



**A1 Birtley to Coal House**

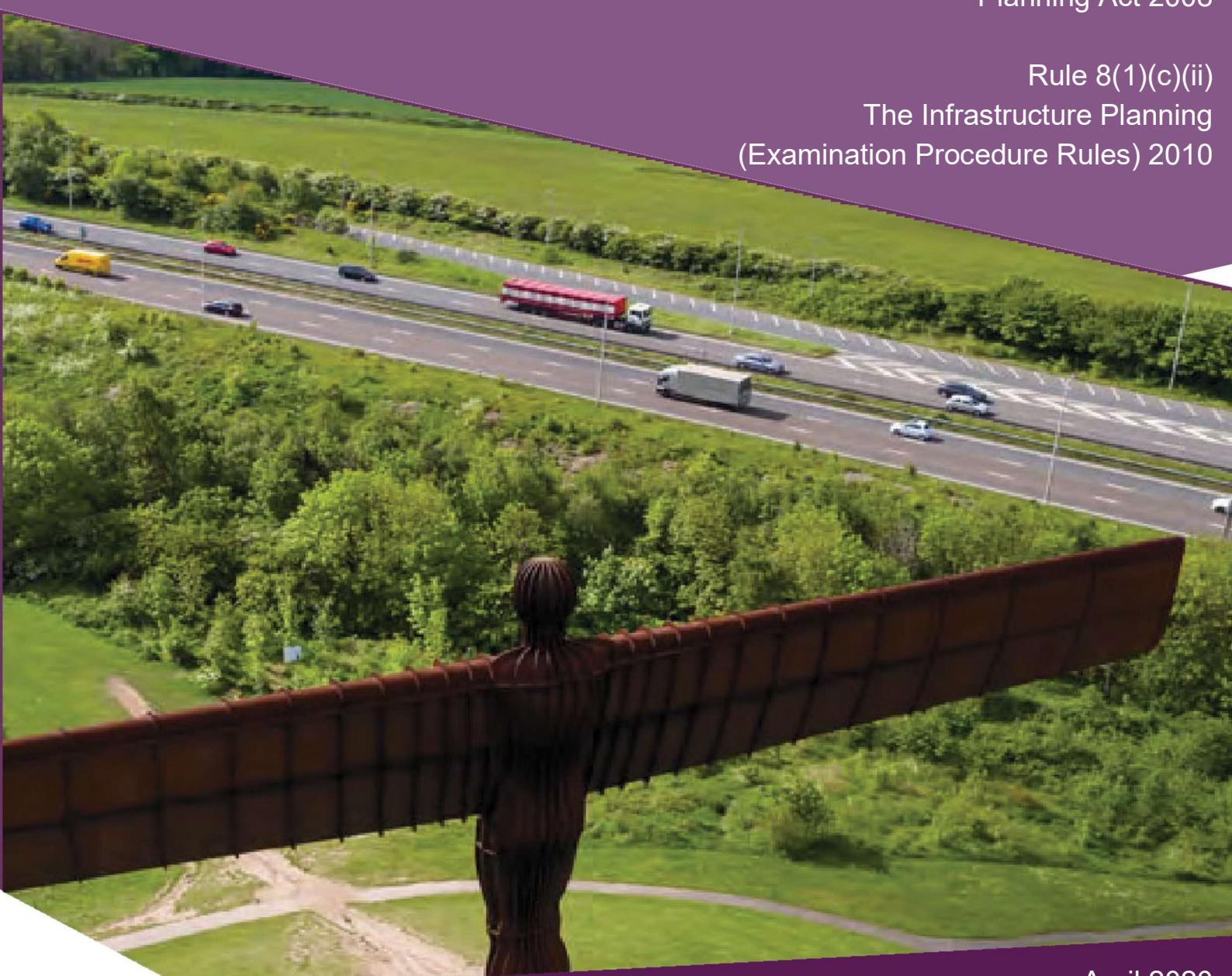
**Scheme Number: TR010031**

**EXA/D4/028 - Written Question 2.0.12 Appendix 2.00  
- DMRB Updates Biodiversity/Air Quality**

Planning Act 2008

Rule 8(1)(c)(ii)

The Infrastructure Planning  
(Examination Procedure Rules) 2010



April 2020

## Infrastructure Planning

### Planning Act 2008

### **The Infrastructure Planning (Examination Procedure Rules) 2010**

## **The A1 Birtley to Coal House Development Consent Order 20[xx]**

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### **Written Question 2.0.12 Appendix 2.0O - DMRB Updates Biodiversity/Air Quality**

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## 1 INTRODUCTION

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- 1.1.1. Following submission of the Development Consent Order (DCO) application for the A1 Birtley to Coal House Scheme (the Scheme), Highways England updated the Standards for Highways – Design Manual for Road and Bridges (DMRB). This included a replacement of the guidance relating to air quality, as detailed at paragraph 1.1.5 below. These changes have the potential to affect the conclusions set out in **Chapter 8: Biodiversity** of the Environmental Statement (ES) [**APP-029**].
- 1.1.2. During the DCO examination, the Examining Authority (ExA) submitted the following Written Question (WQ) to the Applicant:

ExA WQ 1.0.19: “The ExA notes that updates have recently been made to the Design Manual for Roads and Bridges. Please provide a review of these changes where relevant to this application for Development Consent and set out the implications for, and any updates of the assessments provided, in the ES”.
- 1.1.3. An initial response was submitted by the Applicant at Deadline 2 (25 February 2020) (Applicant’s Responses to ExA’s First Written Questions – Appendix 1.0G - DMRB Review Option [**REP2-008**] and Responses to ExA’s First Written Questions by the Environment Agency (EA) [**REP2-064**]). This response identified that the majority of the updates to the relevant DMRB guidance would not affect the assessment detailed in **Chapter 8: Biodiversity** of the ES [**APP-029**]. However, the response also identified that additional assessment work was required to determine the impact of certain DMRB air quality updates on the overall conclusions of **Chapter 8: Biodiversity** of the ES [**APP-029**].
- 1.1.4. In particular, the initial response detailed that:
  - a. Changes to the advice on ecological assessment would introduce additional ecological receptors into the assessment, including local nature reserves and ancient woodland.
  - b. Further nitrogen deposition changes would require assessment where previously they were screened out using the IAN 174/13 ‘Assessment of Significant Air Quality Effects’ guidance.
- 1.1.5. This report presents the assessment of additional likely significant environmental effects of the Scheme on biodiversity with regards to air quality, taking the above factors into account in accordance with the updated DMRB guidance LA 105 Air Quality (**Ref. 1**). LA 105 replaces previous guidance with regards to air quality: HA 207/07, IAN 170/12, IAN 174/13, IAN 175/13 and part of IAN 185/15.
- 1.1.6. The changes to the assessment methodology in terms of ecological receptors sensitive to nitrogen deposition are outlined in **Appendix A: Air Quality Modelling Results** of this report.
- 1.1.7. A full description of the Scheme is provided in **Chapter 2: The Scheme** of the ES [**APP-023**].

## 2 BIODIVERSITY ASSESSMENT

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### 2.1 ASSESSMENT METHODOLOGY

#### SCOPE OF ASSESSMENT

- 2.1.1. In accordance with LA 105 Air Quality (**Ref. 1**), the air quality assessment should include an assessment of the impacts on “designated habitats” of international, national and local ecological conservation interest for protected/notable species and habitats within 200m of the Affected Road Network (ARN), see **Figure 5.1: Air Quality Study Area** of the ES [**APP-042**], as determined by the air quality modelling (**Appendix A: Air Quality Modelling Results** of this report). In accordance with LA 105 Air Quality, designated habitats include Ramsar sites, Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSIs), Local Nature Reserves (LNRs), Local Wildlife Sites (LWSs), Nature Improvement Areas (NIAs), ancient woodland and veteran trees. Of these receptors, NIAs and veteran trees were not scoped into the assessment reported in the **Chapter 8: Biodiversity** of the ES [**APP-029**]. In accordance with LA 105, these receptors were scoped into the air quality assessment described in **Appendix A: Air Quality Modelling Results** of this report.
- 2.1.2. The Woodland Trust classifies trees of special interest as ‘ancient’, ‘veteran’ and ‘notable’ (**Ref. 2**). Both ancient and veteran trees are considered of similar and high ecological importance and are irreplaceable (much the same as ancient woodland). As such, both ancient and veteran trees have been scoped into the assessment. Notable trees are of importance within their local environment in comparison to their surroundings. However, as notable trees may be young and not necessarily serve the same ecological function as that of an ancient or veteran tree, notable trees are not included within this assessment.
- 2.1.3. As detailed in **paragraph 5.4.9 of Chapter 5: Air Quality** of the ES [**APP-026**], it was determined that the potential local air quality impacts from construction traffic emissions would be unlikely to give rise to significant effects and therefore no further assessment was required in relation to construction. While the determination in **Chapter 5: Air Quality** of the ES [**APP-026**] was a result of analysis against the now superseded DMRB HA207/07 scoping criteria, the DMRB sensitivity test for this chapter concluded that the criteria used remained valid under the updated guidance (LA 105 Air Quality) (**Ref. 1**). As such, only operational impacts on air quality are considered in this report.

#### GUIDANCE

- 2.1.4. The ecological assessment detailed within this document has been undertaken using the approach detailed in the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (**Ref. 3**) and LA 105 Air Quality (**Ref. 1**).
- 2.1.5. To characterise and assess the impacts of the Scheme, LA 104 Environmental Assessment and Monitoring (**Ref. 4**) and LA 108 Biodiversity (**Ref. 5**) have been used, which make reference to CIEEM guidance.

## DESK STUDY

- 2.1.6. With the exception of NIAs and ancient/veteran trees, all other designated sites were identified as part of the ecological impact assessment presented within **Chapter 8: Biodiversity** of the ES [**APP-029**] of the ES.
- 2.1.7. A desk study exercise was undertaken in March 2020 to identify NIAs and ancient/veteran trees. NIAs were identified from the Natural England website (**Ref. 6**). Ancient/veteran trees were identified from the Woodland Trust Ancient Tree Inventory (**Ref. 7**).

## NATURE CONSERVATION EVALUATION

- 2.1.8. The same method of determining the importance of an ecological receptor has been followed, as detailed in **paragraph 8.4.7** and **Table 8-5 of Chapter 8: Biodiversity** of the ES [**APP-029**]. The methodology for assigning importance complies with the approach in the updated DMRB guidance presented in LA 108 Biodiversity (**Ref. 5**).

## CHARACTERISATION OF POTENTIAL IMPACTS

- 2.1.9. Characterisation of potential impacts, as detailed in **paragraph 8.4.9 of Chapter 8: Biodiversity** of the ES [**APP-029**], included whether the impact was positive (beneficial) or negative (adverse), the probability of the impact occurring (certain, probable, unlikely), its complexity (direct, indirect, cumulative), extent, size, duration, reversibility and timing/duration.
- 2.1.10. As detailed in **paragraph 5.4.9 of Chapter 5: Air Quality** of the ES [**APP-026**], it was determined that the potential local air quality impacts from construction traffic emissions would be unlikely to give rise to significant effects and therefore no further assessment was required in relation to construction. As such, only operational impacts on air quality are considered.

## SIGNIFICANCE OF EFFECTS

- 2.1.11. The assessment of significance of effects in this report has taken into account the assessment methodology outlined in Figure 2.98 “*Assessment of significant effects on designated sites*” of LA 105 Air Quality (**Ref. 1**).
- 2.1.12. For designated habitats, nitrogen deposition is used as the main basis for evaluating significant effects in relation to air quality. Significance of effects has been considered where the change in total nitrogen deposition rate (kg N/ha/yr) with the Scheme (“Do Something” scenario) in comparison to the future baseline (“Do Minimum” scenario) was >1% (as an absolute number) of the critical load<sup>1</sup> for the site/habitat and the critical load

<sup>1</sup> APIS (**Ref. 9**) cites the definition of the critical load as “*a quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge*”.

was exceeded. It should be noted that, in all instances, the critical load of the designated habitat was exceeded with or without the Scheme.

- 2.1.13. Critical loads for sites/habitats were ascertained from the Air Pollution Information System (APIS) database (**Ref. 8**). Where a range in the critical load was provided for a particular ecological receptor, the lowest value in the range was used to give a worst-case assessment (known as the lower critical load). As detailed in paragraph 2.90 of LA 105 Air Quality (**Ref 1**) where the lower critical load of a site or habitat is exceeded with the Scheme but an increase in concentration of less than 1% of the critical load occurs, the impact is considered imperceptible and unlikely to be significant.
- 2.1.14. For each designated site, the air quality assessment modelled predicted changes in air quality at 10m intervals along 200m length linear transects (**Figures A1.1 and A1.2 in Appendix B: Ecological Transects** of this report) perpendicular to the affected road starting from the nearest point of the designated habitat. Further details and the findings of the air quality modelling are presented within **Appendix A: Air Quality Modelling Results** of this report.
- 2.1.15. Where the change in nitrogen deposition is >1% of the critical load, LA 105 Air Quality (**Ref. 1**) prescribes a need to identify whether the designated habitat air quality attribute target for the site is either “Restore” or “Maintain”. As there are no data available to inform this for the ecological receptors considered within this assessment, both scenarios have been presented. It is important to note that LA 105 Air Quality (**Ref. 1**) states that it is presumed that *“the air quality attribute for most designated habitats has been set to restore and the air quality assessment is completed on this basis”*. Using the ‘Restore’ approach, as prescribed in LA 105 Air Quality (**Ref. 1**) represents a reasonable worst case assessment. This is because using the most sensitive habitat to nitrogen deposition as a proxy for the designated habitat being considered is already a reasonable worst case approach. In contrast, using the actual background deposition levels<sup>2</sup> (as for the “Maintain” approach in Figure 2.98 of LA 105 Air Quality) rather than a theoretical deposition level of 5 kg N/ha/yr (as for the “Restore” approach in Figure 2.98 of LA 105 Air Quality) is likely to better reflect the conditions at the ecological receptors considered within this assessment. As such, the findings in accordance with the “Maintain” approach are presented for comparison against the findings under the ‘Restore’ approach.
- 2.1.16. LA 105 Air Quality (**Ref. 1**) requires an assessment to determine if the change in nitrogen deposition would lead to the theoretical loss of one plant species using Table 21 of the

Air Pollution Information System (APIS). 2020. *Critical Loads and Critical Levels - a guide to the data provided in APIS*. Available online at: [http://www.apis.ac.uk/critical-loads-and-critical-levels-guide-data-provided-apis#\\_Toc279788050](http://www.apis.ac.uk/critical-loads-and-critical-levels-guide-data-provided-apis#_Toc279788050) [Accessed March 2020].

