

WIRRAL COUNCIL

DELEGATED DECISION

SUBJECT:	<i>LOCAL DEVELOPMENT FRAMEWORK FOR WIRRAL – EVIDENCE BASE – WATER CYCLE STUDY</i>
WARD/S AFFECTED:	<i>ALL</i>
REPORT OF:	<i>HEAD OF SERVICE FOR REGENERATION AND PLANNING</i>
RESPONSIBLE PORTFOLIO HOLDER:	<i>COUNCILLOR PAT HACKETT, ECONOMY</i>
KEY DECISION?	<i>NO</i>

1.0 EXECUTIVE SUMMARY

- 1.1 This report summarises the findings of the Water Cycle Study produced by URS Infrastructure & Environment UK Limited, on behalf of the Council as part of the evidence base for the Core Strategy Local Plan for Wirral.
- 1.2 The Water Cycle Study is a technical background document that assesses the available physical and environmental capacity in water supply and wastewater infrastructure. It also identifies wider impacts relating to flooding and wildlife habitats, together with recommendations to resolve any constraints and an evaluation of the implications for future growth. It will be used to inform the preparation of the Council's Local Plan, future site-specific land allocations and was also required to comply with the conditions of the designation of the former Mersey Heartlands Growth Point.
- 1.3 This report recommends that the findings of the Water Cycle Study are used to inform the content of the Council's emerging Local Development Framework and that the Water Cycle Study is approved as a material consideration for use by Planning Committee in the determination of planning applications.

2.0 BACKGROUND AND KEY ISSUES

- 2.1 Cabinet on 14 October 2010 resolved to commission a Scoping and Outline Stage Water Cycle Study for Wirral and Liverpool, to be commissioned through a Request for Quotation (Minute 176 refers). A joint approach with Liverpool City Council was proposed to achieve economies through joint commissioning and because the City Council was a partner in the Mersey Heartlands Growth Point. It was agreed that Wirral would be the commissioning authority and the study would be jointly funded with the cost being divided equally between Wirral Council and Liverpool City Council.
- 2.2 In July 2008, Liverpool City Council and Wirral Council were successful in achieving New Growth Point Status, securing funding to support housing delivery and to restructure failing housing markets in the Housing Market Renewal Area. When designating Mersey Heartlands as a Growth Point, the Department for Communities and Local Government attached a number of conditions that the partnership must fulfil, including a requirement to complete a Water Cycle Study for the Growth Point area.
- 2.3 Although funding for the Mersey Heartlands Growth Point ceased in March 2011, it was still necessary to comply with conditions attached to the funding for audit purposes.

- 2.4 The Water Cycle Study was also commissioned to support the Council's Core Strategy Local Plan. A robust evidence base is essential to demonstrate that the Council has determined the capacity of the area to accommodate new development and that all the strategy and development options available to the Council have been fully assessed. This is a key part of the test of soundness that will be considered by a planning inspector appointed by the Secretary of State, before the Core Strategy Local Plan can be adopted.
- 2.5 Scott Wilson, (who have since been taken over by URS Limited), were appointed in December 2010 to undertake a Water Cycle Study across both Wirral and Liverpool. The appointment was reported to the Economy and Regeneration Overview and Scrutiny Committee on 14 March 2011 (Minute 80 refers). It was agreed that separate Outline Water Cycle Study reports would be produced for each district. An additional Scoping Report and Outline Report for the Mersey Heartlands Growth Point area were also produced to set the context for the study (and to identify constraints to growth that may be imposed by the water cycle and how these can be resolved).
- 2.6 The Scoping Report for the Mersey Heartlands Growth Point was received in December 2011. The Outline Report for Wirral was received in November 2012 and the Outline Report for the Mersey Heartlands Growth Point as a whole was received in December 2013.
- 2.7 Completion of the project was delayed by the need to obtain information and data essential to the study from external organisations including the Environment Agency, United Utilities, Dwr Cymru Welsh Water, the capacity of the consultants and by the complexities of carrying out a joint commission with Liverpool City Council. The requirement to consult and secure feedback from all partners and interested stakeholders throughout the process has also delayed the study.

Wirral, Liverpool and Mersey Heartlands Growth Point Water Cycle Study Scoping Report

- 2.8 The Scoping Report determined the study area, gathered existing relevant data and studies, identified the key issues with respect to the water environment and infrastructure and determined the key stakeholders that needed to be involved.
- 2.9 Whilst the geographic scope of the Wirral element of the study was limited to growth within Wirral Council's administrative area, the wider area was considered where it had capacity to impact growth within Wirral, through shared water resources or development outside the Borough that would drain to a treatment works within the study area.

