

# M20 Junction 10a

## TR010006

### Appendix 15.4 Assessment of Cumulative Effects

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M20 Junction 10a

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# **Appendix 15.4 Assessment of Cumulative Effects**

Volume 6.3



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# 1. Cumulative Effects Assessment of 'Other Developments' with the Main and Alternative Schemes

Table 1.1 Cumulative Effects assessment of 'other developments' with the Main Scheme and Alternative Scheme

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
<b>Topic Chapter: Air Quality</b>				
<p>The effects on local air quality as a result of the Main Scheme have been assessed in Chapter 5 Air Quality, Volume 6.1. The residual effects on air quality are as follows:  <b>Main Scheme residual effects during Construction:</b> Not Significant (Construction dust), Not Significant (Traffic Emissions)  <b>Main Scheme residual effects during Operation:</b> Not Significant (Construction dust), Not Significant (Traffic Emissions)                      It should be noted that 'Not Significant' effects reported in Chapter 5 Air Quality have been taken to be Neutral for the cumulative effects assessment.</p>				
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction and operation on Air Quality effects as a result of Stour Park (Phase 1) have been taken from Chapter 14 'Air Quality' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) are as follows:</p> <p><b>Construction</b> Dust: Neutral Traffic Emissions: Neutral</p> <p><b>Operation</b> Dust: Neutral Traffic Emissions: Neutral</p> <p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the 200m ZOI for construction overlap covers the majority of both Stour Park (Phase 1) and the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. Stour Park is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. As such, the overall cumulative effects during construction and operation are anticipated to cover broadly the same area. The cumulative residual effects for Stour Park (Phase 1) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Dust: Neutral Traffic Emissions: Neutral</p> <p><b>Operation</b> Dust: Neutral Traffic Emissions: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
2	1	Newtown Works (Phases 2-4) 05/01798/AS	<p><u>Newtown Works (Phases 2 - 4) Residual Effects</u></p> <p>The residual effects during operation on Air Quality as a result of Newtown Works (Phases 2 - 4) have been taken from Chapter 1.6 'Air' of the Environmental Statement produced by Environmental Impact Services Ltd (2005). The residual effects as a result of Newtown Works (Phases 2-4) are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Slight Adverse</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>



ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><u>Cumulative Residual Effects for Newtown Works (Phases 2 - 4) and the Main Scheme</u></p> <p>Newtown Works (Phases 2 - 4) is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2, however, since Newtown Works is approximately 1.3km from the DCO boundary of the Main Scheme, the magnitude of impact is considered to be lower, and as such the cumulative effects are likely to be slightly reduced. The cumulative residual effects of Newtown Works (Phases 2 - 4) and the Main Scheme would be considered to be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	
3	3	Land at Willesborough Lees Policy U14, Urban Sites Infrastructure Development (ABC, 2012)	<p><u>Land at Willesborough Lees Residual Effects</u></p> <p>No assessment has been made for the impacts on Air Quality in the Sustainability Appraisal Urban Sites and Infrastructure DPD (ABC, 2010), therefore effects are assumed to be Neutral during operation.</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p> <p><u>Cumulative Residual Effects for Land at Willesborough Lees and the Main Scheme</u></p> <p>Land at Willesborough Lees is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. The cumulative residual effects of Land at Willesborough Lees and the Main Scheme would be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.
7	3	Waterbrook 12/00471/AS (withdrawn by applicant)	<p><u>Waterbrook Residual Effects</u></p> <p>No assessment has been undertaken for effects on local air quality as a result of the Waterbrook development, and as such, effects are assumed to be Neutral.</p> <p><b>Construction:</b> Dust: Neutral Traffic Emissions: Neutral</p> <p><b>Operation</b> Dust: Neutral Traffic Emissions: Neutral</p> <p><u>Cumulative Residual Effects for Waterbrook and the Main Scheme</u></p> <p>The ZOI for construction overlap includes the northern tip of the ZOI for Waterbrook, and the southern tip of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 5 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of impact is anticipated to be lower and as such residual air quality effects as a result of Waterbrook and the Main Scheme during construction would be anticipated to be slightly reduced. Waterbrook is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. As such, the cumulative residual effects for Waterbrook and the Main Scheme would be anticipated to be as follows:</p> <p><b>Construction</b> Dust: Neutral Traffic Emissions: Neutral</p> <p><b>Operation</b> Dust: Neutral Traffic Emissions: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
6	1	Cheeseman's Green 02/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>The residual effects during construction and operation on Air Quality Effects as a result of Cheeseman's Green have been taken from Chapter 13 'Air Quality' of the Environmental Statement produced by WS Atkins Planning Consultants (2002). The effects assessed in the appraisal have not been assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. Where assessment of certain factors have not been made, the effects are assumed to be Neutral. As such, the residual effects as a result of Cheeseman's Green would be as follows:</p> <p><b>Construction</b> Dust: Slight Adverse Traffic Emissions: Neutral</p> <p><b>Operation</b> Dust: Neutral Traffic Emissions: Slight Adverse</p> <hr/> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The 200m ZOI for construction for both Cheeseman's Green and the Main Scheme slightly overlap, at the south of the ZOI for the Main Scheme and the north of the ZOI for Cheeseman's Green, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Since the area of ZOI overlap is extremely small, the magnitude of impact is considered to be lower and thus the cumulative effects during construction would be likely to be significantly reduced. In addition, sections of the Cheeseman's Green development have already been constructed and some sections are currently under construction. Therefore, not all of Cheeseman's Green will be constructed at the same time as the Main Scheme, and so the significance of the cumulative residual effects during construction will be reduced. Cheeseman's Green is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. As such, the cumulative residual effects would be as follows:</p> <p><b>Construction</b> Dust: Neutral Traffic Emissions: Neutral</p> <p><b>Operation</b> Dust: Neutral Traffic Emissions: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
8	1	Conningbrook Strategic Park 12/01245/AS	<p><u>Conningbrook Strategic Park Residual Effects</u></p> <p>The residual effects during operation on Air Quality as a result of Conningbrook Strategic Park have been taken from Chapter 11 'Air Quality' of the Environmental Statement produced by Brett Aggregates Limited (October 2012). The residual effects as a result of Conningbrook Strategic Park are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p> <hr/> <p><u>Cumulative Residual Effects for Conningbrook and the Main Scheme</u></p> <p>Conningbrook Strategic Park is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. The cumulative residual effects of Conningbrook and the Main Scheme would be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
10	1	K College 11/00757/AS	<p><u>K College Residual Effects</u></p> <p>No assessment has been undertaken for effects on local air quality as a result of K College, and as such, effects are assumed to be Neutral.</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><u>Cumulative Residual Effects for K College and the Main Scheme</u></p> <p>K College is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. The cumulative residual effects of K College and the Main Scheme are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	
12	1	<p>Eureka Business Park 04/00044/AS</p> <p>And,  Policy U17, Urban Sites Infrastructure Development Plan Document (ABC, 2012)</p>	<p><u>Eureka Business Park Residual Effects</u></p> <p>No assessment has been undertaken for effects on local air quality as a result of Eureka Business Park, and as such, effects are assumed to be Neutral.</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p> <p><u>Cumulative Residual Effects for Eureka Business Park and the Main Scheme</u></p> <p>Eureka Business Park is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2, however, since Eureka Business Park is approximately 4.1km from the DCO boundary of the Main Scheme, the magnitude of impact would be anticipated to be lower, and as such the cumulative effects are likely to be substantially reduced. As such, the cumulative residual effects of Eureka Business Park and the Main Scheme would be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
13	1	<p>Chilmington Green 12/00400/AS</p>	<p><u>Chilmington Green Residual Effects</u></p> <p>The residual effects during operation on Air Quality as a result of Chilmington Green have been taken from Chapter 8 'Local Air Quality' of the Environmental Statement produced by WSP (2012). The residual effects as a result of Chilmington Green are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Slight Adverse</p> <p><u>Cumulative Residual Effects for Chilmington Green and the Main Scheme</u></p> <p>Chilmington Green is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2, however, since Chilmington Green is approximately 4.4km from the DCO boundary of the Main Scheme, the magnitude of impact is considered to be lower, and thus the cumulative effects are likely to be substantially reduced. As such, the cumulative residual effects of Chilmington Green and the Main Scheme would be anticipated to be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
14	2	<p>KWG Site 13/00713/AS</p>	<p><u>KWG Site Residual Effects</u></p> <p>No assessment has been undertaken for effects on local air quality as a result of the KWG Site, and as such, effects are assumed to be Neutral.</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p> <p><u>Cumulative Residual Effects for the KWG Site and the Main Scheme</u></p> <p>The KWG Site is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. However, given the distance between these 2 sites, the magnitude of impact is considered to be lower, and as such the cumulative residual effects of the KWG Site and the Main Scheme would be as follows:</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	
16	1	Victoria Quarter (former Powergen Site) 15/01671/AS	<p><u>Victoria Quarter Residual Effects</u></p> <p>The residual effects during operation on Air Quality as a result of the Victoria Quarter have been taken from the Air Quality Assessment produced by Peter Brett (2015). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. As such, the residual effects of the Victoria Quarter are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p> <p><u>Cumulative Residual Effects for the Victoria Quarter and the Main Scheme</u></p> <p>The Victoria Quarter is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. However, given the distance between these 2 sites, the magnitude of impact is considered to be lower, and as such the cumulative residual effects would be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
16/ 17	1	Former site of Ashford Market (Elwick Road Phase 1) 15/01195/AS/ Land Opposite Elwick Road (Elwick Road Phase 2) 15/01282/AS	<p><u>Elwick Road Phases 1 and 2 Residual Effects</u></p> <p>The residual effects during operation on Air Quality as a result of Elwick Road Phases 1 and 2 have been taken from the Air Quality Assessment produced by Waterman Infrastructure &amp; Environment Limited (2015). The effects assessed in the appraisal have not been assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. As such, the residual effects of Elwick Road Phases 1 and 2 are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Slight Adverse</p> <p><u>Cumulative Residual Effects for Elwick Road Phases 1 and 2 and the Main Scheme</u></p> <p>Elwick Road Phases 1 and 2 are wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. However, given the distance between these 2 sites, the magnitude of impact is considered to be lower, and as such the cumulative residual effects would be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
19	1	Dover Place 16/00554/AS	<p><u>Dover Place Residual Effects</u></p> <p>The residual effects during operation on Air Quality as a result of Dover Place have been taken from the Air Quality Assessment produced by Capita Symonds (2011). The residual effects of Dover Place are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Slight Adverse</p> <p><u>Cumulative Residual Effects for Dover Place and the Main Scheme</u></p> <p>Dover Place is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.1, Volume 6.2. However, given the distance between these 2 sites, the magnitude of impact is considered to be lower, and as such the cumulative residual effects would be as follows:</p> <p><b>Operation</b> Dust: Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			Traffic: Neutral	
21	1	Ashford Designer Outlet 14/01402	<p><u>Ashford Designer Outlet Residual Effects</u></p> <p>The residual effects during operation on Air Quality as a result of Ashford Designer Outlet have been taken from the Air Quality Assessment produced by Peter Brett (2014). The residual effects of Ashford Designer Outlet are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Slight Adverse</p> <p><u>Cumulative Residual Effects for Ashford Designer Outlet and the Main Scheme</u></p> <p>Ashford Designer Outlet is wholly within the traffic model ZOI for operational effects, as shown in Figure 15.3 Sheet 15 of 16, Volume 6.2. However, given the distance between these 2 sites, the magnitude of impact is considered to be lower, and as such the cumulative residual effects would be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.
23	1	Former Rowcroft and Templar Barracks 02/01565/AS	<p><u>Former Rowcroft and Templar Barracks Residual Effects</u></p> <p>The residual effects during operation on Air Quality as a result of development at Former Rowcroft and Templar Barracks have been taken from Chapter 6 'Air Quality' of the Environmental Statement produced by WSP (September 2002). The residual effects as a result of development at Former Rowcroft and Templar Barracks are as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p> <p><u>Cumulative Residual Effects for Former Rowcroft and Templar Barracks and the Main Scheme</u></p> <p>Despite the site of Former Rowcroft and Templar Barracks falling within the Traffic Model study area, as shown in Figure 15.3 Sheet 16 of 16, Volume 6.2, this 'other development' lies a significant distance from the Main Scheme. As such, the magnitude of impact would be considered to be lower, and as such the cumulative residual effects would be as follows:</p> <p><b>Operation</b> Dust: Neutral Traffic: Neutral</p>	<b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.
<b>Cultural Heritage</b>				
<p>The effects on Cultural Heritage as a result of the Main Scheme have been assessed in Chapter 6 Cultural Heritage, Volume 6.1. The residual effects on cultural heritage are as follows:</p> <p><b>Main Scheme residual effects during construction:</b> Slight Adverse effect (built heritage), Moderate / Slight Adverse effect (archaeology)</p> <p><b>Main Scheme residual effects during operation:</b> Slight Adverse effect (built heritage)</p>				
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction and operation on Cultural Heritage as a result of Stour Park (Phase 1) have been taken from Chapter 9 'Cultural Heritage' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) are as follows:</p> <p><b>Construction</b> Built heritage: Slight Adverse Archaeology: Moderate Adverse</p> <p><b>Operation</b> Built heritage: Slight Adverse</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as effects would be anticipated to be permanent in nature.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, Moderate Adverse effects (Year 1) would be anticipated to be permanent in nature, reducing to Slight to Moderate Adverse effects (Year 15) as vegetation planting proposed as part of the Main Scheme matures to provide adequate screening to the built heritage</p>



