

Local Models

2016 AM Peak

Do Minimum TEMPRO v. Do Minimum RSS2

A38 Corridor

- 1.1 The DM RSS2 scenario shows demand flows that are approximately 9% higher than DM TEMPRO. Despite the relatively small difference in demand, the total network delay is shown to be approximately three times higher in the DM RSS2 scenario. In the DM TEMPRO scenario there are a few links that exceed capacity, most notably on the southbound links by Swinfen and Weeford where the maximum link stress reaches approximately 155% of capacity. In DM RSS2 the vast majority of the southbound corridor exceeds capacity, and is as high as 217% on the A38 by Weeford.
- 1.2 In DM TEMPRO 52% of the strategic links are stressed and approximately 15% are over capacity. As noted above, the most stressed links are highlighted on the southbound links by Swinfen Roundabout and Weeford.
- 1.3 In DM RSS2 80% of the strategic links are stressed and approximately 41% are over capacity. As noted above, almost the full southbound section of the A38 from A50 to Weeford is over capacity in this scenario.
- 1.4 Delay is significant on approximately 15% of strategic road links in the DM TEMPRO scenario. In DM RSS2 this has increased significantly with approximately 43% of the strategic links now showing significant delay. In both scenarios the worst delay is highlighted on the same sections where capacity is exceeded, which occurs predominantly on the southbound links.

A5 Shrewsbury

- 1.5 The DM RSS2 scenario shows demand flows that are approximately 4% higher than DM TEMPRO. The total network delay is shown to be approximately 22% higher in the DM RSS2 scenario. In the DM TEMPRO scenario the maximum link stress is approximately 83% of capacity. In DM RSS2 the maximum link stress is 87%. In neither scenario does any link on the A5 by Shrewsbury exceed capacity.
- 1.6 In DM TEMPRO 20% of the strategic links are stressed however no links are predicted to exceed capacity. The most stressed links are highlighted on the eastern links, between Emstrey roundabout and M54 in both directions.
- 1.7 In DM RSS2 20% of the strategic links are stressed however no links are predicted to exceed capacity. The most stressed links are highlighted on the eastern links, between Emstrey roundabout and M54 in both directions. The levels of stress on these links are marginally higher than in DM TEMPRO.
- 1.8 There are no links on the A5 between the A548 junction to the west and the start of the M54 to the east that predict significant delays. However, A5/A49 to the east of Shrewsbury, Emstrey roundabout, and the A5/A49 Hereford road junction are all beginning to show signs of junction delay in both scenarios.

A46 Corridor

A46 Stratford

- 1.9 The DM RSS2 scenario shows demand flows that are approximately 3% higher than DM TEMPRO. The total vehicle hours are approximately 16.5% higher in the DM RSS2 scenario. In both scenarios the maximum stress is approximately 96%.
- 1.10 In DM TEMPRO 12.5% of the strategic links are stressed. However, no links are shown to exceed capacity. The most stressed sections are all observed on the northbound A46 links between the A46/A435 and A422 Alcester Road Junction.
- 1.11 In DM RSS2 12.5% of the strategic links are stressed. Again, no links are shown to be over capacity. The most stressed sections are observed on the same stretch of the A46. However, in general the stress levels are significantly lower in DM2 RSS.
- 1.12 There are no sections on the A46 that experiences significant delay in either scenario. However, in general delays are higher in DM2 RSS. The delays on the northbound link between A46/A422 Alcester Road and the A4300 Birmingham Road Junction, and on the southbound link between A46/A439 Warwick Road and the A4300 Birmingham Road Junction are significantly higher in DM2 RSS.

A46 Corridor

- 1.13 The DM RSS2 scenario shows demand flows that are approximately 2% lower than DM TEMPRO. The total vehicle hours is shown to be approximately 10.5% lower in the DM RSS2 scenario. In DM TEMPRO and DM RSS2 the maximum stress are both approximately 116%.
- 1.14 In DM TEMPRO 70% of the strategic links are stressed. A total of 30% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to A428 NB and A425 to M6 Junction 2 SB.
- 1.15 In DM RSS2 70% of the strategic links are stressed. A total of 10% of strategic links are shown to be over capacity. The links experiencing stress in DM RSS2 are in the same locations as in DM TEMPRO. However, A429 to A428 SB is not over capacity. In general, stress has marginally decreased for DM RSS2 scenario.
- 1.16 Significant delays are experienced along Toll Bar End to A428 NB and B4082 to M6 Junction 2 SB in the DM TEMPRO scenario. There are no links experiencing significant delay in the DM RSS2 scenario. Overall, delay increases marginally in the DM TEMPRO scenario.

Hereford

- 1.17 The DM RSS2 scenario shows demand flows that are approximately 3.5% higher than DM TEMPRO. The total network delay is shown to be approximately 14% higher in the DM RSS2 scenario. In the DM TEMPRO scenario the maximum link stress is approximately 106% of capacity. In DM RSS2 the maximum link stress in 115%.
- 1.18 In DM TEMPRO 28% of the strategic links are stressed and 14% exceed capacity. The most stressed links are highlighted on the A465 eastbound, which is over capacity, and on the southbound A49 links travelling into the city centre.
- 1.19 In DM RSS2 19% of the strategic links are stressed and 8% exceed capacity. The most stressed sections are highlighted on the southbound A49 travelling into the city centre. The A465 links are no longer highlighted as stressed.

- 1.20 Delay is significant on approximately 21% of strategic road links in the DM TEMPRO scenario. In DM RSS2 this has increased to 24%. In both scenarios the worst delay is highlighted on the A49 links travelling into the city centre from the north and south.

M5 Corridor

Junction 5

- 1.21 The DM RSS2 scenario shows demand flows and total network delays that are at approximately the same level as in the DM TEMPRO scenario. The maximum stress in both scenarios is approximately 88% which occurs on the southwest bound connector between the dumbbell roundabouts.
- 1.22 In both DM TEMPRO and DM RSS2 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. As mentioned above, it is on the connector travelling from east to west that shows the highest stress levels.
- 1.23 Significant delays are experienced at Junction 5 on the SB off-slip. In DM TEMPRO delays of approximately 3.8 min/km are experienced. This delay is approximately 3.2 min/km in the DM RSS2 scenario.

Junction 6 & Junction 7

- 1.24 The DM RSS2 scenario shows demand flows that are approximately 1% higher than DM TEMPRO. However, total network delays are 27% lower in DM RSS2. The maximum stress is 80% in both scenarios, and this occurs on the southbound M5, north of Junction 6.
- 1.25 In DM TEMPRO significant stress is highlighted on M5 mainline to the north of Junction 6 travelling southbound, and to the south of Junction 6 travelling northbound. DM RSS2 only predicts stress on the southbound mainline to the north of Junction 6.
- 1.26 DM TEMPRO predicts significant delays at Junction 6 on the northbound off-slip (~2.8 min/km) and on A449 West approach (~5.7 min/km). DM RSS2 actually predicts a decrease in delays, with only the A449 West now showing significantly long delays (~5.5 min/km).
- 1.27 The throughput at Junction 6 is 5% less in DM TEMPTRO (DM TEMPRO: 90% DM RSS2: 95%). In both scenarios this is a result of the significant queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

- 1.28 The DM RSS2 scenario shows demand flows that are approximately 5% higher than DM TEMPRO. However, total network delay is 31% lower in DM RSS2. The maximum stress is 83% in DM TEMPRO and 73% in DM RSS2. The highest levels of stress are observed on the A426 in DM TEMPRO and on the M6 mainline in DM RSS2.
- 1.29 In both scenarios there is no significant stress or delay highlighted on the strategic road network at M6 Junction 1 and throughput is optimal.

Evesham

- 1.30 The DM RSS2 scenario shows demand flows that are approximately 2% lower than in the DM TEMPRO scenario. The total network delay is shown to be approximately 17% lower in the DM RSS2 scenario. In the DM TEMPRO scenario the maximum link stress is approximately 79% of capacity. In DM RSS2 the maximum link stress is 77%.

- 1.31 In DM TEMPRO 20% of the strategic links are stressed but none are over capacity. In DM RSS2 10% of the SRN is stressed but within capacity. The stressed links occur on northbound A46 sections in both scenarios.
- 1.32 There is no significant delay highlighted in either scenario.

Do Minimum RSS2 v. Do Something 1 RSS2

A38 Corridor

- 1.33 The DS1 RSS2 scenario shows demand flows that are approximately 4% lower than in the DM RSS2 scenario. The total network delay in DS1 RSS2 is also shown to decrease, and is approximately 55% lower than in DM RSS2. In the DM RSS2 the maximum stress is approximately 217% compared to only 152% in DS1 RSS2.
- 1.34 In DM RSS2 80% of the strategic links are stressed and approximately 41% are over capacity. It is clear that almost the full southbound section of the A38 from A50 to Weeford is over capacity in this scenario.
- 1.35 In DS1 RSS2 85% of the strategic links are stressed and approximately 37% are over capacity. Despite the similar levels of stressed links in both DM RSS2 and DS1 RSS2 the location of the stressed links has changed. In DS1 RSS2 the northbound sections are shown to struggle more but the stress on the southbound has been reduced. However, it should be noted that in both scenarios the majority of links in both directions are shown to be close to or over capacity.
- 1.36 Delay is significant on approximately 43% of strategic road links in the DM RSS2 scenario. In DS1 RSS2 this has reduced marginally; with approximately 37% of the strategic links now showing significant delay. In both scenarios the worst delay is highlighted on the same sections where capacity is exceeded; in DM RSS2 this occurs on the majority of the southbound links, in DS1 RSS2 the delays are most significant around Alrewas, Fradley and Weeford.

A46 Corridor

A46 Stratford

- 1.37 The DS1 RSS2 scenario shows demand flows that are approximately 1% higher than in DM2 RSS. The total vehicle hours are approximately 20% lower in the DS1 RSS2 scenario. The maximum stress is also shown to fall from 96% in DM RSS2 to 86% in DS1 RSS2.
- 1.38 In DM RSS2 12.5% of the strategic links are stressed. However, no links are shown to exceed capacity. The most stressed sections are all observed on the northbound A46 links between the A46/A435 and A422 Alcester Road Junction.
- 1.39 In DS1 RSS2 12.5% of the strategic links are also stressed. Again, no links are shown to exceed capacity. The level of stress on the northbound A46 section between the A46/A435 and A422 Alcester Road Junction is shown to decrease significantly from the levels observed in DM RSS2. However, this section does still exhibit stress in the DS1 RSS2 scenario.
- 1.40 There are no sections on the A46 that experiences significant delay in either scenario. However, in general delays are significantly lower in DS1 RSS2 compared to DM2 RSS. This is most notable on the northbound A46 links.

A46 Corridor

- 1.41 The DS1 RSS2 scenario shows demand flows that are approximately 0.5% higher than DM2 RSS. The total vehicle hours is shown to be approximately 1.5% higher in the DS1 RSS2 scenario. In DM RSS2 the maximum stress is approximately 116% and in DS1 RSS2 it is 118%.
- 1.42 In DM RSS2 70% of the strategic links are stressed. A total of 10% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to A428 NB and A425 to M6 Junction 2 SB.
- 1.43 In DS1 RSS2 70% of the strategic links are stressed. A total of 10% of strategic links are shown to be over capacity. The links experiencing stress in DS1 RSS2 are in the same locations as in DM2 RSS. In general, stress for the DM RSS2 scenario is the same as DS1 RSS2.
- 1.44 Significant delays are experienced along Toll Bar End to A428 NB in the DS1 RSS2 scenario. There are no links experiencing significant delay in the DM RSS2 scenario. Overall, delay increases marginally in the DS1 RSS2 scenario.

M5 Corridor

Junction 5

- 1.45 The DS1 RSS2 scenario shows demand flows that are approximately 1% higher than the DM RSS2 demand flows. The total network delays are at approximately the same level in both scenarios. The maximum stress in DM RSS2 is approximately 88% and in DS1 RSS2 it is at 90%. In both scenarios this occurs on the southwest bound connector between the dumbbell roundabouts.
- 1.46 In both DM RSS2 and DS1 RSS2 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. As mentioned above, it is on the connector travelling from east to west that shows the highest stress levels.
- 1.47 Significant delays are experienced at Junction 5 on the SB off-slip. In DM RSS2 delays of approximately 3.2 min/km are experienced. This delay is approximately 3.1 min/km in the DS1 RSS2 scenario.

Junction 6 & Junction 7

- 1.48 The DS1 RSS2 scenario shows demand flows that are approximately 1% lower than DM RSS2. However, total network delays are 38% higher in DS1 RSS2. The maximum stress is 80% in DM2 RSS2 and 79% in DS1 RSS2. In both scenarios this occurs on the southbound M5, north of Junction 6.
- 1.49 In DM RSS2 significant stress is highlighted on M5 mainline to the north of Junction 6 travelling southbound. DS1 RSS2 predicts stress on the same southbound link.
- 1.50 DM RSS2 predicts significant delays at Junction 6 on the A449 West approach (~5.5 min/km). DS1 RSS2 predicts delays on this same approach (~9.3 min/km) but also on the northbound off-slip at Junction 6 (~2.6 min/km).
- 1.51 The throughput at Junction 6 is 4% lower in DS1 RSS2 than in DM RSS2 (DS1 RSS2: 91% DM RSS2: 95%). In both scenarios this is a result of the significant queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

- 1.52 The DS1 RSS2 scenario shows demand flows that are approximately 9% lower than DM RSS2. However, total network delay remains at a similar level. The maximum stress is 73% in DM RSS2 and 79% in DS1 RSS2.
- 1.53 In both scenarios there is no significant stress or delay highlighted on the strategic road network at M6 Junction 1 and throughout is optimal.

Do Minimum RSS2 v. Do Something 2 RSS2

A38 Corridor

- 1.54 The DS2 RSS2 scenario shows demand flows that are approximately 4% lower than in the DM RSS2 scenario. The total network delay in DS2 RSS2 is also shown to decrease, and is approximately 75% lower than in DM RSS2. In the DM RSS2 the maximum stress is approximately 217% compared to only 152% in DS2 RSS2.
- 1.55 In DM RSS2 80% of the strategic links are stressed and approximately 41% are over capacity. It is clear that almost the full southbound section of the A38 from A50 to Weeford is over capacity in this scenario.
- 1.56 In DS2 RSS2 70% of the strategic links are stressed and approximately 17% are over capacity. In DS2 RSS2 the sections that exceed capacity are highlighted on the southbound links by Swinfen Roundabout and Weeford.
- 1.57 Delay is significant on approximately 43% of strategic road links in the DM RSS2 scenario. In DS2 RSS2 this has reduced significantly; with approximately 17% of the strategic links now showing significant delay. The worst delay is highlighted on the sections where capacity is exceeded i.e. on the A38 southbound by Swinfen and Weeford.

A46 Corridor

A46 Corridor

- 1.58 The DS2 RSS2 scenario shows demand flows that are approximately 0.5% higher than DM2 RSS. The total vehicle hours is shown to be approximately 5% higher in the DS2 RSS2 scenario. In DM RSS2 the maximum stress is approximately 116% and in DS2 RSS2 it is 112%.
- 1.59 In DM RSS2 70% of the strategic links are stressed. A total of 10% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to A428 NB and A425 to M6 Junction 2 SB.
- 1.60 In DS2 RSS2 70% of the strategic links are stressed. A total of 5% of strategic links are shown to be over capacity. The links experiencing stress in DS2 RSS2 are in the same locations as in DM2 RSS. However, A452 to A45/A444 NB is not over capacity. In general, stress is the same as in the DM RSS2 scenario.
- 1.61 Significant delays are experienced along Toll Bar End to A428 NB in the DS2 RSS2 scenario. There are no links experiencing significant delay in the DM RSS2 scenario. Overall, delay increases marginally in the DS2 RSS2 scenario.

Do Minimum RSS2 v. Do Something 3 RSS2

A38 Corridor

- 1.62 The DS3 RSS2 scenario shows demand flows that are approximately 3% lower than in the DM RSS2 scenario. The total network delay in DS3 RSS2 is also shown to decrease, and is approximately 76% lower than in DM RSS2. In the DM RSS2 the maximum stress is approximately 217% compared to only 147% in DS3 RSS2.
- 1.63 In DM RSS2 80% of the strategic links are stressed and approximately 41% are over capacity. It is clear that almost the full southbound section of the A38 from A50 to Weeford is over capacity in this scenario.
- 1.64 In DS3 RSS2 59% of the strategic links are stressed and approximately 17% are over capacity. In DS3 RSS2 the sections that exceed capacity are highlighted on the southbound links by Swinfen Roundabout, Weeford and Claymills.
- 1.65 Delay is significant on approximately 43% of strategic road links in the DM RSS2 scenario. In DS3 RSS2 this has reduced significantly; with only 19% of the strategic links now showing significant delay. The worst delay is highlighted on the sections where capacity is exceeded i.e. on the A38 In DS2 RSS2 70% of the strategic links are stressed and approximately 17% are over capacity. In DS2 RSS2 the sections that exceed capacity are highlighted on the southbound links by Swinfen Roundabout and Weeford.

A46 Corridor

A46 Corridor

- 1.66 The DS3 RSS2 scenario shows demand flows that are approximately 3% higher than DM2 RSS. The total vehicle hours is shown to be approximately 7% higher in the DS3 RSS2 scenario. In DM RSS2 the maximum stress is approximately 116% and in DS3 RSS2 it is 113%.
- 1.67 In DM RSS2 70% of the strategic links are stressed. A total of 10% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to A428 NB and A425 to M6 Junction 2 SB.
- 1.68 In DS3 RSS2 65% of the strategic links are stressed. A total of 10% of strategic links are shown to be over capacity. The links experiencing stress in DS3 RSS2 are in the same locations as DM2 RSS. However, the links which are over capacity are different, as the DM RSS2 model has A452 to A45/A444 NB and A45/A444 to Toll Bar End NB to be over capacity, and in the DS3 RSS2 scenario A452 to A45/A444 SB and Toll Bar End to A428 SB is over capacity. In general, stress increases in DS3 RSS2 scenario.
- 1.69 Significant delays are experienced along no links within the DM RSS2 and DS3 RSS2 scenario. In general, delay increases marginally in DS3 RSS2 scenario.

M5 Corridor

Junction 5

- 1.70 The DS3 RSS2 scenario shows demand flows that are approximately 1% higher than the DM RSS2 demand flows. The total network delays are at approximately the same level in both scenarios. The maximum stress in DM RSS2 is approximately 88% and in DS1 RSS2 it is at 89%. In both scenarios this occurs on the southwest bound connector between the dumbbell roundabouts.

- 1.71 In both DM RSS2 and DS3 RSS2 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. As mentioned above, it is on the connector travelling from east to west that shows the highest stress levels.
- 1.72 Significant delays are experienced at Junction 5 on the SB off-slip. In DM RSS2 delays of approximately 3.2 min/km are experienced. This delay is approximately 2.8 min/km in the DS3 RSS2 scenario.