Wirral Council Water Cycle Study Outline Study: Main Planning Report and Technical Appendices

- 2.10 The Wirral Outline Water Cycle Study identified any constraints to growth that may be imposed by the water cycle and how these can be resolved. It also took a strategic approach to the management and use of water to ensure that the sustainability of the water environment in the study area would not be compromised.
- 2.11 The assessment of capacity has been carried out at a strategic level by testing three potential growth scenarios covering targets for housing and employment without including a definitive list of potential development locations.

- 2.12 The assessment used the eight broad Settlement Areas defined in the Proposed Submission Draft Core Strategy (Cabinet 27 September 2012, Minute 92 refers).

Wastewater Treatment

- 2.13 There are four waste water treatment works in Wirral, all of which receive waste water generated from Wirral only. The theoretical assessment suggests that the Waste Water Treatment Works at Birkenhead, Bromborough and Heswall have capacity to accept the waste water generated by projected growth within their catchment areas, within the scope of the conditions of the relevant discharge consents issued by the Environment Agency.
- 2.14 Projected growth in the North Wirral (Meols) catchment area will however require a solution to be identified to treat additional waste water generated as a result of growth. Any review of the existing discharge consent would require an assessment of impact on the international nature conservation designations along the North Wirral Coast. Calculations show that it would be theoretically possible for the treatment works to discharge greater volumes than currently consented, by treating to a higher standard, without having any additional detrimental impact on water quality. The assessment also shows that this solution is achievable within the limits of conventional treatment techniques and the existing consent limit should not therefore be considered as a 'show-stopper' to growth within the North Wirral (Meols) catchment area, which covers parts of Settlement Areas 5 – Mid Wirral, 6 – Hoylake and West Kirby, 7 – Heswall and 8 – Rural Areas.
- 2.15 It is recommended that the Environment Agency, United Utilities and Wirral Council should work towards achieving an acceptable solution.

Sewer Network Capacity

- 2.16 The study concludes that additional waste water generated by future development could be accommodated within the existing sewer network but that flooding records coupled with the existence of pumping stations, storage tanks and combined sewer overflows, suggest that there could be localised constraints in the existing sewer network, which may limit growth. Additional modelling by United Utilities may therefore be required once development locations are identified.
- 2.17 There is limited sewer network coverage on the northern side of Birkenhead and in the Wallasey Docks within the Commercial Core (Settlement Area 2) in addition to the potential constraints due to capacity limitations of pumping stations in the area. The sewer network coverage in the Rural Area (Settlement Area 8) is also very sparse.
- 2.18 The requirement to provide waste water network infrastructure solutions could therefore impact upon on the timing and phasing of development and will need to be assessed in more detail in collaboration with United Utilities, once development locations are identified.

Available Water Resources

- 2.19 The sandstone aquifer underlying most of Wirral is at the limit of available resources without causing adverse impact on the environment. Further water abstraction is therefore unlikely to be acceptable. However, there are already adequate water

resources within United Utilities' Integrated Water Resource Zone, which covers Wirral, to cater for growth if a water resource and demand strategy including leakage reduction and water efficiency measures is followed.

- 2.20 The study therefore recommends that it would be prudent to promote higher levels of water efficiency in new homes and commercial buildings to reduce water demand and achieve sustainable water supply. This requirement has already been included in the Proposed Submission Draft Core Strategy published by the Council in December 2012 and is currently being tested as part of the Council's ongoing Economic Viability Study which is due to report following the publication of the Council's revised Strategic Housing Market Assessment.

Water Supply Infrastructure

- 2.21 The assessment indicated that some of the Settlement Areas have low resource availability associated with connectivity or pressure issues, the presence of iron pipes or requirements for network reinforcement. These areas are predominantly located in the older urban areas in Settlement Area 2 (Commercial Core), particularly around Birkenhead Docks, west of Settlement Area 3 in the Tranmere Area and in Settlement Area 4 near Port Sunlight and Bromborough Pool.
- 2.22 The study notes that the phasing of new or upgraded potable water supply infrastructure could provide a constraint to development, particularly in the Commercial Core and should be further assessed once detailed development proposals are available.

Ecological Assessment

- 2.23 The study shows that future growth is unlikely to jeopardise the achievement of EU Water Framework Directive targets and is unlikely to alter conclusions already drawn by United Utilities and the Environment Agency through their own assessments. The next stage of the Habitats Regulations Assessment being carried out for the Core Strategy Local Plan should take the findings of the Water Cycle Study into consideration and be informed and refined, if necessary, by further studies.

