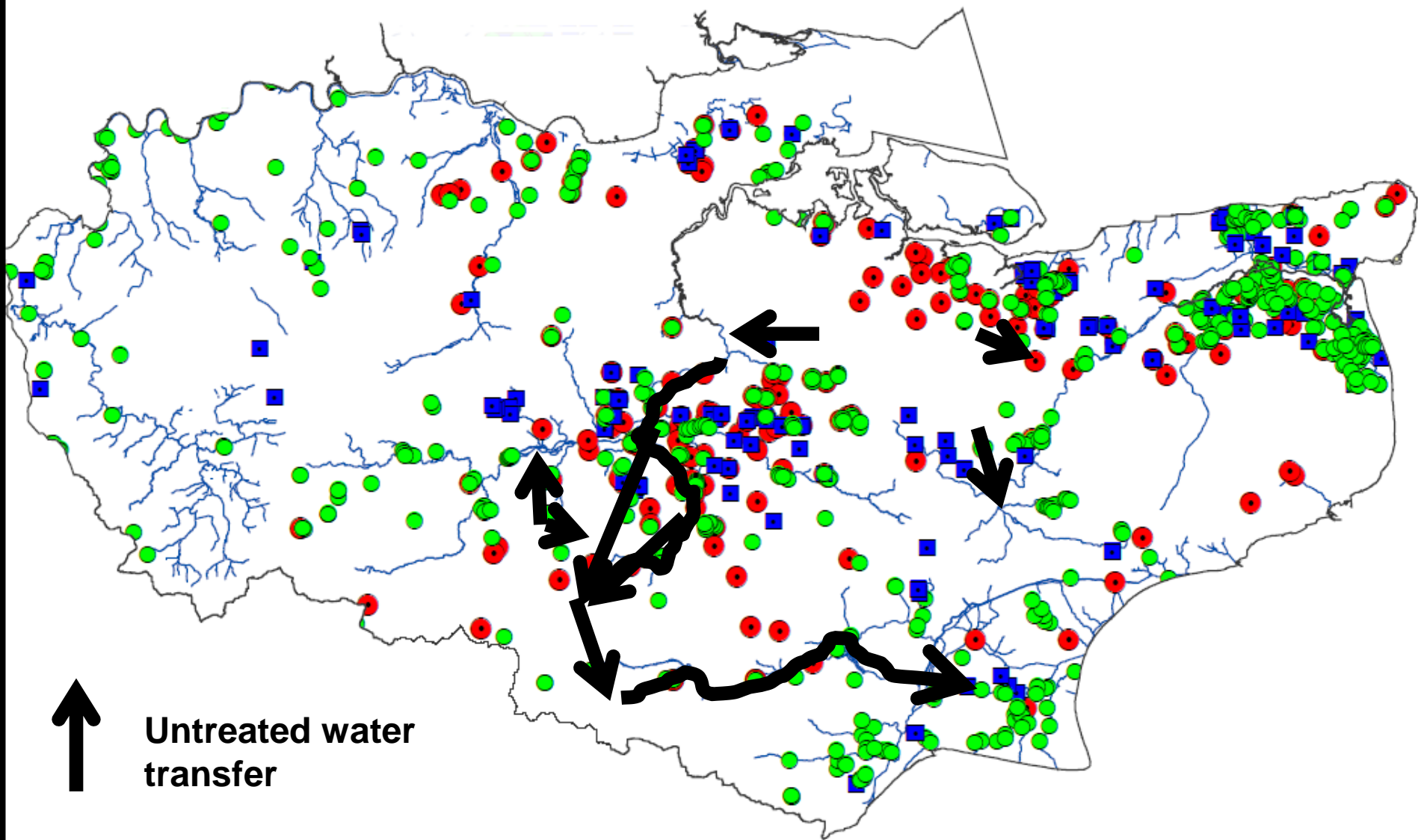
↑
Untreated water
transfer

0 5 10 20 30 40 Kilometers

Licensed Direct Irrigation

Licensed Winter Storage Irrigation

Trickle Irrigation

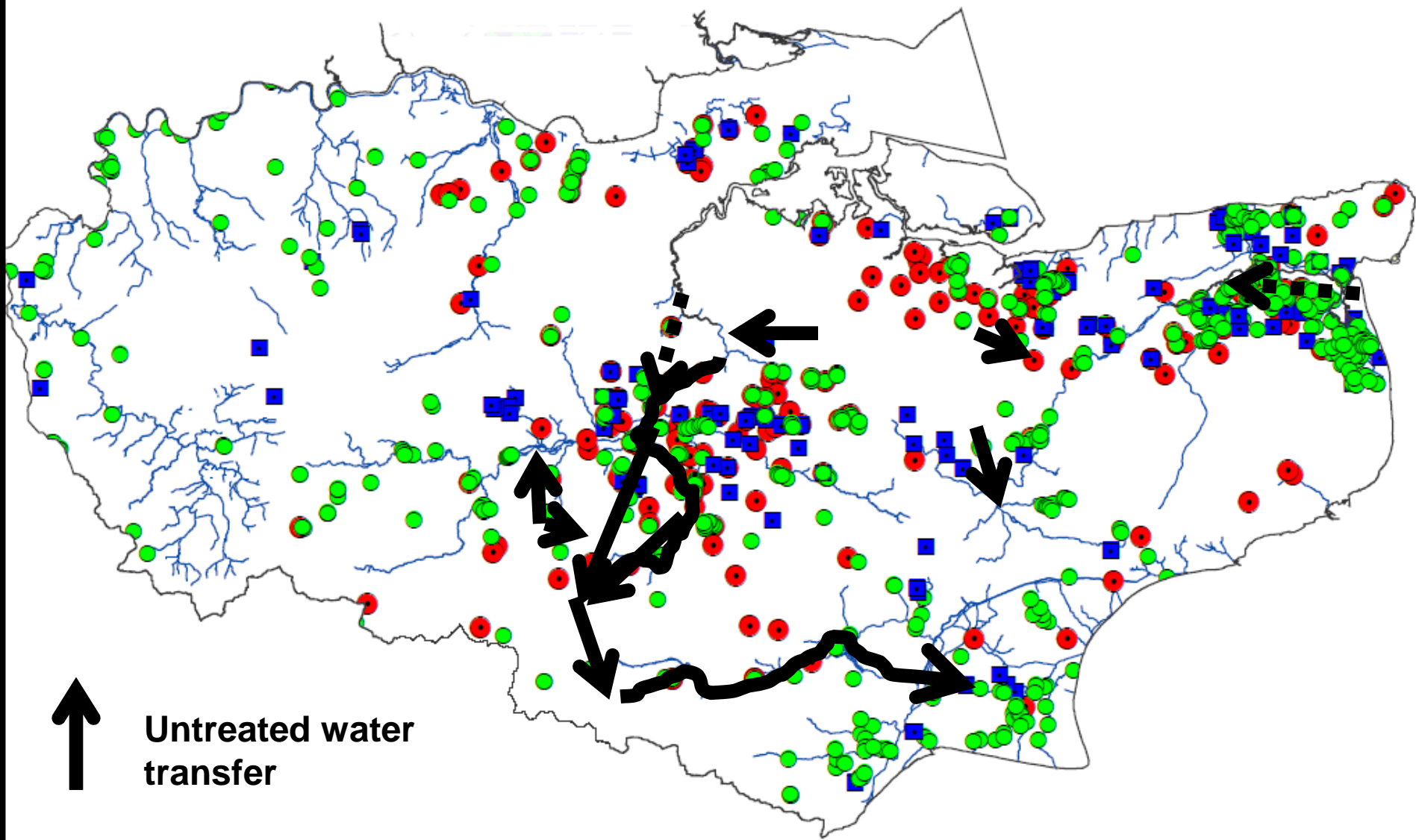


↑
Untreated water
transfer

Licensed Direct Irrigation

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Trickle Irrigation



Untreated water transfer

Pipeline supply - how might it work?

Example:

Irrigators buy untreated water from a metered connection to a suitable pipeline belonging to the water company.

This might be bought in winter for filling a reservoir or in summer for direct use.



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Pipeline supply - how might it work?

Scheme	Agreement	Cost	Licence	Security of supply
Individual	Supply contract	MEDIUM – HIGH: <ul style="list-style-type: none"> • Connection charge • Volumetric charge 	None	MEDIUM: Secure contract but subject to drought orders.
Group	Supply contract with user group. User group distribution agreement.	MEDIUM: <ul style="list-style-type: none"> • Share of connection charge • Share of vol. charge 	None	MEDIUM: Secure contract but subject to drought orders.



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Supply via the river network – how might it work?

Example:

Irrigator(s) trade with water company for an upstream release of untreated water into the river network. Irrigators then abstract that water from the river somewhere downstream.

This could be used either in winter for filling a reservoir or in summer for direct irrigation.



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Supply via the river network – how might it work?

Scheme	Agreement	Cost	Licence	Security of supply
Individual	Trade agreement	MEDIUM <ul style="list-style-type: none"> • Trade price • Pumping cost 	Abstraction	LOW depending on agreement