Junction 6 & Junction 7

- 1.73 The DS3 RSS2 scenario shows demand flows that are approximately 1% lower than DM RSS2. However, total network delays are 32% higher in DS3 RSS2. The maximum stress is 80% in DM2 RSS2 and 79% in DS3 RSS2. In both scenarios this occurs on the southbound M5, north of Junction 6.
- 1.74 In DM RSS2 significant stress is highlighted on M5 mainline to the north of Junction 6 travelling southbound. DS3 RSS2 predicts stress on the same southbound link.
- 1.75 DM RSS2 predicts significant delays at Junction 6 on the A449 West approach (~5.5 min/km). DS3 RSS2 predicts delays on this same approach (~10.6 min/km) but also on the northbound off-slip at Junction 6 (~2.6 min/km).
- 1.76 The throughput at Junction 6 is 2% lower in DS3 RSS2 than in DM RSS2 (DS3 RSS2: 93% DM RSS2: 95%). In both scenarios this is a result of the significant queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

- 1.77 The DS3 RSS2 scenario shows demand flows that are approximately 13% lower than DM RSS2 and total network delays that are 17% lower. The maximum stress is 73% in DM RSS2 and 70% in DS3 RSS2.
- 1.78 In both scenarios there is no significant stress or delay highlighted on the strategic road network at M6 Junction 1 and throughout is optimal.

Do Something 1 v. Do Something 2 v. Do Something 3

A38 Corridor

- 1.79 The DS RSS2 scenarios all show demand flows of approximately the same level. DS3 RSS2 is marginally higher than the other two DS scenarios.
- 1.80 The total network delay in DS2 RSS2 is approximately 44% lower than in DS1 RSS2, and DS3 RSS2 is a further 6% lower than DS2 RSS2. DS1 RSS2 and DS2 RSS2 both highlight maximum stress of approximately 152%, and 147% in DS3 RSS2.
- 1.81 In DS1 RSS2 85% of the strategic links are stressed and approximately 37% are over capacity. In this scenario the northbound and southbound sections of the A38 are shown to struggle equally with almost all junctions showing signs of stress.
- 1.82 In DS2 RSS2 70% of the strategic links are stressed and approximately 17% are over capacity. In DS2 RSS2 the sections that exceed capacity are highlighted on the southbound links by Swinfen

Roundabout and Weeford. However, in general all links show a significant reduction in the levels of stress observed in the DS1 RSS2 scenario.

- 1.83 In DS3 RSS2 59% of the strategic links are stressed and approximately 17% are over capacity. In DS3 RSS2 the sections that exceed capacity are highlighted on the southbound links by Swinfen Roundabout, Weeford and Claymills. DS3 RSS2 sees a marginal reduction in stress on northbound links and comparable levels on the southbound links as in DS2 RSS2.
- 1.84 Delay is significant on the majority of the A38 corridor in DS1 RSS2. The delays are reduced greatly in the DS2 RSS2 and DS3 RSS2 scenario however; problems are still highlighted at the Swinfen, Weeford and Claymills junctions.

A46 Corridor

A46 Corridor

- 1.85 The DS2 RSS2 scenario shows demand flows that are approximately 0.1% higher than DS1 RSS2 and 2.5% lower than DS3 RSS2. The total vehicle hours is shown to be approximately 2.5% higher in the DS2 RSS2 scenario compared to the DS1 RSS2 and 2% higher in the DS3 RSS2 compared to the DS2 RSS2 scenario. In DS1 RSS2 the maximum stress is approximately 118%, DS2 RSS2 it is 112% and in DS3 RSS2 113%.
- 1.86 In DS1 RSS2 70% of the strategic links are stressed. A total of 10% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to M6 Junction 2 NB and A425 to M6 Junction 2 SB.
- 1.87 In DS2 RSS2 70% of the strategic links are stressed. A total of 5% of strategic links are shown to be over capacity. The links experiencing stress in DS2 RSS2 are in the same locations as in DS1 RSS2. However, A452 to A45/A444 NB is not over capacity.
- 1.88 In DS3 RSS2 65% of the strategic links are stressed. A total of 10% of strategic links are shown to be over capacity. The links experiencing stress in DS3 RSS2 are in the same locations as in DS2 RSS2. However, the links which are over capacity are different, as in the DM RSS2 scenario A45/A444 to Toll Bar End NB is over capacity and Toll Bar End to A428 SB and A452 to A45/A444 SB is over capacity in the DS3 RSS2 scenario. Also, in DS3 RSS2 the A425 to A429 NB is not stressed.
- 1.89 Significant delays are experienced at Toll Bar End to A428 NB for DS1 RSS2 and DS2 RSS2 scenario. There are no links experiencing significant delay in the DS3 RSS2 scenario. In general, when comparing all scenarios, DS1 RSS2 scenario has the lowest delay and DS2 RSS2 has the highest delay.

M5 Corridor

Junction 5

- 1.90 The DS3 RSS2 scenario shows demand flows that are approximately 1% lower than the DS1 RSS2 demand flows. The total network delays are approximately 1% lower in DS3 RSS2. The maximum stress in DS1 RSS2 is approximately 90% and in DS3 RSS2 it is at 89%. In both scenarios this occurs on the southwest bound connector between the dumbbell roundabouts.
- 1.91 In both scenarios there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. As mentioned above, it is on the connector travelling from east to west that shows the highest stress levels.

1.92 Significant delays are experienced at Junction 5 on the SB off-slip. In DS1 RSS2 delays of approximately 3.1 min/km are experienced. This delay is approximately 2.8 min/km in the DS3 RSS2 scenario.

Junction 6 & Junction 7

1.93 The DS1 and DS3 RSS2 scenarios show demand flows that are comparable. Total network delays are 4% higher in DS3 RSS2. The maximum stress is 79% in both scenarios and occurs on the southbound M5, north of Junction 6 in each case.

1.94 In DS1 RSS2 and DS3 RSS2 significant stress is predicted on the same southbound link on the M5 north of Junction 6.

1.95 DS1 RSS2 and DS3 RSS2 predict significant delays on the A449 West approach and the northbound off-slip at Junction 6 and at comparable levels.

1.96 The throughput at Junction 6 is 2% lower in DS1 RSS2 than in DS3 RSS2 (DS1 RSS2: 91%; DS3 RSS2: 93%). In both scenarios this is a result of the significant queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

1.97 The DS3 RSS2 scenario shows demand flows that are approximately 5% lower than DS1 RSS2 and total network delays that are 14% lower. The maximum stress is 79% in DS1 RSS2 and 70% in DS3 RSS2.

1.98 In both scenarios there is no significant stress or delay highlighted on the strategic road network at M6 Junction 1 and throughput is optimal.

2016 PM Peak

Do Minimum TEMPRO v. Do Minimum RSS2

A38 Corridor

- 1.99 The DM RSS2 scenario shows demand flows that are approximately 1% lower than DM TEMPRO. The total network delay is shown to be approximately 15% lower in DM RSS2 than in the DM TEMPRO scenario. In the DM TEMPRO and DM RSS2 scenarios there is only one link that exceeds capacity however several links are show signs of stress. The maximum link stress in DM TEMPRO is approximately 105% of capacity, and in DM RSS2 it is approximately 101%.
- 1.100 In DM TEMPRO 61% of the strategic links are stressed and approximately 2% are over capacity. The most stressed link occurs on the southbound link between A5192 and Swinfen Roundabout.
- 1.101 In DM RSS2 63% of the strategic links are stressed and approximately 2% are over capacity. The most stressed link occurs on the northbound link between A5127 and Hilliard's Cross.
- 1.102 Delay is significant on approximately 2% of strategic road links in both the DM TEMPRO and DM RSS2 scenarios. In both scenarios this delay is highlighted on the links that are noted as exceeding capacity.

A5 Shrewsbury

- 1.103 The DM RSS2 scenario shows demand flows that are approximately 7% higher than DM TEMPRO. The total network delay is shown to be approximately 61% higher in the DM RSS2 scenario. In the DM TEMPRO scenario the maximum link stress is approximately 80% of capacity. In DM RSS2 the maximum link stress in 82%. In neither scenario does any link on the A5 by Shrewsbury exceed capacity.
- 1.104 In DM TEMPRO 15% of the strategic links are stressed however no links are predicted to exceed capacity. The most stressed links are highlighted on the eastern links travelling westbound between the M54 and Emstrey roundabout.
- 1.105 In DM RSS2 15% of the strategic links are stressed however no links are predicted to exceed capacity. The most stressed links are highlighted on the eastern links travelling westbound between the M54 and Emstrey roundabout. The levels of stress on these links are marginally higher than in DM TEMPRO.
- 1.106 There are no links on the A5 between the A548 junction to the west and the start of the M54 to the east that predict significant delays. However, A5/A49 to the east of Shrewsbury, Emstrey roundabout, and the A5/A49 Hereford road junction are all beginning to show signs of junction delay in both scenarios.

A46 Corridor

A46 Stratford

- 1.107 The DM RSS2 scenario shows demand flows that are approximately 4% higher than DM TEMPRO. The total vehicle hours are approximately 11.5% higher in the DM RSS2 scenario and the maximum stress decreases from 71% in DS1 RSS2 to 64% in DM2 RSS.

1.108 In DM TEMPRO none of the strategic links are shown to be stressed. This is also the case in DM2 RSS. However, in general the stress levels on the A46 are significantly lower in the DM RSS2 scenario.

1.109 There are no sections on the A46 that experiences significant delay in either scenario and delays are generally at the same level.

A46 Corridor

1.110 The DM RSS2 scenario shows demand flows that are approximately 1% lower than DM TEMPRO. The total vehicle hours is shown to be approximately 4.5% lower in the DM RSS2 scenario. In DM TEMPRO the maximum stress is approximately 129% and in DM RSS2 120%.

1.111 In DM TEMPRO 75% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to M6 Junction 2 NB and A429 to B4082 SB.

1.112 In DM RSS2 70% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The links experiencing stress in DM RSS2 are in the same locations as in DM TEMPRO. In general, stress has decreased for DM RSS2 scenario.

1.113 Significant delays are experienced along A45/A444 to A428 NB in the DM TEMPRO scenario. The delays experienced in DM TEMPRO are in the same location as DM2 RSS. In general, delay increases marginally in the DM TEMPRO scenario.

Hereford

1.114 The DM RSS2 scenario shows demand flows that are approximately 3% higher than DM TEMPRO. The total network delay is shown to be approximately 10% higher in the DM RSS2 scenario. In the DM TEMPRO scenario the maximum link stress is approximately 99% of capacity. In DM RSS2 the maximum link stress in 103%.

1.115 In DM TEMPRO 23% of the strategic links are stressed and 4% exceed capacity. The most stressed links are highlighted on the A49 links leaving the city centre.

1.116 In DM RSS2 21% of the strategic links are stressed and 5% exceed capacity. The most stressed links are highlighted on the A49 links leaving the city centre.

1.117 Delay is significant on approximately 22% of strategic road links in both DM TEMPRO and DM RSS2. In both scenarios the worst delay is highlighted on the A49 links travelling out of the city centre, and is highest on the northbound route out of Hereford.

M5 Corridor

Junction 5

1.118 The DM RSS2 scenario shows demand flows that are approximately 1% higher than in the DM TEMPRO scenario. The total network delays are shown to be 6% higher in DM RSS2. The maximum stress in both scenarios is approximately 115% which occurs on the southwest bound connector between the dumbbell roundabouts.

1.119 In both DM TEMPRO and DM RSS2 both directions on the M5 at Junction 5 are showing signs of stress. However, in both scenarios it is the connecting roads between the two dumbbell roundabouts that are shown to be the most stressed. The connector travelling from east to west is shown to exceed capacity in both scenarios.

- 1.120 Significant delays are experienced at Junction 5 on the SB off-slip in both Do Minimum scenarios. In DM TEMPRO delays of approximately 12.2 min/km are experienced and in DM RSS2 delays are approximately 12.6 min/km.
- 1.121 The considerable delays on the southbound off-slips have resulted in long queues that reach back to the M5 mainline. This has had a detrimental impact on throughput at Junction 5 with approximately 89% of demand managing to get through the junction in the DM TEMPRO scenario and 88% in DM RSS2 scenario.

Junction 6 & Junction 7

- 1.122 The DM RSS2 scenario shows demand flows that are approximately 1% higher than DM TEMPRO. Total network delays are approximately 12% higher in DM RSS2. The maximum stress is 86% in DM TEMPRO and 87% in DM RSS2. In both scenarios the maximum stress is observed on the northbound M5 to the north and south of Junction 6.
- 1.123 In DM TEMPRO significant stress is highlighted on M5 mainline travelling north and southbound at Junction 6 and on the A44 West WB at Junction 7. In DM RSS2 stress is again highlighted on both the northbound and southbound mainline at junction 6 but also now on the southbound M5 at Junction 7. The A44 West WB continues to highlight stress in DM RSS2.
- 1.124 DM TEMPRO predicts that there will be no significant delays at Junction 6 or Junction 7. However, the delays at Junction 6 northbound off-slip are relatively long (~1.9 min/km). In DM RSS2 significant delays are predicted on the northbound off-slip at Junction 6 (~2.2 min/km). Queues on the off-slips do not reach back to the M5 at any stage.
- 1.125 There are no throughput issues at Junction 6 or Junction 7 in either DM scenario.

M6 Junction 1

- 1.126 The DM RSS2 scenario shows demand flows that are approximately 13% higher than DM TEMPRO. Total network delay is also 59% higher in DM RSS2. The maximum stress is 102% in DM TEMPRO and 98% in DM RSS2. However, the highest levels of stress are observed on the A426 in both scenarios.
- 1.127 In DM TEMPRO there is no strategic links that highlight significant stress or delays. In DM RSS2 the M6 southbound highlights significant stress but there is still no significant delays. The throughput at M6 Junction 1 remains optimal.

Evesham

- 1.128 The DM RSS2 scenario shows demand flows that are approximately 5% lower than in the DM TEMPRO scenario. The total network delay is shown to be approximately 33% lower in the DM RSS2 scenario. In the DM TEMPRO scenario the maximum link stress is approximately 85% of capacity. In DM RSS2 the maximum link stress is 78%.
- 1.129 In both scenarios 20% of the strategic links are stressed but none are over capacity. The stressed links occur on the A46 in both directions but appear worse on the southbound links in both scenarios.
- 1.130 There is no significant delay highlighted in either scenario.

Do Minimum RSS2 v. Do Something 1 RSS2

A38 Corridor

- 1.131 The DS1 RSS2 scenario shows demand flows that are approximately 10% higher than in the DM RSS2 scenario. The total network delay in DS1 RSS2 is also shown to increase, and is approximately 185% higher than in DM RSS2. In the DM RSS2 the maximum stress is approximately 101% compared to 110% in DS1 RSS2.
- 1.132 In DM RSS2 63% of the strategic links are stressed and approximately 2% are over capacity. The most stressed link occurs on the northbound link between A5127 and Hilliard's Cross.
- 1.133 In DS1 RSS2 72% of the strategic links are stressed and approximately 7% are over capacity. The locations of the stress are similar between scenarios. However, the levels of stress on the southbound links in DS1 RSS2 show a clear increase in levels with the SB links approaching Claymills, Barton Turn, A5127 and Swinfen roundabout are all shown to exceed capacity.
- 1.134 Delay is significant on only 2% of strategic road links in the DM RSS2 scenario; this occurs on the northbound approach to Hilliard's cross. In DS1 RSS2 significant delay is noted on 7% of the corridor; with the same southbound links that are highlighting the capacity issues also showing the long delays.

A46 Corridor

A46 Stratford

- 1.135 The DS1 RSS2 scenario shows demand flows that are approximately 1.5% higher than in DM2 RSS. The total vehicle hours are approximately 3% higher in DS1 RSS2. The maximum stress has also increased; from 64% in DM RSS2 to 76% in DS1 RSS2.
- 1.136 In DM RSS2 none of the strategic links are shown to be stressed. In DS1 RSS2 12.5% of strategic links are shown to be experiencing stress. This occurs on the stretch of the A46 travelling northbound between A4300 Birmingham Road to the A46/A439 Warwick Road Junction. In general stress on the other links is at a similar level in both scenarios.
- 1.137 There are no sections on the A46 that experiences significant delay in either scenario and delays are generally at the same level.

A46 Corridor

- 1.138 The DS1 RSS2 scenario shows demand flows that are approximately 0.15% lower than DM2 RSS. The total vehicle hours is shown to be approximately 21.6% higher in the DS1 RSS2 scenario. In DM RSS2 the maximum stress is approximately 129% and in DS1 RSS2 it is 124%.
- 1.139 In DM RSS2 70% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to M6 Junction 2 NB and A429 to B4082 SB.
- 1.140 In DS1 RSS2 70% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The links experiencing stress in DS1 RSS2 are in the same locations as in DM2 RSS. In general, stress increases marginally in the DS1 RSS2 scenario.
- 1.141 Significant delays are experienced along A45/A444 to A428 NB in the DM RSS2 and DS1 RSS2 scenario. In general, delay increases marginally in the DS1 RSS2 scenario.

M5 Corridor

Junction 5

- 1.142 The DS1 RSS2 scenario shows demand flows that are approximately 1% higher than the DM RSS2 demand flows. The total network delays are approximately 6% higher in the DS1 RSS2 scenario. The maximum stress in DM RSS2 is approximately 115% and in DS1 RSS2 it is at 116%. In both scenarios this occurs on the southwest bound connector between the dumbbell roundabouts.
- 1.143 In both DM RSS2 and DS1 RSS2 both directions on the M5 at Junction 5 are showing signs of stress. However, in both scenarios it is the connecting roads between the two dumbbell roundabouts that are shown to be the most stressed. The connector travelling from east to west is shown to exceed capacity in both scenarios.
- 1.144 Significant delays are experienced at Junction 5 on the SB off-slip in both scenarios. In DM RSS2 delays of approximately 12.6 min/km are experienced and in DS1 RSS2 delays are approximately 13.4 min/km.
- 1.145 The considerable delays on the southbound off-slips have resulted in long queues that reach back to the M5 mainline. This has had a detrimental impact on throughput at Junction 5 with approximately 88% of demand managing to get through the junction in the DM RSS2 scenario and 87% in DS1 RSS2 scenario.

Junction 6 & Junction 7

- 1.146 The DS1 RSS2 scenario shows demand flows that are approximately 1% higher than DM RSS2. However, total network delays are 8% lower in DS1 RSS2. The maximum stress is 87% in DM2 RSS2 and 88% in DS1 RSS2. In both scenarios this occurs on the northbound M5, north of Junction 6.
- 1.147 In DM RSS2 stress is highlighted on both the north and southbound mainline at junction 6 and also on the southbound M5 at Junction 7. The A44 West WB at Junction 7 also highlights stress in DM RSS2. DS1 RSS2 predicts stress at the same locations and at a similar level.
- 1.148 DM RSS2 predicts significant delays at Junction 6 on the northbound off-slip (~2.2 min/km). DS1 RSS2 does not predict any significant delays at Junction 6 or Junction 7. As queues and delays are not a major issue in either scenario, there are no throughput issues at either junction.

M6 Junction 1

- 1.149 The DS1 RSS2 scenario shows demand flows that are approximately 9% lower than DM RSS2. Total network delay is also shown to be 24% lower in DS1 RSS2. The maximum stress is 98% in DM RSS2 and 106% in DS1 RSS2.
- 1.150 In DM RSS2 there is significant stress highlighted on the M6 southbound. In DS1 RSS2 there is no significant delay. In both scenarios there is no significant delay highlighted on the strategic road network at M6 Junction 1 and throughout is optimal in both scenarios.