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			<p>However, Historic England’s letter dated 15 February 2016 (ref. P00434887) (Appendix 15.1, Volume 6.1) sets out their serious concerns regarding the impact on the setting of St Marys Church. Historic England believe that the Stour Park ES substantially underestimates the effects associated on cultural heritage assets as a result of the proposed development. As such, the Precautionary Principle has been adopted, and in this instance effects during construction as a result of the Stour Park development would be anticipated to be as follows:</p> <p><b>Construction</b> Built heritage: Moderate Adverse Archaeology: Moderate Adverse</p> <p><b>Operation:</b> Built heritage: Moderate Adverse</p> <p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the 1km ZOI overlap covers the majority of both Stour Park (Phase 1) and the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. As such, the overall cumulative effects during construction and operation are anticipated to cover broadly the same area. The cumulative residual effects for Stour Park (Phase 1) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Built heritage: Moderate Adverse Archaeology: Moderate Adverse</p> <p><b>Operation</b> Built heritage: Moderate Adverse (Year 1), Slight to Moderate Adverse (Year 15)</p>	<p>assets.</p>
2	1	Newtown Works (Phases 2-4) 05/01798/AS	<p><u>Newtown Works (Phases 2-4) Residual Effects</u></p> <p>No assessment has been made on the impacts on archaeology and built heritage for the Newtown Works (Phases 2 - 4) development during construction, and as such, effects are assumed to be Neutral. The residual effects during operation on Cultural Heritage as a result of Newtown Works (Phases 2 - 4) have been taken from Chapter 1.8 'Materials Assets', Section 1.8.1 'Archaeological and Architectural Heritage' of the Environmental Statement produced by Environmental Impact Services Ltd (2005). The residual effects as a result of Newtown Works (Phases 2 - 4) are as follows:</p> <p><b>Construction</b> Built heritage: Neutral Archaeology: Neutral</p> <p><b>Operation</b> Built heritage: Slight Adverse Archaeology: Neutral</p> <p><u>Cumulative Residual Effects for Newtown Works (Phases 2-4) and the Main Scheme</u></p> <p>The ZOI overlap includes a small area of the eastern half of the ZOI for Newtown Works (Phases 2 - 4) and a small area of the western half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 2 of 16, Volume 6.2. Due to this ZOI overlap representing a small area compared to the extent of both individual assessments, in addition to the fact Phase 1 has already been constructed, the residual cumulative Cultural Heritage effects as a result of Newtown Works (Phases 2 - 4) and the Main Scheme would be anticipated to be slightly reduced. As such, the cumulative residual effects for Newtown Works (Phases 2 - 4) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Built heritage: Neutral Archaeology: Neutral</p> <p><b>Operation</b> Built heritage: Neutral Archaeology: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