<sup>2</sup> Which represents 5km average deposition data taken from APIS.

nitrogen deposition dose response report published by Natural England (**Ref. 9**). The study within the Natural England report only considered certain habitats: upland and lowland heath, sand dune, grassland, bog (raised and blanket) and acid grassland. The designated habitats considered within this assessment are designated for their woodland habitat. The Natural England study does not provide comparable data to inform the dose of nitrogen deposition that would theoretically lead to the loss of one species<sup>3</sup>. Therefore, in accordance with LA 105 Air Quality, using the Natural England dose response report, “*the habitat with the lowest change in nitrogen deposition likely to lead to the loss of one species, excluding nutrient impoverished sand dunes, shall be used to inform the judgement of significant air quality effects.*”

- 2.1.17. **Table 2-1** below, which is based on Table 21 of the Natural England dose response report, summarises the criteria used to determine if the change in nitrogen deposition would lead to the theoretical loss of one plant species. It should be noted that Table 21 provides the lowest change in nitrogen deposition likely to lead to a reduction of species-richness of one at different background nitrogen levels, to be used for those designated habitats covered by the Natural England dose response report. This is not the same as an actual prediction of causing the loss of one species.
- 2.1.18. In accordance with LA 105 Air Quality (**Ref. 1**), for the “Restore” scenario the lowest change in nitrogen deposition that would bring about a change theoretically equivalent to the loss of one plant species is used regardless of background nitrogen deposition. Therefore, an increase of 0.4kg N/ha/yr (**Table 2-1**) is used as the threshold for the theoretical loss of one plant species and determination of a potentially significant effect.
- 2.1.19. In accordance with LA 105 Air Quality (**Ref. 1**), for the “Maintain” scenario the lowest change in nitrogen deposition that would bring about a change theoretically equivalent to the loss of one plant species corresponding to the background nitrogen deposition is used as the threshold. Where the background nitrogen deposition falls between two categories, the lower category has been used, as a precautionary approach.

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<sup>3</sup> It should be noted that the information presented in Table 21 of NECR210 (**Ref. 10**) does not actually refer to doses of nitrogen that would theoretically lead to the loss of one species. The data presented refers to doses of nitrogen, based on a combination of experimental data reviewed in the report, that would reduce species richness in each habitat by one. This is an important distinction which should not be lost sight of when interpreting Table 21 of NECR 210.

**Table 2-1 - Nitrogen Deposition Changes that may Result in the Theoretical Loss of Species Richness<sup>4</sup>**

**Increase in nitrogen (N) deposition (kg N/ha/yr) required to reduce measured species richness by one plant species at different annual background N deposition levels**

| 5 kg N | 10 kg N | 15 kg N | 20 kg N | 25 kg N | 30 kg N |
|--------|---------|---------|---------|---------|---------|
| 0.4    | 0.8     | 1.3     | 1.7     | 2.0     | 2.4     |

- 2.1.20. Where the Scheme would result in a theoretical reduction in species richness equivalent to the loss of one plant species, this is identified as a significant effect.
- 2.1.21. Following the above, LA 105 Air Quality (**Ref. 1**) proposes that detailed site investigations are undertaken where this threshold for significance is exceeded. Due to time constraints associated with this assessment and Government restrictions imposed as a result of the national response to COVID-19, it has not been possible to undertake site investigations. It has therefore not been possible to fully qualify the level of significance in accordance with LA 104 Environmental Assessment and Monitoring (**Ref. 4**) (Neutral, Slight, Moderate, Large or Very Large), other than to state whether the potential for a significant effect exists. As such, professional judgement has been used to provide a qualified statement regarding the potential level of significance of the effects identified.
- 2.1.22. For the woodland habitats assessed in this report, the lowest change in nitrogen deposition likely to trigger this criteria in Table 21 of the Natural England dose response report was used as a proxy threshold, (**Table 2-1**) as per LA 105 Air Quality (**Ref. 1**) guidance. There is insufficient scientific data or studies to verify that the thresholds used are correct or appropriate when applied to woodland habitats.
- 2.1.23. To verify or confirm the level of significance of effects, detailed site investigations would need to be undertaken and the development of mitigation and monitoring should be considered.

## 2.2 ASSESSMENT ASSUMPTIONS AND LIMITATIONS

- 2.2.1. As detailed in **paragraph 2.1.19** of this report, professional judgement based on knowledge and experience of similar schemes has been used to provide a qualified statement regarding the potential level of significance of effects identified.

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<sup>4</sup> Based on Table 21 of the Natural England dose response report (**Ref. 7**)

- 2.2.2. Due to the size of the Study Area and time constraints associated with this assessment, a field survey for ancient/veteran trees was not possible. The identification of ancient/veteran trees was informed by the Woodland Trust's Ancient Tree Inventory (**Ref. 7**). However, this is considered proportionate and appropriate for this assessment.
- 2.2.3. The majority of designated habitats considered within this assessment are designated for their woodland habitat and as such, the Natural England study (**Ref. 9**) does not provide comparable data to inform the dose of nitrogen deposition that would theoretically lead to the loss of one species<sup>5</sup>. The lowest change in nitrogen deposition likely to lead to the loss of one species from Table 21 of the Natural England dose response report (**Ref. 9**) was used as a proxy threshold (**Table 2-1**), as per LA 105 Air Quality guidance. There is insufficient scientific data or studies to verify that the thresholds used are correct or appropriate when applied to woodland or tree habitats.
- 2.2.4. Due to time constraints associated with this assessment and Government restrictions imposed as a result of the national response to COVID-19, it has not been possible to undertake detailed site investigations where the assessment identifies the potential theoretical loss of one plant species and therefore a potentially significant effect. This is acknowledged within this appendix and a conservative significance of effect has been determined based on professional judgement. To verify or confirm the level of significance of effects, detailed site investigations would need to be undertaken and the development of mitigation and monitoring should be considered. As a conservative approach has been taken in this assessment, it is considered unlikely that further site investigations would change the conclusions of this report.

## 2.3 STUDY AREA

- 2.3.1. As required under LA 105 Air Quality (**Ref. 1**), the Study Area is defined as 200m from the ARN (as established by the air quality modelling and presented in **Chapter 5: Air Quality** of the ES [**APP-026**] and in particular, **Figure 5.1: Air Quality Study Area** of the ES [**APP-042**]).

## 2.4 BASELINE CONDITIONS

- 2.4.1. In addition to ecological receptors identified in **Chapter 8: Biodiversity** of the ES [**APP-029**], ancient/veteran trees were also identified within the Study Area. These are listed along with air quality modelling in **Appendix A: Air Quality modelling report** of this report.

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<sup>5</sup> It should be noted that the information presented in Table 21 of NECR210 (**Ref. 9**) does not actually refer to doses of nitrogen that would theoretically lead to the loss of one species. The data presented refers to doses of nitrogen, based on a combination of experimental data reviewed in the report, that would reduce species richness in each habitat by one. This is an important distinction which should not be lost sight of when interpreting Table 21 of NECR 210.

As ancient and veteran trees are irreplaceable habitat, they are considered of comparable importance to ancient woodland. As such, ancient and veteran trees are considered of National importance.

- 2.4.2. No NIAs were recorded within or adjacent to the Scheme.

## 2.5 POTENTIAL IMPACTS

- 2.5.1. The assessment considered increased nitrogen deposition as a result of the Scheme. Nitrogen is a major growth nutrient and changes in nitrogen deposition can result in negative impacts on biodiversity, including: loss of sensitive species, changes to habitat structure and function, the homogenisation of vegetation types, changes in soil chemistry and an increased sensitivity to abiotic and biotic stresses (such as pests and climate) (**Ref. 9, Ref. 11**).

### 3 LIKELY SIGNIFICANT EFFECTS

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- 3.1.1. This section identifies changes in nitrogen deposition that may lead to significant effects as a result of the Scheme. Ancient and veteran trees and the following ecological receptors did not experience a change in nitrogen deposition >1% of the critical load for either the “Restore” or “Maintain” approaches. As such, the change in nitrogen deposition would result in Neutral (not significant) effects and these ecological receptors are not considered further within this assessment:
- a. Shibdon Pond SSSI;
  - b. Benwell Nature Park LNR;
  - c. Cross Lane Meadows LNR;
  - d. Denton Dene LNR;
  - e. Shibdon Pond LNR;
  - f. Axwell Park and Lake LWS;
  - g. Big Waters LWS;
  - h. Birtley Northside LWS;
  - i. Bowes Railway LWS;
  - j. Denton Dene LWS;
  - k. Dunkirk Pond LWS;
  - l. Lamesley Meadows LWS;
  - m. Little Waters LWS;
  - n. Longacre Dean LWS;
  - o. Ravensworth Ponds and Wood LWS;
  - p. River Tyne Tidal Extent LWS;
  - q. Scotswood Natural Comm Garden LWS;
  - r. Sheldon's Hill LWS;
  - s. Shibdon Meadow LWS;
  - t. Shibdon Pond West LWS;
  - u. Team Colliery LWS;
  - v. Vigo Wood and Railway Embankment LWS;
  - w. Cherry Banks ancient woodland;
  - x. Denton Green ancient woodland;
  - y. Longacre Dene ancient semi-natural woodland; and
  - z. Sugley Dene ancient woodland.
- 3.1.2. A summary of where likely significant effects may occur is presented in **Table 3-1**, with qualified statements presented below for those ecological receptors where the increase in nitrogen deposition may theoretically lead to a reduction in species-richness equivalent to the loss of one species. Where the change in nitrogen deposition is not likely to result in a significant effect at receptors, which includes Hill Head Wood ancient woodland (**Table 3-1**), these sites are not discussed further.

## OPERATION

### Dunkirk Farm West Local Wildlife Site

- 3.1.3. Dunkirk Farm West LWS is located within 200m and directly to the east of the ARN, but habitats within the LWS that might have been significantly affected by operational changes in air quality are present within the Study Area at this location. These habitats will be lost as a direct result of the Scheme. As habitats removed can no longer be affected by operational changes in air quality, this site is not considered further in this assessment. The loss of habitat as a result of the Scheme, including habitats lost at Dunkirk Farm West LWS is assessed at **paragraph 8.9 of Chapter 8: Biodiversity** of the ES [APP-029].

### Longacre Wood Local Wildlife Site

- 3.1.4. Longacre Wood LWS is located within 200m and directly west of the ARN along the A1 road. Air quality modelling (**Appendix A: Air Quality Modelling Report** of this report) showed that there would be an increase in nitrogen deposition as a result of the Scheme when taking the “Restore” approach along transect LWS\_LA2 (See **Appendix A: Air Quality Modelling Report** of this report and **Table 3-1** below). The increase in nitrogen deposition exceeds 0.4kg N/ha/yr (the conservative “Restore” lower limit for causing a theoretical reduction in species-richness equivalent to the loss of one species) at 0.9kg N/ha/yr up to a distance of 10m into the designated woodland habitat.
- 3.1.5. Of the 22.8ha of woodland habitat within the LWS, a maximum of 0.6ha would be subject to a significant increase in nitrogen deposition as a result of the Scheme when taking the “Restore” approach. This is the maximum area between 0m and 10m along transect LWS\_LA2 where there would be an increase in nitrogen deposition, and LWS\_LA3 (**Appendix A: Air Quality Modelling Report** of this report) where there would not be an increase, as shown in **Table 3-1**. This maximum area impacted represents 2.7% of the total LWS. As such, under the “Restore” approach, a **slight** indirect, permanent adverse effect (not significant) would be predicted to occur.
- 3.1.6. It is important to highlight that in taking the “Maintain” approach the LWS would not be subject to increases in nitrogen deposition that are likely to result in a theoretical reduction in species richness equivalent to the loss of one plant species. As such, under the “Maintain” approach, a significant effect would not be predicted to occur.
- 3.1.7. As detailed in **paragraph 2.7.1 of Chapter 2: The Scheme** of the ES [APP-023], design measures relevant to biodiversity have been incorporated into the Scheme in order to reduce impacts to Longacre Wood LWS. This includes the earthwork designs adjacent to Longacre Wood LWS which have been revised from 1:3 to 1:2 slope to avoid all permanent land take and loss of woodland from Longacre Woods LWS. The approach to the Landscape Mitigation Design (**Figure 7.6: Landscape Mitigation Design** of the ES [APP-061]) has sought to result in ecological enhancement in the longer term where possible. The design includes enhancing the wildlife corridors between Longacre Wood LWS and the existing wildlife corridor to the west.