Do Minimum RSS2 v. Do Something 2 RSS2

A38 Corridor

- 1.151 The DS2 RSS2 scenario shows demand flows that are approximately 10% higher than in the DM RSS2 scenario. The total network delay in DS2 RSS2 is also shown to increase, and is approximately 120% higher than in DM RSS2. In the DM RSS2 the maximum stress is approximately 101% compared to 110% in DS2 RSS2.

- 1.152 In DM RSS2 63% of the strategic links are stressed and approximately 2% are over capacity. The most stressed link occurs on the northbound link between A5127 and Hilliard's Cross. However, the majority of the A38 corridor is showing signs of stress in both directions.
- 1.153 In DS2 RSS2 48% of the strategic links are stressed and approximately 4% are over capacity. The southbound links remain stressed however; there is a reduction on the northbound links, with the stretch from A5127 to Claymills now showing no significant stress.
- 1.154 Delay is significant on only 2% of strategic road links in the DM RSS2 scenario; this occurs on the northbound approach to Hilliard's cross. In DS2 RSS2 significant delay is noted on 4% of the corridor; with the southbound links from A5132 to Claymills and from A5192 to Swinfen Roundabout both showing long delays.

A46 Corridor

A46 Corridor

- 1.155 The DS2 RSS2 scenario shows demand flows that are approximately 0.11% higher than DM2 RSS. The total vehicle hours is shown to be approximately 3.5% higher in the DS2 RSS2 scenario. In DM RSS2 the maximum stress is approximately 120% and in DS2 RSS2 it is 121%.
- 1.156 In DM RSS2 70% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to M6 Junction 2 NB and A429 to B4082 SB.
- 1.157 In DS2 RSS2 65% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The links experiencing stress in DS2 RSS2 are in the same locations as in DM2 RSS. However, A429 to A452 SB is not stressed. In general, stress increases marginally in the DM RSS2 scenario.
- 1.158 Significant delays are experienced along A45/A444 to A428 NB in the DM RSS2 and DS2 RSS2 scenario. However, DS2 RSS2 has significant delays along A428 to B4027 NB. In general, delay increases marginally in the DM RSS2 scenario.

Do Minimum RSS2 v. Do Something 3 RSS2

A38 Corridor

- 1.159 The DS3 RSS2 scenario shows demand flows that are approximately 9% higher than in the DM RSS2 scenario. The total network delay in DS3 RSS2 is also shown to increase, and is approximately 130% higher than in DM RSS2. In the DM RSS2 the maximum stress is approximately 101% compared to 114% in DS3 RSS2.
- 1.160 In DM RSS2 63% of the strategic links are stressed and approximately 2% are over capacity. The most stressed link occurs on the northbound link between A5127 and Hilliard's Cross. However, the majority of the A38 corridor is showing signs of stress in both directions.
- 1.161 In DS3 RSS2 43% of the strategic links are stressed and approximately 4% are over capacity. The southbound links remain stressed however; there is a reduction on the northbound links, with the stretch from A5127 to Claymills now showing no significant stress.
- 1.162 Delay is significant on only 2% of strategic road links in the DM RSS2 scenario; this occurs on the northbound approach to Hilliard's cross. In DS3 RSS2 significant delay is noted on 4% of the corridor;

with the southbound links from A5132 to Claymills and from A5192 to Swinfen Roundabout both showing long delays.

A46 Corridor

A46 Corridor

- 1.163 The DS3 RSS2 scenario shows demand flows that are approximately 3% higher than DM2 RSS. The total vehicle hours is shown to be approximately 6% higher in the DS3 RSS2 scenario. In DM RSS2 the maximum stress is approximately 120% and in DS3 RSS2 it is 121%.
- 1.164 In DM RSS2 70% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to M6 Junction 2 NB and A429 to B4082 SB.
- 1.165 In DS3 RSS2 65% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The links experiencing stress in DS3 RSS2 are in the same locations as in DM2 RSS. However, A429 to A452 SB is not stressed. In general, stress levels are the same in DM RSS2 as DS3 RSS2 scenario.
- 1.166 Significant delays are experienced along Toll Bar End to A428 NB for DM RSS2 and DS3 RSS2 scenario. However, significant delay is also shown on the A45/A444 to Toll Bar End NB for the DM RSS2 scenario and along A428 to B4027 NB for the DS3 RSS2 scenario. In general, delay increases marginally in the DS3 RSS2 scenario.

M5 Corridor

Junction 5

- 1.167 The DS3 RSS2 scenario shows demand flows that are approximately 1% lower than the DM RSS2 demand flows. The total network delay is approximately 4% lower in the DS3 RSS2 scenario. The maximum stress in DM RSS2 is approximately 115% and in DS3 RSS2 it is at 114%. In both scenarios this occurs on the southwest bound connector between the dumbbell roundabouts.
- 1.168 In both DM RSS2 and DS3 RSS2 both directions on the M5 at Junction 5 are showing signs of stress. However, in both scenarios it is the connecting roads between the two dumbbell roundabouts that are shown to be the most stressed. The connector travelling from east to west is shown to exceed capacity in both scenarios.
- 1.169 Significant delays are experienced at Junction 5 on the SB off-slip in both scenarios. In DM RSS2 delays of approximately 12.6 min/km are experienced and in DS3 RSS2 delays are approximately 11.7 min/km.
- 1.170 The considerable delays on the southbound off-slips have resulted in long queues that reach back to the M5 mainline. This has had a detrimental impact on throughput at Junction 5 with approximately 88% of demand managing to get through the junction in the DM RSS2 scenario and 87% in DS3 RSS2 scenario.

Junction 6 & Junction 7

- 1.171 The DS3 RSS2 scenario shows demand flows that are approximately 1% higher than DM RSS2. Total network delay is also 1% in DS3 RSS2. The maximum stress is 87% in DM2 RSS2 and 86% in DS3 RSS2. In both scenarios this occurs on the M5 northbound at Junction 6.
- 1.172 In DM RSS2 stress is highlighted on both the north and southbound mainline at junction 6 and also on the southbound M5 at Junction 7. The A44 West WB at Junction 7 also highlights stress in DM RSS2.

DS3 RSS2 predicts stress at the same locations on the M5 however, the A44 is no longer showing significant stress.

- 1.173 DM RSS2 predicts significant delays at Junction 6 on the northbound off-slip (~2.2 min/km). DS3 RSS2 does not predict any significant delays at Junction 6 or Junction 7. As queues and delays are not a major issue in either scenario, there are no throughput issues at either junction.

M6 Junction 1

- 1.174 The DS3 RSS2 scenario shows demand flows that are approximately 11% lower than DM RSS2. Total network delay is also shown to be 33% lower in DS3 RSS2. The maximum stress is 98% in DM RSS2 and 105% in DS3 RSS2.
- 1.175 In DM RSS2 there is significant stress highlighted on the M6 southbound. In DS3 RSS2 there is no significant delay. In both scenarios there is no significant delay highlighted on the strategic road network at M6 Junction 1 and throughout is optimal in both scenarios.

Do Something 1 v. Do Something 2 v. Do Something 3

A38 Corridor

- 1.176 The DS RSS2 scenarios all show demand flows of approximately the same level. DS3 RSS2 is marginally higher than the other two DS scenarios.
- 1.177 The total network delay in DS2 RSS2 is approximately 22% lower than in DS1 RSS2, and DS3 RSS2 is 4% higher than DS2 RSS2. DS1 RSS2 and DS2 RSS2 both highlight maximum stress of approximately 110%, and 113% in DS3 RSS2.
- 1.178 In DS1 RSS2 72% of the strategic links are stressed and approximately 7% are over capacity. The majority of the A38 corridor is showing signs of stress. However, the levels of stress on the southbound links are highest, most notably on the links by Claymills, Barton Turn, A5127 and Swinfen roundabout; each of which is shown to exceed capacity.
- 1.179 In DS2 RSS2 48% of the strategic links are stressed and approximately 4% are over capacity. Only a few links on the northbound links are shown to be stressed, most notably from Weeford until A5127. However, the vast majority of the southbound corridor is showing significant stress.
- 1.180 In DS3 RSS2 43% of the strategic links are stressed and approximately 4% are over capacity. Only a few links on the northbound links are shown to be stressed, most notably from Weeford until A5127. However, the vast majority of the southbound corridor is showing significant stress. The stress levels on the northbound links in DS3 RSS2 are marginally lower than in DS2 RSS2 marginally higher on the southbound links.
- 1.181 Delay is significant on several southbound links on the A38 corridor in DS1 RSS2. The most significant delays are highlighted at Claymills, Barton Turn, A5127 and Swinfen Roundabout. The delays are reduced greatly in the DS2 RSS2 and DS3 RSS2 scenario however; problems are still highlighted at the Swinfen and Claymills junctions.

A46 Corridor

A46 Corridor

- 1.182 The DS2 RSS2 scenario shows demand flows that are approximately 0.26% higher than DS1 RSS2 and 2.5% lower than DS3 RSS2. The total vehicle hours is shown to be approximately 17% higher in

the DS2 RSS2 scenario compared to the DS1 RSS2 and 2.5% higher in the DS3 RSS2 compared to the DS2 RSS2 scenario. In DS1 RSS2 the maximum stress is approximately 124%, and in DS2 RSS2 and DS3 RSS2 it is 121%.

- 1.183 In DS1 RSS2 70% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to M6 Junction 2 NB and A429 to B4082 SB.
- 1.184 In DS2 RSS2 65% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The links experiencing stress in DS2 RSS2 are in the same locations as in DS1 RSS2. However, A429 to A452 SB is not stressed.
- 1.185 In DS3 RSS2 65% of the strategic links are stressed. A total of 20% of strategic links are shown to be over capacity. The links experiencing stress in DS3 RSS2 are in the same locations as in DS2 RSS2. However, Toll Bar End to A428 SB is now over capacity and A429 to A452 is not over capacity but is stressed.
- 1.186 Significant delays are experienced at Toll Bar End to A428 NB for the DS1 RSS2, DS2 RSS2 and DS3 RSS2 scenario. However, DS1 RSS2 and DS2 RSS2 have significant delays along A45/A444 to Toll Bar End NB and in the DS2 RSS2 and DS3 RSS2 scenario significant delays are shown along A428 to B4027 NB. In general, when comparing all scenarios, DS3 RSS2 has the highest delay and DS1 RSS2 scenario has the lowest delay.

M5 Corridor

Junction 5

- 1.187 The DS3 RSS2 scenario shows demand flows that are approximately 2% lower than the DS1 RSS2 demand flows. The total network delays are approximately 10% lower in DS3 RSS2. The maximum stress in DS1 RSS2 is approximately 116% and in DS3 RSS2 it is at 114%. In both scenarios this occurs on the southwest bound connector between the dumbbell roundabouts.
- 1.188 In both scenarios the M5 at Junction 5 is showing signs of stress in both directions. However, in both scenarios it is the connecting roads between the two dumbbell roundabouts that are shown to be the most stressed. The connector travelling from east to west is shown to exceed capacity in both scenarios.
- 1.189 Significant delays are experienced at Junction 5 on the SB off-slip in both scenarios. In DS1 RSS2 delays of approximately 13.4 min/km are experienced and in DS3 RSS2 delays are approximately 11.7 min/km.
- 1.190 The considerable delays on the southbound off-slips have resulted in long queues that reach back to the M5 mainline. This has had a detrimental impact on throughput at Junction 5 with only 87% of demand managing to get through the junction in both the Do Something scenario.

Junction 6 & Junction 7

- 1.191 The DS1 and DS3 RSS2 scenarios show demand flows that are comparable. Total network delays are 10% higher in DS3 RSS2 however; in both scenarios the overall network delay is relatively low. The maximum stress is 88% in DS1 RSS2 and 86% in DS3 RSS2 both scenarios and occurs on the M5 northbound at Junction 6.
- 1.192 In DS1 RSS2 and DS3 RSS2 significant stress is predicted on the M5 at Junction 6 in both directions and southbound at Junction 7. In DS1 RSS2 the A44 West at Junction 7 is also stressed.
- 1.193 DS1 RSS2 and DS3 RSS2 do not predict any significant delays at either junction.

M6 Junction 1

- 1.194 The DS3 RSS2 scenario shows demand flows that are approximately 1% lower than DS1 RSS2 and total network delays that are 11% lower. The maximum stress is 106% in DS1 RSS2 and 105% in DS3 RSS2.
- 1.195 In both scenarios there is no significant stress or delay highlighted on the strategic road network at M6 Junction 1 and throughout is optimal.

2026 AM Peak

Do Minimum TEMPRO v. Do Minimum RSS2

A38 Corridor

- 1.196 The DM RSS2 scenario shows demand flows that are approximately 4% higher than DM TEMPRO. Despite the relatively small difference in demand, the total network delay is shown to be approximately 40% higher in the DM RSS2 scenario. Several links in both scenarios are shown to significantly exceed capacity and in both scenarios the maximum stress is over 220%.
- 1.197 In DM TEMPRO the majority of strategic links are stressed (~91%). Links are shown to be over capacity on the A5 between Weeford and Wall Island junction, on all the A38 southbound links, and on the northbound sections of A38 between Swinfen junction and the A5192, the A5127 and Alrewas, and between Barton Turn junction and Branston Interchange. A total of 57% of strategic road links are shown to be over capacity in DM TEMPRO.
- 1.198 DM RSS2 predicts stress on the same sections as noted above with the addition of the section of A38 between Branston and Claymills. The sections that were already showing stress in DM TEMPRO have increased and the A38 northbound sections between A5192 and A5127 and between Eggington and A5132 are now shown to be over capacity. A total of 61% of strategic road links are shown to be over capacity in DM TEMPRO.
- 1.199 Delay is significant (>120sec/km) on approximately 54% of strategic road links in DM TEMPRO scenario. The A38 southbound links all show large delays. In the north bound direction the most significant delays occur between Swinfen Roundabout and A5192, the A5127 and Hilliard's Cross, Barton Turn and Water Park, and between Branston and Claymills. There are also significant delays on the A5 in the east and westbound directions.
- 1.200 Delays increase in DM RSS2 RSS, with approximately 63% of strategic road links now showing significant delays. Delays are recorded on the same sections as observed in the DM TEMPRO scenario and are also now shown on the sections of the A38 between A5192 and A5127, Hilliard's Cross and Fradley Junction, Fradley and Alrewas, Water Park and Branston, and between Eggington and A5132.
- 1.201 It should be noted that there are major capacity issues and long delays in both scenarios. These issues are worse in DM RSS2 however, neither scenario shows favourable conditions.

A5 Shrewsbury

- 1.202 The DM RSS2 scenario shows demand flows that are approximately 9% higher than DM TEMPRO. Despite the relatively small difference in demand, the total network delay is shown to be over 95% higher in the DM RSS2 scenario. The maximum link stress in DM TEMPRO is at approximately 89% of capacity. In DM RSS2 the maximum link stress reaches 96%.
- 1.203 In DM TEMPRO 30% of the strategic links are stressed. No links are shown to be over capacity. In DM 1 the most stressed sections are observed on the A5 in both directions between A5/A49 and Emstrey Roundabout and between A5/A49 and M54.
- 1.204 In DM RSS2 45% of the strategic links are stressed. However, no links are shown to exceed capacity. DM RSS2 predicts stress on the same sections as in DM TEMPRO but to a higher degree and also highlights stress on the A5 sections eastbound from A458 to A488.

- 1.205 Significant delays are experienced at the A5/A49 junction, A5/Emstrey Road roundabout and A5 /A49 Hereford Road junction. The delays are shown to increase even further in DM RSS2.

A46 Corridor

A46 Stratford

- 1.206 The DM RSS2 scenario shows demand flows that are approximately 7% higher than DM TEMPRO. The total vehicle hours is shown to be approximately 2% higher in the DM RSS2 scenario. In DM TEMPRO the maximum stress is approximately 98% and in DM RSS2 it is 97%.
- 1.207 In DM TEMPRO 25% of the strategic links are stressed. However, no links are shown to exceed capacity. The stressed links are observed on the northbound sections of the A46 between the A435 and A422 Alcester Road junction and between A3400 and A439 Warwick Road junction.
- 1.208 In DM RSS2 12.5% of the strategic links are stressed. No links are shown to be over capacity. In DM RSS2 the northbound section of the A46 between A3400 and A439 Warwick Road junction is no longer stressed. However, stress is still highlighted between A435 and A422 Alcester Road junction. In general stress has decreased in the DM RSS2 scenario on all sections of the A46.
- 1.209 No sections of the A46 experience significant levels of delay in the DM TEMPRO scenario. However, in the DM RSS2 scenario significant delays are shown on the section of the A46 between A46/A422 and A46/A4300 Birmingham Road.

A46 Corridor

- 1.210 The DM RSS2 scenario shows demand flows that are approximately 0.5% lower than DM TEMPRO. The total vehicle hours is shown to be approximately 3% lower in the DM RSS2 scenario. In DM TEMPRO the maximum stress is approximately 121% and in DM RSS2 it is 124%.
- 1.211 In DM TEMPRO 70% of the strategic links are stressed. A total of 40% of strategic links are shown to be over capacity. The stressed sections are observed on the A46 between M40 Junction 15 and A428 northbound and A425 to M6 Junction 2 southbound.
- 1.212 In DM RSS2 70% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The links experiencing stress in DM RSS2 are in the same locations as in DM TEMPRO. However, A429 to A452 southbound has less stress and is no longer over capacity. In general, stress is lower in the DM RSS2 scenario.
- 1.213 Significant delays are experienced in the DM TEMPRO scenario along the A46 from Toll Bar End to A428 northbound. There are no significant delays experienced in the DM RSS2 scenario. In general the delays are marginally higher in the DM TEMPRO scenario.

Hereford

- 1.214 The DM RSS2 scenario shows demand flows that are approximately 12% higher than DM TEMPRO. The total network delay is shown to be approximately 48% higher in the DM RSS2 scenario. The maximum link stress in DM TEMPRO is at approximately 116% of capacity. In DM RSS2 the maximum link stress reaches 136%.
- 1.215 In DM TEMPRO 18% of the strategic links are stressed and 6% are shown to be over capacity. In DM 1 the most stressed sections are observed on the A49 travelling southbound immediately before and after the B4539 Newtown Road Junction, and at the A49/A438 New Market Street Junction. There is also significant stress on the northbound A49 section between A465 Belmont Road Junction and the A49/A438 New Market Street Junction

- 1.216 In DM RSS2 21% of the strategic links are stressed and 8% are shown to be over capacity. DM RSS2 predicts stress on the same sections as in DM TEMPRO but to a slightly higher degree and also highlights stress on the southbound links immediately north of the A49/A4103 junction.
- 1.217 Significant delays are experienced at the A49/A465 Belmont Road Junction, A49/B4399 Holme Lacy Road Junction, and A49/B4359 Newtown Rd Junction in DM TEMPRO. The delay these junctions are slightly higher in the DM RSS2 scenario.