Flood Risk to Development

- 2.24 The Council's existing Strategic Flood Risk Assessment and Preliminary Flood Risk Assessment have been used to inform the assessment of flood risk to potential development locations at a strategic level. The northern part of Settlement Area 5 (Mid-Wirral) is the key location where growth options are more likely to be constrained by flood risk to development. The risk of flooding from fluvial and tidal sources is generally low in Birkenhead (Settlement Area 3), Bromborough and Eastham (Settlement Area 4), Hoylake and West Kirby (Settlement Area 6) and Heswall (Settlement Area 7).
- 2.25 The study highlighted uncertainty with regard to flooding from non-fluvial and tidal sources, especially surface water flooding (from sewers and direct runoff). The Council is in the process of producing a separate Local Strategy for Flood Risk Assessment, which will address these issues and incorporate findings from further studies on the risk from ordinary watercourses. Policy CS34 – Flood Risk and Coast Protection in the emerging Core Strategy already seeks to locate new development in places offering the greatest protection from flooding from all sources.

The Management of Surface Water Runoff

- 2.26 Surface water management is a key flood risk consideration in Wirral due to the fact that a number of potential development sites are in areas where surface water runoff is already managed by pumping systems. The study recommends that new development must consider the impact of any further urbanisation on the existing system and the discharge of surface water must be mitigated within the pumped limitations of the drained system. The incorporation of Sustainable Drainage Systems (SuDS) into new developments at an early stage is therefore considered to be essential.
- 2.27 The study considered the likely capacity for infiltration type SuDS and found that some parts of Wirral may not be suitable due to the presence of Groundwater Source Protection Zones. As a result, many areas will be reliant on surface water attenuation and runoff restriction, which will require developments to make an additional land provision for this mitigation. Policy CS35 – Drainage Management in the emerging Core Strategy already provides for the promotion of sustainable drainage and water management in line with these findings.

Conclusions

- 2.28 The study demonstrates that there are some potential limitations to achieving the levels of growth already identified in the emerging Core Strategy, largely focused on the sewer network and waste water treatment works and potential impacts that need to be investigated further. No 'show-stoppers' have, however, been identified in the Outline Water Cycle Study and a more detailed Water Cycle Study is not therefore required at this stage.
- 2.29 The Water Cycle Study has been undertaken at a strategic level based on best estimates of where growth is likely to occur in Wirral. At the time of undertaking the study, the Local Plan process has not yet reached a stage where a preferred list of development sites could be provided to allow more detailed site-specific assessments to be completed.
- 2.30 Once preferred development locations are known, the study recommends that further investigations and collaboration with the Environment Agency and United Utilities are undertaken to address the issues raised in the study. This may also need to be considered as part of the review of the Council's ongoing housing land supply.
- 2.31 Regular liaison with United Utilities and the Environment Agency is ongoing, through the Local Plan Process and the regular meetings of the Wirral Flood and Water Management Partnership.
- 2.32 Policy CS44 – Phasing and Infrastructure in the Council's emerging Core Strategy Local Plan currently serves to prevent development from taking place until essential infrastructure has been provided to an appropriate standard.

Mersey Heartlands Water Cycle Study Outline Study: Main Planning Report

- 2.33 The Mersey Heartlands Outline Report draws together and reviews the findings from the Wirral, Liverpool and Mersey Heartlands Growth Point Scoping Report and the respective Wirral and Liverpool Outline Study and Technical Appendices reports in the

context of the additional dwellings proposed within the Mersey Heartlands Growth Point (equivalent to an extra 20% of housing provision by 2016/17).

2.34 The study identified the following constraints that would need to be addressed through further work:

- Liverpool Mersey Heartland – potential issue with wastewater transmission, capacity issues of sewer network and surface water flooding
- Wirral Mersey Heartland – potential issue with wastewater and water supply transmission.

2.35 For Wirral, the assessment indicated that some areas of the Wirral Mersey Heartland, located around the Birkenhead Docks, have poor water supply network connectivity and pressure issues. As regards wastewater treatment, the majority of growth will be located within the catchment of the Birkenhead Waste Water Treatment Works and the theoretical assessment suggests that it has the capacity to accept wastewater generated by projected growth within its existing consent conditions. However, a high level assessment of the sewer network indicated that there may still be significant capacity issues in this area.

Conclusions

2.36 The conclusions of the report confirm that development at Wirral Waters will require significant water supply and wastewater network reinforcement. The phasing of infrastructure upgrades could therefore be considered a constraint to development in the Growth Point area, depending on when development comes forward. However, while the study has demonstrated that there are potential limitations to achieving growth which will need to be investigated further, no 'show-stoppers' to growth in the Mersey Heartlands have been identified.