- 3.1.8. Taking into account the enhancement measures relating to Longacre Wood LWS and the relatively small proportion of 2.7% of the designated habitats impacted by a potentially significant increase in nitrogen, and taking a precautionary view based on the “Restore” approach, the Scheme would result in a Slight indirect, permanent adverse effect (not significant) to the Longacre Wood LWS.

**Table 3-1 - Ecological Receptors and Potential for Likely Significant Effects to Occur (“Restore” and “Maintain”)**

| Transect Reference | Designated Habitat(s)           | Lowest Critical Load (kg N/ha/yr) | Restore  |   |   | Maintain  |   |   |   |
|--------------------|---------------------------------|-----------------------------------|--|---|---|---|---|---|---|
|                    |                                 |                                   | Change in N deposition (kg N/ha/yr) between Do Minimum and Do Something at 0m <sup>6</sup> | Distance along transect the increase in N deposition (kg N/ha/yr) between Do Minimum and Do Something exceeds 0.4kg N/ha/yr | Potential Significant Effect (Yes or No) <sup>7</sup> | Background nitrogen deposition (5 km average deposition from APIS (kg N/ha/yr)) | Increase N deposition (kg N/ha/yr) resulting in loss of one species (threshold) | Distance along transect the increase in N deposition (kg N/ha/yr) between Do Minimum and Do Something exceeds threshold | Potential Significant Effect (Yes or No) <sup>8</sup> |
| LWS_DF1            | Dunkirk Farm West LWS           | 10                                | 0.7  | 20m   | Yes   | 28.84   | 2.0   | 0.0   | No  |
| LWS_LA2            | Longacre Wood LWS               | 10                                | 0.9  | 10m   | Yes   | 28.84   | 2.0   | 0.0   | No  |
| LWS_LA3            | Longacre Wood LWS               | 10                                | 0.2  | 0.0   | No  | 28.84   | 2.0   | 0.0   | No  |
| AWO_HH1            | Hill Head Wood Ancient Woodland | 10                                | 0.3  | 0.0   | No  | 25.76   | 2.0   | 0.0   | No  |

<sup>6</sup> 0m is used as this represents the nearest location to the road where an increase in nitrogen deposition may affect a designated habitat and would represent the largest increase in nitrogen deposition as levels of deposition decrease with increasing distance from the ARN.

<sup>7</sup> Significant (Yes) when the increase in nitrogen exceeds 0.4 kg N/ha/yr and therefore may result in the theoretical loss of one plant species.

<sup>8</sup> Significant (Yes) when the increase in nitrogen exceeds the threshold identified and therefore may result in the theoretical loss of one plant species.

## 4 CONCLUSION

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- 4.1.1. The assessment has taken into account the enhancement measures relating to Longacre Wood LWS and the relatively small proportion of 2.7% of the designated habitats impacted by a potentially significant increase in nitrogen. Taking a precautionary view based on the "Restore" approach, the Scheme would result in a Slight indirect, permanent adverse effect (not significant) to the Longacre Wood LWS.
- 4.1.2. However, as identified within **Section 2** of this report, detailed site investigations would be required in order to verify the significance of effect and complete the methodology prescribed in LA 105 Air Quality (**Ref. 1**). This would confirm if species susceptible to changes in nitrogen are present within the designated habitats potentially impacted. While this exercise has not been carried out for the assessment, the conclusions of this report remain valid based on the guidance used and professional judgement applied and from applying a precautionary approach. As a conservative approach has been taken in this assessment, it is considered unlikely that further site investigations would change the conclusions of this report.

## ABBREVIATIONS

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| Acronym | Definition  |
|---------|---|
| APIS    | Air Pollution Information Systems                           |
| ARN     | Affected Road Network                                       |
| CIEEM   | Chartered Institute of Ecology and Environmental Management |
| DCO     | Development Consent Order                                   |
| DMRB    | Design Manual for Roads and Bridges                         |
| ES      | Environmental Statement                                     |
| ExA     | Examining Authority   |
| LNR     | Local Nature Reserve  |
| LWS     | Local Wildlife Site   |
| NIAs    | Nature Improvement Area                                     |
| SAC     | Special Area of Conservation                                |
| SPA     | Special Protection Area                                     |
| SSSI    | Site of Special Scientific Interest                         |
| WQ      | Written Question  |

**6****REFERENCES**

- Ref. 1** Highways Agency et. al. Design Manual for Roads and Bridges (2019). *LA 105 Air Quality*. Revision 0, November 2019.
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- Ref. 11** Whitfield, C. (2014). *Nitrogen deposition impacts on biodiversity*. JNCC, November 2014.

# Appendix A

## AIR QUALITY MODELLING RESULTS



## AIR QUALITY METHODOLOGY

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### SCOPE OF ASSESSMENT

The scope of the assessment was to determine the effects arising from a change to air quality arising from the Scheme in accordance with LA 105 Air Quality (**Ref. 1**), where there may be a significant change in both methodology and scope to the guidance referred to in the ES [**APP-023**]. In terms of ecological receptors sensitive to nitrogen deposition, the change to the guidance is set out below:

- Sensitive receptors for ecology have been extended – see further detail below.
- For ecological receptors scoped into the assessment:
- Nitrogen deposition must be calculated irrespective of change in nitrogen oxide (NOx) concentrations.
- Deposition velocity used in the calculation of nitrogen deposition has increased, with differentiation between short and tall vegetation (N.B. the velocity has increased in all cases, meaning a likely increase in both total deposition and Scheme impacts).
- Background nitrogen deposition no longer reduced by 2% per year – this will result in higher overall levels of nitrogen deposition, meaning a higher likelihood that the critical load will be exceeded in the Scheme opening year across all sites.

In terms of designated ecological receptors sensitive to nitrogen deposition, the following sites are scoped in for consideration:

- **Ramsar sites** – scoped in under previous guidance, none within 200m of the ARN;
- Special Protection Areas (SPAs) – scoped in under previous guidance, none within 200m of the ARN;
- **Special Areas of Conservation (SACs)** – scoped in under previous guidance, none within 200m of the ARN;
- **Sites of Special Scientific Interest (SSSIs)** – scoped in under previous guidance, one site within 200m of the ARN, assessment of nitrogen deposition effects considered not significant as set out in section 5.8 of the ES [**APP-026**];
- **Local Nature Reserves (LNRs)** – not previously considered as per previous guidance;
- **Local Wildlife Sites (LWSs)** – not previously considered as per previous guidance;
- **Nature Improvement Areas** – not previously considered as per previous guidance;
- **Ancient woodland** – not previously considered as per previous guidance; and
- **Veteran trees** – not previously considered as per previous guidance.

### MODELLING METHODOLOGY

The model built for the ES was used to calculate nitrogen dioxide concentrations at transects covering all ecological designations within 200m of the ARN. Each transect

extends perpendicularly away from the roadside at 10m increments, starting at the closest point within the designation to the ARN.

Dry deposition rates were calculated from the road contribution to ambient nitrogen dioxide concentrations using deposition velocities for both long and short vegetation taken from the "Calculation of Nitrogen Deposition" section of LA105 (**Ref. 1**). These values were added to background levels, derived from APIS, in order to calculate the total nitrogen deposition. Total Nitrogen deposition levels were calculated for both long and short vegetation types at all receptors, as per the guidance set out in line 2.44.1 LA 105 Air Quality (**Ref. 1**), where each habitat type is present within the designation.

Nitrogen deposition levels are presented for both the Do Minimum (DM) and Do Something (DS) scenarios, the current deposition levels taken from APIS, alongside the relevant critical load for the site (all as kg N/ha/yr) and the Scheme impact as a percentage of the critical load (as %).

The table below sets out the receptor transect name, and the corresponding site name and designation.

| <b>Transect Name</b> | <b>Name</b>                   | <b>Designation</b>   |
|----------------------|-------------------------------|----------------------|
| LWS_BW               | Big Waters                    | Local Wildlife Site  |
| LWS_LW               | Little Waters                 | Local Wildlife Site  |
| AWO_SD               | Sugley Dene                   | Ancient Woodland     |
| LWS_DD               | Denton Dene                   | Local Wildlife Site  |
| LNR_DD               | Denton Dene                   | Local Nature Reserve |
| LWS_SN               | Scotswood Natural Comm Garden | Local Wildlife Site  |
| LNR_BN               | Benwell Nature Park           | Local Nature Reserve |
| LWS_RT               | River Tyne Tidal Extent       | Local Wildlife Site  |
| LNR_SP               | Shibdon Pond                  | Local Nature Reserve |
| SSI_SP               | Shibdon Pond                  | SSSI                 |
| LWS_SM               | Shibdon Meadow                | Local Wildlife Site  |
| LWS_AP               | Axwell Park and Lake          | Local Wildlife Site  |
| LNR_CL               | Cross Lane Meadows            | Local Nature Reserve |
| AWO_HH               | Hill Head Wood                | Ancient Woodland     |
| LWS_RP               | Ravensworth Ponds             | Local Wildlife Site  |
| LWS_LA               | Long Acre Wood                | Local Wildlife Site  |
| LWS_LM               | Lamesley Meadows              | Local Wildlife Site  |
| LWS_TC               | Team Colliery                 | Local Wildlife Site  |
| LWS_LD               | Long Acre Dene                | Local Wildlife Site  |

| <b>Transect Name</b> | <b>Name</b>           | <b>Designation</b>  |
|----------------------|-----------------------|---------------------|
| LWS_BR               | Bowes Railway         | Local Wildlife Site |
| LWS_DF               | Dunkirk Farm West     | Local Wildlife Site |
| LWS_DP               | Dunkirk Pond          | Local Wildlife Site |
| LWS_SH               | Sheddons Hill         | Local Wildlife Site |
| LWS_BN               | Birtley Northside     | Local Wildlife Site |
| LWS_VW               | Vigo Wood and Railway | Local Wildlife Site |
| AWO_CB               | Cherry Banks          | Ancient Woodland    |

## NITROGEN DEPOSITION RESULTS

The following data were used to undertake an assessment of significance of the air quality impacts to ecological designations. The receptor name sets out the designation name and type, as per the table above, with multiple transects per site. The last three digits of the receptor names within the results tables for short and long deposition indicate the distance from the edge of the designation boundary.