M5 Corridor

Junction 5

- 1.218 The DM RSS2 scenario shows demand flows that are at approximately the same level as in the DM TEMPRO. However, the total network delay in DM RSS2 is approximately 9% higher. The maximum stress in both scenarios is approximately 96%. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.
- 1.219 In both DM TEMPRO and DM RSS2 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. Both directions show stress but it is on the connector travelling from east to west that shows the highest stress levels.
- 1.220 Significant delays are experienced at Junction 5 on the SB off-slip. In DM TEMPRO delays of approximately 7.5 min/km are experienced. This delay increases to 9 min/km in the DM RSS2 scenario.
- 1.221 The throughput at Junction 5 is approximately 94% in DM TEMPRO compared to 93% in DM RSS2 primarily as a result of the queuing and delay on the southbound off-slip.

Junction 6 & Junction 7

- 1.222 The DM RSS2 scenario shows demand flows that are approximately 3% higher than DM TEMPRO and total network delays that are 17.5% higher. The maximum stress is 96% in DM TEMPRO and 98% in DM RSS2. In both scenarios major issues result at Junction 6 with the maximum queues on both off-slips reaching back to the mainline. There are no issues at Junction 7.
- 1.223 In DM TEMPRO significant stress is highlighted on M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West of Junction 6 travelling west bound. DM RSS2 predicts stress at the same locations but with a significant increase in stress on the A449 West.
- 1.224 DM TEMPRO predicts significant delays at Junction 6 on both off-slips (~2.7 min/km on both) and on A449 West approach (~10.8 min/km). DM RSS2 predicts increases in delays on these approaches.
- 1.225 The throughput at Junction 6 is 2% less in DM RSS2 but in both cases it is relatively low (DM TEMPRO: 80% DM RSS2: 78%) as a result of the significant queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

- 1.226 The DM RSS2 scenario shows demand flows that are approximately 1% higher than DM TEMPRO. The DM RSS2 scenario shows total network delay that is approximately 31% lower than in the DM TEMPRO scenario. The maximum stress is also significantly lower in DM RSS2 at 79% compared to 89% in DM TEMPRO. However, in both the scenarios there are no major issues highlighted on the strategic network at M6 Junction 1.

- 1.227 In DM TEMPRO there are no strategic links that experience significant levels of stress. However, there is a high level of stress observed on the A426 South travelling southbound from the junction.
- 1.228 In DM RSS2 there are no strategic links that experience significant levels of stress. Again, there is a high level of stress on the A426 South however not to the same extent as in DM TEMPRO.
- 1.229 There is no significant delay experienced on any strategic link in either scenario.
- 1.230 The throughput at Junction 1 is at 100% in both scenarios, confirming that there are no operating issues at this junction.

Evesham

- 1.231 The DM RSS2 scenario shows demand flows that are approximately 3% higher than DM TEMPRO. Despite the relatively small difference in demand, the total network delay is shown to be over 31% higher in the DM RSS2 scenario. The maximum link stress in DM TEMPRO is at approximately 86% of capacity. In DM RSS2 the maximum link stress reaches 90%.
- 1.232 In DM TEMPRO 40% of the strategic links are stressed. No links are shown to be over capacity. In DM 1 the most stressed sections are predicted on the northbound A46 between the A46/B4035 and A46/A44 junctions, and between the A46/A4184 and A46/The link junctions.
- 1.233 In DM RSS2 50% of the strategic links are stressed. However, no links are shown to exceed capacity. DM RSS2 predicts stress on the same sections as in DM TEMPRO but to a slightly higher degree and also highlights stress on the A46 northbound between A46/Broadway Road and A46/B4035.
- 1.234 There is no significant delay observed on any strategic link or junction in either DM TEMPRO or DM RSS2.

Do Minimum RSS2 v. Do Minimum NLP 7

A5 Shrewsbury

- 1.235 The DM NLP7 scenario shows demand flows that are approximately 0.5% higher than in DM RSS2 and total network delays that are approximately 4% higher. The maximum link stress in DM RSS2 is at approximately 96% of capacity. In DM NLP7 it is at 97%.
- 1.236 In DM RSS2 45% of the strategic links are stressed. However, no links are shown to exceed capacity. The most stressed sections are observed on the A5 in both directions between A5/A49 and Emstrey Roundabout, and between A5/A49 and M54. There is also stress exhibited on the A5 eastbound from A458 to A488.
- 1.237 In DM NLP7 45% of the strategic links are stressed. No links are shown to be over capacity. The location and levels of stress are in line with what was highlighted in the DM RSS2 scenario.
- 1.238 Significant delays are experienced at the A5/A49 junction, A5/Emstrey Road roundabout and A5 /A49 Hereford Road junction in both scenarios. The delays are shown to increase marginally in DM NLP7.

A46 Corridor

A46 Stratford

- 1.239 The DM NLP7 scenario shows demand flows that are approximately 3% higher than in DM RSS2. The total vehicle hours is shown to be approximately 9% higher in DM NLP7. In DM RSS2 the maximum stress is approximately 97% and in DM NLP7 it is 98%.

- 1.240 In DM RSS2 12.5% of the strategic links are stressed. However, no links are shown to exceed capacity. The northbound stretch of the A46 between the A435 and A422 Alcester Road junctions is shown to be stressed.
- 1.241 In DM NLP7 12.5% of the strategic links are stressed. Again, no links are shown to be over capacity. The links experiencing stress in DM NLP7 are in the same locations as in DM RSS2. In general, stress is at the same level in both scenarios.
- 1.242 Significant delays are experienced on the A46 travelling northbound between A46/A422 and A46/A4300 Birmingham Road in both scenarios. The delays are shown to increase marginally in DM NLP7.

A46 Corridor

- 1.243 The DM NLP7 scenario shows demand flows that are approximately 0.5% higher than DM RSS2. The total vehicle hours is shown to be approximately 1.5% higher in the DM NLP7 scenario. In DM RSS2 and DM NLP7 the maximum stress for both scenarios is approximately 124%.
- 1.244 In DM RSS2 70% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed between the M40 Junction 15 to A428/A46 northbound and A425 to M6 Junction 2 southbound.
- 1.245 In DM NLP7 70% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The links experiencing stress in DM NLP7 are in the same locations as in DM RSS2. In general, stress is marginally higher in DM NLP7.
- 1.246 There are no significant delays experienced on the strategic links in either scenario. However, the delays are shown to be marginally higher in DM NLP7.

M5 Corridor

Junction 5

- 1.247 The DM NLP7 scenario shows demand flows that are at approximately 1.5% higher than in DM RSS2 and the overall network delay is approximately 14% higher. The maximum stress in both scenarios is approximately 96%. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.
- 1.248 In both DM RSS2 and DM NLP7 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. The connecting road travelling from east to west shows the highest stress levels (~ 97% capacity) in both scenarios.
- 1.249 Significant delays are experienced at Junction 5 on the SB off-slip. In DM RSS2 delays of approximately 9 min/km are experienced. This delay increases to 9.5 min/km in the DM NLP7 scenario.
- 1.250 The throughput at Junction 5 is approximately 1% less in the DM NLP7 scenario (~92%).

Junction 6 & Junction 7

- 1.251 The DM NLP7 scenario shows demand flows that are approximately 0.5% higher than in DM RSS2. Total network delay remains at the same level in both scenarios as does the maximum stress observed on the network (~98%). In both scenarios major issues result at Junction 6 with the maximum queues on both off-slips reaching back to the mainline. There are no issues at Junction 7.

- 1.252 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West of Junction 6 travelling west bound. DM NLP7 predicts stress at the same locations and at the same levels.
- 1.253 DM RSS2 predicts significant delays at Junction 6 on both off-slips (NB: 2 min/km; SB: 3.3 min/km) and on A449 West approach (12 min/km). DM NLP7 predicts significant delays on the same sections and at similar levels.
- 1.254 The throughput at Junction 6 is 78% in both scenarios. This is a direct result of the significant queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

- 1.255 The DM NLP7 scenario shows demand flows that are approximately 1% higher than DM RSS2. The DM NLP7 scenario shows total network delay that is approximately 13% higher than in the DM RSS2 scenario. The maximum stress is 79% in DM RSS2 and 73% in DM NLP7. However, in both the scenarios there are no major issues highlighted on the strategic network at M6 Junction 1.
- 1.256 In DM RSS2 there are no strategic links that experience significant levels of stress. However, there is stress observed on the A426 South travelling southbound from the junction.
- 1.257 In DM NLP7 there are no strategic links that experience significant levels of stress. The A426 South actually shows a marginally lower level of saturation than in DM RSS2. However, the M6 southbound mainline is shown to be close to reaching stress levels (73%).
- 1.258 There is no significant delay experienced on any strategic link in either scenario.
- 1.259 The throughput at Junction 1 is at 100% in DM RSS2 and 99% in DM NLP7. There are no operating issues at this junction in either scenario.

Do Minimum RSS2 v. Do Minimum NLP 9

A38 Corridor

- 1.260 The Do Minimum NLP9 scenario shows demand flows that are approximately 1.9% higher than DM RSS2. Despite the relatively small difference in demand, the total network delay is shown to be approximately 17.5% higher in the DM NLP9 scenario. Several links in both scenarios are shown to significantly exceed capacity. In DM RSS2 the maximum stress is approximately 257% and in DM NLP9 it is 263%.
- 1.261 In DM RSS2 almost all strategic links are shown to be stressed (~94%) and the majority are actually over capacity (61%). The most stressed sections are observed on the A5 between Weeford and Wall Island junction (both directions), all southbound links on the A38, and on the stretches of A38 travelling northbound between Swinford Roundabout and Alrewas, between Burton Turn junction and Branston Interchange, and between Eggington and A5132. In these cases the links are over capacity.
- 1.262 In DM NLP9 predicts stress on the same sections as noted above but to a slightly higher extent. The northbound sections on the A38 between Catholme and Barton Turn and between Claymills and Eggington are now shown to be over capacity resulting in an increase in the percentage of strategic links that are over capacity in DM NLP9 (~69%).

- 1.263 Delay is significant on approximately 63% of strategic road links in the DM RSS2 scenario. In DM NLP9 approximately 69% of the strategic road links show significant delays.
- 1.264 DM NLP9 shows a significant increase on the majority of the sections already showing delays in DM RSS2. There are also additional sections that now show significant delays in DM NLP9. This includes the section of the A38 travelling northbound between Catholme and Barton Turn and on the A5148 section between Swinfen and Wall Island.

A5 Shrewsbury

- 1.265 The DM NLP9 scenario shows demand flows that are approximately 3% higher than in DM RSS2 and total network delays that are approximately 27% higher. The maximum link stress in DM RSS2 is at approximately 96% of capacity. In DM NLP9 it is at 99%.
- 1.266 In DM RSS2 45% of the strategic links are stressed. However, no links are shown to exceed capacity. The most stressed sections are observed on the A5 in both directions between A5/A49 and Emstrey Roundabout, and between A5/A49 and M54. There is also stress exhibited on the A5 eastbound from A458 to A488.
- 1.267 In DM NLP9 55% of the strategic links are stressed. No links are shown to be over capacity. The links experiencing stress in DM NLP9 are in the same locations as in DM RSS2. However, in general they have increased slightly.
- 1.268 Significant delays are experienced at the A5/A49 junction, A5/Emstrey Road roundabout and A5 /A49 Hereford Road junction in both scenarios. The delays are shown to increase significantly in DM NLP9.

A46 Corridor

A46 Stratford

- 1.269 The DM NLP9 scenario shows demand flows that are approximately 9% higher than in DM RSS2. The total vehicle hours are also shown to be approximately 26% higher. In DM RSS2 the maximum stress is approximately 97% and in DM NLP9 it is 96%.
- 1.270 In DM RSS2 12.5% of the strategic links are stressed. However, no links are shown to exceed capacity. The northbound stretch of the A46 between the A435 and A422 Alcester Road junctions is shown to be stressed.
- 1.271 In DM NLP9 25% of the strategic links are stressed. No links are shown to be over capacity. As in DM RSS2 RSS, the northbound stretch of the A46 between the A435 and A422 Alcester Road Junction highlights stress. The southbound section of the A46 from M40 to A439 Warwick Road junction is now showing signs of stress in DM NLP9. However, in general, stress is at a similar level on most sections of the A46 in both these scenarios.
- 1.272 Significant delays are experienced on the A46 travelling northbound between A46/A422 and A46/A4300 Birmingham Road in both scenarios. The delays are shown to increase significantly on this section in DM NLP9. However, the delay on the other sections only increases marginally.

A46 Corridor

- 1.273 The DM NLP9 scenario shows demand flows that are approximately 2.5% higher than DM RSS2. The total vehicle hours is shown to be approximately 4% higher in the DM NLP9 scenario. In DM RSS2 the maximum stress is approximately 124% and in DM NLP9 it is 127%.

- 1.274 In DM RSS2 70% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed between the M40 Junction 15 to A428/A46 northbound and A425 to M6 Junction 2 southbound.
- 1.275 In DM NLP9 70% of the strategic links are stressed. A total of 45% of strategic links are shown to be over capacity. The links experiencing stress in DM NLP9 are in the same locations as in DM RSS2. However, M40 to A425 northbound and B4082 to M6 southbound are more stressed and are now shown to be over capacity. In general, stress is marginally higher in the DM NLP9 scenario.
- 1.276 There are no significant delays experienced on the strategic links in either scenario. However, the delays are marginally higher in DM NLP9.

Hereford

- 1.277 The DM NLP9 scenario shows demand flows that are approximately 3% higher than DM RSS2. The total network delay is shown to be approximately 8% higher in the DM NLP9 scenario. The maximum link stress in DM TEMPRO is at approximately 136% of capacity. In DM RSS2 the maximum link stress reaches 142%.
- 1.278 In DM RSS2 21% of the strategic links are stressed and 8% are shown to be over capacity. In this scenario the most stressed sections are observed on the southbound links on A49 immediately before and after the B4539 Newtown Road Junction, at the A49/A438 New Market Street Junction, and north of the A49/A4103 junction. There is also significant stress on the northbound A49 section between A465 Belmont Road Junction and the A49/A438 New Market Street Junction.
- 1.279 In DM NLP9 25% of the strategic links are stressed and 9% are shown to be over capacity. DM NLP9 predicts stress on the same sections as in DM RSS2 but to a slightly higher degree.
- 1.280 Significant delays are experienced at the A49/A465 Belmont Road Junction, A49/B4399 Holme Lacy Road Junction, and A49/B4359 Newtown Rd Junction in DM RSS2. Significant delays are still experienced at these junctions in DM NLP9 but with additional delays at A49/Priory Place roundabout.

M5 Corridor

Junction 5

- 1.281 The DM NLP9 scenario shows demand flows that are at approximately 3% higher than in DM RSS2 and the overall network delay is approximately 17% higher. The maximum stress in the DM RSS2 scenario is 96%, compared to 99% in DM NLP9. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.
- 1.282 In both DM RSS2 and DM NLP9 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. The connecting road travelling from east to west shows the highest stress levels in both scenarios, but is marginally higher in the DM NLP9 scenario (~99%).
- 1.283 Significant delays are experienced at Junction 5 on the SB off-slip. In DM RSS2 delays of approximately 9 min/km are experienced. This delay increases to 9.5 min/km in the DM NLP9 scenario.
- 1.284 The throughput at Junction 5 is approximately 1% less in the DM NLP9 scenario (~92%).

Junction 6 & Junction 7

- 1.285 The DM NLP9 scenario shows demand flows that are approximately 5% higher than in DM RSS2. Despite the small increase in demand, the total network delay is approximately 26% higher in DM

NLP9. The maximum stress recorded in DM RSS2 is 98%. This increases significantly to 107% in DM NLP9. In both scenarios major issues result at Junction 6 with the maximum queues on both off-slips reaching back to the mainline. There are no issues at Junction 7.

- 1.286 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West of Junction 6 travelling west bound. DM NLP9 predicts stress at the same locations but at significantly higher levels. This has resulted in the A449 West approach to Junction 6 and the M5 northbound links reaching over capacity in DM NLP9.
- 1.287 DM RSS2 predicts significant delays at Junction 6 on both off-slips (NB: 2 min/km; SB: 3.3 min/km) and on A449 West approach (12 min/km). DM NLP9 predicts significantly longer delays at Junction 6 on the southbound off-slip (+18%) and A449 West approach (+33%).
- 1.288 The throughput at Junction 6 is 78% in the DM RSS2 scenario. The throughput in DM NLP9 is only 72%. In both scenarios this is a direct result of the significant queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

- 1.289 The DM NLP9 scenario shows demand flows that are approximately 2% higher than DM RSS2. The DM NLP9 scenario shows total network delay that is approximately 18% higher than in the DM RSS2 scenario. The maximum stress is 79% in DM RSS2 and 74% in DM NLP9. However, in both the scenarios there are no major issues highlighted on the strategic network at M6 Junction 1.
- 1.290 In DM RSS2 there are no strategic links that experience significant levels of stress. However, there is stress observed on the A426 South travelling southbound from the junction.
- 1.291 In DM NLP9 there are no strategic links that experience significant levels of stress. The A426 South shows a marginally lower level of saturation than in DM RSS2. However, the M6 southbound mainline is shown to be close to reaching stress levels (74%).
- 1.292 There is no significant delay experienced on any strategic link in either scenario.
- 1.293 The throughput at Junction 1 is at 100% in DM RSS2 and 99% in DM NLP9. There are no operating issues at this junction in either scenario.

Evesham

- 1.294 The DM NLP9 scenario shows demand flows that are approximately 8% higher than DM RSS2. Despite the relatively small difference in demand, the total network delay is shown to be over 68% higher in the DM RSS2 scenario. The maximum link stress in DM RSS2 is at approximately 90% of capacity. In DM NLP9 the maximum link stress reaches 100%.
- 1.295 In DM RSS2 50% of the strategic links are stressed. No links are shown to be over capacity. The most stressed sections are predicted on the northbound A46 between the A46/B4035 and A46/A44, between the A46/A4184 and A46/The link A44, and between A46/Broadway Road and A46/B4035.
- 1.296 In DM NLP9 60% of the strategic links are experiencing stress. However, no links are shown to exceed capacity. DM NLP9 predicts stress on the same sections as in DM TEMPRO but to a significantly higher degree. Stress is also highlighted on the A46 northbound between A46/The Link and A46/Broadway Road.
- 1.297 There is no significant delay observed on any strategic link or junction in either scenario.