3.0 RELEVANT RISKS

3.1 This report presents no additional risks to the Council.

4.0 OTHER OPTIONS CONSIDERED

4.1 No other options were considered, as the completion of a Water Cycle Study was a condition of Growth Point funding and is required as part of the evidence base for the emerging Core Strategy Local Plan.

5.0 CONSULTATION

5.1 The Water Cycle Study has been guided by a Steering Group, comprising representatives from Wirral Council, Liverpool City Council, United Utilities Plc, Dwr Cymru Welsh Water and the Environment Agency.

5.2 Various stakeholders, including the Steering Group were consulted throughout the life of the project and consultation responses from Dwr Cymru Welsh Water, the Environment Agency, United Utilities, Natural England, Countryside Council for Wales (now Natural Resources Wales), Merseyside Environmental Advisory Service and Cheshire West and Chester Council have been incorporated into the final version of the report.

6.0 IMPLICATIONS FOR VOLUNTARY, COMMUNITY AND FAITH GROUPS

6.1 This report has no implications for voluntary, community and faith groups.

7.0 RESOURCE IMPLICATIONS: FINANCIAL; IT; STAFFING; AND ASSETS

7.1 There are no staffing implications arising directly out of this report. The management of the commission was led by officers in the Forward Planning and Investment Strategy teams and supported by officers from the Coast Protection and Drainage and Development teams, as members of the Steering Group.

7.2 The use of external consultants was required because the necessary capacity and specialist technical expertise to carry out this work was not available within the Council.

7.3 The study has been completed for £12,750 against an original budget estimate of £25,000, funded through the award of New Growth Point funding.

8.0 LEGAL IMPLICATIONS

8.1 The Water Cycle Study can be taken into account as a material consideration in the determination of planning applications, subject to a resolution of full Council.

8.2 The Water Cycle Study will form part of the evidence base to support the Council's emerging Core Strategy to ensure that it will be found sound at independent examination.

9.0 EQUALITIES IMPLICATIONS

9.1 Has the potential impact of your proposal(s) been reviewed with regard to equality?

(a) Yes and impact review is attached at –

<http://www.wirral.gov.uk/my-services/community-and-living/equality-diversity-cohesion/equality-impact-assessments/eias-2010/regeneration-housing-planning>

9.2 The Water Cycle Study does not in itself have any equalities implications but provides a summary of the key issues, opportunities and policy directions that will be necessary to help ensure that a sustainable water environment can be achieved for residents in all areas of the Borough.

10.0 CARBON REDUCTION IMPLICATIONS

10.1 The Water Cycle Study will provide the evidence base for setting policy to encourage more water-sustainable forms of development as well as setting the context for providing guidance on mitigation and adaptation measures for new development (to the effects of climate change).

11.0 PLANNING AND COMMUNITY SAFETY IMPLICATIONS

11.1 The Water Cycle Study includes a review of existing flood risks and surface water systems, which seek to protect and improve community safety by steering development towards areas of lowest risk.

11.2 The Water Cycle Study will form an essential part of the evidence base for the Council's emerging Core Strategy Local Plan and as a starting point for the

consideration of sites to be included as future site-specific land allocations and will be a material consideration in the determination of individual planning applications.

12.0 RECOMMENDATION

- 12.1 That Council is recommended that the findings of the Water Cycle Study are used to inform the content of the Council's emerging Local Development Framework and is approved as a material consideration for use by Planning Committee in the determination of planning applications.
- 12.2 That the implications of new development on the capacity of water supply, wastewater treatment and flood prevention infrastructure is kept under constant review in consultation with the relevant water and wastewater utilities providers, the Environment Agency and other relevant statutory agencies.

13.0 REASON FOR RECOMMENDATION

- 13.1 To provide an up-to-date evidence base for the preparation of the Council's Core Strategy Plan, future site-specific land allocations and to comply with the conditions of the designation of the Mersey Heartlands Growth Point.

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APPENDICES

- Appendix 1 - Wirral, Liverpool and Mersey Heartlands Growth Point Water Cycle Study Scoping Report
Appendix 2 - Wirral Council Water Cycle Study Outline Study: Main Planning Report
Appendix 3 - Wirral Council Water Cycle Study Outline Study: Technical Appendices
Appendix 4 - Mersey Heartlands Water Cycle Study Outline Study: Main Planning Report

REFERENCE MATERIAL

The Proposed Submission Draft Core Strategy (December 2012) can be viewed at:
<http://www.wirral.gov.uk/downloads/5640>

SUBJECT HISTORY (last 3 years)

Council Meeting	Date
Cabinet (Minute 176 refers)	14 October 2010
Economy and Regeneration Overview and Scrutiny Committee (Minute 80 refers)	14 March 2011