
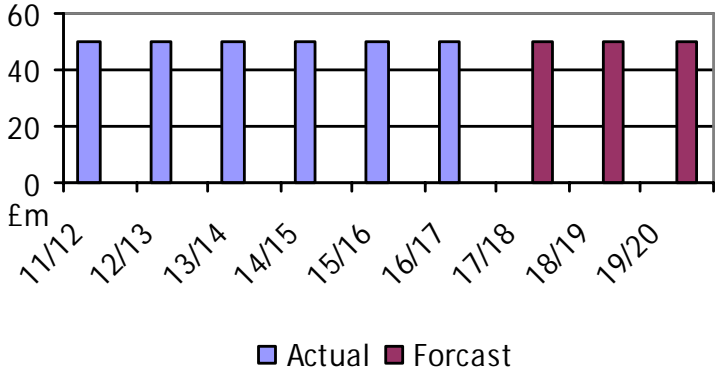
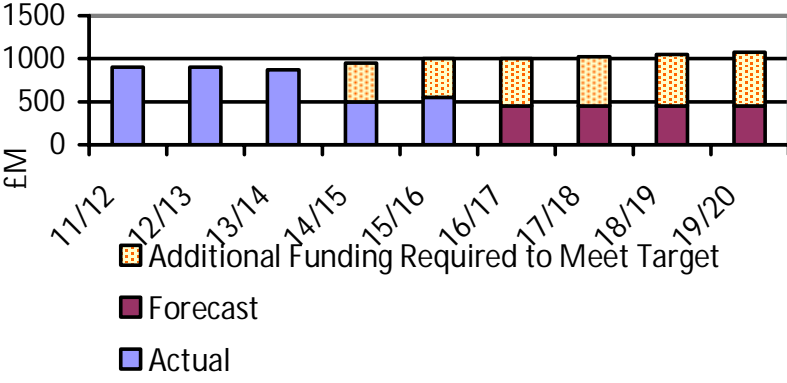


# Structures Lifecycle Plan Summary

Inventory Condition	Performance Requirements																																
<p>The structures stock of the Council is composed by:</p> <table border="1" data-bbox="302 468 949 676"> <thead> <tr> <th>Structures assets</th> <th>Units (approx.)</th> </tr> </thead> <tbody> <tr> <td>Bridges - including underpasses</td> <td>664</td> </tr> <tr> <td>Retaining walls</td> <td>109</td> </tr> <tr> <td><b>Total</b></td> <td><b>773</b></td> </tr> </tbody> </table> <p>2015 condition surveys have shown the following:</p> 	Structures assets	Units (approx.)	Bridges - including underpasses	664	Retaining walls	109	<b>Total</b>	<b>773</b>	<p>Structures enable the footways and carriageways to cross and pass obstacles. They are vital assets that ensure public rights of way remain serviceable. The Council's structures must be in a condition to fore fill their purpose.</p> <p>All sections of the network are to be maintained to the safety standards set out in the 'Highways Maintenance Plan'.</p> <p>4% of the stock is currently in a Very Poor or Poor condition. With the currently forecast maintenance investment it is expected that the number of bridges in this group will increase by 20% pa.</p>																								
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<p>The value of the structures stock is:</p> <table border="1" data-bbox="281 1507 970 1635"> <tbody> <tr> <td>New build costs (2015)</td> <td>£261,092,000</td> </tr> <tr> <td>Depreciated value (2015)</td> <td>£179,870,000</td> </tr> <tr> <td><i>Annual Depreciation</i></td> <td><i>31%</i></td> </tr> </tbody> </table>	New build costs (2015)	£261,092,000	Depreciated value (2015)	£179,870,000	<i>Annual Depreciation</i>	<i>31%</i>	<p>The budget considerations adopted for the structures stock are:</p> <table border="1" data-bbox="1079 1507 1890 1665"> <tbody> <tr> <td>Funding required to restore to new condition:</td> <td>£81,222,000</td> </tr> <tr> <td>Annual depreciation (2015)</td> <td>£2,540,000</td> </tr> <tr> <td>Budget (2016/2017)</td> <td>£550,000</td> </tr> </tbody> </table>	Funding required to restore to new condition:	£81,222,000	Annual depreciation (2015)	£2,540,000	Budget (2016/2017)	£550,000																				
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<p>The table below provides a forecast of future bridge condition based on the current funding.</p> <table border="1" data-bbox="1092 1878 1885 2427"> <thead> <tr> <th></th> <th>2016</th> <th>2017</th> <th>2018</th> </tr> </thead> <tbody> <tr> <td>Status (BCI)</td> <td>Forecast No.</td> <td>Forecast No.</td> <td>Forecast No.</td> </tr> <tr> <td>Very Poor (0-40)</td> <td>5</td> <td>7</td> <td>10</td> </tr> <tr> <td>Poor (40-65)</td> <td>32</td> <td>35</td> <td>40</td> </tr> <tr> <td>Fair (65-80)</td> <td>186</td> <td>190</td> <td>200</td> </tr> <tr> <td>Good (80-90)</td> <td>307</td> <td>320</td> <td>315</td> </tr> <tr> <td>Very Good (90-100)</td> <td>235</td> <td>213</td> <td>200</td> </tr> <tr> <td>No. of structures</td> <td>765</td> <td>765</td> <td>765</td> </tr> </tbody> </table>			2016	2017	2018	Status (BCI)	Forecast No.	Forecast No.	Forecast No.	Very Poor (0-40)	5	7	10	Poor (40-65)	32	35	40	Fair (65-80)	186	190	200	Good (80-90)	307	320	315	Very Good (90-100)	235	213	200	No. of structures	765	765	765