Do Minimum RSS2 v. Do Something 1 RSS2

A38 Corridor

- 1.298 The Do Something 1 RSS2 scenario shows demand flows that are approximately 3% lower than DM RSS2. Despite the relatively small difference in demand, the total network delay is shown to be approximately 40% lower in the DS1 RSS2 scenario. Several links in both scenarios are shown to significantly exceed capacity. However, the maximum stress is shown to fall from approximately 257% in DM RSS2 to 185% in DS1 RSS2.
- 1.299 In DM RSS2 almost all strategic links (~94%) are shown to be stressed. In the DS1 RSS2 scenario the level of stress on the majority of links is shown to be lower. However, even with this reduction the majority of links are still stressed (85%) and most are over capacity (59%).
- 1.300 The most significant reduction in stress when comparing DS1 RSS2 and DM RSS2 occurs on the stretch of A38 travelling southbound between A5127 and Wall Island. Stress on the section of the A5 between Wall Island and Weeford has also decreased significantly in the DS1 RSS2 scenario. Despite these decreases most of these links are still shown to experience stress in the DS1 RSS2 scenario.
- 1.301 The northbound section of the A38 south of Weeford Junction and between Branston and Claymills no longer show stress in DS1 RSS2. This is also the case on the south westbound section of the A5148 between Swinfen and Wall Island.
- 1.302 The A5 westbound between Weeford and Wall Island and the A38 southbound between A5127 and A5192 are no longer over capacity in DS1 RSS2 but are still experiencing stress. The A38 northbound section between Alrewas and Catholme are now shown to be over capacity in DS1 RSS2 when compared to DM RSS2.
- 1.303 Delay is significant on approximately 63% of strategic road links in the DM RSS2 scenario. In DS1 RSS2 approximately 59% of the strategic road links show significant delays. This reduction relates to the significant reduction in delays on the A5 travelling westbound between Weeford and Wall Island.
- 1.304 DS1 RSS2 also shows significant decrease in delays on the A38 section travelling northbound between Catholme and Branston Interchange and on all the southbound sections. However, it should be noted the delays on these sections are still significantly high.

A46 Corridor

A46 Stratford

- 1.305 The Do Something 1 RSS2 scenario shows demand flows that are approximately 6% lower than DM RSS2. The total vehicle hours is shown to be approximately 9% lower in the DS1 RSS2 scenario. In DM RSS2 the maximum stress is approximately 97% and in DS1 RSS2 it is 98%.
- 1.306 In DM RSS2 12.5% of the strategic links are stressed. However, no links are shown to exceed capacity. The northbound stretch of the A46 between the A435 and A422 Alcester Road junctions is shown to be stressed.
- 1.307 In DS1 RSS2 the same section is shown to be experience stress as in DM RSS2 and in general the level of stress on the A46 is the same in both scenarios.
- 1.308 Significant delays are experienced on the A46 travelling northbound between A46/A422 and A46/A4300 Birmingham Road in both scenarios. The delays are shown to be comparable in both DM RSS2 and DS1 RSS2.

A46 Corridor

- 1.309 The DS1 RSS2 scenario shows demand flows that are approximately 1% higher than DM RSS2. The total vehicle hours is shown to be approximately 2% higher in the DS1 RSS2 scenario. In DM RSS2 the maximum stress is approximately 124% and in DS1 RSS2 it is 120%.
- 1.310 In DM RSS2 70% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed between the M40 Junction 15 to A428/A46 northbound and A425 to M6 Junction 2 southbound.
- 1.311 In DS1 RSS2 70% of the strategic links are stressed. A total of 30% of strategic links are shown to be over capacity. The links experiencing stress in DS1 RSS2 are in the same locations as in DM RSS2. However, there is a lower level of stress on the A46 from Toll Bar End to A428 northbound, which results in this link no longer being over capacity. In general, stress is at comparable levels in both scenarios.
- 1.312 Significant delays are experienced along the A46 from B4082 to M6 southbound in DS1 RSS2. In general, delay increases marginally in the DS1 RSS2 scenario.

M5 Corridor

Junction 5

- 1.313 The Do Something 1 RSS2 scenario shows demand flows that are at approximately 1% higher than in DM RSS2 and the overall network delay is approximately 11.5% higher. The maximum stress in the DM RSS2 scenario is 96%, compared to 97% in DS1 RSS2. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.
- 1.314 In both DM RSS2 and DS1 RSS2 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. The connecting road travelling from east to west shows the highest stress levels in both scenarios. The levels of stress at this location are comparable between scenarios.
- 1.315 Significant delays are experienced at Junction 5 on the SB off-slip. In DM RSS2 delays of approximately 9 min/km are experienced. This delay increases to 9.5 min/km in the DS1 RSS2 scenario.
- 1.316 The throughput at Junction 5 is comparable between the two scenarios.

Junction 6 & Junction 7

- 1.317 The Do Something 1 RSS2 scenario shows demand flows that are approximately 1% lower than in DM RSS2. The total network delay in DS1 RSS2 is approximately 5% lower than in DM RSS2. The maximum stress is 98% in DM RSS2 and 102% in DS1 RSS2. In both scenarios major issues result at Junction 6 with the maximum queues on both off-slips reaching back to the mainline. There are no issues at Junction 7.
- 1.318 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West of Junction 6 travelling west bound. DS1 RSS2 predicts stress of a similar level at these locations.
- 1.319 DM RSS2 predicts significant delays at Junction 6 on both off-slips (NB: 2 min/km; SB: 3.3 min/km) and on A449 West approach (12 min/km). DS1 RSS2 predicts a general decreases in delays at Junction 6. However, in both scenarios delays are still significantly high at Junction 6.

- 1.320 The throughput at Junction 6 is 78% in both scenarios as a direct result of the significant queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

- 1.321 The DS1 RSS2 scenario shows demand flows that are approximately 2.5% lower than in DM RSS2. The DS1 RSS2 scenario shows total network delay that is approximately 7% lower than in the DM RSS2 scenario. The maximum stress is 79% in DM RSS2 and 72% in DS1 RSS2. However, in both the scenarios there are no major issues highlighted on the strategic network at M6 Junction 1.
- 1.322 In DM RSS2 there are no strategic links that experience significant levels of stress. However, there is stress observed on the A426 South travelling southbound from the junction.
- 1.323 In DS1 RSS2 there are no strategic links that experience significant levels of stress. The level of saturation on the A426 is marginally lower and no longer exhibits stress.
- 1.324 There is no significant delay experienced on any strategic link in either scenario.
- 1.325 The throughput at Junction 1 is at 100% in DM RSS2 and 99% in DS1 RSS2. There are no operating issues at this junction in either scenario.

Do Minimum RSS2 v. Do Something 2 RSS2

A38 Corridor

- 1.326 The Do Something 2 RSS2 scenario shows demand flows that are approximately 3% lower than DM RSS2. Despite the relatively small difference in demand, the total network delay is shown to be approximately 66% lower in the DS2 RSS2 scenario. Several links in both scenarios are shown to significantly exceed capacity. However, the maximum stress is shown to fall from approximately 257% in DM RSS2 to 185% in DS2 RSS2.
- 1.327 In DM RSS2 almost all strategic links are shown to be stressed (94%). In the DS2 RSS2 scenario the level of stress on the majority of links is shown to be lower. However, even with this reduction the majority of links are still stressed (83%) although there are significantly fewer links that are over capacity (33%) in this scenario.
- 1.328 The most significant reduction in stress when comparing DS2 RSS2 and DM RSS2 occurs on the stretch of A38 travelling southbound between Branston and Swinford Roundabout and travelling northbound between Catholme and Branston. Stress on the section of the A5 between Wall Island and Weeford has also decreased significantly in the DS2 RSS2 scenario and on the A5148 between Swinfen and Wall Island.
- 1.329 The northbound section of the A38 south of Weeford Junction and within Alrewas no longer show stress in DS2 RSS2. This is also the case on the south westbound section of the A5148 between Swinfen and Wall Island.
- 1.330 The A5 westbound section between Weeford and Wall Island, the A38 southbound section between Branston and A5192, and the northbound sections between A5127 and Alrewas, and Barton Turn and Branston, are no longer shown to be over capacity in DS2 RSS2 but are still experiencing stress.
- 1.331 Delay is significant on approximately 63% of strategic road links in the DM RSS2 scenario. In DS2 RSS2 approximately 33% of the strategic road links show significant delays. This reduction relates to the reduction in delays on the A5 travelling westbound between Weeford and Wall Island, on the A38

travelling northbound between A5127 to Alrewas and between Barton Turn and Branston, and southbound between Branston and A5192. These sections no longer exhibit significant delays in DS2 RSS2 and also occur on the links that are no longer over capacity.

A46 Corridor

A46 Corridor

- 1.332 The DS2 RSS2 scenario shows demand flows that are approximately 1% higher than DM RSS2. The total vehicle hours is shown to be approximately 2% higher in the DS2 RSS2 scenario. In DM RSS2 the maximum stress is approximately 124% and in DS1 it is 132%.
- 1.333 In DM RSS2 70% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed between the M40 Junction 15 to A428/A46 northbound and A425 to M6 Junction 2 southbound.
- 1.334 In DS2 RSS2 75% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The links experiencing stress in DS2 RSS2 are in the same locations as in DM RSS2. However, there is a higher level of stress on the A46 from B4027 to B4082 northbound. In general, stress is marginally higher in the DS2 RSS2 scenario.
- 1.335 Significant delays are experienced along the A46 from Toll Bar End to A428 northbound in DS2 RSS2. No links experience significant delay in the DM RSS2 scenario. In general, delays are marginally higher in the DS2 RSS2 scenario.

Hereford

- 1.336 The Do Something 2 RSS2 scenario shows demand flows that are at approximately the same level as in DM RSS2. However, in general flows are observed to decrease on key routes as traffic is diverted on to the Western Distributor Road in the DS2 RSS2 scenario. As such, the total network delay is shown to be approximately 13% lower in the DS2 RSS2 scenario. The maximum link stress in DM RSS2 is at approximately 136% of capacity. In DS2 RSS2 the maximum link stress reaches 118%.
- 1.337 In DM RSS2 21% of the strategic links are stressed and 8% are shown to be over capacity. In this scenario the most stressed sections are observed on the southbound links on A49 immediately before and after the B4539 Newtown Road Junction, at the A49/A438 New Market Street Junction, and north of the A49/A4103 junction. There is also significant stress on the northbound A49 section between A465 Belmont Road Junction and the A49/A438 New Market Street Junction
- 1.338 In DS2 RSS2 21% of the strategic links are stressed and 7% are shown to be over capacity. DS2 RSS2 predicts stress on the same sections as in DM RSS2 but at slightly lower levels.
- 1.339 Significant delays are experienced on the A49 at A49/A465 Belmont Road Junction, A49/B4359 Newtown Rd Junction, and A49/B4399 Holme Lacy Road Junction in both scenarios. In general the delays in DS2 RSS2 are marginally lower than in DM RSS2.

M5 Corridor

Junction 6 & Junction 7

- 1.340 The Do Something 2 RSS2 scenario shows demand flows that are approximately 1% lower than in DM RSS2. Despite the small reduction in demand flows the total network delay in DS2 RSS2 is approximately 41% lower than in DM RSS2. The maximum stress is 98% in DM RSS2 and 102% in DS2 RSS2. In DM RSS2 there are major issues at Junction 6 that results in the maximum queues on both off-slips reaching back to the mainline. In DS2 RSS2, with the introduction of the new scheme, there are no longer significant problems at Junction 6. There are no issues at Junction 7 in either scenario.

- 1.341 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West of Junction 6 travelling west bound. DS2 RSS2 predicts stress of a similar level at these locations.
- 1.342 DM RSS2 predicts significant delays at Junction 6 on both off-slips (NB: 2 min/km; SB: 3.3 min/km) and on A449 West approach (12 min/km). DS2 RSS2 no longer predicts any significant delays at Junction 6. The delays in DS2 RSS2 on the A449 West and southbound off-slip are both recorded at only 0.5 min/km, and the northbound off-slip at 1.2 min/km.
- 1.343 The throughput at Junction 6 is 13% higher in DS2 RSS2; an overall throughput of 91% compared to just 78% in DM RSS2.

Do Minimum RSS2 v. Do Something 3 RSS2

A38 Corridor

- 1.344 The Do Something 3 RSS2 scenario shows demand flows that are approximately the same level as in the DM RSS2 scenario. Despite the two scenarios having approximately the same level of demand, the total network delay is shown to be approximately 55% lower in the DS3 RSS2 scenario. Several links in both scenarios are shown to significantly exceed capacity. However, the maximum stress is shown to fall from approximately 257% in DM RSS2 to 179% in DS3 RSS2.
- 1.345 In DM RSS2 almost all strategic links are shown to be stressed (94%). In the DS3 RSS2 scenario the level of stress on the majority of links is shown to be lower. However, even with this reduction the majority of links are still stressed (83%) although there is significantly fewer links that are over capacity (29%) in this scenario.
- 1.346 The most significant reduction in stress when comparing DS3 RSS2 and DM RSS2 occurs on the stretch of A38 travelling southbound between Catholm and A5127 and travelling northbound between Barton and Branston.
- 1.347 The northbound section of the A38 south of Weeford Junction and within Alrewas no longer show stress in DS3 RSS2. This is also the case on the south westbound section of the A5148 between Swinfen and Wall Island.
- 1.348 The A5 westbound section between Weeford and Wall Island, the A38 southbound section between Branston and A5127, and the northbound sections between A5127 and Alrewas and Barton Turn and Branston, are no longer shown to be over capacity in DS3 RSS2 but are still experiencing stress.
- 1.349 Delay is significant on approximately 63% of strategic road links in the DM RSS2 scenario. In DS3 RSS2 approximately 30% of the strategic road links show significant delays. This reduction relates to the reduction in delays on the A5 travelling westbound between Weeford and Wall Island, on the A38 travelling northbound between A5127 to Alrewas and between Barton Turn and Branston, and southbound between Branston and A5127. These sections no longer exhibit significant delays in DS3 RSS2 and coincide with the links that are no longer over capacity.

A46 Corridor

A46 Corridor

- 1.350 The DS3 RSS2 scenario shows demand flows that are approximately 2.5% higher than DM RSS2. The total vehicle hours is shown to be approximately 6% higher in the DS2 RSS2 scenario. In DM RSS2 the maximum stress is approximately 124% and in DS1 it is 122%.

- 1.351 In DM RSS2 70% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed between the M40 Junction 15 to A428/A46 northbound and A425 to M6 Junction 2 southbound.
- 1.352 In DS3 RSS2 75% of the strategic links are stressed. A total of 40% of strategic links are shown to be over capacity. The links experiencing stress in DS3 RSS2 are in the same locations as in DM RSS2. However, DS3 RSS2 is over capacity along the strategic link between the A429 and A452 southbound and there is stress on the B4027 to B4082 northbound section. In general, stress is marginally higher in the DS3 RSS2 scenario.
- 1.353 Significant delays are experienced at Toll Bar End to A428 northbound for DS3 RSS2. No links experience significant delay in the DM RSS2 scenario. In general, delay is marginally higher in the DS3 RSS2 scenario.

M5 Corridor

Junction 5

- 1.354 The Do Something 3 RSS2 scenario shows demand flows that are at approximately the same level as in the DM RSS2 scenario. Overall network delay is approximately 3% lower in DS3 RSS2 when compared to DM RSS2. However, the maximum stress in is 96% in both scenarios. There are major issues at Junction 5 on the south bound off-slip in both cases, with maximum queues reaching back to the mainline.
- 1.355 In both DM RSS2 and DS3 RSS2 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. The connecting road travelling from east to west shows the highest stress levels in both scenarios. The levels of stress at this location are comparable between scenarios.
- 1.356 Significant delays are experienced at Junction 5 on the SB off-slip. In DM RSS2 delays of approximately 9 min/km are experienced. This delay decreases to 8.5 min/km in the DS3 RSS2 scenario. The queues and delays are still a major issue in both scenarios at this location.
- 1.357 The throughput at Junction 5 is approximately 94% in the DS3 RSS2 scenario; a 1% improvement on the DM RSS2 scenario.

Junction 6 & Junction 7

- 1.358 The Do Something 3 RSS2 scenario shows demand flows that are approximately 1.5% lower than in DM RSS2. Despite the small reduction in demand flows the total network delay in DS2 is approximately 43.5% lower than in DM RSS2. The maximum stress recorded in DM RSS2 is 98% and 99% in DS2. In DM RSS2 there are major issues at Junction 6 that results in the maximum queues on both off-slips reaching back to the mainline. In DS3 RSS2, with the introduction of the new scheme, there are no longer significant problems at Junction 6. There are no issues at Junction 7 in either scenario.
- 1.359 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West of Junction 6 travelling west bound. DS3 RSS2 predicts significant stress at the same locations, but shows a significant decrease in the level observed on the A499 West approach to Junction 6 (98% to 91%).
- 1.360 DM RSS2 predicts significant delays at Junction 6 on both off-slips (NB: 2 min/km; SB: 3.3 min/km) and on A449 West approach (12 min/km). DS3 RSS2 no longer predicts any significant delays at Junction 6. The delays in DS3 RSS2 on the A449 West are recorded at only 0.6 min/km, the southbound off-slip at 0.4 min/km, and the northbound off-slip at 1.1 min/km.

- 1.361 The throughput at Junction 6 is 16% higher in DS2; an overall throughput of 94% compared to just 78% in DM RSS2.

M6 Junction 1

- 1.362 The DS3 RSS2 scenario shows demand flows that are approximately 1% lower than in DM RSS2. The DS3 RSS2 scenario shows total network delay that is approximately 27% higher than in the DM RSS2 scenario. The maximum stress is 79% in DM RSS2 and 80% in DS3 RSS2. However, in both the scenarios there are no major issues highlighted on the strategic network at M6 Junction 1.
- 1.363 In DM RSS2 there are no strategic links that experience significant levels of stress. However, there is stress observed on the A426 South travelling southbound from the junction.
- 1.364 In DS3 RSS2 there are no strategic links that experience significant levels of stress. However, there is stress observed on the A426 South travelling southbound from the junction.
- 1.365 There is no significant delay experienced on any strategic link in either scenario.
- 1.366 The throughput at Junction 1 is at 100% in DM RSS2 and 99% in DS3 RSS2. There are no operating issues at this junction in either scenario.

Do Something 1 RSS2 v. Do Something 2 RSS2 v. Do Something 3 RSS2

Local Models

A38 Corridor

- 1.367 The Do Something 1 RSS2 and Do Something 2 RSS2 scenarios have identical demand flows. The Do Something 3 RSS2 scenario has the highest demand flows, approximately 3% higher than the other two Do Something scenarios. The overall network delay is shown to be highest in the DS1 RSS2 scenario. Total delays in DS2 RSS2 are 44% less than in DS1 RSS2 and delays in DS3 RSS2 are 25% less than in DS1 RSS2. The maximum stress across the three DS scenarios is approximately 185% which occurs in DS1 RSS2 and DS2 RSS2. The maximum stress in DS3 RSS2 is approximately 179%.
- 1.368 In the DS scenarios the level of stress on strategic links ranges from 85% in DS1 RSS2 to 83% in DS2 RSS2 and DS3 RSS2. The percentage of stressed links is similar between the DS scenarios however the percentage of strategic links that exceed capacity is significantly higher in DS1 RSS2 than in the other two scenarios. In DS1 RSS2 59% of strategic road links are over capacity. In DS2 RSS2 this falls to 33% and in DS3 RSS2 it is at its lowest with 30% of links shown to be over capacity.
- 1.369 In DS2 RSS2 and DS3 RSS2 the section of the A38 travelling southbound from Branston to the A5127 is no longer over capacity as in DS1 RSS2. This is also the case on the northbound section of the A38 from A5127 to Catholm and from Barton Turn to Branston. However, it should be noted that these sections are still experiencing stress in DS2 RSS2 and DS3 RSS2.
- 1.370 Delay is significant on approximately 59% of strategic road links in the DS1 RSS2 scenario. In DS2 RSS2 approximately 33% of the strategic road links show significant delays and in DS3 RSS2 only 30%. This reduction relates to the significant reduction in delays on the A38 travelling southbound from Branston to the A5127 and northbound from A5127 to Catholm and from Barton Turn to Branston. These sections no longer exhibit significant delays in DS2 RSS2 and DS3 RSS2 and coincide with the links that are no longer over capacity in these scenarios.

