

APPENDIX 7.5
TARGET APPRAISAL SHEETS FOR
FULLY INTEGRATED STRATEGIES

(iii) QUALITY ASSESSMENT AGAINST OBJECTIVES / TARGETS	MW2	WS3i / WW4 / FD8: Regional water resources strategy with reduced GW abstraction and localised compensation provided through river abstraction d/s of Bybrook. Extend Bybrook and construct up to four natural technology works south of Ashford with effluent discharged to the Stour. Full suite of FRM strategies implemented.						Comments
		Option Appraisal targets						
Objectives	a	b	c	d	e	f	Overall	
1.1 No impact on the quality and quantity of water available		▲					▲	Target reduction equates to 4.8Mld, which correlates with additional effluent flows generated by 2015, so 5Mld water treatment plant would permit reduced abstraction, though not by target deadline. Studies indicate no hydraulic continuity between the lower greensand aquifers and the G Stour in Chart Leacon GWMU. The Chalk boreholes may offer more benefit.
1.2 Ensure sufficient and sustainable water supply	●	●					●	Additional source will offer potential to increase outputs under contingency or emergency conditions (by temporarily restoring GW abstractions to current levels).
1.3 Reduce average household water usage in Ashford by 30% ¹	▲	▲	▲	▲	▲		▲	Assessment is for Scenario B (Realistic case), where targets, as set, are generally considered to be unachievable. Scenario A: ■ Scenario C: ●
2.1 Improve summer water flows in the River Stour	▲	▲					▲	Water reused from river substituted by increased GW flows. AMP4 studies to look at base flows and aquifers targeted for reduced abstractions -proposed volumes of river water reused < effluent discharges from additional population and thus will not result in decreased river flows.
2.2 Prevent impact on river water quality from run-off	●	●					●	FRM strategies promoting implementation of SUDS for all development. SUDS should be developed prior to housing development schemes to address water quality issues during construction. EW5 (in the form of SUDS), 6, 7 and 8 will also address target (b)
2.3 Maintain and improve groundwater quality ²	?	●	▲				▲	Target (a) is design level recommendation. Strategy seeks to reduce abstractions from MKW boreholes for aquifer recovery and increased chalk stream flows. Historic levels of GW not known but upward trend in GW levels assumed based on reduction in abstractions achievable.
n/a	●	▲	●	●			●	SIMCAT modelling has identified parameters to achieve RQO targets. AMP3 quality improvement schemes to address WQ problems d/s of Sellenge and Lenham to be completed late 2005 and 2007 respectively Environment Agency consent parameters modelled to achieve policy of no deterioration from the present conditions achieved higher quality than stipulated by UWWTD.
2.5 Ensure wastewater capacity is commensurate with growth	●						●	Transport and treatment capacity provided before demand
2.6 Achieve "good water status" by December 2015.	▲	▲	▲				▲	Strategies will ensure no deterioration from current river water quality due to new development but higher 'risk' of failures associated with natural treatment systems. Separate discharges into G and E Stour may reduce direct impact of development on small stretch of river. AMP 3 quality improvement schemes will be completed at Lenham (2007) and Sellenge (2005). Flows from Sellenge could be diverted to new southeastern works. Good ecological status not defined but increased chalk spring inputs to river should increase the buffering capacity of river near Wye.
3.1 Ensure no increased flood risk and protect integrity flood storage	■						■	Option 6 spatial plan includes proposal to develop 'canal district' within the floodplain. Proposed compensation area at Cheeseman's Green not available. The issue is under review.
3.2 Ensure standard of service is maintained at appropriate level.	■	■					■	Issue currently under consideration
3.3 Reduce run-off effects of development for all zones	●						●	Strategy promotes that 100% of new paved areas incorporate SUDS
3.4 Provide sound and sustainable flood defence measures.	■	▲					▲	Issue currently under debate. Questions remain over loss of floodplain area and adequacy of replacement habitat.
4.1 Maintain and enhance Ashford's biodiversity interest			▲	▲			▲	Targets (a), (b) (e) and (f) are scheme specific detailed design issues and not delivered by this strategy - targets to be addressed by policy recommendations. (c) Opportunity to create wetland d/s of Bybrook and new STWs. (d) Spatial design includes green ribbon enhancing green corridor. Implementation of SUDS and wetland creation will also be of benefit.
4.2 Enhance conservation status of the Stour and its tributaries	▲		▲				▲	Targets (b) & (d) are not delivered by this strategy - to be addressed by policy recommendations. (a) Wastewater treatment will seek to achieve no deterioration in water quality but current marginal failures may continue. (c) Possible benefits to fisheries from abstraction of 5MI/d river water d/s of bybrook and increase of spring flows resulting from corresponding reduction in abstractions from Chalk aquifers
4.3 Enhance species and habitats of importance	▲						▲	Consent parameters for Bybrook and new STW will be set to ensure Agency's policy of no deterioration is achieved. Reduced GW abstractions chalk over time should lead to increased chalk water inputs to the river. Impact on conservation sites is scheme specific detailed design issue - addressed by policy recommendations
(iv) SUMMARY: Issues relating to strategy opportunities and constraints.								
Strategy achieves very similar aspirational benefits as WW1. Possibly less robust in terms of treatment performance and risk of future failure, but for design purposes the quality achieved is the same. More land take in comparison to expansion of Bybrook but this is not reflected in quality targets. Strategy may be favoured due to increased 'naturalness' but also not reflected in quality targets. Likely benefits in river water quality resulting from split discharges between both Great and East Stour due to greater assimilative capacity of rivers and decentralising impact away from one point (like WW1 at Bybrook) - this however has not been quantified. The southern works offers additional scope for effluent re-use if willow coppicing strategy develops on a sufficiently large scale, and also offers scope for water to be discharged into the Beult (midway catchment) if this is shown to be beneficial for the habitat. These opportunities are not reflected in the quality targets								

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