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| AWO_CB1_000   | 428091 | 552953 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_010   | 428101 | 552954 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_020   | 428111 | 552955 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_030   | 428121 | 552956 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_040   | 428131 | 552957 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_050   | 428141 | 552958 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_060   | 428151 | 552959 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_070   | 428161 | 552960 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_080   | 428171 | 552961 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_090   | 428181 | 552963 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_100   | 428191 | 552964 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_110   | 428201 | 552965 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_120   | 428210 | 552966 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_130   | 428220 | 552967 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_140   | 428230 | 552968 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_150   | 428240 | 552969 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_160   | 428250 | 552970 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_170   | 428260 | 552971 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_180   | 428270 | 552972 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_190   | 428280 | 552973 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB1_200   | 428290 | 552974 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_000   | 428226 | 552417 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_010   | 428235 | 552422 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_020   | 428244 | 552427 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_030   | 428252 | 552432 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_040   | 428261 | 552437 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_050   | 428270 | 552442 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_060   | 428278 | 552447 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| AWO_CB2_070   | 428287 | 552451 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_080   | 428296 | 552456 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_090   | 428305 | 552461 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_100   | 428313 | 552466 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_110   | 428322 | 552471 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_120   | 428331 | 552476 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_130   | 428340 | 552481 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_140   | 428348 | 552485 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_150   | 428357 | 552490 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_160   | 428366 | 552495 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_170   | 428375 | 552500 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_180   | 428383 | 552505 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_190   | 428392 | 552510 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_CB2_200   | 428401 | 552515 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_000   | 424033 | 559015 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_010   | 424024 | 559012 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_020   | 424014 | 559009 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_030   | 424005 | 559007 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_040   | 423995 | 559004 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_050   | 423985 | 559001 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_060   | 423976 | 558998 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_070   | 423966 | 558995 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_080   | 423957 | 558993 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_090   | 423947 | 558990 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_100   | 423937 | 558987 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_110   | 423928 | 558984 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_120   | 423918 | 558982 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_130   | 423909 | 558979 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| AWO_HH1_140   | 423899 | 558976 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_150   | 423889 | 558973 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_160   | 423880 | 558970 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_170   | 423870 | 558968 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_180   | 423861 | 558965 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_190   | 423851 | 558962 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_HH1_200   | 423841 | 558959 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_000   | 419129 | 565826 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_010   | 419126 | 565816 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_020   | 419123 | 565807 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_030   | 419121 | 565797 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_040   | 419118 | 565787 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_050   | 419116 | 565778 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_060   | 419113 | 565768 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_070   | 419111 | 565758 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_080   | 419108 | 565749 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_090   | 419105 | 565739 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_100   | 419103 | 565729 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_110   | 419100 | 565720 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_120   | 419098 | 565710 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_130   | 419095 | 565700 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_140   | 419093 | 565691 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_150   | 419090 | 565681 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_160   | 419087 | 565671 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_170   | 419085 | 565662 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_180   | 419082 | 565652 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_190   | 419080 | 565642 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| AWO_SD1_200   | 419077 | 565633 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LNR_BN1_000   | 421681 | 563854 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_010   | 421679 | 563844 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_020   | 421676 | 563834 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_030   | 421674 | 563824 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_040   | 421672 | 563815 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_050   | 421670 | 563805 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_060   | 421668 | 563795 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_070   | 421666 | 563785 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_080   | 421664 | 563775 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_090   | 421661 | 563766 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_100   | 421659 | 563756 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_110   | 421657 | 563746 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_120   | 421655 | 563736 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_130   | 421653 | 563727 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_140   | 421651 | 563717 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_150   | 421648 | 563707 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_160   | 421646 | 563697 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_170   | 421644 | 563688 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_180   | 421642 | 563678 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_190   | 421640 | 563668 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_BN1_200   | 421638 | 563658 | 17.08                 | 8                   | 17.2                   | 17.2                   | 0.0%     |
| LNR_CL1_000   | 421260 | 562247 | 17.08                 | 10                  | 19.2                   | 19.2                   | -0.1%    |
| LNR_CL1_010   | 421257 | 562238 | 17.08                 | 10                  | 18.4                   | 18.4                   | -0.1%    |
| LNR_CL1_020   | 421254 | 562228 | 17.08                 | 10                  | 18.0                   | 18.0                   | -0.1%    |
| LNR_CL1_030   | 421252 | 562218 | 17.08                 | 10                  | 17.8                   | 17.8                   | -0.1%    |
| LNR_CL1_040   | 421249 | 562209 | 17.08                 | 10                  | 17.7                   | 17.7                   | -0.1%    |
| LNR_CL1_050   | 421246 | 562199 | 17.08                 | 10                  | 17.6                   | 17.6                   | -0.1%    |
| LNR_CL1_060   | 421244 | 562189 | 17.08                 | 10                  | 17.6                   | 17.5                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LNR_CL1_070   | 421241 | 562180 | 17.08                 | 10                  | 17.5                   | 17.5                   | 0.0%       |
| LNR_CL1_080   | 421238 | 562170 | 17.08                 | 10                  | 17.5                   | 17.5                   | 0.0%       |
| LNR_CL1_090   | 421236 | 562161 | 17.08                 | 10                  | 17.4                   | 17.4                   | 0.0%       |
| LNR_CL1_100   | 421233 | 562151 | 17.08                 | 10                  | 17.4                   | 17.4                   | 0.0%       |
| LNR_CL1_110   | 421230 | 562141 | 17.08                 | 10                  | 17.4                   | 17.4                   | 0.0%       |
| LNR_CL1_120   | 421228 | 562132 | 17.08                 | 10                  | 17.4                   | 17.4                   | 0.0%       |
| LNR_CL1_130   | 421225 | 562122 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LNR_CL1_140   | 421222 | 562112 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LNR_CL1_150   | 421220 | 562103 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LNR_CL1_160   | 421217 | 562093 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LNR_CL1_170   | 421214 | 562083 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LNR_CL1_180   | 421212 | 562074 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LNR_CL1_190   | 421209 | 562064 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LNR_CL1_200   | 421206 | 562055 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LNR_DD1_000   | 419448 | 564830 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_010   | 419458 | 564830 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_020   | 419468 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_030   | 419478 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_040   | 419488 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_050   | 419498 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_060   | 419508 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_070   | 419518 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_080   | 419528 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_090   | 419538 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_100   | 419548 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_110   | 419558 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_120   | 419568 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_130   | 419578 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LNR_DD1_140   | 419588 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_150   | 419598 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_160   | 419608 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_170   | 419618 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_180   | 419628 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_190   | 419638 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD1_200   | 419648 | 564829 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_000   | 419727 | 564698 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_010   | 419718 | 564700 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_020   | 419708 | 564703 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_030   | 419698 | 564706 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_040   | 419689 | 564709 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_050   | 419679 | 564712 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_060   | 419670 | 564714 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_070   | 419660 | 564717 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_080   | 419650 | 564720 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_090   | 419641 | 564723 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_100   | 419631 | 564725 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_110   | 419621 | 564728 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_120   | 419612 | 564731 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_130   | 419602 | 564734 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_140   | 419593 | 564736 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_150   | 419583 | 564739 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_160   | 419573 | 564742 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_170   | 419564 | 564745 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_180   | 419554 | 564747 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_190   | 419545 | 564750 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |
| LNR_DD2_200   | 419535 | 564753 | 16.24                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LNR_SP1_000   | 419465 | 563344 | 16.24                 | 10                  | 19.3                   | 19.0                   | -2.5%    |
| LNR_SP1_010   | 419455 | 563340 | 16.24                 | 10                  | 17.7                   | 17.6                   | -1.3%    |
| LNR_SP1_020   | 419446 | 563336 | 16.24                 | 10                  | 17.2                   | 17.1                   | -0.9%    |
| LNR_SP1_030   | 419437 | 563332 | 16.24                 | 10                  | 17.0                   | 16.9                   | -0.6%    |
| LNR_SP1_040   | 419428 | 563328 | 16.24                 | 10                  | 16.8                   | 16.8                   | -0.5%    |
| LNR_SP1_050   | 419419 | 563325 | 16.24                 | 10                  | 16.7                   | 16.7                   | -0.4%    |
| LNR_SP1_060   | 419409 | 563321 | 16.24                 | 10                  | 16.7                   | 16.6                   | -0.4%    |
| LNR_SP1_070   | 419400 | 563317 | 16.24                 | 10                  | 16.6                   | 16.6                   | -0.3%    |
| LNR_SP1_080   | 419391 | 563313 | 16.24                 | 10                  | 16.6                   | 16.6                   | -0.3%    |
| LNR_SP1_090   | 419382 | 563309 | 16.24                 | 10                  | 16.6                   | 16.5                   | -0.3%    |
| LNR_SP1_100   | 419372 | 563306 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.2%    |
| LNR_SP1_110   | 419363 | 563302 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.2%    |
| LNR_SP1_120   | 419354 | 563298 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.2%    |
| LNR_SP1_130   | 419345 | 563294 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.2%    |
| LNR_SP1_140   | 419335 | 563290 | 16.24                 | 10                  | 16.5                   | 16.4                   | -0.2%    |
| LNR_SP1_150   | 419326 | 563286 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.2%    |
| LNR_SP1_160   | 419317 | 563283 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| LNR_SP1_170   | 419308 | 563279 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| LNR_SP1_180   | 419298 | 563275 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| LNR_SP1_190   | 419289 | 563271 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| LNR_SP1_200   | 419280 | 563267 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| LWS_AP1_000   | 419698 | 562370 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| LWS_AP1_010   | 419692 | 562362 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| LWS_AP1_020   | 419686 | 562354 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| LWS_AP1_030   | 419679 | 562347 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_040   | 419673 | 562339 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_050   | 419667 | 562331 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_060   | 419661 | 562323 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_AP1_070   | 419655 | 562315 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_080   | 419649 | 562307 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_090   | 419643 | 562299 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_100   | 419636 | 562292 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_110   | 419630 | 562284 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_120   | 419624 | 562276 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_130   | 419618 | 562268 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_140   | 419612 | 562260 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_150   | 419606 | 562252 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_160   | 419599 | 562244 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_170   | 419593 | 562236 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_180   | 419587 | 562229 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_190   | 419581 | 562221 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_AP1_200   | 419575 | 562213 | 16.24                 | 10                  | 16.3                   | 16.3                   | 0.0%     |
| LWS_BN1_000   | 427860 | 556756 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_010   | 427851 | 556760 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_020   | 427842 | 556764 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_030   | 427833 | 556767 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_040   | 427823 | 556771 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_050   | 427814 | 556775 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_060   | 427805 | 556779 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_070   | 427796 | 556783 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_080   | 427787 | 556787 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_090   | 427777 | 556791 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_100   | 427768 | 556795 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_110   | 427759 | 556799 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_120   | 427750 | 556803 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_130   | 427741 | 556807 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_BN1_140   | 427731 | 556810 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_150   | 427722 | 556814 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_160   | 427713 | 556818 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_170   | 427704 | 556822 | 17.92                 | 10                  | 18.3                   | 18.3                   | -0.1%    |
| LWS_BN1_180   | 427695 | 556826 | 17.92                 | 10                  | 18.3                   | 18.2                   | -0.1%    |
| LWS_BN1_190   | 427685 | 556830 | 17.92                 | 10                  | 18.3                   | 18.2                   | -0.1%    |
| LWS_BN1_200   | 427676 | 556834 | 17.92                 | 10                  | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_000   | 427841 | 556833 | 17.92                 | 5                   | 18.6                   | 18.5                   | -0.3%    |
| LWS_BN2_010   | 427837 | 556824 | 17.92                 | 5                   | 18.5                   | 18.5                   | -0.3%    |
| LWS_BN2_020   | 427832 | 556815 | 17.92                 | 5                   | 18.4                   | 18.4                   | -0.2%    |
| LWS_BN2_030   | 427828 | 556806 | 17.92                 | 5                   | 18.4                   | 18.4                   | -0.2%    |
| LWS_BN2_040   | 427824 | 556797 | 17.92                 | 5                   | 18.4                   | 18.4                   | -0.2%    |
| LWS_BN2_050   | 427820 | 556788 | 17.92                 | 5                   | 18.3                   | 18.3                   | -0.2%    |
| LWS_BN2_060   | 427816 | 556779 | 17.92                 | 5                   | 18.3                   | 18.3                   | -0.2%    |
| LWS_BN2_070   | 427811 | 556770 | 17.92                 | 5                   | 18.3                   | 18.3                   | -0.2%    |
| LWS_BN2_080   | 427807 | 556761 | 17.92                 | 5                   | 18.3                   | 18.3                   | -0.2%    |
| LWS_BN2_090   | 427803 | 556752 | 17.92                 | 5                   | 18.3                   | 18.3                   | -0.2%    |