A46 Corridor

A46 Corridor

- 1.371 The DS2 RSS2 scenario shows demand flows that are approximately 0.5% higher than DS1 RSS2 and 1% lower than DS3 RSS2. The total vehicle hours is shown to be approximately 0.5% higher in the DS2 RSS2 scenario compared to the DS1 RSS2 and 3.5% higher in the DS3 RSS2 compared to the DS2 RSS2 scenario. In DM TEMPRO the maximum stress is approximately 120%, DS2 RSS2 it is 132% and in DS3 RSS2 122%.
- 1.372 In DS1 RSS2 70% of the strategic links are stressed. A total of 30% of strategic links are shown to be over capacity. The most stressed sections are observed on the M40 Junction 15 to A428/A46 northbound and A425 to M6 Junction 2 southbound.
- 1.373 In DS2 RSS2 75% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The links experiencing stress in DS2 RSS2 are in the same locations as in DS1 RSS2. However, there is a higher level of stress on the A46 section from B4027 to B4082 northbound, and the section from Toll Bar End to A428 northbound is now over capacity.
- 1.374 In DS3 RSS2 75% of the strategic links are stressed. A total of 40% of strategic links are shown to be over capacity. The links experiencing stress in DS3 RSS2 are in the same locations as in DS2 RSS2. However, A429 to A452 southbound is now also over capacity.
- 1.375 Significant delays are experienced on the A46 stretch between the B4082 and M6 southbound in DS1 RSS2. In DS2 RSS2 and DS3 RSS2 significant delays are only experienced on the A46 from Toll Bar End to A428 northbound. However, in general, with the inclusion of the scheme improvements, DS2 RSS2 and DS3 RSS2 show significantly lower delays across the network.

M5 Corridor

Junction 5

- 1.376 The Do Something 1 RSS2 scenario shows demand flows that are at approximately 1% higher than in the Do Something 3 RSS2 scenario. Despite the small different in demand flows, the overall network delay is approximately 13% lower in DS3 RSS2 compared to DS1 RSS2. The maximum stress is 97% in DS1 RSS2 and 96% in DS3 RSS2. There are major issues at Junction 5 on the south bound off-slip in both cases, with maximum queues reaching back to the mainline.
- 1.377 In both DS1 RSS2 and DS3 RSS2 there are no strategic links that are stressed or over capacity. However, in both scenarios the connector roads between the two dumbbell roundabouts are shown to be stressed. The connecting road travelling from east to west shows the highest stress levels in both scenarios. The levels of stress at this location are comparable between scenarios.
- 1.378 Significant delays are experienced at Junction 5 on the SB off-slip. In DS1 RSS2 average delays of approximately 9.5 min/km are recorded. This delay decreases to 8.5 min/km in the DS3 RSS2 scenario. However, the queues and delays are still a major issue in both scenarios at this location.
- 1.379 The overall throughput at Junction 5 is approximately 93% in the DS3 RSS2 scenario; a 1% improvement on the DS1 RSS2 scenario.

Junction 6 & Junction 7

- 1.380 The demand flows in Do Something 1 RSS2 and Do Something 2 RSS2 are identical. The Do Something 3 RSS2 demand flows are approximately 1% lower than DS1 RSS2 and DS2 RSS2. The overall network delay is lowest in DS3 RSS2; 41% lower than in DS1 RSS2 and 5% lower than in DS2 RSS2. In DS1 RSS2 there are major issues at Junction 6 that results in the maximum queues on both off-slips reaching back to the mainline. In DS2 RSS2 and DS3 RSS2, with the introduction of the

new scheme, there is a considerable improvement in throughput and delay at Junction 6. Junction 7 experiences no problems in any of these scenarios.

- 1.381 In all three Do Something scenarios significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West of Junction 6 travelling west bound. DS3 RSS2 predicts a reduction in stress on the A499 West approach to Junction 6 (98% to 91%).
- 1.382 DS1 RSS2 predicts significant delays at Junction 6 on both off-slips (NB: 2.6 min/km; SB: 2.3 min/km) and on A449 West approach (11 min/km). DS2 RSS2 and DS3 RSS2 no longer predict any significant delays at these locations. The delays in DS2 RSS2 and DS3 RSS2 are comparable on all approaches to both junctions.
- 1.383 The throughput at Junction 6 is at its highest in DS3 RSS2 (94%). In DS2 RSS2 the throughput is 91%, and in DS1 RSS2 it is at its worst with only 78% of demand getting through the junction. There are no throughput issues at Junction 7 in any of the Do Something scenarios.

M6 Junction 1

- 1.384 The DS3 RSS2 scenario shows demand flows that are approximately 1.5% higher than in DS1 RSS2. The DS3 RSS2 scenario shows total network delay that is approximately 37% higher than in the DS1 RSS2 scenario. The maximum stress is 72% in DS1 RSS2 and 80% in DS3 RSS2. However, in both the scenarios there are no major issues highlighted on the strategic network at M6 Junction 1.
- 1.385 In DS1 RSS2 there are no strategic links that experience significant levels of stress. No other roads experience stress in this scenario either.
- 1.386 In DS3 RSS2 there are no strategic links that experience significant levels of stress. However, there is stress observed on the A426 South travelling southbound from the junction.
- 1.387 There is no significant delay experienced on any strategic link in either scenario.
- 1.388 The throughput at Junction 1 is 99% in both scenarios. As such, there are no operating issues at this junction in either scenario.

2026 PM Peak

Do Minimum TEMPRO v. Do Minimum RSS2

A38 Corridor

- 1.389 The DM RSS2 scenario shows demand flows that are approximately 4% higher than DM TEMPRO. The total network delay in DM RSS2 is shown to be approximately 6% higher than in DM TEMPRO. The maximum stress in DM TEMPRO is approximately 134% and in DM RSS2 it is 122%.
- 1.390 In DM TEMPRO the majority of strategic links are stressed (~83%). This includes all southbound links on the A38 and most of the northbound links. A total of 35% of strategic road links are shown to be over capacity in DM TEMPRO with the A38 southbound route being the worst affected. Links are shown to be over capacity on the A5 between Weeford and Wall Island junction, on the A38 southbound links from Branston to Swinfen Roundabout, and on the northbound sections of A38 between Weeford and the A5192.
- 1.391 In DM RSS2 85% of the strategic links show stress. The stress in DM RSS2 occurs largely on the same sections as in DM TEMPRO but with the addition of the A38 northbound links between Catholme and Barton Turn and between Branston and Claymills. In DM RSS2 almost all links in both directions on the A38 are stressed.
- 1.392 A total of 44% of strategic road links are shown to be over capacity in DM RSS2 with the A38 northbound route now being more affected than in DM TEMPRO. The additional links that are over capacity in DM RSS2 that are not in DM TEMPRO relate to northbound sections of the A38.
- 1.393 Delay is significant (>120sec/km) on approximately 35% of strategic road links in DM TEMPRO scenario. The majority of the A38 southbound links show significant delays and the northbound stretch between Weeford and A5192. There are also significant delays on the A5 westbound from Weeford to Wall Island.
- 1.394 Delays increase in DM RSS2 RSS, with approximately 44% of strategic road links now showing significant delays. Delays are recorded on the same sections as observed in the DM TEMPRO scenario and are now also shown on the northbound sections of the A38 between Swinfen Roundabout and Alrewas and between Barton Turn and Eggington.

A5 Shrewsbury

- 1.395 The DM RSS2 scenario shows demand flows that are approximately 7% higher than DM TEMPRO. Despite the relatively small difference in demand, the total network delay is shown to be over 60.5% higher in the DM RSS2 scenario. The maximum link stress in DM TEMPRO is at approximately 86% of capacity. In DM RSS2 the maximum link stress is 91%.
- 1.396 In DM TEMPRO 15% of the strategic links are stressed. No links are shown to be over capacity. In DM 1 the stressed sections are observed on the A5 westbound between A5/M45 and Emstrey Roundabout.
- 1.397 In DM RSS2 20% of the strategic links are stressed. However, no links are shown to exceed capacity. DM RSS2 predicts stress on the same sections as in DM TEMPRO but to a higher degree and also highlights stress on the A5 sections westbound between A458 and A49/A5112.

- 1.398 Significant delays are experienced at the A5/A49 junction, A5/Emstrey Road roundabout and A5 /A49 Hereford Road junction in both scenarios. However, the delays are shown to be significantly higher in DM RSS2.

A46 Corridor

A46 Stratford

- 1.399 The DM RSS2 scenario shows demand flows that are approximately 2% higher than DM TEMPRO. The total vehicle hours are approximately 2% higher in the DM RSS2 scenario. In DM TEMPRO the maximum stress is approximately 98% and in DM RSS2 it is 81%.
- 1.400 In DM TEMPRO 37.5% of the strategic links are stressed. However, no links are shown to exceed capacity. The most stressed sections are all observed on the northbound A46 links between the A46/A435 until the A46/A439 Warwick Road Junction.
- 1.401 In DM RSS2 25% of the strategic links are stressed. Again, no links are shown to be over capacity. The most stressed sections are observed on the northbound section of the A46 between A46/A4300 Birmingham Road and the A46/A439 Warwick Road Junction, and on the southbound link between A46/A4300 Birmingham Road and A46/A422 Alcester Road Junction. Stress is significantly lower on the northbound sections of the A46 between the A46/A435 and A4300 Birmingham Road Junction in DM RSS2.
- 1.402 There are no sections of the A46 that experience significant delays in either scenario. In general delays are higher in DM TEMPRO, most notably on the A46 northbound links between the A46/A435 and A4300 Birmingham Road Junction.

A46 Corridor

- 1.403 The DM RSS2 scenario shows demand flows that are approximately 1.5% lower than DM TEMPRO. The total vehicle hours is shown to be approximately 1.5% higher in the DM RSS2 scenario. In DM TEMPRO the maximum stress is approximately 138% and in DM RSS2 it is 135%.
- 1.404 In DM TEMPRO 80% of the strategic links are stressed. A total of 40% of strategic links are shown to be over capacity. The stressed sections are observed on the A46 northbound between M40 Junction 15 and M6 Junction 2, and southbound between A429 and M6 Junction.
- 1.405 In DM RSS2 80% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The links experiencing stress in DM RSS2 are in the same locations as in DM TEMPRO. However, the southbound section from the A45 to Toll Bar End is no longer over capacity. In general, stress is lower in the DM RSS2 scenario.
- 1.406 Significant delays are experienced in the DM TEMPRO scenario on the northbound sections between A45 and Toll Bar End, and Toll Bar End and A428. The delays experienced in DM RSS2 are in the same location as DM TEMPRO. However, there are also significant delays from A428 to B4027 northbound and B4082 to M6 Junction 2 southbound.

Hereford

- 1.407 The DM RSS2 scenario shows demand flows that are approximately 10.5% higher than those in DM TEMPRO. The total network delay is shown to be approximately 36% higher in the DM RSS2 scenario. The maximum link stress in DM TEMPRO is at approximately 105% of capacity. In DM RSS2 the maximum link stress reaches 108%.
- 1.408 In DM TEMPRO 25% of the strategic links are stressed and 9% are shown to be over capacity. In DM 1 the most stressed sections are observed on the A49 travelling southbound from B4359 Newtown

Road until A49/A438 New Market Street Junction. Significant stress is also highlighted on the A49 links between A465 Belmont Road and the A49/A438 New Market Street Junction, and on the section of the A49 travelling northbound from before A49/B4359 Newtown Road Junction to A49/Priory Place roundabout. There is also significant stress highlighted on the A465 approach to A49/A465 Belmont Road Junction.

- 1.409 In DM RSS2 28% of the strategic links are stressed and 9% are shown to be over capacity. DM RSS2 predicts stress on the same sections as in DM TEMPRO, and in general, to a slightly higher degree.
- 1.410 Significant delays are experienced on 32% percent of the strategic links in DM TEMPRO. In DM RSS2 this percentage has increased to 37%. In both scenarios the majority of the A49 between A49/Priory Place roundabout and A49/B4399 Holme Lacy Road Junction show long delays.

M5 Corridor

Junction 5

- 1.411 The DM RSS2 scenario shows demand flows that are at approximately the same level as in the DM TEMPRO. However, the total network delay in DM RSS2 is approximately 5% higher. The maximum stress in both scenarios is approximately 119%. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.
- 1.412 In both DM TEMPRO and DM RSS2 there is significant stress on the M5 mainline travelling northbound. This link is at approximately 90% of capacity.
- 1.413 In addition to this strategic link there is also significant stress highlighted on the connector road between the two dumbbell roundabouts at Junction 5. Both directions show stress but it is on the connector travelling from east to west that shows the highest stress levels (~119% capacity in both scenarios).
- 1.414 Significant delay is experienced at Junction 5 on the SB off-slip. In DM TEMPRO average delays of approximately 15 min/km are experienced. This delay increases to 16.5 min/km in the DM RSS2 scenario.
- 1.415 The throughput at Junction 5 is approximately 87% in both scenarios, primarily as a result of the queuing and delay on the southbound off-slip.

Junction 6 & Junction 7

- 1.416 The DM RSS2 scenario shows demand flows that are approximately 2.5% higher than in DM TEMPRO. Despite the marginal increase in demand flows the total network delays in DM RSS2 is approximately 48% higher than in DM TEMPRO. The maximum stress is 103% in DM TEMPRO and 105% in DM RSS2. There are throughput issues highlighted at Junction 6 in the DM RSS2 scenario.
- 1.417 In DM TEMPRO significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions. DM RSS2 predicts stress at the same locations but to a slightly higher degree. DM RSS2 also highlights the initial signs of stress on A449 West westbound link.
- 1.418 DM TEMPRO predicts significant delays at Junction 6 on the northbound off-slip (~2.7 min/km) only. DM RSS2 predicts significant delays on both off-slips at Junction 6 (NB: 5.9 min/km; SB: 2.4 min/km) and on the A449 West approach (4.3 min/km).
- 1.419 The throughput at Junction 6 is 8% less in DM RSS2 (DM TEMPRO: 97%; DM RSS2 RSS: 89%) as a result of the longer queues and delays on the junction approaches. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

- 1.420 The DM RSS2 scenario shows demand flows that are approximately 1% higher than DM TEMPRO. The DM RSS2 scenario shows total network delay that is approximately 15% higher than in the DM TEMPRO scenario. The maximum stress in both scenarios reaches 100%. However, in both the scenarios there are no major issues highlighted on the strategic network at M6 Junction 1.
- 1.421 In DM TEMPRO 25% of the strategic links experience significant levels of stress. However, no strategic link is shown to be over capacity. This stress occurs on the M6 mainline to the north of Junction 1 travelling southbound. There is also a high level of stress observed on the A426 South travelling northbound towards the junction.
- 1.422 In DM RSS2 the same strategic link as in the DM TEMPRO scenario experiences stress but at a marginally lower level. Again, there is still a high level of stress on the northbound link of the A426 South.
- 1.423 There is no significant delay experienced on any strategic link in either scenario.
- 1.424 The throughput at Junction 1 is at 100% in both scenarios, confirming that there are no operating issues at this junction.

Evesham

- 1.425 The DM RSS2 scenario shows demand flows that are approximately 3% lower than in DM TEMPRO. The total network delay is also shown to be lower in DM RSS2 with approximately 31% less overall delay than in DM TEMPRO. The maximum link stress in DM TEMPRO is at approximately 97% of capacity. In DM RSS2 the maximum link stress is 93%.
- 1.426 In DM TEMPRO 60% of the strategic links are stressed. No links are shown to be over capacity. In DM 1 the most stressed sections are predicted in both directions between A46/B4035 and A46/A44, in the northbound direction between A46/A4184 and A46/The link, and in the southbound direction between A46/B4035 and A46/The Link.
- 1.427 In DM RSS2 50% of the strategic links are stressed. However, no links are shown to exceed capacity. DM RSS2 predicts stress on the same sections as in DM TEMPRO but to a marginally lesser degree.
- 1.428 There is no significant delay observed on any strategic link or junction in either DM TEMPRO or DM RSS2.

Do Minimum RSS2 v. Do Minimum NLP 7

A5 Shrewsbury

- 1.429 The DM NLP7 scenario shows demand flows that are approximately 0.5% higher than in DM RSS2 and total network delays that are approximately 5% higher. The maximum link stress in DM RSS2 is at approximately 91% of capacity. In DM NLP7 it is at 92%.
- 1.430 In DM RSS2 20% of the strategic links are stressed. However, no links are shown to exceed capacity. The stressed sections are observed on the westbound sections of the A5 between A5/M45 and Emstrey Roundabout and the A458 and A49/A5112.
- 1.431 In DM NLP7 20% of the strategic links are stressed. No links are shown to be over capacity. The location and levels of stress are in line with what was highlighted in the DM RSS2 scenario.

- 1.432 Significant delays are experienced at the A5/A49 junction, A5/Emstrey Road roundabout and A5 /A49 Hereford Road junction in both scenarios. The delays are shown to increase marginally in DM NLP7.

A46 Corridor

A46 Stratford

- 1.433 The DM NLP7 scenario shows demand flows that are approximately 2% higher than DM RSS2. The total vehicle hours are approximately 7% higher in the DM RSS2 scenario. In DM NLP7 the maximum stress is approximately 83% compared to 81% in DM RSS2.
- 1.434 In DM RSS2 25% of the strategic links are stressed. However, no links are shown to be over capacity. The most stressed sections are observed on the northbound section of the A46 between A46/A4300 Birmingham Road and the A46/A439 Warwick Road Junction, and on the southbound link between A46/A4300 Birmingham Road and A46/A422 Alcester Road Junction.
- 1.435 In DM NLP7 25% of the strategic links are stressed. Again, no links are shown to be over capacity. The most stressed sections are observed at the same locations as in DM RSS2. However, the levels of stress are marginally higher on the majority of links in the DS2 NLP7 scenario.
- 1.436 There are no sections of the A46 that experience significant delays in either scenario and delays are at a similar level in both scenarios.

A46 Corridor

- 1.437 The DM NLP7 scenario shows demand flows that are approximately 1% higher than DM RSS2. The total vehicle hours is shown to be approximately 1.5% higher in the DM NLP7 scenario. In DM RSS2 and DM NLP7 the maximum stress is approximately 135% to 131%.
- 1.438 In DM RSS2 80% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed on the A46 northbound between M40 Junction 15 and M6 Junction 2, and southbound between A429 and M6 Junction.
- 1.439 In DM NLP7 80% of the strategic links are stressed. A total of 40% of strategic links are shown to be over capacity. The links experiencing stress in DM NLP7 are in the same locations as in DM RSS2. However, the A428 to B4027 NB is over capacity now. In general, stress is higher in the DM NLP7 scenario.
- 1.440 Significant delays are experienced along the A46 from A45 to A428 SB, B4082 to M6 Junction 2 SB and A428 to B4027 NB in both scenarios. In general, delays are comparable between the two scenarios.