Group	Trade agreement with user group. User group distribution agreement.	LOW - MEDIUM <ul style="list-style-type: none"> • Share of trade price • Share of management cost • Pumping cost 	Abstraction	LOW-MEDIUM depending on agreement



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Joint resource investment – how might it work?

Example:

Water company slightly increases the design capacity of a new water resource development to accommodate irrigation demand.

Irrigators form a water user group and jointly invest in the new resource in line with the marginal cost of the increased capacity.

User group owns a fixed share of water from the new resource.

User group manages the distribution of water to individual members.



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Joint resource investment – how might it work?

Scheme	Agreement	Cost	Licence	Security of supply
Individual	Probably not feasible			
Group	Various	LOW <ul style="list-style-type: none"> • Small share of investment cost • Share of management cost • Pumping cost (depending on delivery mode). 	Various	HIGH but depends on reliability of the resource.



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Next steps

- **South East Water and Southern Water identify the potential schemes.**
- **Workshop in winter 2014/15 to discuss schemes (capital cost, operational cost, reliability of supply, organisational and management requirements) and agree priority schemes.**
- **Feasibility studies during 2015/16 (subject to funding and depending on scheme complexity).**
- **Construction - 2016 to 2040 (depending on the scheme).**
- **Water available - 2016 to 2045 (depending on the scheme).**



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Discussion



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