| LWS_BN2_100   | 427799 | 556743 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_110   | 427795 | 556734 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_120   | 427791 | 556725 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_130   | 427786 | 556715 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_140   | 427782 | 556706 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_150   | 427778 | 556697 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_160   | 427774 | 556688 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_170   | 427770 | 556679 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_180   | 427765 | 556670 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_190   | 427761 | 556661 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |
| LWS_BN2_200   | 427757 | 556652 | 17.92                 | 5                   | 18.2                   | 18.2                   | -0.1%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_BR1_000   | 426910 | 557208 | 17.92                 | 5                   | 20.0                   | 20.0                   | 0.2%     |
| LWS_BR1_010   | 426903 | 557202 | 17.92                 | 5                   | 18.7                   | 18.7                   | 0.0%     |
| LWS_BR1_020   | 426895 | 557195 | 17.92                 | 5                   | 18.5                   | 18.5                   | 0.0%     |
| LWS_BR1_030   | 426888 | 557188 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_BR1_040   | 426880 | 557182 | 17.92                 | 5                   | 18.3                   | 18.3                   | 0.0%     |
| LWS_BR1_050   | 426872 | 557175 | 17.92                 | 5                   | 18.3                   | 18.3                   | 0.0%     |
| LWS_BR1_060   | 426865 | 557169 | 17.92                 | 5                   | 18.2                   | 18.2                   | 0.0%     |
| LWS_BR1_070   | 426857 | 557162 | 17.92                 | 5                   | 18.2                   | 18.2                   | 0.0%     |
| LWS_BR1_080   | 426850 | 557156 | 17.92                 | 5                   | 18.2                   | 18.2                   | 0.0%     |
| LWS_BR1_090   | 426842 | 557149 | 17.92                 | 5                   | 18.2                   | 18.2                   | 0.0%     |
| LWS_BR1_100   | 426835 | 557143 | 17.92                 | 5                   | 18.2                   | 18.2                   | 0.0%     |
| LWS_BR1_110   | 426827 | 557136 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_120   | 426820 | 557129 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_130   | 426812 | 557123 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_140   | 426805 | 557116 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_150   | 426797 | 557110 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_160   | 426789 | 557103 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_170   | 426782 | 557097 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_180   | 426774 | 557090 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_190   | 426767 | 557084 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR1_200   | 426759 | 557077 | 17.92                 | 5                   | 18.1                   | 18.1                   | 0.0%     |
| LWS_BR2_000   | 426928 | 557201 | 17.92                 | 5                   | 21.9                   | 21.9                   | 0.5%     |
| LWS_BR2_010   | 426936 | 557206 | 17.92                 | 5                   | 19.8                   | 19.8                   | 0.2%     |
| LWS_BR2_020   | 426945 | 557212 | 17.92                 | 5                   | 19.2                   | 19.2                   | 0.1%     |
| LWS_BR2_030   | 426953 | 557217 | 17.92                 | 5                   | 18.9                   | 18.9                   | 0.1%     |
| LWS_BR2_040   | 426961 | 557223 | 17.92                 | 5                   | 18.8                   | 18.8                   | 0.0%     |
| LWS_BR2_050   | 426970 | 557228 | 17.92                 | 5                   | 18.7                   | 18.7                   | 0.0%     |
| LWS_BR2_060   | 426978 | 557234 | 17.92                 | 5                   | 18.6                   | 18.6                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_BR2_070   | 426987 | 557239 | 17.92                 | 5                   | 18.6                   | 18.6                   | 0.0%     |
| LWS_BR2_080   | 426995 | 557245 | 17.92                 | 5                   | 18.6                   | 18.6                   | -0.1%    |
| LWS_BR2_090   | 427003 | 557250 | 17.92                 | 5                   | 18.6                   | 18.6                   | -0.1%    |
| LWS_BR2_100   | 427012 | 557256 | 17.92                 | 5                   | 18.6                   | 18.6                   | -0.2%    |
| LWS_BR2_110   | 427020 | 557261 | 17.92                 | 5                   | 18.6                   | 18.6                   | -0.2%    |
| LWS_BR2_120   | 427028 | 557267 | 17.92                 | 5                   | 18.6                   | 18.6                   | -0.3%    |
| LWS_BR2_130   | 427037 | 557272 | 17.92                 | 5                   | 18.6                   | 18.6                   | -0.4%    |
| LWS_BR2_140   | 427045 | 557278 | 17.92                 | 5                   | 18.7                   | 18.6                   | -0.5%    |
| LWS_BR2_150   | 427053 | 557283 | 17.92                 | 5                   | 18.7                   | 18.7                   | -0.6%    |
| LWS_BR2_160   | 427062 | 557289 | 17.92                 | 5                   | 18.8                   | 18.7                   | -0.8%    |
| LWS_BR2_170   | 427070 | 557294 | 17.92                 | 5                   | 18.9                   | 18.8                   | -1.2%    |
| LWS_BR2_180   | 427078 | 557300 | 17.92                 | 5                   | 19.1                   | 19.0                   | -1.8%    |
| LWS_BR2_190   | 427087 | 557305 | 17.92                 | 5                   | 19.3                   | 19.2                   | -2.9%    |
| LWS_BR2_200   | 427095 | 557311 | 17.92                 | 5                   | 19.9                   | 19.6                   | -5.8%    |
| LWS_BW1_000   | 423465 | 573354 | 15.4                  | 10                  | 16.7                   | 16.6                   | -1.1%    |
| LWS_BW1_010   | 423455 | 573353 | 15.4                  | 10                  | 16.3                   | 16.2                   | -0.8%    |
| LWS_BW1_020   | 423445 | 573352 | 15.4                  | 10                  | 16.1                   | 16.1                   | -0.6%    |
| LWS_BW1_030   | 423435 | 573350 | 15.4                  | 10                  | 16.0                   | 16.0                   | -0.5%    |
| LWS_BW1_040   | 423425 | 573349 | 15.4                  | 10                  | 15.9                   | 15.9                   | -0.4%    |
| LWS_BW1_050   | 423416 | 573348 | 15.4                  | 10                  | 15.8                   | 15.8                   | -0.3%    |
| LWS_BW1_060   | 423406 | 573346 | 15.4                  | 10                  | 15.8                   | 15.8                   | -0.3%    |
| LWS_BW1_070   | 423396 | 573345 | 15.4                  | 10                  | 15.8                   | 15.7                   | -0.3%    |
| LWS_BW1_080   | 423386 | 573343 | 15.4                  | 10                  | 15.7                   | 15.7                   | -0.3%    |
| LWS_BW1_090   | 423376 | 573342 | 15.4                  | 10                  | 15.7                   | 15.7                   | -0.2%    |
| LWS_BW1_100   | 423366 | 573341 | 15.4                  | 10                  | 15.7                   | 15.7                   | -0.2%    |
| LWS_BW1_110   | 423356 | 573339 | 15.4                  | 10                  | 15.7                   | 15.6                   | -0.2%    |
| LWS_BW1_120   | 423346 | 573338 | 15.4                  | 10                  | 15.7                   | 15.6                   | -0.2%    |
| LWS_BW1_130   | 423336 | 573337 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_BW1_140   | 423326 | 573335 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.2%    |
| LWS_BW1_150   | 423317 | 573334 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.2%    |
| LWS_BW1_160   | 423307 | 573332 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW1_170   | 423297 | 573331 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW1_180   | 423287 | 573330 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW1_190   | 423277 | 573328 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW1_200   | 423267 | 573327 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW2_000   | 423444 | 573507 | 15.4                  | 10                  | 17.5                   | 17.3                   | -1.9%    |
| LWS_BW2_010   | 423434 | 573505 | 15.4                  | 10                  | 16.6                   | 16.5                   | -1.0%    |
| LWS_BW2_020   | 423424 | 573503 | 15.4                  | 10                  | 16.3                   | 16.2                   | -0.7%    |
| LWS_BW2_030   | 423414 | 573501 | 15.4                  | 10                  | 16.1                   | 16.0                   | -0.6%    |
| LWS_BW2_040   | 423405 | 573499 | 15.4                  | 10                  | 16.0                   | 15.9                   | -0.5%    |
| LWS_BW2_050   | 423395 | 573496 | 15.4                  | 10                  | 15.9                   | 15.9                   | -0.4%    |
| LWS_BW2_060   | 423385 | 573494 | 15.4                  | 10                  | 15.8                   | 15.8                   | -0.3%    |
| LWS_BW2_070   | 423375 | 573492 | 15.4                  | 10                  | 15.8                   | 15.8                   | -0.3%    |
| LWS_BW2_080   | 423366 | 573490 | 15.4                  | 10                  | 15.8                   | 15.7                   | -0.3%    |
| LWS_BW2_090   | 423356 | 573488 | 15.4                  | 10                  | 15.7                   | 15.7                   | -0.3%    |
| LWS_BW2_100   | 423346 | 573486 | 15.4                  | 10                  | 15.7                   | 15.7                   | -0.2%    |
| LWS_BW2_110   | 423336 | 573484 | 15.4                  | 10                  | 15.7                   | 15.7                   | -0.2%    |
| LWS_BW2_120   | 423326 | 573482 | 15.4                  | 10                  | 15.7                   | 15.6                   | -0.2%    |
| LWS_BW2_130   | 423317 | 573480 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.2%    |
| LWS_BW2_140   | 423307 | 573478 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.2%    |
| LWS_BW2_150   | 423297 | 573476 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW2_160   | 423287 | 573474 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW2_170   | 423277 | 573472 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW2_180   | 423268 | 573470 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW2_190   | 423258 | 573468 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |
| LWS_BW2_200   | 423248 | 573466 | 15.4                  | 10                  | 15.6                   | 15.6                   | -0.1%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_DD1_000   | 420076 | 565244 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_010   | 420069 | 565251 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_020   | 420062 | 565257 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_030   | 420054 | 565264 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_040   | 420047 | 565271 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_050   | 420039 | 565278 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_060   | 420032 | 565284 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_070   | 420025 | 565291 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_080   | 420017 | 565298 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_090   | 420010 | 565305 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_100   | 420003 | 565312 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_110   | 419995 | 565318 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_120   | 419988 | 565325 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_130   | 419981 | 565332 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_140   | 419973 | 565339 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_150   | 419966 | 565345 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_160   | 419958 | 565352 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_170   | 419951 | 565359 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_180   | 419944 | 565366 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_190   | 419936 | 565372 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD1_200   | 419929 | 565379 | 18.76                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_000   | 420129 | 565429 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_010   | 420124 | 565420 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_020   | 420120 | 565411 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_030   | 420115 | 565402 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_040   | 420111 | 565393 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_050   | 420107 | 565384 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_060   | 420102 | 565375 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_DD2_070   | 420098 | 565366 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_080   | 420094 | 565357 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_090   | 420089 | 565348 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_100   | 420085 | 565339 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_110   | 420080 | 565330 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_120   | 420076 | 565321 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_130   | 420072 | 565312 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_140   | 420067 | 565303 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_150   | 420063 | 565294 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_160   | 420059 | 565285 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_170   | 420054 | 565276 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_180   | 420050 | 565267 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_190   | 420045 | 565258 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DD2_200   | 420041 | 565249 | 18.06                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_DF1_000   | 427187 | 557310 | 17.92                 | 10                  | 24.7                   | 25.4                   | 7.0%       |
| LWS_DF1_010   | 427193 | 557318 | 17.92                 | 10                  | 22.1                   | 24.1                   | 19.8%      |
| LWS_DF1_020   | 427198 | 557327 | 17.92                 | 10                  | 21.1                   | 21.8                   | 7.1%       |
| LWS_DF1_030   | 427203 | 557335 | 17.92                 | 10                  | 20.5                   | 20.9                   | 3.8%       |
| LWS_DF1_040   | 427209 | 557344 | 17.92                 | 10                  | 20.1                   | 20.4                   | 2.4%       |
| LWS_DF1_050   | 427214 | 557352 | 17.92                 | 10                  | 19.8                   | 20.0                   | 1.6%       |
| LWS_DF1_060   | 427220 | 557360 | 17.92                 | 10                  | 19.6                   | 19.7                   | 1.2%       |
| LWS_DF1_070   | 427225 | 557369 | 17.92                 | 10                  | 19.5                   | 19.5                   | 0.9%       |
| LWS_DF1_080   | 427230 | 557377 | 17.92                 | 10                  | 19.3                   | 19.4                   | 0.7%       |
| LWS_DF1_090   | 427236 | 557386 | 17.92                 | 10                  | 19.2                   | 19.3                   | 0.6%       |
| LWS_DF1_100   | 427241 | 557394 | 17.92                 | 10                  | 19.1                   | 19.2                   | 0.5%       |
| LWS_DF1_110   | 427246 | 557403 | 17.92                 | 10                  | 19.0                   | 19.1                   | 0.4%       |
| LWS_DF1_120   | 427252 | 557411 | 17.92                 | 10                  | 19.0                   | 19.0                   | 0.4%       |
| LWS_DF1_130   | 427257 | 557419 | 17.92                 | 10                  | 18.9                   | 18.9                   | 0.3%       |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_DF1_140   | 427263 | 557428 | 17.92                 | 10                  | 18.8                   | 18.9                   | 0.3%     |
| LWS_DF1_150   | 427268 | 557436 | 17.92                 | 10                  | 18.8                   | 18.8                   | 0.2%     |
| LWS_DF1_160   | 427273 | 557445 | 17.92                 | 10                  | 18.8                   | 18.8                   | 0.2%     |
| LWS_DF1_170   | 427279 | 557453 | 17.92                 | 10                  | 18.7                   | 18.7                   | 0.2%     |
| LWS_DF1_180   | 427284 | 557462 | 17.92                 | 10                  | 18.7                   | 18.7                   | 0.2%     |
| LWS_DF1_190   | 427289 | 557470 | 17.92                 | 10                  | 18.7                   | 18.7                   | 0.2%     |
| LWS_DF1_200   | 427295 | 557478 | 17.92                 | 10                  | 18.6                   | 18.6                   | 0.1%     |
| LWS_DP1_000   | 428137 | 557868 | 17.92                 | 10                  | 18.4                   | 18.4                   | -0.1%    |
| LWS_DP1_010   | 428132 | 557860 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.0%     |
| LWS_DP1_020   | 428127 | 557851 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.0%     |
| LWS_DP1_030   | 428122 | 557842 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_040   | 428117 | 557834 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_050   | 428111 | 557825 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_060   | 428106 | 557816 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_070   | 428101 | 557808 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_080   | 428096 | 557799 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_090   | 428091 | 557791 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_100   | 428086 | 557782 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_110   | 428081 | 557773 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_120   | 428076 | 557765 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_130   | 428071 | 557756 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_140   | 428066 | 557747 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_150   | 428061 | 557739 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_160   | 428056 | 557730 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_170   | 428051 | 557721 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_180   | 428046 | 557713 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_190   | 428041 | 557704 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_DP1_200   | 428036 | 557696 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_LA1_000   | 426139 | 557803 | 17.92                 | 10                  | 19.1                   | 19.1                   | -0.2%    |
| LWS_LA1_010   | 426133 | 557795 | 17.92                 | 10                  | 18.8                   | 18.8                   | 0.0%     |
| LWS_LA1_020   | 426126 | 557788 | 17.92                 | 10                  | 18.6                   | 18.6                   | 0.0%     |
| LWS_LA1_030   | 426119 | 557781 | 17.92                 | 10                  | 18.5                   | 18.5                   | 0.1%     |
| LWS_LA1_040   | 426112 | 557773 | 17.92                 | 10                  | 18.4                   | 18.4                   | 0.1%     |
| LWS_LA1_050   | 426106 | 557766 | 17.92                 | 10                  | 18.4                   | 18.4                   | 0.1%     |
| LWS_LA1_060   | 426099 | 557758 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.1%     |
| LWS_LA1_070   | 426092 | 557751 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.1%     |
| LWS_LA1_080   | 426086 | 557744 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.1%     |
| LWS_LA1_090   | 426079 | 557736 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.1%     |
| LWS_LA1_100   | 426072 | 557729 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.1%     |
| LWS_LA1_110   | 426065 | 557721 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_LA1_120   | 426059 | 557714 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_LA1_130   | 426052 | 557707 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_LA1_140   | 426045 | 557699 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.0%     |
| LWS_LA1_150   | 426039 | 557692 | 17.92                 | 10                  | 18.1                   | 18.2                   | 0.1%     |
| LWS_LA1_160   | 426032 | 557684 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%     |
| LWS_LA1_170   | 426025 | 557677 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%     |
| LWS_LA1_180   | 426018 | 557670 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%     |
| LWS_LA1_190   | 426012 | 557662 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%     |
| LWS_LA1_200   | 426005 | 557655 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%     |
| LWS_LA2_000   | 425794 | 558215 | 17.92                 | 10                  | 21.4                   | 22.9                   | 14.8%    |
| LWS_LA2_010   | 425787 | 558209 | 17.92                 | 10                  | 19.6                   | 19.8                   | 2.2%     |
| LWS_LA2_020   | 425779 | 558202 | 17.92                 | 10                  | 19.1                   | 19.2                   | 1.2%     |