M5 Corridor

Junction 5

- 1.441 The DM NLP7 scenario shows demand flows that are approximately 1.5% higher than in DM RSS2. The total network delay in DM NLP7 is approximately 3% higher than in DM RSS2. The maximum stress is approximately 119% in DM RSS2 and 121% in DM NLP7. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.
- 1.442 In both DM RSS2 and DM NLP7 there is significant stress on the M5 mainline travelling northbound. This link is at approximately 90% of capacity in DM RSS2 and increases to 92% in DM NLP7.
- 1.443 In addition to this strategic link there is also significant stress highlighted on the connector road between the two dumbbell roundabouts at Junction 5. Both directions show stress but it is on the

connector travelling from east to west that shows the highest stress levels (~119% capacity in DM RSS2 and 121% in DM NLP7).

1.444 Significant delay is experienced at Junction 5 on the SB off-slip. In both scenarios the average delay of approximately 16.5 min/km are experienced on this off-slip.

1.445 The throughput at Junction 5 is 1% less in DM NLP7.

Junction 6 & Junction 7

1.446 The DM NLP7 scenario shows demand flows that are approximately 0.5% higher than in DM RSS2. The total network delay is approximately the same in both scenarios. The maximum stress is 105% in DM RSS2 and 106% in DM NLP7. There are throughput issues highlighted at Junction 6 in both scenarios.

1.447 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West travelling west bound from Junction 6. DM NLP7 highlights stress on the same links and at similar levels.

1.448 DM RSS2 predicts significant delays on both off-slips at Junction 6 (NB: 5.9 min/km; SB: 2.4 min/km) and on the A449 West approach (4.3 min/km). DM NLP7 highlights significant delays on the same sections. However, delays are significantly higher on the A449 West approach (5.5 min/km) and lower on the northbound off-slip (2.8 min/km).

1.449 The throughput at Junction 6 is approximately the same in both scenarios. There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

1.450 The DM NLP7 scenario shows demand flows that are approximately 1.5% higher than DM RSS2. The total network delay is approximately the same, and the maximum stress is at 100% in both scenarios. However, there are no major issues highlighted on the strategic network at M6 Junction 1 in either scenario.

1.451 In DM RSS2 25% of the strategic links experience significant levels of stress. However, no strategic link is shown to be over capacity. This stress occurs on the M6 mainline to the north of Junction 1 travelling southbound (~77%). There is also a high level of stress observed on the A426 South travelling northbound towards the junction.

1.452 In DM NLP7 the same strategic link experiences significant levels of stress as in DM RSS2 and at a similar level (~78%). There is still a high level of stress observed on the A426 South travelling northbound towards the junction.

1.453 There is no significant delay experienced on any strategic link in either scenario.

1.454 The throughput at Junction 1 is at 100% in both scenarios, confirming that there are no operating issues at this junction.

Do Minimum RSS2 v. Do Minimum NLP 9

A38 Corridor

1.455 The Do Minimum NLP9 scenario shows demand flows that are approximately 3.5% higher than DM RSS2. Despite the relatively small difference in demand, the total network delay is shown to be

approximately 80.5% higher in the DM NLP9 scenario. The maximum stress in DM RSS2 is approximately 122% and in DM NLP9 it is 130%.

- 1.456 In DM RSS2 85% of the strategic links show stress. The vast majority of A38 links in both directions are shown to be stressed in this scenario. A total of 44% of strategic road links are shown to be over capacity in DM RSS2.
- 1.457 In DM NLP9 predicts stress on the same sections as noted above but to a slightly higher extent. The northbound sections on the A38 between Alrewas and Barton Turn are now shown to be over capacity resulting in an increase in the percentage of strategic links that are over capacity in DM NLP9 (~56%).
- 1.458 Delay is significant on approximately 44% of strategic road links in the DM RSS2 scenario. In DM NLP9 approximately 56% of the strategic road links show significant delays.
- 1.459 DM NLP9 shows a significant increase on all the sections already showing delays in DM RSS2. There are also additional sections that now show significant delays in DM NLP9. This includes the northbound sections on the A38 between Alrewas and Barton Turn.

A5 Shrewsbury

- 1.460 The DM NLP9 scenario shows demand flows that are approximately 3% higher than in DM RSS2 and total network delays that are approximately 42% higher. The maximum link stress in DM RSS2 is at approximately 91% of capacity. In DM NLP9 it is at 94%.
- 1.461 In DM RSS2 20% of the strategic links are stressed. However, no links are shown to exceed capacity. The stressed sections are observed on the westbound sections of the A5 between A5/M45 and Emstrey Roundabout and the A458 and A49/A5112.
- 1.462 In DM NLP9 30% of the strategic links are stressed. No links are shown to be over capacity. The links experiencing stress in DM RSS2 are also stressed in DM NLP9 but to a slightly higher degree. DM NLP9 also highlights that the eastbound section of the A5 between A49 and Emstrey Roundabout and the westbound section west of the A458 are also stressed.
- 1.463 Significant delays are experienced at the A5/A49 junction, A5/Emstrey Road roundabout and A5 /A49 Hereford Road junction in both scenarios. The delays are shown to increase significantly in DM NLP9.

A46 Corridor

A46 Stratford

- 1.464 The DM NLP9 scenario shows demand flows that are approximately 9% higher than DM RSS2. The total vehicle hours are shown to be approximately 24% higher in the DM NLP9 scenario. In DM RSS2 the maximum stress is approximately 81% and in DM NLP9 it is 88%.
- 1.465 In DM RSS2 25% of the strategic links are stressed. However, no links are shown to exceed capacity. The most stressed sections are observed on the northbound section of the A46 between A46/A4300 Birmingham Road and the A46/A439 Warwick Road Junction, and on the southbound link between A46/A4300 Birmingham Road and A46/A422 Alcester Road Junction.
- 1.466 In DM NLP9 50% of the strategic links are stressed. No links are shown to be over capacity. The links experiencing stress in DM RSS2 also experience stress in DM NLP9. There is also stress highlighted on the A46 in both directions on the section between A46/A438 and A46/A422 Alcester Road. In general, stress increases significantly in the DM NLP9 scenario.

1.467 There are no sections of the A46 that experience significant delays in either scenario. Delays are marginally higher in the DM NLP9 scenario.

A46 Corridor

1.468 The DM NLP9 scenario shows demand flows that are approximately 3% higher than DM RSS2. The total vehicle hours is shown to be approximately 2% higher in the DM NLP9 scenario. In DM RSS2 the maximum stress is approximately 135% and in DM NLP9 it is 140%.

1.469 In DM RSS2 80% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed on the A46 northbound between M40 Junction 15 and M6 Junction 2, and southbound between A429 and M6 Junction.

1.470 In DM NLP9 80% of the strategic links are stressed. A total of 40% of strategic links are shown to be over capacity. The links experiencing stress in DM NLP9 are in the same locations as in DM RSS2. However, A428 to B4027 NB is now over capacity. In general, stress increases marginally in the DM NLP9 scenario.

1.471 Significant delays are experienced from A45 to A428 SB, B4082 to M6 Junction 2 SB, and from A428 to B4027 NB in both scenarios. In general, delays are comparable between the two scenarios.

Hereford

1.472 The DM NLP9 scenario shows demand flows that are approximately 3% higher than those in DM RSS2. The total network delay is shown to be approximately 8% higher in the DM RSS2 scenario. The maximum link stress in DM RSS2 is at approximately 108% of capacity. In DM NLP9 the maximum link stress reaches 109%.

1.473 In DM RSS2 28% of the strategic links are stressed and 9% are shown to be over capacity. The most stressed sections are observed on the A49 travelling southbound from B4359 Newtown Road until A49/A438 New Market Street Junction. Significant stress is also highlighted on the A49 links between A465 Belmont Road and the A49/A438 New Market Street Junction, and on the section of the A49 travelling northbound from the before A49/B4359 Newtown Road Junction to A49/Priory Place roundabout. There is also significant stress highlighted on the A465 approach to A49/A465 Belmont Road Junction.

1.474 In DM NLP9 26% of the strategic links are stressed and 10% are shown to be over capacity. DM NLP9 predicts stress on the same sections as in DM RSS2 but in general the stress levels are marginally higher.

1.475 Significant delays are experienced on 37% percent of strategic links in both scenarios. This is experienced on majority of the A49 between A49/Priory Place roundabout and A49/B4399 Holme Lacy Road Junction.

M5 Corridor

Junction 5

1.476 The DM NLP9 scenario shows demand flows that are approximately 2.5% higher than in DM RSS2. The total network delay in DM NLP9 is approximately 5% higher than in DM RSS2. The maximum stress is 119% in DM RSS2 and 122% in DM NLP9. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.

1.477 In both DM RSS2 and DM NLP9 there is significant stress on the M5 mainline travelling northbound. This link is at approximately 90% of capacity in DM RSS2 and increases to 92% in DM NLP9.

- 1.478 In addition to this strategic link there is also significant stress highlighted on the connector road between the two dumbbell roundabouts at Junction 5. Both directions show stress but it is on the connector travelling from east to west that shows the highest stress levels (~119% capacity in DM RSS2 and 122% in DM NLP9).
- 1.479 Significant delay is experienced at Junction 5 on the SB off-slip. In DM RSS2 the average delay on this approach is approximately 16.5 min/km. In DM NLP9 this delay has increased to 17.6 min/km.
- 1.480 The throughput at Junction 5 is 1% less in DM NLP9.

Junction 6 & Junction 7

- 1.481 The DM NLP9 scenario shows demand flows that are approximately 5% higher than in DM RSS2. The total network delay is approximately 27% higher in DM NLP9. The maximum stress is 105% in DM RSS2 and 113% in DM NLP9. There are throughput issues highlighted at Junction 6 in both scenarios.
- 1.482 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West travelling west bound from Junction 6. DM NLP9 highlights significant stress on the same links but to a marginally higher degree.
- 1.483 DM RSS2 predicts significant delays on both off-slips at Junction 6 (NB: 5.9 min/km; SB: 2.4 min/km) and on the A449 West approach (4.3 min/km). DM NLP9 highlights significant delays on the same sections. However, delays are shown to be significantly higher in DM NLP9 on the A449 West approach (7.3 min/km).

M6 Junction 1

- 1.484 The DM NLP9 scenario shows demand flows that are approximately 2.5% higher than DM RSS2. The DM NLP9 scenario shows total network delay that is approximately 6% higher than in the DM RSS2 scenario. The maximum stress in both scenarios reaches approximately 100%. However, there are no major issues highlighted on the strategic network at M6 Junction 1 in either scenario.
- 1.485 In DM RSS2 25% of the strategic links experience significant levels of stress. However, no strategic link is shown to be over capacity. This stress occurs on the M6 mainline to the north of Junction 1 travelling southbound (~77%). There is also a high level of stress observed on the A426 South travelling northbound towards the junction.
- 1.486 In DM NLP9 the same strategic link experiences significant levels of stress as in DM RSS2 and at a similar level (~78%). There is still a high level of stress observed on the A426 South travelling northbound towards the junction.
- 1.487 There is no significant delay experienced on any strategic link in either scenario.
- 1.488 The throughput at Junction 1 is at 100% in both scenarios, confirming that there are no operating issues at this junction.

Evesham

- 1.489 The DM NLP9 scenario shows demand flows that are approximately 7.5% higher than in DM RSS2. The total network delay is approximately 33% higher in DM NLP9. The maximum link stress in DM RSS2 is at approximately 93% of capacity. In DM NLP9 the maximum link stress is at 101%.
- 1.490 In DM RSS2 50% of the strategic links are stressed. No links are shown to be over capacity. In DM RSS2 the most stressed sections are predicted in both directions between A46/B4035 and A46/A44,

in the northbound direction between A46/A4184 and A46/The link, and in the southbound direction between A46/B4035 and A46/The Link.

- 1.491 In DM RSS2 NLP 60% of the strategic links are stressed. However, no links are shown to exceed capacity. DM NLP9 predicts stress on the same sections as in DM RSS2 but to a significantly higher degree. The A46 northbound section between A446/A44 and A46/B4035 now experiences stress in DM NLP9.
- 1.492 There is no significant delay observed on any strategic link or junction in either DM RSS2 or DM NLP9.

Do Minimum RSS2 v. Do Something 1 RSS2

A38 Corridor

- 1.493 The Do Something 1 RSS2 scenario shows demand flows that are approximately 2.5% higher than DM RSS2. Despite the relatively small difference in demand, the total network delay is shown to be approximately 78% higher in the DS1 RSS2 scenario. Several links in both scenarios are shown to exceed capacity. The maximum stress in DM RSS2 is approximately 122% and in DS1 RSS2 it is 144%.
- 1.494 In DM RSS2 85% of the strategic links show stress. The vast majority of A38 links in both directions are shown to be stressed in this scenario. A total of 44% of strategic road links are shown to be over capacity in DM RSS2.
- 1.495 In DS1 RSS2 78% of the strategic links show stress. Again, the vast majority of A38 links in both directions are shown to be stressed in DS1 RSS2. A total of 44% of strategic road links are shown to be over capacity in DS1 RSS2.
- 1.496 When comparing DS1 RSS2 with DM RSS2 there appears to be a general reduction in stress on the northbound links of the A38 but a general increase in stress on the southbound links.
- 1.497 The most significant reduction in stress in DS1 RSS2 occurs on the northbound stretch between Barton and Claymills. The most significant increase occurs on the A38 southbound between A5132 and Branston.
- 1.498 In DS1 RSS2 the northbound section of the A38 between Branston and Claymills no longer shows stress. The A38 northbound sections between A5192 and A5127, between Hilliard's Cross and Alrewas, and between Barton Turn and Eggington no longer show to be over capacity. However, they are still experiencing stress.
- 1.499 The A38 southbound section between A5192 and A5127, between Hilliard's Cross and Alrewas, and between Barton Turn and Eggington are now shown to be over capacity in DS1 RSS2 when compared to DM RSS2.
- 1.500 Delay is significant on approximately 44% of strategic road links in the DM RSS2 scenario. In DS1 RSS2 the same proportions of the strategic road links show significant delays. Despite the similar proportions, the specific sections showing significant delays have changed between the two scenarios. As with the network stress, in DS1 RSS2 the A38 northbound sections have seen a significant reduction in delays when compared to DM RSS2 and the southbound sections have seen a significant increase.

A46 Corridor

A46 Stratford

- 1.501 The Do Something 1 RSS2 scenario shows demand flows that are at approximately the same level as in DM RSS2. The total vehicle hours are shown to be approximately 2% higher in the DS1 RSS2. In DM RSS2 the maximum stress is approximately 81% and in DS1 RSS2 it is 83%.
- 1.502 In DM RSS2 25% of the strategic links are stressed. However, no links are shown to exceed capacity. The most stressed sections are observed on the northbound section of the A46 between A46/A4300 Birmingham Road and the A46/A439 Warwick Road Junction, and on the southbound link between A46/A4300 Birmingham Road and A46/A422 Alcester Road Junction.
- 1.503 In DS1 RSS2 25% of the strategic links are still stressed. No links are shown to be over capacity. The same links that are experiencing stress in DM RSS2 also experience stress in DS1 RSS2, and at a similar level. In general, stress decreases marginally across the A46 in the DS1 RSS2 scenario.
- 1.504 There are no sections of the A46 that experience significant delays in either scenario. As with the stress levels, delays are also shown to be marginally lower in the DS1 RSS2 scenario when compared with DM RSS2.

A46 Corridor

- 1.505 The Do Something 1 RSS2 scenario shows demand flows that are approximately 0.02% higher than DM RSS2. The total vehicle hours is shown to be approximately 1% lower in the DS1 RSS2 scenario. In DM RSS2 the maximum stress is approximately 135% and in DS1 RSS2 it is 132%.
- 1.506 In DM RSS2 80% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed on the A46 northbound between M40 Junction 15 and M6 Junction 2, and southbound between A429 and M6 Junction.
- 1.507 In DS1 RSS2 80% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The links experiencing stress in DS1 RSS2 are in the same locations as in DM RSS2. In general, stress is marginally higher in DS1 RSS2.
- 1.508 Significant delays are experienced from A45 to A428 SB, B4082 to M6 Junction 2 SB, and from A428 to B4027 NB in both scenarios. In general, delays are comparable between the two scenarios.

M5 Corridor

Junction 5

- 1.509 The Do Something 1 RSS2 scenario shows demand flows that are approximately 1% higher than in DM RSS2. The total network delay in DS1 RSS2 is approximately 0.5% higher than in DM RSS2. The maximum stress is 119% in DM RSS2 and 120% in DS1 RSS2. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.
- 1.510 In both DM RSS2 and DS1 RSS2 there is significant stress on the M5 mainline travelling northbound. This link is at approximately 90% of capacity in DM RSS2 and increases to 91% in DS1 RSS2.
- 1.511 In addition to this strategic link there is also significant stress highlighted on the connector road between the two dumbbell roundabouts at Junction 5. Both directions show stress but it is on the connector travelling from east to west that shows the highest stress levels (~119% capacity in both scenarios).
- 1.512 Significant delay is experienced at Junction 5 on the SB off-slip. In both scenarios the average delay on this approach is approximately 16.5 min/km.

1.513 The throughput at Junction 5 is 86% in DS1 RSS2, compared to 87% in the DM RSS2 scenario.

Junction 6 & Junction 7

1.514 The Do Something 1 RSS2 scenario shows demand flows that are at approximately the same level as in DM RSS2. However, total network delay in DS1 RSS2 is approximately 8% lower. The maximum stress is 105% in DM RSS2 and is 104% in DS1 RSS2. There are throughput issues highlighted at Junction 6 in both scenarios.

1.515 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West travelling west bound from Junction 6. DS1 RSS2 highlights significant stress on the same links and at a similar level.

1.516 DM RSS2 predicts significant delays on both off-slips at Junction 6 (NB: 5.9 min/km; SB: 2.4 min/km) and on the A449 West approach (4.3 min/km). DS1 RSS2 no longer highlights significant delays on the A449 West approach (1 min/km), and highlights significantly lower delays on both of the Junction 6 off-slips (NB: 2.5 min/km; SB: 2.5 min/km).

1.517 The throughput at Junction 6 is approximately 1% higher in DS1 RSS2 (90%). There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

1.518 The DS1 RSS2 scenario shows demand flows that are approximately 2.5% lower than DM RSS2. The DS1 RSS2 scenario shows total network delay that is approximately 6% lower than in the DM RSS2 scenario. The maximum stress falls from 100% in DM RSS2 to 93% in DS1 RSS2. There are no major issues highlighted on the strategic network at M6 Junction 1 in either scenario.

1.519 In DM RSS2 25% of the strategic links experience significant levels of stress. However, no strategic link is shown to be over capacity. This stress occurs on the M6 mainline to the north of Junction 1 travelling southbound (~77%). There is also a high level of stress observed on the A426 South travelling northbound towards the junction.

1.520 In DS1 RSS2 the same strategic link experiences significant levels of stress as in DM RSS2 and at a similar level (~78%). There is still a high level of stress observed on the A426 South travelling northbound towards the junction but at a marginally lower level than in DM RSS2.