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3	3	Land at Willesborough Lees Policy U14, Urban Sites Infrastructure Development (ABC, 2012)	<p><u>Land at Willesborough Lees Residual Effects</u></p> <p>The residual effects during operation on Cultural Heritage as a result of Land at Willesborough Lees have been taken from the Sustainability Appraisal Urban Sites and Infrastructure DPD (ABC, 2010). No assessment has been made on the potential effects to built heritage specifically, however, as part of the Sustainability Appraisal within the heritage effects section it has been noted that the development is located adjacent to Lacton Green Conservation Area which contains a number of Listed Buildings, and it has therefore been assumed that the development would have a Slight Adverse impact on Cultural Heritage once operational. The residual effects during operation as a result of Land at Willesborough Lees are as follows:</p> <p><b>Operation</b> Built heritage: Slight Adverse Archaeology: Neutral</p> <p><u>Cumulative Residual Effects for Land at Willesborough Lees and the Main Scheme</u></p> <p>Given the close proximity of Land at Willesborough Lees in relation to the Main Scheme, the majority of the 1km ZOI overlaps, as shown in Figure 15.3 Sheet 3 of 16, Volume 6.2. As such, the overall cumulative effects during operation are anticipated to cover broadly the same area. The cumulative residual effects for Land at Willesborough Lees and the Main Scheme are anticipated to be as follows:</p> <p><b>Operation</b> Built heritage: Slight Adverse Archaeology: Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
6	1	Cheeseman's Green 2/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>The residual effects during construction and operation on Cultural Heritage as a result of Cheeseman's Green have been taken from Chapter 11 'Cultural Heritage' of the Environmental Statement produced by WS Atkins Planning Consultants (2002). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. As such, the residual effects as a result of Cheeseman's Green would be anticipated to be as follows:</p> <p><b>Construction</b> Built Heritage: Slight Adverse Archaeology: Slight Adverse</p> <p><b>Operation</b> Built Heritage: Slight Adverse Archaeology: Neutral</p> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The ZOI overlap includes the northern half of the ZOI for Cheeseman's Green, and the southern half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of impact would be anticipated to be lower, and thus the residual cumulative cultural heritage effects as a result of Cheeseman's Green and the Main Scheme would be anticipated to be slightly reduced. In addition, sections of the Cheeseman's Green development have already been constructed and some sections are currently still in construction. Therefore, not all of Cheeseman's Green is will be constructed at the same time as the Main Scheme, and so the significance of the cumulative residual effects during construction will be reduced. As such, the cumulative residual effects for Cheeseman's Green and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Built Heritage: Slight Adverse Archaeology: Slight Adverse</p> <p><b>Operation</b> Built Heritage: Slight Adverse Archaeology: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
7	3	Waterbrook 12/00471/AS	<p><u>Waterbrook Residual Effects</u></p> <p>The residual effects during construction and operation on Cultural Heritage as a result of Waterbrook have been taken from</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
		(Withdrawn by Applicant)	<p>Chapter 5 'Archaeology and Cultural Heritage' of the Environmental Statement produced by DHA Environment (April 2012). The residual effects as a result of Waterbrook are as follows:</p> <p><b>Construction</b> Built heritage: Slight Adverse Archaeology: Slight Adverse</p> <p><b>Operation</b> Built heritage: Neutral Archaeology: Neutral</p> <hr/> <p><u>Cumulative Residual Effects for Waterbrook and the Main Scheme</u></p> <p>The ZOI overlap includes the northern half of the ZOI for Waterbrook, and the southern half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 5 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of impact would be anticipated to be lower, and thus the residual cumulative cultural heritage effects as a result of Waterbrook and the Main Scheme would be anticipated to be slightly reduced. As such, the cumulative residual effects for Waterbrook and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Built heritage: Slight Adverse Archaeology: Slight Adverse</p> <p><b>Operation</b> Built heritage: Slight Adverse Archaeology: Neutral</p>	<p>Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
8	1	Conningbrook Strategic Park 12/01245/AS	<p><u>Conningbrook Strategic Park Residual Effects</u></p> <p>The residual effects during construction and operation on Cultural Heritage as a result of Conningbrook Strategic Park have been taken from Chapter 13 'Cultural Heritage' of the Environmental Statement produced by Brett Aggregates Limited (October 2012). The residual effects as a result of Conningbrook Strategic Park are as follows:</p> <p><b>Construction</b> Built heritage: Slight Adverse Archaeology: Slight to Moderate Adverse</p> <p><b>Operation</b> Built heritage: Slight Adverse</p> <hr/> <p><u>Cumulative Residual Effects for Conningbrook Strategic Park and the Main Scheme</u></p> <p>The ZOI overlap includes the very southern section of the 1km ZOI for Conningbrook Strategic Park, and the very northern section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 6 of 16, Volume 6.2. Due to this small ZOI overlap, the residual cumulative landscape and visual effects as a result of Conningbrook Strategic Park and the Main Scheme would be anticipated to be slightly reduced. As such, the cumulative residual effects for Conningbrook Strategic Site and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Built heritage: Slight Adverse Archaeology: Slight Adverse</p> <p><b>Operation</b> Built heritage: Neutral Archaeology: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
<p><b>Landscape</b></p> <p>The effects on landscape as a result of the Main Scheme have been assessed in Chapter 7 Landscape, Volume 6.1. The residual effects on landscape are as follows:  <b>Main Scheme residual effects during Construction:</b> Moderate Adverse effect (Landscape Character effects), Moderate Adverse effect (Visual effects)  <b>Main Scheme residual effects during Operation:</b> Slight Adverse effect during Year 1 and Year 15 (Landscape Character effects), Moderate Adverse effect during Year 1, Slight Adverse effect during Year 15 (Visual effects)</p>				



ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction and operation on Landscape Character and Visual Effects as a result of Stour Park (Phase 1) have been taken from Chapter 8 'Landscape Character and Visual Assessment' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) are as followed:</p> <p><b>Construction</b> Landscape Character: Slight Beneficial Visual Effects: Slight Beneficial</p> <p><b>Operation</b> Landscape Character: Slight Beneficial (Year 1), Slight Beneficial (Year 15) Visual Effects: Slight Adverse (Year 1), Slight Adverse (Year 15)</p> <p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the 1km ZOI overlap covers the majority of both Stour Park (Phase 1) and the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. As such, the overall cumulative effects during construction and operation are anticipated to cover broadly the same area. The cumulative residual effects for Stour Park (Phase 1) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Landscape Character: Slight Adverse Visual Effects: Slight Adverse</p> <p><b>Operation</b> Landscape Character: Neutral (Year 1), Neutral (Year 15) Visual Effects: Moderate Adverse (Year 1), Slight Adverse (Year 15)</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are anticipated.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary. The Moderate Adverse visual effects anticipated during Operation (Year 1) are attributed to the Main Scheme and would be temporary in nature; mitigation in the form of vegetative screening is anticipated to develop overtime, resulting in a not Significant Slight Adverse effect at Year 15.</p>
2	1	Newtown Works (Phases 2 - 4) 05/01798/AS	<p><u>Newtown Works (Phases 2 - 4) Residual Effects</u></p> <p>No assessment has been made on the landscape and visual effects for the Newtown Works (Phases 2 - 4) development during construction, and as such, effects have been assumed to be Neutral. The residual effects during operation on Landscape and Visual Effects as a result of Newtown Works (Phases 2 - 4) have been taken from Chapter 1.9 'Landscape and Visual' of the Environmental Statement produced by Environmental Impact Services Ltd (2005). The residual effects as a result of Newtown Works (Phases 2 - 4) are as follows:</p> <p><b>Construction</b> Landscape Character: Neutral Visual Effects: Neutral</p> <p><b>Operation</b> Landscape Character: Slight Adverse Visual Effects: Slight Adverse</p>	<p><b>Construction:</b> No additional mitigation for Landscape effects on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><u>Cumulative Residual Effects for Newtown Works (Phases 2 - 4) and the Main Scheme</u></p> <p>The ZOI overlap includes a small area of the eastern half of the ZOI for Newtown Works (Phases 2 - 4) and a small area of the western half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 2 of 16, Volume 6.2. Due to this ZOI overlap representing a small area compared to the extent of both individual assessments, in addition to the fact Phase 1 has already been constructed, the magnitude of impacts would be lower, and as such the residual cumulative landscape and visual effects as a result of Newtown Works (Phases 2 - 4) and the Main Scheme would be anticipated to be slightly reduced. As such, the cumulative residual effects for Newtown Works (Phases 2 - 4) and the Main Scheme would be anticipated to be as follows:</p> <p><b>Construction</b> Landscape Character: Neutral Visual Effects: Neutral</p> <p><b>Operation</b> Landscape Character: Slight Adverse (Year 1), Slight Adverse (Year 15)* Visual Effects: Slight Adverse (Year 1), Neutral (Year 15)*</p> <p>*It should be noted that Chapter 1.9 'Landscape and Visual' of the ES (Environmental Impact Services Ltd, 2005) did not distinguish between 'Year 1' and 'Year 15' during operation, and as such residual effects during Year 15 for both Landscape Character and Visual Effects have been predicted based on the fact that the ES did not state change in effect in the future.</p>	
3	3	Land at Willesborough Lees Policy U14, Urban Sites Infrastructure Development (ABC, 2012)	<p><u>Land at Willesborough Lees Residual Effects</u></p> <p>The residual effects during operation on Landscape Character and Visual Effects as a result of Land at Willesborough Lees have been taken from the Sustainability Appraisal Urban Sites and Infrastructure DPD (ABC, 2010). No assessment has been made for the impacts on visual receptors specifically, however, as part of the Sustainability Appraisal within the landscape effects section it has been noted that the neighbouring buildings of the William Harvey Hospital and large detached properties have the potential to be adversely affected, and it has therefore been assumed that the development would have a Slight Adverse impact on visual receptors once operational, with visual effects improving over time. The residual effects during operation as a result of Land at Willesborough Lees are as follows:</p> <p><b>Operation</b> Landscape Character: Neutral Visual Effects: Slight Adverse (Year 1) (with benefits increasing over time)</p> <p><u>Cumulative Residual Effects for Land at Willesborough Lees and the Main Scheme</u></p> <p>Given the close proximity of Land at Willesborough Lees in relation to the Main Scheme, the majority of the 1km ZOI overlaps, as shown in Figure 15.3 Sheet 3 of 16, Volume 6.2. As such, the overall cumulative effects during operation are anticipated to cover broadly the same area. The cumulative residual effects for Land at Willesborough Lees and the Main Scheme are anticipated to be as follows:</p> <p><b>Operation</b> Landscape Character: Neutral (Year 1), Neutral (Year 15) Visual Effects: Moderate Adverse (Year 1), Slight Adverse (Year 15)</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as Moderate Adverse visual effects are anticipated to be temporary in nature, with improvements anticipated as mitigation planting matures.</p> <p><b>Main Scheme residual effects during Construction:</b> Moderate Adverse effect (Landscape Character Effects), Moderate Adverse effect (Visual Effects)</p> <p><b>Main Scheme residual effects during Operation:</b> Slight Adverse effect during Year 1 and Year 15 (Landscape Character Effects), Moderate Adverse effect during Year 1, Slight Adverse effect during Year 15 (Visual Effects)</p>
6	1	Cheeseman's Green 2/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>The residual effects during construction and operation on Landscape Character and Visual Effects as a result of Cheeseman's Green have been taken from Chapter 10 'Landscape and Visual Amenity' of the Environmental Statement produced by WS Atkins Planning Consultants (2002). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. In addition, no specific assessment has been made for construction stage effects, therefore the Year 1 operational effects have been assumed to be representative of the construction stage. As such, the residual effects as a result of Cheeseman's Green are as follows:</p> <p><b>Construction</b> Landscape Character: Moderate Adverse Visual Effects: Slight Adverse</p> <p><b>Operation</b> Landscape Character: Moderate Adverse (Year 1), Slight Beneficial (Year 15)</p>	<p><b>Construction:</b> No additional mitigation for Landscape effects on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no significant adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p>Visual Effects: Slight Adverse (Year 1), Neutral (Year 15)</p> <hr/> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The ZOI overlap includes the northern half of the ZOI for Cheeseman's Green, and the southern half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of impact would be anticipated to be lower, and thus the residual cumulative landscape and visual effects as a result of Cheeseman's Green and the Main Scheme would be anticipated to be slightly reduced. In addition, sections of the Cheeseman's Green development have already been constructed and some sections are still in construction currently. Therefore, not all of Cheeseman's Green will be constructed at the same time as the Main Scheme, and so the significance of the cumulative residual effects during construction will be reduced. As such, the cumulative residual effects for Cheeseman's Green and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Landscape Character: Slight Adverse Visual Effects: Slight Adverse</p> <p><b>Operation</b> Landscape Character: Slight Adverse (Year 1), Neutral (Year 15) Visual Effects: Slight Adverse (Year 1), Neutral (Year 15)</p>	
7	3	Waterbrook 12/00471/AS (Withdrawn by Applicant)	<p><u>Waterbrook Residual Effects</u></p> <p>The residual effects during construction and operation on Landscape Character and Visual Effects as a result of Waterbrook have been taken from Chapter 9 'Landscape and Visual Assessments' of the Environmental Statement produced by DHA Environment (April 2012). The residual effects as a result of Waterbrook are as follows:</p> <p><b>Construction</b> Landscape Character: Slight Adverse Visual Effects: Slight Adverse</p> <p><b>Operation</b> Landscape Character: Slight Beneficial (with benefits increasing over time) Visual Effects: Slight Adverse (with benefits increasing over time)</p> <hr/> <p><u>Cumulative Residual Effects for Waterbrook and the Main Scheme</u></p> <p>The ZOI overlap includes the northern half of the ZOI for Waterbrook, and the southern half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 5 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of impacts would be lower and as such the residual cumulative landscape and visual effects as a result of Waterbrook and the Main Scheme would be anticipated to be slightly reduced. The cumulative residual effects for Waterbrook and the Main Scheme would be anticipated as follows:</p> <p><b>Construction</b> Landscape Character: Slight Adverse Visual Effects: Slight Adverse</p> <p><b>Operation</b> Landscape Character: Slight Advers (Year 1), Neutral (Year 15)* Visual Effects: Slight Adverse (Year 1), Neutral (Year 15)*</p> <p>*It should be noted that Chapter 9 'Landscape and Visual Effects' of the Waterbrook ES (DHA Environment, 2012) did not distinguish between 'Year 1' and 'Year 15' during operation, and as such residual effects during Year 15 for both Landscape Character and Visual Effects have been predicted based on the fact that the ES for Waterbrook anticipates that benefits will increase over time.</p>	<p><b>Construction:</b> No additional mitigation for Landscape effects on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
8	1	Conningbrook Strategic Park 12/01245/AS	<p><u>Conningbrook Strategic Park Residual Effects</u></p> <p>The residual effects during construction and operation on Landscape Character and Visual Effects as a result of Conningbrook Strategic Park have been taken from Chapter 10 'Landscape and Visual Impact' of the Environmental Statement produced by Brett</p>	<p><b>Construction:</b> No additional mitigation for Landscape effects on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p>Aggregates Limited (October 2012). The residual effects as a result of Conningbrook Strategic Park are as follows:</p> <p><b>Construction</b> Landscape Character: Slight Adverse Visual Effects: Moderate Adverse</p> <p><b>Operation</b> Landscape Character: Neutral Visual Effects: Slight Adverse (with benefits increasing over time)</p> <p><u>Cumulative Residual Effects for Conningbrook Strategic Park and the Main Scheme</u></p> <p>The ZOI overlap includes the very southern section of the 1km ZOI for Conningbrook Strategic Park, and the very northern section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 6 of 16, Volume 6.2. Due to this small ZOI overlap, the residual cumulative landscape and visual effects as a result of Conningbrook Strategic Park and the Main Scheme would be anticipated to be slightly reduced. As such, the cumulative residual effects for Conningbrook Strategic Site and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Landscape Character: Slight Adverse Visual Effects: Slight Adverse</p> <p><b>Operation</b> Landscape Character: Neutral (Year 1), Neutral (Year 15)* Visual Effects: Slight Adverse (Year 1), Neutral (Year 15)*</p> <p>*It should be noted that Chapter 10 'Landscape and Visual Impact' of the Conningbrook Strategic Park ES (Brett Aggregates Limited, 2012) did not distinguish between 'Year 1' and 'Year 15' during operation, and as such residual effects during Year 15 for both Landscape Character and Visual Effects have been predicted based on the fact that the ES for Conningbrook Strategic Park anticipates that benefits will increase over time.</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
<p><b>Nature Conservation</b></p> <p>The effects on nature conservation as a result of the Main Scheme have been assessed in Chapter 8 Nature Conservation, Volume 6.1. The residual effects on nature conservation are as follows:  <b>Main Scheme residual effects during Construction:</b> Slight Adverse effect  <b>Main Scheme residual effects during Operation:</b> Neutral effect</p>				
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of Stour Park (Phase 1) have been taken from Chapter 10 'Ecology and Nature Conservation' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) have been given as follows:</p> <p><b>Construction</b> Slight Beneficial</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the 2km ZOI overlap covers the majority of both Stour Park (Phase 1) and the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. As such, the overall cumulative effects during construction and operation are anticipated to cover broadly the same area. The cumulative residual effects for Stour Park (Phase 1) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p>Construction: No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as cumulative effects are predicted to be Neutral.</p> <p>Operation: No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as cumulative effects are predicted to be Neutral.</p>



ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
2	1	Newtown Works 05/01798/AS	<p><u>Newtown Works (Phases 2 - 4) Residual Effects</u></p> <p>No assessment has been made on the impacts to nature conservation for the Newtown Works (Phases 2 - 4) development specifically during construction, however, a large population of reptiles and the potential for a mating roost for Pipistrelle bats in 1 of the sheds were found on site. Therefore, it has been assumed that once measures are in place for translocating species during construction, then the impact is assumed to be Slight Adverse at worse. The residual effects during operation on nature conservation as a result of Newtown Works (Phases 2 - 4) have been taken from Chapter 1.3 'Ecology' of the Environmental Statement produced by Environmental Impact Services Ltd (2005), professional judgement has been used to determine the significance of effects as a result of the assessment. The residual effects as a result of Newtown Works (Phases 2 - 4) are as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Slight Adverse</p> <hr/> <p><u>Cumulative Residual Effects for Newtown Works (Phases 2 - 4) and the Main Scheme</u></p> <p>The ZOI overlap covers approximately half of the ZOI for Newtown Works (Phases 2 - 4) and just under half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 2 of 16, Volume 6.2. Due to this, the ZOI overlap is not representative of the whole extent of the ZOI used in the assessments, and therefore the magnitude of impact as a result would be anticipated to be lower. As such, the cumulative residual effects for Newtown Works (Phases 2 - 4) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as cumulative effects are predicted to be Neutral.</p>
3	3	Land at Willesborough Lees Policy U14, Urban Sites Infrastructure Development (ABC, 2012)	<p><u>Land at Willesborough Lees Residual Effects</u></p> <p>The residual effects during operation on Nature Conservation as a result of Land at Willesborough Lees have been taken from the Sustainability Appraisal Urban Sites and Infrastructure DPD (ABC, 2010). No assessment has been made for the impacts on nature conservation, however, as part of the Sustainability Appraisal within the geology and biodiversity section it was stated that the northern top of the site adjoins the Willesborough Lees and Flowergarden Wood Local Wildlife Site (LWS), in addition the site contains Breeches Wood, therefore it would be important to create a habitat link between Breeches Wood and the LWS. Therefore, the residual effects on nature conservation as a result of Newtown Works (Phases 2 - 4), have been assumed using professional judgement and on a worst-case scenario with the assumption of following best practice environmental measures and any mitigation necessary:</p> <p><b>Operation</b> Slight Adverse</p> <hr/> <p><u>Cumulative Residual Effects for Land at Willesborough Lees and the Main Scheme</u></p> <p>Given the close proximity of land at Willesborough Lees in relation to the Main Scheme, the majority of the 2km ZOI overlaps, as shown in Figure 15.3 Sheet 3 of 16, Volume 6.2. As such, the overall cumulative effects during operation are anticipated to cover broadly the same area. The cumulative residual effects for Land at Willesborough Lees and the Main Scheme are anticipated to be as follows:</p> <p><b>Operation</b> Slight Adverse</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
6	1	Cheeseman's Green 2/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of Cheeseman's Green have been taken from Chapter 9 'Ecology' of the Environmental Statement produced by WS Atkins Planning Consultants (2002). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. In addition, no specific assessment has been made for construction stage effects, therefore the operational effects have been assumed to be representative of the construction stage. As such, the residual effects as a result of Cheeseman's Green are as follows:</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statement is considered necessary, as cumulative effects are predicted to be Negligible.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statement is considered necessary, as cumulative effects are predicted</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Slight Adverse</p> <hr/> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The ZOI overlap includes the majority of the northern extent of the ZOI for Cheeseman's Green, and majority of the southern extent of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the residual cumulative effects on nature conservation as a result of Cheeseman's Green and the Main Scheme would be anticipated to be slightly reduced. In addition, sections of the Cheeseman's Green development have already been constructed and some sections are still in construction currently. Therefore, not all of Cheeseman's Green will be constructed at the same time as the Main Scheme, and so the significance of the cumulative residual effects during construction will be reduced. As such, the cumulative residual effects for Cheeseman's Green and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral</p>	to be Neutral.
7	3	Waterbrook 12/00471/AS (Withdrawn by Applicant)	<p><u>Waterbrook Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of Waterbrook have been taken from Chapter 7 'Ecology' of the Environmental Statement produced by DHA Environment (April 2012). The residual effects as a result of Waterbrook have been reported to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Slight Beneficial</p> <hr/> <p><u>Cumulative Residual Effects for Waterbrook and the Main Scheme</u></p> <p>The ZOI overlap includes the northern half of the ZOI for Waterbrook, and the southern half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 5 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of the effect would be anticipated to be lower. As such, the cumulative residual effects for Waterbrook and the Main Scheme would be anticipated to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statement is considered necessary, as cumulative effects are predicted to be Negligible.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statement is considered necessary, as cumulative effects are predicted to be Neutral.</p>
8	1	Conningbrook Strategic Park 12/01245/AS	<p><u>Conningbrook Strategic Park Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of Conningbrook Strategic Park have been taken from Chapter 12 'Ecology and Nature Conservation' of the Environmental Statement produced by Brett Aggregates Limited (October 2012). The residual effects as a result of Conningbrook Strategic Park are as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral in the first few years following completion, benefits to ecology anticipated as habitats develop and mature.</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><u>Cumulative Residual Effects for Conningbrook Strategic Park and the Main Scheme</u></p> <p>The ZOI overlap includes the southern section of the 2km ZOI for Conningbrook Strategic Park, and the northern section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 6 of 16, Volume 6.2. Due to this small ZOI overlap, the magnitude of impact would be anticipated to be slightly reduced. As such, the cumulative residual effects for Conningbrook Strategic Site and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	
10	1	K College 11/00757/AS	<p><u>K College Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of K College have been taken from the Ecological Assessment produced by Aspect Ecology (2011). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. In addition, the assessment did not specify the difference in effects between construction and operation, it has therefore been assumed that the assessment is representative of both stages. The residual effects as a result of K College are as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Slight Adverse</p> <p><u>Cumulative Residual Effects for K College and the Main Scheme</u></p> <p>The ZOI overlap includes the eastern section of the ZOI for K College and a small western section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 7 of 16, Volume 6.2. Due to the small area of ZOI overlap in comparison to the extent of the ZOI for both K College and the Main Scheme, the magnitude of impact would be anticipated to be much lower. As such, the cumulative residual effects are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are anticipated.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are anticipated.</p>
12	1	Eureka Business Park 04/00044/AS  And,  Policy U17, Urban Sites Infrastructure Development Plan Document (ABC, 2012)	<p><u>Eureka Business Park Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of Eureka Business Park have been taken from the Phase 1 and Ecological Scoping Survey produced by RPS Ecoscope Applied Ecologists (2003) and the Ecological Issues, Habitat Enhancement and Management Plan for Eureka Park produced by RPS (2007). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. In addition, the assessment did not specify the difference in effects between construction and operation, it has therefore been assumed that the assessment is representative of both stages. As such, the residual effects of Eureka Business Park are as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Slight Adverse</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are anticipated.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are anticipated.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><u>Cumulative Residual effects for Eureka Business Park and the Main Scheme</u></p> <p>The ZOI overlap includes the south eastern tip of the ZOI for Eureka Business Park and the north western tip of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 8 of 16, Volume 6.2. Due to this ZOI overlap area being extremely small, and representing a minimal amount of the ZOI for each development, the magnitude of impacts would be significantly reduced. As such, the cumulative residual effects would be predicted to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	
14	1	KWG Site 13/00713/AS	<p><u>KWG Site Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of the KWG Site have been taken from an Extended Phase 1 Habitat Survey Report produced by Middlemarch Environmental Ltd (2012). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. In addition, the assessment has not specified the difference in effects between construction and operation, it has therefore been assumed that the assessment is representative of both stages. As such, the residual effects as a result of the KWG Site are as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Slight Adverse</p> <hr/> <p><u>Cumulative Residual Effects for KWG Site and the Main Scheme</u></p> <p>The ZOI overlap includes the eastern section of the ZOI for the KWG Site and a small western section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 10 of 16, Volume 6.2. Due to the small area of ZOI overlap in comparison to the extent of the ZOI for both the KWG Site and the Main Scheme, the magnitude of impacts are thus likely to be slightly reduced. As such, the cumulative residual effects are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are anticipated.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are anticipated.</p>
15	1	Victoria Quarter (former Powergen site) 15/01671/AS	<p><u>Victoria Quarter Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of the Victoria Quarter have been taken from the Ecological Appraisal produced by Aspect Ecology Ltd (2015). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. As such, the residual effects of the Victoria Quarter as are follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral</p> <hr/> <p><u>Cumulative Residual Effects for the Victoria Quarter and the Main Scheme</u></p> <p>The ZOI overlap includes the eastern section of the ZOI for the Victoria Quarter and a very small western section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 11 of 16, Volume 6.2. Due to the very small area of the ZOI overlap in comparison to the extent of the ZOI for both the Victoria Quarter and the Main Scheme, the magnitude of impact would be anticipated to be lower. As such, the cumulative residual effects are as follows:</p> <p><b>Construction</b></p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p>



ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			Neutral <b>Operation</b> Neutral	
16/17	1	Former Site of Ashford Market (Elwick Road Phase 1) 15/01195/AS/ Land Opposite Elwick Road (Elwick Road Phase 2) 15/01282/AS	<p><u>Elwick Road Phases 1 and 2 Residual Effects</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of Elwick Road Phases 1 and 2 have been taken from the Preliminary Ecological Appraisal produced by Waterman Infrastructure and Environment Limited (2015). The significance of the effects assessed in the appraisal have not been determined, therefore professional judgement has been used to assign significance appropriately. The residual effects as a result of Elwick Road Phases 1 and 2 are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Slight Beneficial</p> <p><u>Cumulative Residual Effects for Elwick Road Phases 1 and 2 and the Main Scheme</u></p> <p>The ZOI overlap includes the eastern section of the ZOI for Elwick Road Phases 1 and 2 and a small western section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 12 of 16 and Figure 15.3 Sheet 13 of 16, Volume 6.2. Due to the small area of ZOI overlap in comparison to the extent of the ZOI for both Elwick Road Phases 1 and 2 and the Main Scheme, the magnitude of impact would therefore be lowered. As such, the cumulative residual effects are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p>
19	1	Dover Place 16/00554/AS	<p><u>Residual Effect of Dover Place</u></p> <p>The residual effects during construction and operation on Nature Conservation as a result of Dover Pace have been taken from the Ecological Appraisal Report produced by Capita Symonds (2011). The significance of the effects assessed in the appraisal have not been determined, therefore professional judgement has been used to assign significance appropriately. The residual effects as a result of Elwick Road (Phases 1 and 2) are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effect for Dover Place and the Main Scheme</u></p> <p>The ZOI overlap includes the eastern section of the ZOI for Dover Place and a small western section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 14 of 16, Volume 6.2. Due to the small area of ZOI overlap in comparison to the extent of the ZOI for both Dover Place and the Main Scheme, the magnitude of impact would be lowered. As such, the cumulative residual effects are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p>
21	1	Ashford Designer Outlet 14/01402	<p><u>Ashford Designer Outlet Residual Effects</u></p> <p>The residual effects during construction and operation on nature conservation as a result of Ashford Designer Outlet have been taken from Chapter 11 'Ecology and Nature Conservation' of the Environmental Statement produced by Peter Brett (2014). The residual effects as a result of Ashford Designer Outlet are as follows:</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p> <p><b>Operation:</b> No additional mitigation on top of the individual</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><b>Construction</b> Slight Beneficial</p> <p><b>Operation</b> Slight Beneficial</p> <p><u>Cumulative Residual Effects for Ashford Designer Outlet and the Main Scheme</u></p> <p>The ZOI overlap includes the eastern section of the ZOI for Ashford Designer Outlet and the western section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 15 of 16, Volume 6.2. Due to this ZOI overlap representing a small area of both ZOIs, magnitude of impacts would be lower. As such, the cumulative residual effect for Ashford Designer Outlet and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.
23	1	Former Rowcroft and Templar Barracks 02/01565/AS	<p><u>Former Rowcroft and Templar Barracks Residual Effects</u></p> <p>The residual effects during construction and operation on nature conservation as a result of Former Rowcroft and Templar Barracks have been taken from Chapter 9 'Ecology and Nature Conservation' of the Environmental Statement produced by WSP Environmental Ltd (2002). The residual effects as a result of Former Rowcroft and Templar Barracks is reported to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effects for Former Rowcroft and Templar Barracks and the Main Scheme</u></p> <p>The ZOI overlap includes the eastern tip of the ZOI for Former Rowcroft and Templar Barracks and the north western tip of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 16 of 16, Volume 6.2. Due to this ZOI overlap area being extremely small, and representing a minimal amount of the ZOI for each development, the magnitude of impact would be significantly reduced. As such, the cumulative residual effects for Former Rowcroft and Templar Barracks and the Main Scheme, are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the ESs is considered necessary, as cumulative effects are predicted to be Neutral.</p>
<p><b>Geology and Soils</b></p> <p>The effects on geology and soils as a result of the Main Scheme have been assessed in Chapter 9 Geology and Soils, Volume 6.1. The residual effects on geology and soils are as follows:  <b>Main Scheme residual effects during Construction:</b> Slight Adverse effect  <b>Main Scheme residual effects during Operation:</b> Neutral</p>				
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction and operation on Geology and Soils as a result of Stour Park (Phase 1) have been taken from Chapter 15 'Ground Conditions' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) would be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the 250m ZOI overlap covers the majority of both Stour Park (Phase 1) and the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. As such, the overall cumulative effects during construction and operation are anticipated to cover broadly the same area. The cumulative residual effects for Stour Park (Phase 1) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral</p>	
6	1	Cheeseman's Green 2/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>No assessment has been undertaken for effects on geology and soils as a result of the Cheeseman's Green, and as such, it has been assumed that the impact on geology and soils has been scoped out at a previous stage of environmental assessment and therefore the effects have been assumed to be Neutral.</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The 250m ZOI for both Cheeseman's Green and the Main Scheme slightly overlap, at the south of the ZOI for the Main Scheme and the north of the ZOI for Cheeseman's Green, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Since the area of ZOI overlap is extremely small, compared to the extent of the individual ZOIs, the magnitude of impact would be significantly reduced. As such, the cumulative residual effects are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as residual cumulative effects are predicted to be Neutral.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as residual cumulative effects are predicted to be Neutral.</p>
7	3	Waterbrook 12/00471/AS (Withdrawn by Applicant)	<p><u>Waterbrook Residual Effects</u></p> <p>The residual effects during construction and operation on Geology and Soils as a result of Waterbrook have been taken from Chapter 6 'Ground Conditions' of the Environmental Statement produced by DHA Environment (April 2012). The residual effects as a result of Waterbrook are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effects for Waterbrook and the Main Scheme</u></p> <p>The ZOI overlap includes the northern tip of the ZOI for Waterbrook, and the southern tip of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 5 of 16, Volume 6.2. Due to this ZOI overlap representing a very small area of both ZOIs, the magnitude of impacts would be anticipated to be significantly reduced. As such, the cumulative residual effects for Waterbrook and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
<b>Materials</b>				
<p>The effects on materials as a result of the Main Scheme have been assessed in Chapter 10 Materials, Volume 6.1. The residual effects on materials are as follows:  <b>Main Scheme residual effects during Construction:</b> At worst: Minor Adverse effect, at best: Negligible effect  <b>Main Scheme residual effects during Operation:</b> Not assessed</p>				
<p>Due to the study area for materials assessing the effects purely within the Scheme footprint, no cumulative assessment has been made as the Main Scheme footprint does not overlap with any of the 'other development' footprints.</p>				
<b>Noise and Vibration</b>				
<p>The effects on noise and vibration as a result of the Main Scheme have been assessed in Chapter 11 Noise and Vibration, Volume 6.1. The residual effects on noise and vibration are as follows:  <b>Main Scheme residual effects during Construction:</b> No Significant Adverse effects  <b>Main Scheme residual effects during Operation:</b> Not Significant Beneficial effects</p>				
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction on Noise and Vibration as a result of Stour Park (Phase 1) have been taken from Chapter 13 'Noise and Vibration' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) are as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the ZOIs for construction effects overlap slightly, and are therefore likely to have an effect on some of the same receptors. However, as the ZOIs do not completely overlap the residual effects during construction of Stour Park (Phase 1) and the Main Scheme are likely to be slightly reduced. The 1km ZOI overlap for operational effects covers the majority of both Stour Park (Phase 1) and the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. As such, the overall cumulative effects during operation are anticipated to cover broadly the same area. The cumulative residual effects for Stour Park (Phase 1) and the Main Scheme would be predicted as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as residual cumulative effects are predicted to be Neutral.</p>
2	1	Newtown Works (Phases 2 - 4) 05/01798/AS	<p><u>Newtown Works (Phases 2 - 4) Residual Effects</u></p> <p>The residual effects during operation on Noise and Vibration as a result of Newtown Works (Phases 2 - 4) have been taken from Chapter 1.2 'Population', Section 1.2.5 'Noise and Vibration' of the Environmental Statement produced by Environmental Impact Services Ltd (2005). The assessment has focused on how existing noise sources in the area will impact on the completed development itself, not how the development will impact noise in the area. Therefore, professional judgement has been used to assess the impact on noise from the completed development using the information presented within the Environmental Statement as well referring to noise assessment results from developments of a similar nature and scale. The residual effects as a result of Newtown Works (Phases 2 - 4) are as follows:</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effects for Newtown Works (Phases 2 - 4) and the Main Scheme</u></p> <p>The ZOI overlap includes a small area of the eastern half of the ZOI for Newtown Works (Phases 2 - 4) and a small area of the western half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 2 of 16, Volume 6.2. Due to this ZOI overlap representing a small area compared to the extent of both individual assessments, the magnitude of impact as a result of Newtown Works (Phases 2 - 4) and the Main Scheme would be anticipated to be slightly reduced. As such, the cumulative residual effects for Newtown Works (Phases 2 - 4) and the Main Scheme are anticipated to be as follows:</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as residual cumulative effects are predicted to be Neutral.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><b>Operation</b> Neutral</p>	
3	3	Land at Willesborough Lees Policy US15, Urban Sites Infrastructure Development	<p><u>Land at Willesborough Lees Residual Effects</u></p> <p>No assessment has been made for the impacts on Noise and Vibration in the Sustainability Appraisal Urban Sites and Infrastructure DPD (ABC, 2010), therefore effects are assumed to be Neutral.</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effects for Land at Willesborough Lees and the Main Scheme</u></p> <p>Given the close proximity of Land at Willesborough Lees in relation to the Main Scheme, the majority of the 1km ZOI overlaps, as shown in Figure 15.3 Sheet 3 of 16, Volume 6.2. As such, the overall cumulative effects during operation are anticipated to cover broadly the same area. The cumulative residual effects for Land at Willesborough Lees and the Main Scheme are anticipated to be as follows:</p> <p><b>Operation</b> Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant residual cumulative effects are predicted.</p>
6	1	Cheeseman's Green 02/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>The residual effects during operation on Noise and Vibration as a result of Cheeseman's Green have been taken from Chapter 12 'Noise' of the Environmental Statement produced by WS Atkins Planning Consultants (2002). The effects assessed in the appraisal have not been assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. As such, the residual effects as a result of Cheeseman's Green are as follows:</p> <p><b>Operation</b> Slight Adverse</p> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The ZOI overlap includes the northern half of the ZOI for Cheeseman's Green, and the southern half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of impact would be anticipated to be slightly reduced. As such, the cumulative residual effects for Cheeseman's Green and the Main Scheme are anticipated to be as follows:</p> <p><b>Operation</b> Neutral</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant residual cumulative effects are predicted.</p>
7	3	Waterbrook 12/00471/AS (Withdrawn by Applicant)	<p><u>Waterbrook Residual Effects</u></p> <p>The residual noise and vibration effects as a result of Waterbrook during operation have been assessed in Chapter 10 'Noise Effects' of the Environmental Statement produced by DHA Environment (April 2012). The residual effects are anticipated to be as follows:</p> <p><b>Operation</b> Slight Adverse</p> <p><u>Cumulative Residual Effects for Waterbrook and the Main Scheme</u></p> <p>Due to the close proximity of Waterbrook with the Main Scheme, (see Figure 15.3 Sheet 5 of 16, Volume 6.2), the cumulative residual effects are anticipated to be as follows:</p> <p><b>Operation</b> Slight Adverse</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
8	1	Conningbrook Strategic Park 12/01245/AS	<p><u>Conningbrook Strategic Park Residual Effects</u></p> <p>The residual noise and vibration effects as a result of Conningbrook Strategic Park during operation have been assessed in Chapter 8 of the Environmental Statement produced by Brett Aggregates Limited (October 2012). It should be noted that the assessment for Air Quality did not assess effects of dust during operation, and effects as a result of dust have therefore been considered to be Neutral. The residual effects are anticipated to be as follows:</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>



ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><b>Operation</b> Slight Adverse</p> <hr/> <p><u>Cumulative Residual Effects for Conningbrook Strategic Park and the Main Scheme</u></p> <p>Given that Conningbrook Strategic Park lies within the Traffic Model and is approximately 1.5km distance from the Main Scheme (see Figure 15.3 Sheet 6 of 16, Volume 6.2), the magnitude of impact would be significantly lowered, and as such the the residual cumulative effects as a result of Conningbrook would be anticipated as follows:</p> <p><b>Operation</b> Neutral</p>	
<p><b>Effects on All Travellers</b></p> <p>The effects on all travellers as a result of the Main Scheme have been assessed in Chapter 12 'Effects on All Travellers' of the Environmental Statement, Volume 6.1. The residual effects on all travellers are as follows:  <b>Main Scheme residual effects during Construction:</b> Slight Adverse  <b>Main Scheme residual effects during Operation:</b> Neutral</p>				
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction and operation on Effects on All Travellers as a result of Stour Park (Phase 1) have been taken from Chapter 11 'Transport and Traffic' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) are as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral</p> <hr/> <p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the 250m ZOI overlap covers the majority of both Stour Park (Phase 1) and the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. As such, the overall cumulative effects during construction and operation are anticipated to cover broadly the same area. The cumulative residual effects for Stour Park (Phase 1) and the Main Scheme would be anticipated to be as follows:</p> <p><b>Construction</b> Slight Adverse</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
3	3	Land at Willesborough Lees Policy US15, Urban Sites Infrastructure Development	<p><u>Land at Willesborough Lees Residual Effects</u></p> <p>The residual effects during operation on all travellers as a result of Land at Willesborough Lees have been taken from the Sustainability Appraisal Urban Sites and Infrastructure DPD (ABC, 2010). No assessment has been made for the impacts on all travellers specifically, however, as part of the Sustainability Appraisal within the Travel and Transport sections it was noted that the site would decrease traffic on local routes around the hospital as it will provide a new access road. In addition, it was stated that developing the site may improve accessibility to the town centre if pedestrian / cycle routes are improved to the M20 junction 10. The residual effect has therefore been assessed using professional judgement and is as follows:</p> <p><b>Operation</b> Slight Beneficial</p> <hr/> <p><u>Cumulative Residual Effects for Land at Willesborough Lees and the Main Scheme</u></p> <p>The ZOI overlap includes approximately half of the ZOI for Willesborough Lees and a very small proportion of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 3 of 16, Volume 6.2. As such, the magnitude of impact would be anticipated to be lowered. The cumulative residual effects for Land at Willesborough Lees and the Main Scheme are anticipated to be as follows:</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><b>Operation</b> Neutral</p>	
6	1	Cheeseman's Green 2/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>No assessment has been undertaken for effects on all travellers as a result of the Cheeseman's Green, and as such, it has been assumed that the impact on all travellers has been scoped out at a previous stage of environmental assessment and therefore the effects have been assumed to be Neutral.</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The 250m ZOI for both Cheeseman's Green and the Main Scheme slightly overlap, at the south of the ZOI for the Main Scheme and the north of the ZOI for Cheeseman's Green, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Since the area of ZOI overlap is extremely small, compared to the extent of the individual ZOIs, the magnitude of impact would be significantly lowered. As such, the cumulative residual effects are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
7	3	Waterbrook 12/00471/AS (Withdrawn by Applicant)	<p><u>Waterbrook Residual Effects</u></p> <p>The residual effects during construction and operation on all travellers as a result of Waterbrook have been taken from Chapter 11 'Highways and Transport' of the Environmental Statement produced by DHA Environment (April 2012). The residual effects as a result of Waterbrook are as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Slight Beneficial</p> <p><u>Cumulative Residual Effects for Waterbrook and the Main Scheme</u></p> <p>The ZOI overlap includes the northern tip of the ZOI for Waterbrook, and the southern tip of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 5 of 16, Volume 6.2. Due to this ZOI overlap representing a very small area of both ZOIs, magnitude of impact would be significantly reduced. As such, the cumulative residual effects for Waterbrook and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Neutral</p> <p><b>Operation</b> Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
<p><b>Community and Private Assets</b></p> <p>The effects on the community and private assets as a result of the Main Scheme have been assessed in Chapter 13 Community and Private Assets, Volume 6.1. The residual effects on the community and private assets are as follows:</p> <p><b>Main Scheme residual effects during Construction:</b> Slight Adverse (Agricultural Land), Moderate Adverse (Community and Private Assets*)</p> <p><b>Main Scheme residual effects during Operation:</b> Slight Adverse (Agricultural Land), Slight to Moderate Beneficial (Community and Private Assets*)</p> <p>*Please note that 'Community and Private Assets' includes private assets (demolition of private property and associated land take), community land, development land, community severance and economic development.</p>				

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction and operation on Community and Private Assets as a result of Stour Park (Phase 1) have been taken from Chapter 18 'Agriculture and Soil Resources' and Chapter 7 'Socio-Economic Issues' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) are as follows:</p> <p><b>Construction</b> Agriculture and Soil Resources: Moderate Adverse Community and Private Assets: Moderate Beneficial</p> <p><b>Operation</b> Agriculture and Soil Resources: Moderate Adverse Community and Private Assets: Major Beneficial</p> <p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the 250m ZOI overlap covers the majority of Stour Park (Phase 1) and approximately half of the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. As such, due to the close proximity of Stour Park (Phase 1) and the Main Scheme, the cumulative residual effects are anticipated to be as follows:</p> <p><b>Construction</b> Agricultural Land: Moderate Adverse Community and Private Assets: Neutral</p> <p><b>Operation</b> Agricultural Land: Slight to Moderate Adverse Community and Private Assets: Moderate Beneficial</p>	<p><b>Construction:</b> The cumulative Moderate Adverse effect anticipated during construction on Agricultural Land is fully attributed to the Stour (Phase 1) development; Chapter 18 Agriculture and Soil Resources states that 'there is little that can be done to mitigate against the impacts of the loss of agribuilt land'. As such, no additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary. No additional mitigation is deemed necessary for effects associated with the Local Community and Economy.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as the Significant Adverse effects are fully attributed to Stour Park (Phase 1) (as described above under 'Construction').</p>
3	3	Land at Willesborough Lees Policy U14, Urban Sites Infrastructure Development (ABC, 2012)	<p><u>Land at Willesborough Lees Residual Effects</u></p> <p>The residual effects during operation on Community and Private Assets as a result of Land at Willesborough Lees have been taken from the Sustainability Appraisal Urban Sites and Infrastructure DPD (ABC, 2010). No assessment has been made for the impacts on community and private assets specifically, however, as part of the Sustainability Appraisal it was noted that 'employment' effects would be Neutral, as the 'Site [is] less suited to employment uses as [there is an] adjoining Conservation Area and open countryside to the east'. The assessment of 'places' is anticipated to be Neutral during the short term, and positive (although not significant) during the medium and long term, with commentary stating 'the location of site would make no significant contribution to existing community facilities, but if developed there is potential to significantly improve access to the William Harvey Hospital by creating a link road through the site as well as providing infrastructure to serve the needs of the new development which may also benefit the existing community'. No assessment has been undertaken for agriculture and soils in the local area. Taking this into account, the following overall effects during operation have been assumed:</p> <p><b>Operation</b> Agriculture and Soil Resources: Slight Adverse Community and Private Assets: Neutral (with beneficial effects anticipated over time)</p> <p><u>Cumulative Residual Effects for Land at Willesborough Lees and the Main Scheme</u></p> <p>Despite only a relatively small ZOI overlap between Land at Willesborough Lees and the Main Scheme, these 2 developments are relatively close (see Figure 15.3 Sheet 3 of 16, Volume 6.2). As such, due to the close proximity of Land at Willesborough Lees and the Main Scheme, residual cumulative effects are anticipated to be as follows:</p> <p><b>Operation</b> Agricultural Land: Slight Adverse Community and Private Assets: Slight Beneficial</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>



ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
6	1	Cheeseman's Green 2/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>The residual effects during construction and operation on Community and Private Assets as a result of Cheeseman's Green have been taken from Chapter 7 'Land Use' and Chapter 14 'Socio-Economic and Community Considerations' of the Environmental Statement produced by WS Atkins Planning Consultants (2002). The effects assessed in the appraisal have not be assigned a significance value, and focus mainly on effects associated with the creation of new 'Green Corridors' on the local community. Professional judgement has been used to determine and assign significance appropriately. As such, the residual effects as a result of Cheeseman's Green are as follows:</p> <p><b>Construction</b> Agriculture and Soil Resources: Neutral Community and Private Assets: Slight Adverse</p> <p><b>Operation</b> Agriculture and Soil Resources: Neutral Community and Private Assets: Moderate Beneficial</p> <hr/> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The 250m ZOI for both Cheeseman's Green and the Main Scheme slightly overlap, at the south of the ZOI for the Main Scheme and the north of the ZOI for Cheeseman's Green, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Since the area of ZOI overlap is extremely small, compared to the extent of the individual ZOIs, the magnitude of impact would be significantly reduced. As such, the cumulative residual effects are as follows:</p> <p><b>Construction</b> Agricultural Land: Slight Adverse Community and Private Assets: Slight to Moderate Adverse</p> <p><b>Operation</b> Agricultural Land: Slight Adverse Community and Private Assets: Moderate Beneficial</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
<p><b>Road Drainage and the Water Environment</b></p> <p>The effects on road drainage and the water environment as a result of the Main Scheme have been assessed in Chapter 14 Road Drainage and the Water Environment, Volume 6.1. The residual effects on the road drainage and the water environment are as follows:</p> <p><b>Main Scheme residual effects during Construction:</b> Neutral (flood risk), Neutral (water environment)  <b>Main Scheme residual effects during Operation:</b> Slight Beneficial effects (flood risk), Neutral (water environment)</p>				
1	1	Stour Park (Phase 1) 14/00906/AS	<p><u>Stour Park (Phase 1) Residual Effects</u></p> <p>The residual effects during construction and operation on drainage and the water environment as a result of Stour Park (Phase 1) have been taken from Chapter 16 'Water Resources and Flood Risk' of the Environmental Statement produced by Waterman Infrastructure and Planning (2015). The residual effects as a result of Stour Park (Phase 1) are as follows:</p> <p><b>Construction</b> Water Environment: Slight Adverse Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Slight Beneficial Flood Risk: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><u>Cumulative Residual Effects for Stour Park (Phase 1) and the Main Scheme</u></p> <p>Due to the close proximity of Stour Park (Phase 1) with the Main Scheme, the 1km ZOI overlap covers the majority of both Stour Park (Phase 1) and the Main Scheme, as shown in Figure 15.3 Sheet 1 of 16, Volume 6.2. As such, the overall cumulative effects during construction and operation are anticipated to cover broadly the same area. The cumulative residual effects for Stour Park (Phase 1) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Water Environment: Slight Adverse Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Slight Beneficial Flood Risk: Slight Beneficial</p>	
2	1	Newtown Works 05/01798/AS	<p><u>Newtown Works (Phases 2 - 4) Residual Effects</u></p> <p>The residual effects during construction and operation on the water environment as a result of Newtown Works (Phases 2 - 4) have been taken from Chapter 1.5 'Water' of the Environmental Statement produced by Environmental Impact Services Ltd (2005). The residual effects as a result of Newtown Works (Phases 2 - 4) are as follows:</p> <p><b>Construction</b> Water Environment: Slight Adverse Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><u>Cumulative Residual Effects for Newtown Works (Phases 2 - 4) and the Main Scheme</u></p> <p>The ZOI overlap includes a small area of the eastern half of the ZOI for Newtown Works (Phases 2 - 4) and a small area of the western half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 2 of 16, Volume 6.2. Due to this ZOI overlap representing a small area compared to the extent of both individual assessments, in addition to the fact Phase 1 has already been constructed, the magnitude of impact would be anticipated to be slightly reduced. As such, the cumulative residual effects for Newtown Works (Phases 2 - 4) and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Water Environment: Slight Adverse Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
3	3	Land at Willesborough Lees Policy U14, Urban Sites Infrastructure Development (ABC, 2012)	<p><u>Land at Willesborough Lees Residual Effects</u></p> <p>The residual effects during operation on the water environment as a result of Land at Willesborough Lees have been taken from the Sustainability Appraisal Urban Sites and Infrastructure DPD (ABC, 2010). No assessment has been made for the impacts on flood risk specifically, however, as part of the Sustainability Appraisal within the Flood Risk section it was stated that part of the site is located within Flood Zone 2 and land adjoining part of the site is within Flood Zone 3, therefore an FRA would need to be carried out. Professional judgement has, therefore, been used to determine a significance of effect for flood risk. In addition, no assessment was made for the effects of water quality, therefore it has been assumed there would be no effects. The residual effects of the Willesborough Lees development are as follows:</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Slight Adverse</p>	<p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><u>Cumulative Residual Effects for Land at Willesborough Lees and the Main Scheme</u></p> <p>Given the close proximity of Land at Willesborough Lees in relation to the Main Scheme, the majority of the 1km ZOI overlaps, as shown in Figure 15.3 Sheet 3 of 16, Volume 6.2. As such, the overall cumulative effects during operation are anticipated to cover broadly the same area. The cumulative residual effects for Land at Willesborough Lees and the Main Scheme are anticipated to be as follows:</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p>	
6	1	Cheeseman's Green 2/00278/AS	<p><u>Cheeseman's Green Residual Effects</u></p> <p>The residual effects during construction and operation on the Water Environment as a result of Cheeseman's Green have been taken from Chapter 8 'Hydrology' of the Environmental Statement produced by WS Atkins Planning Consultants (2002). The effects assessed in the appraisal have not be assigned a significance value, therefore professional judgement has been used to determine and assign significance appropriately. As such, the residual effects as a result of Cheeseman's Green are as follows:</p> <p><b>Construction</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><u>Cumulative Residual Effects for Cheeseman's Green and the Main Scheme</u></p> <p>The ZOI overlap includes the northern half of the ZOI for Cheeseman's Green, and the southern half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 4 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of impact as a result of Cheeseman's Green and the Main Scheme would be anticipated to be slightly reduced. As such, the cumulative residual effects for Cheeseman's Green and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>
7	3	Waterbrook 12/00471/AS (Withdrawn by Applicant)	<p><u>Waterbrook Residual Effects</u></p> <p>The residual effects during construction and operation on the water environment as a result of Waterbrook have been taken from Chapter 8 'Hydrology and Water Resources' of the Environmental Statement produced by DHA Environment (April 2012). The residual effects as a result of Waterbrook are as follows:</p> <p><b>Construction</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><u>Cumulative Residual Effects for Waterbrook and the Main Scheme</u></p> <p>The ZOI overlap includes the northern half of the ZOI for Waterbrook, and the southern half of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 5 of 16, Volume 6.2. Due to this ZOI overlap representing a smaller area than both assessments, the magnitude of impacts would be anticipated to be slightly reduced. As such, the cumulative residual effects for Waterbrook and the Main Scheme are anticipated to be as follows:</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>

ID	Tier	Application Reference	Assessment of Cumulative Effects	Need for additional Main Scheme mitigation
			<p><b>Construction</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p>	
8	1	Conningbrook Strategic Park 12/01245/AS	<p><u>Conningbrook Strategic Park Residual Effects</u></p> <p>The residual effects during construction and operation on the water environment as a result of Conningbrook Strategic Park have been taken from Chapter 14 'Flooding and Drainage' of the Environmental Statement produced by Brett Aggregates Limited (October 2012). No assessment for water environment has been undertaken, and as such a neutral effect has been anticipated. The residual effects as a result of Conningbrook Strategic Park are as follows:</p> <p><b>Construction</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p> <hr/> <p><u>Cumulative Residual Effects for Conningbrook Strategic Park and the Main Scheme</u></p> <p>The ZOI overlap includes the very southern section of the 1km ZOI for Conningbrook Strategic Park, and the very northern section of the ZOI for the Main Scheme, as shown in Figure 15.3 Sheet 6 of 16, Volume 6.2. Due to this small ZOI overlap, the residual cumulative landscape and visual effects as a result of Conningbrook Strategic Park and the Main Scheme would be anticipated to be slightly reduced. As such, the cumulative residual effects for Conningbrook Strategic Site and the Main Scheme are anticipated to be as follows:</p> <p><b>Construction</b> Water Environment: Neutral Flood Risk: Neutral</p> <p><b>Operation</b> Water Environment: Neutral Flood Risk: Neutral</p>	<p><b>Construction:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p> <p><b>Operation:</b> No additional mitigation on top of the individual mitigation specified in the Environmental Statements is considered necessary, as no Significant Adverse cumulative effects are predicted.</p>