| LWS_LA2_030   | 425771 | 558195 | 17.92                 | 10                  | 18.9                   | 18.9                   | 0.8%     |
| LWS_LA2_040   | 425764 | 558189 | 17.92                 | 10                  | 18.7                   | 18.8                   | 0.7%     |
| LWS_LA2_050   | 425756 | 558182 | 17.92                 | 10                  | 18.6                   | 18.7                   | 0.6%     |
| LWS_LA2_060   | 425749 | 558176 | 17.92                 | 10                  | 18.6                   | 18.6                   | 0.5%     |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_LA2_070   | 425741 | 558169 | 17.92                 | 10                  | 18.5                   | 18.5                   | 0.4%       |
| LWS_LA2_080   | 425734 | 558162 | 17.92                 | 10                  | 18.5                   | 18.5                   | 0.4%       |
| LWS_LA2_090   | 425726 | 558156 | 17.92                 | 10                  | 18.4                   | 18.5                   | 0.3%       |
| LWS_LA2_100   | 425719 | 558149 | 17.92                 | 10                  | 18.4                   | 18.4                   | 0.3%       |
| LWS_LA2_110   | 425711 | 558143 | 17.92                 | 10                  | 18.4                   | 18.4                   | 0.3%       |
| LWS_LA2_120   | 425704 | 558136 | 17.92                 | 10                  | 18.3                   | 18.4                   | 0.3%       |
| LWS_LA2_130   | 425696 | 558130 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.2%       |
| LWS_LA2_140   | 425689 | 558123 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.2%       |
| LWS_LA2_150   | 425681 | 558116 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.2%       |
| LWS_LA2_160   | 425674 | 558110 | 17.92                 | 10                  | 18.3                   | 18.3                   | 0.2%       |
| LWS_LA2_170   | 425666 | 558103 | 17.92                 | 10                  | 18.2                   | 18.3                   | 0.2%       |
| LWS_LA2_180   | 425659 | 558097 | 17.92                 | 10                  | 18.2                   | 18.3                   | 0.2%       |
| LWS_LA2_190   | 425651 | 558090 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.2%       |
| LWS_LA2_200   | 425643 | 558084 | 17.92                 | 10                  | 18.2                   | 18.2                   | 0.1%       |
| LWS_LA3_000   | 425709 | 558192 | 17.92                 | 10                  | 18.8                   | 18.9                   | 0.7%       |
| LWS_LA3_010   | 425717 | 558187 | 17.92                 | 10                  | 18.6                   | 18.7                   | 0.5%       |
| LWS_LA3_020   | 425726 | 558182 | 17.92                 | 10                  | 18.5                   | 18.6                   | 0.5%       |
| LWS_LA3_030   | 425735 | 558177 | 17.92                 | 10                  | 18.5                   | 18.6                   | 0.5%       |
| LWS_LA3_040   | 425743 | 558172 | 17.92                 | 10                  | 18.5                   | 18.6                   | 0.4%       |
| LWS_LA3_050   | 425752 | 558167 | 17.92                 | 10                  | 18.5                   | 18.6                   | 0.4%       |
| LWS_LA3_060   | 425761 | 558162 | 17.92                 | 10                  | 18.5                   | 18.6                   | 0.4%       |
| LWS_LA3_070   | 425769 | 558157 | 17.92                 | 10                  | 18.5                   | 18.6                   | 0.5%       |
| LWS_LA3_080   | 425778 | 558152 | 17.92                 | 10                  | 18.6                   | 18.6                   | 0.5%       |
| LWS_LA3_090   | 425787 | 558147 | 17.92                 | 10                  | 18.6                   | 18.6                   | 0.5%       |
| LWS_LD1_000   | 426680 | 557412 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_010   | 426671 | 557408 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_020   | 426662 | 557405 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_030   | 426652 | 557401 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_LD1_040   | 426643 | 557398 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_050   | 426634 | 557394 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_060   | 426624 | 557390 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_070   | 426615 | 557387 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_080   | 426606 | 557383 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_090   | 426596 | 557380 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_100   | 426587 | 557376 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_110   | 426578 | 557373 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_120   | 426568 | 557369 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_130   | 426559 | 557366 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_140   | 426550 | 557362 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_150   | 426540 | 557359 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_160   | 426531 | 557355 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_170   | 426522 | 557352 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_180   | 426512 | 557348 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_190   | 426503 | 557344 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD1_200   | 426494 | 557341 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_000   | 426638 | 557430 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_010   | 426634 | 557421 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_020   | 426631 | 557411 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_030   | 426627 | 557402 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_040   | 426624 | 557393 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_050   | 426620 | 557383 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_060   | 426617 | 557374 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_070   | 426613 | 557365 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_080   | 426610 | 557355 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_090   | 426606 | 557346 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_100   | 426603 | 557337 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_LD2_110   | 426599 | 557327 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_120   | 426596 | 557318 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_130   | 426592 | 557308 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_140   | 426589 | 557299 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_150   | 426585 | 557290 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_160   | 426582 | 557280 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_170   | 426578 | 557271 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_180   | 426575 | 557262 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_190   | 426571 | 557252 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LD2_200   | 426568 | 557243 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_LM1_000   | 425202 | 557940 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%       |
| LWS_LM1_010   | 425200 | 557930 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%       |
| LWS_LM1_020   | 425197 | 557921 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%       |
| LWS_LM1_030   | 425195 | 557911 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%       |
| LWS_LM1_040   | 425193 | 557901 | 17.92                 | 10                  | 18.1                   | 18.1                   | 0.0%       |
| LWS_LM1_050   | 425190 | 557891 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_060   | 425188 | 557882 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_070   | 425186 | 557872 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_080   | 425183 | 557862 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_090   | 425181 | 557853 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_100   | 425179 | 557843 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_110   | 425176 | 557833 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_120   | 425174 | 557823 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_130   | 425172 | 557814 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_140   | 425169 | 557804 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_150   | 425167 | 557794 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_160   | 425165 | 557784 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_170   | 425162 | 557775 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_LM1_180   | 425160 | 557765 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_190   | 425158 | 557755 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LM1_200   | 425155 | 557746 | 17.92                 | 10                  | 18.0                   | 18.0                   | 0.0%       |
| LWS_LW1_000   | 423475 | 573508 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_010   | 423485 | 573510 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_020   | 423495 | 573512 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_030   | 423505 | 573514 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_040   | 423515 | 573516 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_050   | 423524 | 573518 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_060   | 423534 | 573520 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_070   | 423544 | 573522 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_080   | 423554 | 573524 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_090   | 423564 | 573526 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_100   | 423573 | 573528 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_110   | 423583 | 573530 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_120   | 423593 | 573532 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_130   | 423603 | 573534 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_140   | 423613 | 573536 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_150   | 423622 | 573538 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_160   | 423632 | 573540 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_170   | 423642 | 573542 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_180   | 423652 | 573544 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_190   | 423662 | 573546 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_LW1_200   | 423671 | 573548 | 15.4                  | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_000   | 424142 | 558770 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_010   | 424134 | 558764 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_020   | 424126 | 558758 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_030   | 424118 | 558751 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_RP1_040   | 424111 | 558745 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_050   | 424103 | 558739 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_060   | 424095 | 558733 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_070   | 424087 | 558727 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_080   | 424079 | 558720 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_090   | 424071 | 558714 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_100   | 424063 | 558708 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_110   | 424056 | 558702 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_120   | 424048 | 558696 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_130   | 424040 | 558689 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_140   | 424032 | 558683 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_150   | 424024 | 558677 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_160   | 424016 | 558671 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_170   | 424009 | 558665 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_180   | 424001 | 558658 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_190   | 423993 | 558652 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RP1_200   | 423985 | 558646 | 15.96                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_RT1_000   | 419447 | 563921 | 16.24                 | 8                   | 22.3                   | 21.8                   | -7.3%      |
| LWS_RT1_010   | 419457 | 563919 | 16.24                 | 8                   | 19.5                   | 19.2                   | -4.1%      |
| LWS_RT1_020   | 419467 | 563918 | 16.24                 | 8                   | 18.6                   | 18.3                   | -2.9%      |
| LWS_RT1_030   | 419476 | 563917 | 16.24                 | 8                   | 18.1                   | 17.9                   | -2.3%      |
| LWS_RT1_040   | 419486 | 563915 | 16.24                 | 8                   | 17.7                   | 17.6                   | -1.9%      |
| LWS_RT1_050   | 419496 | 563914 | 16.24                 | 8                   | 17.5                   | 17.4                   | -1.6%      |
| LWS_RT1_060   | 419506 | 563913 | 16.24                 | 8                   | 17.4                   | 17.3                   | -1.4%      |
| LWS_RT1_070   | 419516 | 563911 | 16.24                 | 8                   | 17.2                   | 17.1                   | -1.2%      |
| LWS_RT1_080   | 419526 | 563910 | 16.24                 | 8                   | 17.2                   | 17.1                   | -1.1%      |
| LWS_RT1_090   | 419536 | 563909 | 16.24                 | 8                   | 17.1                   | 17.0                   | -1.0%      |
| LWS_RT1_100   | 419546 | 563908 | 16.24                 | 8                   | 17.0                   | 16.9                   | -0.9%      |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_RT1_110   | 419556 | 563906 | 16.24                 | 8                   | 17.0                   | 16.9                   | -0.8%    |
| LWS_RT1_120   | 419566 | 563905 | 16.24                 | 8                   | 16.9                   | 16.9                   | -0.8%    |
| LWS_RT1_130   | 419576 | 563904 | 16.24                 | 8                   | 16.9                   | 16.8                   | -0.7%    |
| LWS_RT1_140   | 419585 | 563902 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.7%    |
| LWS_RT1_150   | 419595 | 563901 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.6%    |
| LWS_RT1_160   | 419605 | 563900 | 16.24                 | 8                   | 16.8                   | 16.7                   | -0.6%    |
| LWS_RT1_170   | 419615 | 563898 | 16.24                 | 8                   | 16.8                   | 16.7                   | -0.6%    |
| LWS_RT1_180   | 419625 | 563897 | 16.24                 | 8                   | 16.7                   | 16.7                   | -0.5%    |
| LWS_RT1_190   | 419635 | 563896 | 16.24                 | 8                   | 16.7                   | 16.7                   | -0.5%    |
| LWS_RT1_200   | 419645 | 563894 | 16.24                 | 8                   | 16.7                   | 16.7                   | -0.5%    |
| LWS_RT2_000   | 419432 | 564018 | 16.24                 | 8                   | 20.1                   | 19.8                   | -4.1%    |
| LWS_RT2_010   | 419422 | 564019 | 16.24                 | 8                   | 18.1                   | 17.9                   | -2.1%    |
| LWS_RT2_020   | 419412 | 564020 | 16.24                 | 8                   | 17.5                   | 17.4                   | -1.5%    |
| LWS_RT2_030   | 419402 | 564021 | 16.24                 | 8                   | 17.2                   | 17.1                   | -1.1%    |
| LWS_RT2_040   | 419392 | 564022 | 16.24                 | 8                   | 17.0                   | 17.0                   | -0.9%    |
| LWS_RT2_050   | 419382 | 564024 | 16.24                 | 8                   | 16.9                   | 16.9                   | -0.8%    |
| LWS_RT2_060   | 419372 | 564025 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.7%    |
| LWS_RT2_070   | 419362 | 564026 | 16.24                 | 8                   | 16.8                   | 16.7                   | -0.6%    |
| LWS_RT2_080   | 419352 | 564027 | 16.24                 | 8                   | 16.7                   | 16.7                   | -0.5%    |
| LWS_RT2_090   | 419342 | 564029 | 16.24                 | 8                   | 16.7                   | 16.6                   | -0.5%    |
| LWS_RT2_100   | 419332 | 564030 | 16.24                 | 8                   | 16.6                   | 16.6                   | -0.4%    |
| LWS_RT2_110   | 419322 | 564031 | 16.24                 | 8                   | 16.6                   | 16.6                   | -0.4%    |
| LWS_RT2_120   | 419313 | 564032 | 16.24                 | 8                   | 16.6                   | 16.6                   | -0.3%    |
| LWS_RT2_130   | 419303 | 564034 | 16.24                 | 8                   | 16.6                   | 16.5                   | -0.3%    |
| LWS_RT2_140   | 419293 | 564035 | 16.24                 | 8                   | 16.5                   | 16.5                   | -0.3%    |
| LWS_RT2_150   | 419283 | 564036 | 16.24                 | 8                   | 16.5                   | 16.5                   | -0.3%    |
| LWS_RT2_160   | 419273 | 564037 | 16.24                 | 8                   | 16.5                   | 16.5                   | -0.3%    |
| LWS_RT2_170   | 419263 | 564039 | 16.24                 | 8                   | 16.5                   | 16.5                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_RT2_180   | 419253 | 564040 | 16.24                 | 8                   | 16.5                   | 16.5                   | -0.2%    |
| LWS_RT2_190   | 419243 | 564041 | 16.24                 | 8                   | 16.5                   | 16.5                   | -0.2%    |
| LWS_RT2_200   | 419233 | 564042 | 16.24                 | 8                   | 16.5                   | 16.4                   | -0.2%    |
| LWS_SH1_000   | 428274 | 557189 | 17.92                 | 5                   | 19.1                   | 19.1                   | -0.3%    |
| LWS_SH1_010   | 428282 | 557194 | 17.92                 | 5                   | 18.7                   | 18.7                   | -0.1%    |
| LWS_SH1_020   | 428291 | 557199 | 17.92                 | 5                   | 18.6                   | 18.6                   | -0.1%    |
| LWS_SH1_030   | 428300 | 557204 | 17.92                 | 5                   | 18.6                   | 18.6                   | 0.0%     |
| LWS_SH1_040   | 428308 | 557209 | 17.92                 | 5                   | 18.5                   | 18.5                   | 0.0%     |
| LWS_SH1_050   | 428317 | 557214 | 17.92                 | 5                   | 18.5                   | 18.5                   | 0.0%     |
| LWS_SH1_060   | 428326 | 557219 | 17.92                 | 5                   | 18.5                   | 18.5                   | 0.0%     |
| LWS_SH1_070   | 428334 | 557224 | 17.92                 | 5                   | 18.5                   | 18.5                   | 0.0%     |
| LWS_SH1_080   | 428343 | 557229 | 17.92                 | 5                   | 18.5                   | 18.5                   | 0.0%     |
| LWS_SH1_090   | 428352 | 557234 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_100   | 428360 | 557239 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_110   | 428369 | 557244 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_120   | 428378 | 557249 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_130   | 428386 | 557254 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_140   | 428395 | 557259 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_150   | 428404 | 557264 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_160   | 428412 | 557269 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_170   | 428421 | 557274 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_180   | 428430 | 557279 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_190   | 428438 | 557284 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SH1_200   | 428447 | 557289 | 17.92                 | 5                   | 18.4                   | 18.4                   | 0.0%     |
| LWS_SM1_000   | 419492 | 563336 | 16.24                 | 8                   | 21.9                   | 21.4                   | -6.8%    |
| LWS_SM1_010   | 419501 | 563339 | 16.24                 | 8                   | 19.6                   | 19.2                   | -4.1%    |
| LWS_SM1_020   | 419511 | 563342 | 16.24                 | 8                   | 18.6                   | 18.4                   | -3.0%    |
| LWS_SM1_030   | 419520 | 563345 | 16.24                 | 8                   | 18.1                   | 17.9                   | -2.3%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_SM1_040   | 419530 | 563348 | 16.24                 | 8                   | 17.8                   | 17.7                   | -1.9%    |
| LWS_SM1_050   | 419540 | 563351 | 16.24                 | 8                   | 17.6                   | 17.5                   | -1.6%    |
| LWS_SM1_060   | 419549 | 563354 | 16.24                 | 8                   | 17.4                   | 17.3                   | -1.4%    |
| LWS_SM1_070   | 419559 | 563357 | 16.24                 | 8                   | 17.3                   | 17.2                   | -1.3%    |
| LWS_SM1_080   | 419568 | 563360 | 16.24                 | 8                   | 17.2                   | 17.1                   | -1.2%    |