1.521 There is no significant delay experienced on any strategic link in either scenario.

1.522 The throughput at Junction 1 is at 100% in both scenarios, confirming that there are no operating issues at this junction.

Do Minimum RSS2 v. Do Something 2 RSS2

A38 Corridor

1.523 The Do Something 2 RSS2 scenario shows demand flows that are approximately 3% lower than DM RSS2. Despite the increase in demand, there is an approximate decrease in the total network delay of 11% in the DS2 RSS2 scenario. The maximum stress in DM RSS2 is approximately 122% and in DS2 RSS2 it is 144%.

1.524 In DM RSS2 85% of the strategic links show stress. The vast majority of A38 links in both directions are shown to be stressed in this scenario. A total of 44% of strategic road links are shown to be over capacity.

- 1.525 In the DS2 RSS2 scenario the level of stress on the majority of links is shown to be lower than in DM RSS2 and several links are no longer highlighting any stress. Almost all the southbound links on the A38 are still showing stress however, several of the northbound links no longer do. A total of 63% of the strategic links now show stress in DS2 RSS2. A total of 30% of strategic road links are still over capacity, the majority of which are on the A38 southbound links.
- 1.526 The most significant reduction in stress when comparing DS2 RSS2 and DM RSS2 occurs on the stretch of A38 travelling northbound between A5127 and Claymills. This section is no longer highlighting stress in DS2 RSS2.
- 1.527 The northbound section of the A38 between A5192 and Alrewas, and between Barton Turn and Eggington, which both showed to be over capacity in DM RSS2 RSS, no longer are in DS2 RSS2. The same applies on the southbound sections of the A38 between Branston and Barton Turn, between Catholme and Alrewas, and between Hilliard's Cross and A5127. However, it should be noted that these southbound sections are still showing relatively high levels of stress in DS2 RSS2.
- 1.528 Delay is significant on approximately 44% of strategic road links in the DM RSS2 scenario. In DS2 RSS2 approximately 30% of the strategic road links show significant delays. The northbound A38 sections from A5192 to Alrewas and from Barton Turn and Branston no longer show significant levels of delays in DS2 RSS2. The same is true on the southbound sections that were noted above as no longer exceeding capacity. In general there has been a significant decrease in delays on all sections of the A38.

A46 Corridor

A46 Corridor

- 1.529 The Do Something 2 RSS2 scenario shows demand flows that are approximately 2% higher than DM RSS2. The total vehicle hours is shown to be approximately 2% lower in the DS2 RSS2 scenario. In DM RSS2 the maximum stress is approximately 135% and in DS2 RSS2 it is 153%.
- 1.530 In DM RSS2 80% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed on the A46 northbound between M40 Junction 15 and M6 Junction 2, and southbound between A429 and M6 Junction.
- 1.531 In DS2 RSS2 80% of the strategic links are stressed. A total of 40% of strategic links are shown to be over capacity. The links experiencing stress in DS2 RSS2 are in the same locations as in DM RSS2. However, the A46 stretch from A45 to Toll Bar End SB is now over capacity. In general, stress increases marginally in the DS2 RSS2 scenario.
- 1.532 Significant delays are experienced from A45 to A428 SB and from A428 to B4027 NB in the both scenarios. However, DM RSS2 also shows significant delays from B4082 to M6 Junction 2 SB.

Hereford

- 1.533 The Do Something 2 RSS2 scenario shows demand flows that are at approximately the same level as in DM RSS2. However, in general flows are observed to decrease on key routes as traffic is diverted on to the Western Distributor Road in the DS2 RSS2 scenario. As such, the total network delay is shown to be approximately 19% lower in the DS2 RSS2 scenario. The maximum link stress has also fallen from 108% in DM RSS2 to 104% in DS2 RSS2.
- 1.534 In DM RSS2 28% of the strategic links are stressed and 9% are shown to be over capacity. The most stressed sections are observed on the A49 travelling southbound from B4359 Newtown Road until A49/A438 New Market Street Junction. Significant stress is also highlighted on the A49 links between A465 Belmont Road and the A49/A438 New Market Street Junction, and on the section of the A49

travelling northbound from before A49/B4359 Newtown Road Junction to A49/Priory Place roundabout. There is also significant stress highlighted on the A465 approach to A49/A465 Belmont Road Junction.

- 1.535 In DS2 RSS2 21% of the strategic links are stressed and 9% are shown to be over capacity. DS2 RSS2 predicts stress on the same sections as in DM RSS2 with the exception of the northbound section of the A49 between A465 Belmont Road and the A49/A438 New Market Street. In general the stress levels are lower on all links.
- 1.536 Significant delays are experienced on 37% percent of strategic links in DM RSS2. In DS2 RSS2 only 23% of these links experience significant delays. In both scenarios these delays are experienced on the A49 between A49/Priory Place roundabout and A49/B4399 Holme Lacy Road Junction. However, the levels of delays have reduced significantly in the DS2 RSS2 scenario.

M5 Corridor

Junction 6 & Junction 7

- 1.537 The Do Something 2 RSS2 scenario shows demand flows that are approximately the same as in DM RSS2. The maximum stress in each scenario is approximately the same. In DM RSS2 there are throughput issues at Junction 6. However, in DS2 RSS2, with the introduction of the new scheme, this is no longer an issue. There are no issues at Junction 7 in either scenario.
- 1.538 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West travelling west bound from Junction 6. DS2 RSS2 highlights significant stress on the same links and at a similar level.
- 1.539 DM RSS2 predicts significant delays on both off-slips at Junction 6 (NB: 5.9 min/km; SB: 2.4 min/km) and on the A449 West approach (4.3 min/km). DS2 RSS2 highlights no significant delays at either junction. In DS2 RSS2 the delay on the A449 West approach has reduced to only 0.6 min/km, and the delay on Junction 6 north and south off-slips are 0.7 min/km and 0.4 min/km respectively.
- 1.540 The throughput at Junction 6 is approximately 8% higher in DS2 RSS2 (97%). There are no throughput issues at Junction 7 in either scenario.

Do Minimum RSS2 v. Do Something 3 RSS2

A38 Corridor

- 1.541 The Do Something 3 RSS2 scenario shows demand flows that are approximately 4.5% higher than DM RSS2. Despite the increase in demand there is no difference in the total network delay recorded in each scenario. The maximum stress in DM RSS2 is approximately 122% and in DS3 RSS2 it is 144%.
- 1.542 In DM RSS2 85% of the strategic links show stress. The vast majority of A38 links in both directions are shown to be stressed in this scenario. A total of 44% of strategic road links are shown to be over capacity.
- 1.543 In the DS3 RSS2 scenario the level of stress on the majority of links is shown to be lower than in DM RSS2 and several links are no longer highlighting any stress. Almost all the southbound links on the A38 are still showing stress however, several of the northbound links no longer do. A total of 65% of the strategic links now show stress in DS3 RSS2. A total of 35% of strategic road links are still over capacity, the majority of which are on the A38 southbound links.

- 1.544 The most significant reduction in stress when comparing DS3 RSS2 and DM RSS2 occurs on the stretch of A38 travelling northbound between A5127 and Claymills. This section is no longer highlighting stress in DS3 RSS2.
- 1.545 The northbound section of the A38 between A5192 and Alrewas, and between Barton Turn and Branston, which both showed to be over capacity in DM RSS2 RSS, no longer are in DS3 RSS2. The same applies on the southbound sections of the A38 between Catholme and Alrewas, and between Hilliard's Cross and A5127. However, it should be noted that these southbound sections are still showing relatively high levels of stress in DS3 RSS2.
- 1.546 Delay is significant on approximately 44% of strategic road links in the DM RSS2 scenario. In DS3 RSS2 approximately 35% of the strategic road links show significant delays. The northbound A38 sections from A5192 to Alrewas, and from Barton Turn to Branston, no longer show significant levels of delays in DS3 RSS2. The same is true on the southbound sections that were noted above as no longer exceeding capacity. In general there has been a significant decrease in delays on all sections of the A38.

A46 Corridor

A46 Corridor

- 1.547 The Do Something 3 RSS2 scenario shows demand flows that are approximately 4% higher than DM RSS2. The total vehicle hours is shown to be approximately 3% lower in the DS3 RSS2 scenario. In DM RSS2 the maximum stress is approximately 135% and in DS3 RSS2 it is 149%.
- 1.548 In DM RSS2 80% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed on the A46 northbound between M40 Junction 15 and M6 Junction 2, and southbound between A429 and M6 Junction.
- 1.549 In DS3 RSS2 80% of the strategic links are stressed. A total of 45% of strategic links are shown to be over capacity. The links experiencing stress in DS3 RSS2 are in the same locations as in DM RSS2. However, DS3 RSS2 is over capacity on the A46 from A428 to B4027 NB and B4027 to B4082 SB. In general, stress increases marginally in the DS3 RSS2 scenario.
- 1.550 Significant delays are experienced from A45 to A428 NB and A428 to B4027 NB in both scenarios. However, DM RSS2 also shows significant delays from the B4082 to M6 Junction 2 SB. In general, delay increases marginally in DM RSS2 scenario.

M5 Corridor

Junction 5

- 1.551 The Do Something 3 RSS2 scenario shows demand flows that are at approximately the same level as in the DM RSS2 scenario. The total network delay in DS3 RSS2 is approximately 0.5% higher than in DM RSS2. The maximum stress is 119% in DM RSS2 and 120% in DS3 RSS2. In both scenarios major issues result at Junction 5 on the south bound off-slip, with maximum queues reaching back to the mainline.
- 1.552 In both DM RSS2 and DS3 RSS2 there is significant stress on the M5 mainline travelling northbound. This link is at approximately 90% of capacity in DM RSS2 and increases to 91% in DS3 RSS2.
- 1.553 In addition to this strategic link there is also significant stress highlighted on the connector road between the two dumbbell roundabouts at Junction 5. Both directions show stress but it is on the connector travelling from east to west that shows the highest stress levels (~119% capacity in both scenarios).

1.554 Significant delay is experienced at Junction 5 on the SB off-slip. In the DM RSS2 scenario the average delay on this approach is approximately 16.5 min/km. In DS3 RSS2 this has reduced only marginally to approximately 16.2 min/km.

1.555 The throughput at Junction 5 is 86% in DS1, compared to 87% in the DM RSS2 scenario.

Junction 6 & Junction 7

1.556 The Do Something 3 RSS2 scenario shows demand flows that are approximately the same as in DM RSS2. The maximum stress is 105% in DM RSS2 and 109% in DS3 RSS2. However, in DM RSS2 there are throughput issues at Junction 6, which is no longer an issue in DS3 RSS2. There are no issues at Junction 7 in either scenario.

1.557 In DM RSS2 significant stress is highlighted on the M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West travelling west bound from Junction 6. DS3 RSS2 highlights significant stress on the same links and at a similar level.

1.558 DM RSS2 predicts significant delays on both off-slips at Junction 6 (NB: 5.9 min/km; SB: 2.4 min/km) and on the A449 West approach (4.3 min/km). DS3 RSS2 highlights no significant delays at either junction. In DS3 RSS2 the delay on the A449 West approach has reduced to only 0.6 min/km, and the delay on Junction 6 north and south off-slips are 0.6 min/km and 0.4 min/km respectively.

1.559 The throughput at Junction 6 is approximately 9% higher in DS3 RSS2 (98%). There are no throughput issues at Junction 7 in either scenario.

M6 Junction 1

1.560 The DS3 RSS2 scenario shows demand flows that are approximately 1% lower than DM RSS2. The DS3 RSS2 scenario shows total network delay that is approximately 2% higher than in the DM RSS2 scenario. The maximum stress is approximately 100% in both scenarios. However, there are no major issues highlighted on the strategic network at M6 Junction 1 in either scenario.

1.561 In DM RSS2 25% of the strategic links experience significant levels of stress. However, no strategic link is shown to be over capacity. This stress occurs on the M6 mainline to the north of Junction 1 travelling southbound (~77%). There is also a high level of stress observed on the A426 South travelling northbound towards the junction.

1.562 In DS3 RSS2 the same strategic link experiences significant levels of stress as in DM RSS2 and at marginally lower level (~76%). There is still a high level of stress observed on the A426 South travelling northbound towards the junction.

1.563 There is no significant delay experienced on any strategic link in either scenario.

1.564 The throughput at Junction 1 is at 100% in both scenarios, confirming that there are no operating issues at this junction.

Do Something 1 RSS2 v. Do Something 2 RSS2 v. Do Something 3 RSS2

A38 Corridor

1.565 The Do Something 1 RSS2 and Do Something 2 RSS2 scenarios have identical demand flows. The Do Something 3 RSS2 scenario has the highest demand flows and is approximately 2% higher than the other two Do Something scenarios. The overall network delay is shown to be highest in the DS1

RSS2 scenario. Total delays in DS2 RSS2 are 50% less than in DS1 RSS2 and delays in DS3 RSS2 are 44% less than in DS1 RSS2. The maximum stress is recorded at 144% in all three scenarios.

- 1.566 In the DS scenarios the level of stress on strategic links ranges from 78% in DS1 RSS2 to 63% in DS2 RSS2 and 65% in DS3 RSS2. In DS1 RSS2 44% of strategic road links are over capacity. In DS2 RSS2 this falls to 30% and in DS3 RSS2 is slightly higher, with 35% of links shown to be over capacity.
- 1.567 There is a significant reduction in stress on the A38 links in DS2 RSS2 and DS3 RSS2 when compared to DS1 RSS2. In DS2 RSS2 and DS3 RSS2 the section of the A38 northbound between the A5127 and Branston is no longer stressed. The stress on this same section but in the southbound direction also falls in DS2 RSS2 and DS3 RSS2 and is no longer over capacity as observed in DS1 RSS2. However, it should be noted that this southbound section is still experiencing stress in DS2 RSS2 and DS3 RSS2.
- 1.568 Delay is significant on approximately 44% of strategic road links in the DS1 RSS2 scenario. In DS2 RSS2 approximately 30% of the strategic road links show significant delays and in DS3 RSS2, 35%. The reductions in delays in DS2 RSS2 and DS3 RSS2 relate to the sections discussed above where stress has reduced and links are no longer over capacity.

A46 Corridor

A46 Corridor

- 1.569 The Do Something 2 RSS2 scenario shows demand flows that are approximately 2% higher than Do Something 1 RSS2 and 2% lower than Do Something 3 RSS2. The total vehicle hours is shown to be approximately 1% higher in the DS2 RSS2 scenario compared to the DS1 RSS2 and 1% higher in the DS3 RSS2 compared to the DS2 RSS2 scenario. In DM TEMPRO the maximum stress is approximately 132%, DS2 RSS2 it is 153% and in DS3 RSS2 149%.
- 1.570 In DS1 RSS2 80% of the strategic links are stressed. A total of 35% of strategic links are shown to be over capacity. The stressed sections are observed on the A46 from M40 Junction 15 to M6 Junction 2 NB and from A425 to M6 Junction 2 SB.
- 1.571 In DS2 RSS2 80% of the strategic links are stressed. A total of 40% of strategic links are shown to be over capacity. The links experiencing stress in DS2 RSS2 are in the same locations as in DS1 RSS2. However, A45 to Toll Bar End SB is now over capacity.
- 1.572 In DS3 RSS2 80% of the strategic links are stressed. A total of 45% of strategic links are shown to be over capacity. The links experiencing stress in DS3 RSS2 are in the same locations as in DS2 RSS2. However, A428 to B4027 NB is now over capacity.
- 1.573 Significant delays are experienced from A45 to B4027 NB for the all three scenarios. However, DS1 RSS2 also experiences delays along B4082 to M6 Junction 2 SB.

M5 Corridor

Junction 5

- 1.574 The Do Something 3 RSS2 scenario shows demand flows that are approximately 0.5% lower than in the Do Something 1 RSS2 scenario. Total network delay is and the maximum stress (120%) is comparable in both scenarios. Major issues result at Junction 5 on the south bound off-slip in both scenarios, with maximum queues reaching back to the mainline.
- 1.575 In both DS1 RSS2 and DS3 RSS2 there is significant stress on the M5 northbound mainline. This link is at approximately 91% of capacity both scenarios.

- 1.576 In addition to this strategic link there is also significant stress highlighted on the connector road between the two dumbbell roundabouts at Junction 5. Both directions show stress but it is on the connector travelling from east to west that shows the highest stress levels (~120% capacity in both scenarios).
- 1.577 Significant delay is experienced at Junction 5 on the SB off-slip. In the DS1 RSS2 scenario the average delay on this approach is approximately 16.5 min/km. In DS3 RSS2 this has reduced only marginally to approximately 16.2 min/km.
- 1.578 The throughput at Junction 5 is 86% in DS1 RSS2, compared to 87% in the DS3 RSS2 scenario.

Junction 6 & Junction 7

- 1.579 The demand flows in Do Something 1 RSS2 and Do Something 2 RSS2 are identical. The Do Something 3 RSS2 demand flows are approximately the same level. In DS1 RSS2 there are major throughput issues at Junction 6. In DS2 RSS2 and DS3 RSS2, with the introduction of the new scheme, there is a considerable improvement in throughput and delay at Junction 6. Junction 7 experiences no problems in any of these scenarios.
- 1.580 In all three Do Something scenarios the most stressed links occur on M5 mainline to the north and south of Junction 6 and Junction 7 in both directions, and on the A449 West of Junction 6 travelling west bound. In all three scenarios the levels of stress on these links is comparable.
- 1.581 DS1 RSS2 predicts significant delays at Junction 6 on both off-slips (NB: 2.6 min/km; SB: 2.3 min/km) and on A449 West approach (11 min/km). DS2 RSS2 and DS3 RSS2 no longer predict any significant delays at these locations. The delays in DS2 RSS2 and DS3 RSS2 are comparable on all approaches to both junctions.
- 1.582 The throughput at Junction 6 is at its highest in DS3 RSS2 (98%). In DS2 RSS2 the throughput is 97%, and in DS1 RSS2 it is at its worst with only 90% of demand getting through the junction. There are no throughput issues at Junction 7 in any of the Do Something scenarios.

M6 Junction 1

- 1.583 The DS3 RSS2 scenario shows demand flows that are approximately 1.5% higher than DS1 RSS2. The DS3 RSS2 scenario shows total network delay that is approximately 9% higher than in the DS1 RSS2 scenario. The maximum stress is approximately 93% in DS1 RSS2 and 101% in DS3 RSS2. However, there are no major issues highlighted on the strategic network at M6 Junction 1 in either scenario.
- 1.584 In DS1 RSS2 25% of the strategic links experience significant levels of stress. However, no strategic link is shown to be over capacity. This stress occurs on the M6 mainline to the north of Junction 1 travelling southbound (~78%). There is also a high level of stress observed on the A426 South travelling northbound towards the junction.
- 1.585 In DS3 RSS2 the same strategic link experiences significant levels of stress as in DM RSS2 and at marginally lower level (~76%). There is still a high level of stress observed on the A426 South travelling northbound towards the junction.
- 1.586 There is no significant delay experienced on any strategic link in either scenario.
- 1.587 The throughput at Junction 1 is at 100% in both scenarios, confirming that there are no operating issues at this junction.