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<p>Inspections are undertaken every two years to monitor the bridge condition and identify any maintenance needed. Diving Inspections are undertaken every two years for structures that suffer from scour. A small number of higher risk bridges are monitored at shorter intervals.</p> <p>Routine maintenance is carried out through annual plans of minor works. Examples are Remove vegetation or debris from components, check and tighten where necessary any loose nuts and bolts or Repair mortar fillets to parapet base plate beddings.</p> <p>It is usual for a small amount of reactive maintenance to be required at irregular intervals. Usually this results of any accidental damage to structures from Road Traffic Accidents. Where possible, the Council seeks to recover the costs associated with damage by third parties.</p>	<p>Major capital schemes arise to address assets deterioration and extend asset service life. These schemes are planned and budgeted for a long term programme.</p> <p>The amount of annual depreciation experienced by the structures in 2015 was circa £2.5m; this is the approximate amount that would be needed to maintain the network's current condition. The current funding of £550k is below the level required to maintain the network in its current condition, therefore the network is in managed decline. It should be noted that the 'backlog' of work to bring the structures up to new condition stood at circa £80m for 2015.</p> <p>To assist with major capital investments, the Council will seek to utilise additional funding internally and from the DfT.</p>																																																																						
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<p>Routine (and reactive) works are coordinated centrally in a control centre to ensure that a productive and prompt service is provided.</p> <p>Defects are identified via regular safety inspections. Inspections are supported by modern technology such as mobile computer tablets that help the Council staff to identify and record those defects and plan their intervention.</p> <p>Apart from the highest risk defects that are responded to within 24hrs, all other defects have permanent fixes carried out.</p>	<p>Programmes of work and future condition predictions have been developed using lifecycle planning software (<i>BMX</i>) in conjunction with a Network Risk Register. Maintenance actions are prioritised, following consultation and using a multi-criteria analysis that takes into account any safety issue while considering all the treatment options available that ensure the lowest lifecycle cost. Forecast condition and funding requirements are based upon historic recorded deterioration rates, current costs as well as assumed inflation (3%).</p>																																																																						