| LWS_SM1_090   | 419578 | 563363 | 16.24                 | 8                   | 17.1                   | 17.0                   | -1.0%    |
| LWS_SM1_100   | 419587 | 563366 | 16.24                 | 8                   | 17.1                   | 17.0                   | -1.0%    |
| LWS_SM1_110   | 419597 | 563369 | 16.24                 | 8                   | 17.0                   | 16.9                   | -0.9%    |
| LWS_SM1_120   | 419606 | 563372 | 16.24                 | 8                   | 17.0                   | 16.9                   | -0.8%    |
| LWS_SM1_130   | 419616 | 563376 | 16.24                 | 8                   | 16.9                   | 16.8                   | -0.8%    |
| LWS_SM1_140   | 419625 | 563379 | 16.24                 | 8                   | 16.9                   | 16.8                   | -0.7%    |
| LWS_SM1_150   | 419635 | 563382 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.7%    |
| LWS_SM1_160   | 419644 | 563385 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.6%    |
| LWS_SM1_170   | 419654 | 563388 | 16.24                 | 8                   | 16.8                   | 16.7                   | -0.6%    |
| LWS_SM1_180   | 419663 | 563391 | 16.24                 | 8                   | 16.8                   | 16.7                   | -0.6%    |
| LWS_SM1_190   | 419673 | 563394 | 16.24                 | 8                   | 16.7                   | 16.7                   | -0.5%    |
| LWS_SM1_200   | 419682 | 563397 | 16.24                 | 8                   | 16.7                   | 16.7                   | -0.5%    |
| LWS_SM2_000   | 419807 | 562875 | 16.24                 | 8                   | 20.2                   | 20.0                   | -1.6%    |
| LWS_SM2_010   | 419814 | 562881 | 16.24                 | 8                   | 18.6                   | 18.6                   | -0.9%    |
| LWS_SM2_020   | 419822 | 562888 | 16.24                 | 8                   | 18.1                   | 18.1                   | -0.7%    |
| LWS_SM2_030   | 419829 | 562895 | 16.24                 | 8                   | 17.8                   | 17.8                   | -0.6%    |
| LWS_SM2_040   | 419836 | 562901 | 16.24                 | 8                   | 17.6                   | 17.6                   | -0.5%    |
| LWS_SM2_050   | 419844 | 562908 | 16.24                 | 8                   | 17.5                   | 17.4                   | -0.4%    |
| LWS_SM2_060   | 419851 | 562915 | 16.24                 | 8                   | 17.4                   | 17.3                   | -0.4%    |
| LWS_SM2_070   | 419859 | 562922 | 16.24                 | 8                   | 17.3                   | 17.2                   | -0.4%    |
| LWS_SM2_080   | 419866 | 562928 | 16.24                 | 8                   | 17.2                   | 17.2                   | -0.3%    |
| LWS_SM2_090   | 419873 | 562935 | 16.24                 | 8                   | 17.1                   | 17.1                   | -0.3%    |
| LWS_SM2_100   | 419881 | 562942 | 16.24                 | 8                   | 17.1                   | 17.1                   | -0.3%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_SM2_110   | 419888 | 562948 | 16.24                 | 8                   | 17.0                   | 17.0                   | -0.3%    |
| LWS_SM2_120   | 419896 | 562955 | 16.24                 | 8                   | 17.0                   | 17.0                   | -0.3%    |
| LWS_SM2_130   | 419903 | 562962 | 16.24                 | 8                   | 17.0                   | 16.9                   | -0.2%    |
| LWS_SM2_140   | 419911 | 562968 | 16.24                 | 8                   | 16.9                   | 16.9                   | -0.3%    |
| LWS_SM2_150   | 419918 | 562975 | 16.24                 | 8                   | 16.9                   | 16.9                   | -0.2%    |
| LWS_SM2_160   | 419925 | 562982 | 16.24                 | 8                   | 16.9                   | 16.8                   | -0.2%    |
| LWS_SM2_170   | 419933 | 562989 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.2%    |
| LWS_SM2_180   | 419940 | 562995 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.2%    |
| LWS_SM2_190   | 419948 | 563002 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.2%    |
| LWS_SM2_200   | 419955 | 563009 | 16.24                 | 8                   | 16.8                   | 16.8                   | -0.2%    |
| LWS_SM3_000   | 419891 | 562826 | 16.24                 | 8                   | 19.6                   | 19.5                   | -0.7%    |
| LWS_SM3_010   | 419890 | 562836 | 16.24                 | 8                   | 18.4                   | 18.3                   | -0.5%    |
| LWS_SM3_020   | 419888 | 562846 | 16.24                 | 8                   | 18.0                   | 17.9                   | -0.4%    |
| LWS_SM3_030   | 419887 | 562856 | 16.24                 | 8                   | 17.7                   | 17.7                   | -0.4%    |
| LWS_SM3_040   | 419886 | 562866 | 16.24                 | 8                   | 17.6                   | 17.6                   | -0.4%    |
| LWS_SM3_050   | 419884 | 562876 | 16.24                 | 8                   | 17.5                   | 17.4                   | -0.4%    |
| LWS_SM3_060   | 419883 | 562885 | 16.24                 | 8                   | 17.4                   | 17.4                   | -0.3%    |
| LWS_SM3_070   | 419882 | 562895 | 16.24                 | 8                   | 17.3                   | 17.3                   | -0.3%    |
| LWS_SM3_080   | 419880 | 562905 | 16.24                 | 8                   | 17.3                   | 17.2                   | -0.3%    |
| LWS_SM3_090   | 419879 | 562915 | 16.24                 | 8                   | 17.2                   | 17.2                   | -0.3%    |
| LWS_SM3_100   | 419877 | 562925 | 16.24                 | 8                   | 17.2                   | 17.1                   | -0.3%    |
| LWS_SM3_110   | 419876 | 562935 | 16.24                 | 8                   | 17.1                   | 17.1                   | -0.3%    |
| LWS_SM3_120   | 419875 | 562945 | 16.24                 | 8                   | 17.1                   | 17.1                   | -0.3%    |
| LWS_SM3_130   | 419873 | 562955 | 16.24                 | 8                   | 17.1                   | 17.0                   | -0.3%    |
| LWS_SM3_140   | 419872 | 562965 | 16.24                 | 8                   | 17.0                   | 17.0                   | -0.3%    |
| LWS_SM3_150   | 419870 | 562975 | 16.24                 | 8                   | 17.0                   | 17.0                   | -0.3%    |
| LWS_SM3_160   | 419869 | 562984 | 16.24                 | 8                   | 17.0                   | 16.9                   | -0.3%    |
| LWS_SM3_170   | 419868 | 562994 | 16.24                 | 8                   | 16.9                   | 16.9                   | -0.3%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_SM3_180   | 419866 | 563004 | 16.24                 | 8                   | 16.9                   | 16.9                   | -0.3%      |
| LWS_SM3_190   | 419865 | 563014 | 16.24                 | 8                   | 16.9                   | 16.9                   | -0.3%      |
| LWS_SM3_200   | 419864 | 563024 | 16.24                 | 8                   | 16.9                   | 16.8                   | -0.3%      |
| LWS_SN1_000   | 420187 | 564578 | 17.08                 | 10                  | 17.3                   | 17.3                   | 0.0%       |
| LWS_SN1_010   | 420181 | 564586 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_020   | 420175 | 564594 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_030   | 420170 | 564602 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_040   | 420164 | 564611 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_050   | 420158 | 564619 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_060   | 420152 | 564627 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_070   | 420147 | 564635 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_080   | 420141 | 564643 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_090   | 420135 | 564651 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_100   | 420129 | 564659 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_110   | 420123 | 564668 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_120   | 420118 | 564676 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_130   | 420112 | 564684 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_140   | 420106 | 564692 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_150   | 420100 | 564700 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_160   | 420094 | 564708 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_170   | 420089 | 564716 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_180   | 420083 | 564725 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_190   | 420077 | 564733 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_SN1_200   | 420071 | 564741 | 17.08                 | 10                  | 17.3                   | 17.3                   | -0.1%      |
| LWS_TC1_000   | 426511 | 557854 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_010   | 426521 | 557857 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_020   | 426530 | 557860 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_030   | 426540 | 557863 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|------------|
| LWS_TC1_040   | 426549 | 557866 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_050   | 426559 | 557869 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_060   | 426568 | 557872 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_070   | 426578 | 557875 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_080   | 426587 | 557878 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_090   | 426597 | 557881 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_100   | 426606 | 557884 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_110   | 426616 | 557887 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_120   | 426625 | 557890 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_130   | 426635 | 557893 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_140   | 426644 | 557896 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_150   | 426654 | 557899 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_160   | 426663 | 557902 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_170   | 426673 | 557905 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_180   | 426682 | 557908 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_190   | 426692 | 557912 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_TC1_200   | 426701 | 557915 | 17.92                 | No Habitat          | -                      | -                      | No Habitat |
| LWS_VW1_000   | 428690 | 554185 | 16.24                 | 15                  | 16.8                   | 16.8                   | 0.0%       |
| LWS_VW1_010   | 428688 | 554195 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_020   | 428686 | 554205 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_030   | 428685 | 554215 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_040   | 428683 | 554225 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_050   | 428682 | 554235 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_060   | 428680 | 554244 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_070   | 428678 | 554254 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_080   | 428677 | 554264 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_090   | 428675 | 554274 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |
| LWS_VW1_100   | 428674 | 554284 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%       |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_VW1_110   | 428672 | 554294 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_120   | 428671 | 554304 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_130   | 428669 | 554314 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_140   | 428667 | 554323 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_150   | 428666 | 554333 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_160   | 428664 | 554343 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_170   | 428663 | 554353 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_180   | 428661 | 554363 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_190   | 428659 | 554373 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW1_200   | 428658 | 554383 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW2_000   | 428508 | 554174 | 16.24                 | 15                  | 17.7                   | 17.7                   | 0.0%     |
| LWS_VW2_010   | 428509 | 554184 | 16.24                 | 15                  | 17.8                   | 17.8                   | 0.0%     |
| LWS_VW2_020   | 428510 | 554194 | 16.24                 | 15                  | 17.9                   | 17.9                   | 0.0%     |
| LWS_VW2_030   | 428511 | 554204 | 16.24                 | 15                  | 17.9                   | 17.9                   | 0.0%     |
| LWS_VW2_040   | 428512 | 554214 | 16.24                 | 15                  | 17.8                   | 17.8                   | 0.0%     |
| LWS_VW2_050   | 428513 | 554224 | 16.24                 | 15                  | 17.8                   | 17.8                   | 0.0%     |
| LWS_VW2_060   | 428513 | 554234 | 16.24                 | 15                  | 17.8                   | 17.8                   | 0.0%     |
| LWS_VW2_070   | 428514 | 554244 | 16.24                 | 15                  | 17.7                   | 17.7                   | 0.0%     |
| LWS_VW2_080   | 428515 | 554254 | 16.24                 | 15                  | 17.7                   | 17.7                   | 0.0%     |
| LWS_VW2_090   | 428516 | 554264 | 16.24                 | 15                  | 17.6                   | 17.6                   | 0.0%     |
| LWS_VW2_100   | 428517 | 554274 | 16.24                 | 15                  | 17.6                   | 17.6                   | 0.0%     |
| LWS_VW2_110   | 428518 | 554283 | 16.24                 | 15                  | 17.6                   | 17.6                   | 0.0%     |
| LWS_VW2_120   | 428519 | 554293 | 16.24                 | 15                  | 17.6                   | 17.6                   | 0.0%     |
| LWS_VW2_130   | 428520 | 554303 | 16.24                 | 15                  | 17.5                   | 17.5                   | 0.0%     |
| LWS_VW2_140   | 428521 | 554313 | 16.24                 | 15                  | 17.5                   | 17.5                   | 0.0%     |
| LWS_VW2_150   | 428522 | 554323 | 16.24                 | 15                  | 17.4                   | 17.4                   | 0.0%     |
| LWS_VW2_160   | 428523 | 554333 | 16.24                 | 15                  | 17.2                   | 17.2                   | 0.0%     |
| LWS_VW2_170   | 428523 | 554343 | 16.24                 | 15                  | 17.2                   | 17.2                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| LWS_VW2_180   | 428524 | 554353 | 16.24                 | 15                  | 17.1                   | 17.1                   | 0.0%     |
| LWS_VW2_190   | 428525 | 554363 | 16.24                 | 15                  | 17.1                   | 17.1                   | 0.0%     |
| LWS_VW2_200   | 428526 | 554373 | 16.24                 | 15                  | 17.0                   | 17.0                   | 0.0%     |
| LWS_VW3_000   | 428513 | 554272 | 16.24                 | 15                  | 17.8                   | 17.8                   | 0.0%     |
| LWS_VW3_010   | 428523 | 554273 | 16.24                 | 15                  | 17.4                   | 17.4                   | 0.0%     |
| LWS_VW3_020   | 428533 | 554273 | 16.24                 | 15                  | 17.2                   | 17.2                   | 0.0%     |
| LWS_VW3_030   | 428543 | 554274 | 16.24                 | 15                  | 17.1                   | 17.1                   | 0.0%     |
| LWS_VW3_040   | 428553 | 554275 | 16.24                 | 15                  | 17.0                   | 17.0                   | 0.0%     |
| LWS_VW3_050   | 428563 | 554276 | 16.24                 | 15                  | 17.0                   | 17.0                   | 0.0%     |
| LWS_VW3_060   | 428573 | 554277 | 16.24                 | 15                  | 16.9                   | 16.9                   | 0.0%     |
| LWS_VW3_070   | 428583 | 554277 | 16.24                 | 15                  | 16.9                   | 16.9                   | 0.0%     |
| LWS_VW3_080   | 428593 | 554278 | 16.24                 | 15                  | 16.8                   | 16.8                   | 0.0%     |
| LWS_VW3_090   | 428603 | 554279 | 16.24                 | 15                  | 16.8                   | 16.8                   | 0.0%     |
| LWS_VW3_100   | 428613 | 554280 | 16.24                 | 15                  | 16.8                   | 16.8                   | 0.0%     |
| LWS_VW3_110   | 428623 | 554281 | 16.24                 | 15                  | 16.8                   | 16.8                   | 0.0%     |
| LWS_VW3_120   | 428633 | 554281 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW3_130   | 428643 | 554282 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW3_140   | 428653 | 554283 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW3_150   | 428663 | 554284 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW3_160   | 428673 | 554285 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW3_170   | 428683 | 554285 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW3_180   | 428693 | 554286 | 16.24                 | 15                  | 16.7                   | 16.7                   | 0.0%     |
| LWS_VW3_190   | 428703 | 554287 | 16.24                 | 15                  | 16.6                   | 16.6                   | 0.0%     |
| LWS_VW3_200   | 428713 | 554288 | 16.24                 | 15                  | 16.6                   | 16.6                   | 0.0%     |
| SSI_SP1_000   | 419649 | 562967 | 16.24                 | 10                  | 16.9                   | 16.9                   | -0.2%    |
| SSI_SP1_010   | 419640 | 562962 | 16.24                 | 10                  | 16.8                   | 16.8                   | -0.2%    |
| SSI_SP1_020   | 419631 | 562958 | 16.24                 | 10                  | 16.7                   | 16.7                   | -0.2%    |
| SSI_SP1_030   | 419622 | 562954 | 16.24                 | 10                  | 16.7                   | 16.7                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| SSI_SP1_040   | 419613 | 562949 | 16.24                 | 10                  | 16.6                   | 16.6                   | -0.1%    |
| SSI_SP1_050   | 419604 | 562945 | 16.24                 | 10                  | 16.6                   | 16.6                   | -0.1%    |
| SSI_SP1_060   | 419595 | 562941 | 16.24                 | 10                  | 16.6                   | 16.5                   | -0.1%    |
| SSI_SP1_070   | 419586 | 562937 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP1_080   | 419577 | 562932 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP1_090   | 419568 | 562928 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP1_100   | 419559 | 562924 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP1_110   | 419550 | 562919 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP1_120   | 419541 | 562915 | 16.24                 | 10                  | 16.5                   | 16.4                   | -0.1%    |
| SSI_SP1_130   | 419532 | 562911 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP1_140   | 419523 | 562906 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP1_150   | 419514 | 562902 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP1_160   | 419505 | 562898 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP1_170   | 419496 | 562894 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP1_180   | 419487 | 562889 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP1_190   | 419478 | 562885 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP1_200   | 419469 | 562881 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP2_000   | 419702 | 562806 | 16.24                 | 10                  | 16.6                   | 16.6                   | -0.1%    |
| SSI_SP2_010   | 419693 | 562802 | 16.24                 | 10                  | 16.6                   | 16.6                   | -0.1%    |
| SSI_SP2_020   | 419684 | 562797 | 16.24                 | 10                  | 16.6                   | 16.5                   | -0.1%    |
| SSI_SP2_030   | 419675 | 562793 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP2_040   | 419666 | 562789 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP2_050   | 419657 | 562785 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP2_060   | 419648 | 562780 | 16.24                 | 10                  | 16.5                   | 16.5                   | -0.1%    |
| SSI_SP2_070   | 419639 | 562776 | 16.24                 | 10                  | 16.5                   | 16.5                   | 0.0%     |
| SSI_SP2_080   | 419630 | 562772 | 16.24                 | 10                  | 16.5                   | 16.5                   | 0.0%     |
| SSI_SP2_090   | 419621 | 562767 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP2_100   | 419612 | 562763 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |

| Receptor Name | X      | Y      | APIS Short Deposition | Short Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|-----------------------|---------------------|------------------------|------------------------|----------|
| SSI_SP2_110   | 419603 | 562759 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| SSI_SP2_120   | 419594 | 562755 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| SSI_SP2_130   | 419585 | 562750 | 16.24                 | 10                  | 16.4                   | 16.4                   | -0.1%    |
| SSI_SP2_140   | 419576 | 562746 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| SSI_SP2_150   | 419567 | 562742 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| SSI_SP2_160   | 419558 | 562737 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| SSI_SP2_170   | 419549 | 562733 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| SSI_SP2_180   | 419540 | 562729 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| SSI_SP2_190   | 419531 | 562725 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |
| SSI_SP2_200   | 419522 | 562720 | 16.24                 | 10                  | 16.4                   | 16.4                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| AWO_CB1_000   | 428091 | 552953 | 26.04                | 10            | 28.5                   | 28.5                   | -0.1%    |
| AWO_CB1_010   | 428101 | 552954 | 26.04                | 10            | 27.6                   | 27.6                   | 0.0%     |
| AWO_CB1_020   | 428111 | 552955 | 26.04                | 10            | 27.3                   | 27.3                   | 0.0%     |
| AWO_CB1_030   | 428121 | 552956 | 26.04                | 10            | 27.2                   | 27.2                   | 0.0%     |
| AWO_CB1_040   | 428131 | 552957 | 26.04                | 10            | 27.1                   | 27.1                   | 0.0%     |
| AWO_CB1_050   | 428141 | 552958 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| AWO_CB1_060   | 428151 | 552959 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| AWO_CB1_070   | 428161 | 552960 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| AWO_CB1_080   | 428171 | 552961 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| AWO_CB1_090   | 428181 | 552963 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| AWO_CB1_100   | 428191 | 552964 | 26.04                | 10            | 26.8                   | 26.8                   | 0.0%     |
| AWO_CB1_110   | 428201 | 552965 | 26.04                | 10            | 26.8                   | 26.8                   | 0.0%     |
| AWO_CB1_120   | 428210 | 552966 | 26.04                | 10            | 26.8                   | 26.8                   | 0.0%     |
| AWO_CB1_130   | 428220 | 552967 | 26.04                | 10            | 26.8                   | 26.8                   | 0.0%     |
| AWO_CB1_140   | 428230 | 552968 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| AWO_CB1_150   | 428240 | 552969 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB1_160   | 428250 | 552970 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB1_170   | 428260 | 552971 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB1_180   | 428270 | 552972 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB1_190   | 428280 | 552973 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB1_200   | 428290 | 552974 | 26.04                | 10            | 26.6                   | 26.6                   | 0.0%     |
| AWO_CB2_000   | 428226 | 552417 | 26.04                | 10            | 27.2                   | 27.2                   | 0.0%     |
| AWO_CB2_010   | 428235 | 552422 | 26.04                | 10            | 27.1                   | 27.1                   | 0.0%     |
| AWO_CB2_020   | 428244 | 552427 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| AWO_CB2_030   | 428252 | 552432 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| AWO_CB2_040   | 428261 | 552437 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| AWO_CB2_050   | 428270 | 552442 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| AWO_CB2_060   | 428278 | 552447 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| AWO_CB2_070   | 428287 | 552451 | 26.04                | 10            | 26.8                   | 26.8                   | 0.0%     |
| AWO_CB2_080   | 428296 | 552456 | 26.04                | 10            | 26.8                   | 26.8                   | 0.0%     |
| AWO_CB2_090   | 428305 | 552461 | 26.04                | 10            | 26.8                   | 26.8                   | 0.0%     |
| AWO_CB2_100   | 428313 | 552466 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB2_110   | 428322 | 552471 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB2_120   | 428331 | 552476 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB2_130   | 428340 | 552481 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB2_140   | 428348 | 552485 | 26.04                | 10            | 26.7                   | 26.7                   | 0.0%     |
| AWO_CB2_150   | 428357 | 552490 | 26.04                | 10            | 26.6                   | 26.6                   | 0.0%     |
| AWO_CB2_160   | 428366 | 552495 | 26.04                | 10            | 26.6                   | 26.6                   | 0.0%     |
| AWO_CB2_170   | 428375 | 552500 | 26.04                | 10            | 26.6                   | 26.6                   | 0.0%     |
| AWO_CB2_180   | 428383 | 552505 | 26.04                | 10            | 26.6                   | 26.6                   | 0.0%     |
| AWO_CB2_190   | 428392 | 552510 | 26.04                | 10            | 26.6                   | 26.6                   | 0.0%     |
| AWO_CB2_200   | 428401 | 552515 | 26.04                | 10            | 26.6                   | 26.6                   | 0.0%     |
| AWO_HH1_000   | 424033 | 559015 | 25.76                | 10            | 28.6                   | 28.7                   | 1.5%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| AWO_HH1_010   | 424024 | 559012 | 25.76                | 10            | 27.9                   | 28.0                   | 1.0%     |
| AWO_HH1_020   | 424014 | 559009 | 25.76                | 10            | 27.4                   | 27.5                   | 0.8%     |
| AWO_HH1_030   | 424005 | 559007 | 25.76                | 10            | 27.1                   | 27.2                   | 0.6%     |
| AWO_HH1_040   | 423995 | 559004 | 25.76                | 10            | 27.0                   | 27.0                   | 0.5%     |
| AWO_HH1_050   | 423985 | 559001 | 25.76                | 10            | 26.8                   | 26.8                   | 0.4%     |
| AWO_HH1_060   | 423976 | 558998 | 25.76                | 10            | 26.7                   | 26.7                   | 0.4%     |
| AWO_HH1_070   | 423966 | 558995 | 25.76                | 10            | 26.6                   | 26.6                   | 0.3%     |
| AWO_HH1_080   | 423957 | 558993 | 25.76                | 10            | 26.5                   | 26.5                   | 0.3%     |
| AWO_HH1_090   | 423947 | 558990 | 25.76                | 10            | 26.5                   | 26.5                   | 0.2%     |
| AWO_HH1_100   | 423937 | 558987 | 25.76                | 10            | 26.4                   | 26.4                   | 0.2%     |
| AWO_HH1_110   | 423928 | 558984 | 25.76                | 10            | 26.4                   | 26.4                   | 0.2%     |
| AWO_HH1_120   | 423918 | 558982 | 25.76                | 10            | 26.3                   | 26.3                   | 0.2%     |
| AWO_HH1_130   | 423909 | 558979 | 25.76                | 10            | 26.3                   | 26.3                   | 0.1%     |
| AWO_HH1_140   | 423899 | 558976 | 25.76                | 10            | 26.3                   | 26.3                   | 0.2%     |
| AWO_HH1_150   | 423889 | 558973 | 25.76                | 10            | 26.2                   | 26.2                   | 0.1%     |
| AWO_HH1_160   | 423880 | 558970 | 25.76                | 10            | 26.2                   | 26.2                   | 0.1%     |
| AWO_HH1_170   | 423870 | 558968 | 25.76                | 10            | 26.2                   | 26.2                   | 0.1%     |
| AWO_HH1_180   | 423861 | 558965 | 25.76                | 10            | 26.2                   | 26.2                   | 0.1%     |
| AWO_HH1_190   | 423851 | 558962 | 25.76                | 10            | 26.2                   | 26.2                   | 0.1%     |
| AWO_HH1_200   | 423841 | 558959 | 25.76                | 10            | 26.1                   | 26.1                   | 0.1%     |
| AWO_SD1_000   | 419129 | 565826 | 31.08                | 10            | 33.7                   | 33.6                   | -0.5%    |
| AWO_SD1_010   | 419126 | 565816 | 31.08                | 10            | 32.7                   | 32.7                   | -0.4%    |
| AWO_SD1_020   | 419123 | 565807 | 31.08                | 10            | 32.3                   | 32.2                   | -0.3%    |
| AWO_SD1_030   | 419121 | 565797 | 31.08                | 10            | 32.0                   | 32.0                   | -0.3%    |
| AWO_SD1_040   | 419118 | 565787 | 31.08                | 10            | 31.9                   | 31.9                   | -0.2%    |
| AWO_SD1_050   | 419116 | 565778 | 31.08                | 10            | 31.8                   | 31.8                   | -0.2%    |
| AWO_SD1_060   | 419113 | 565768 | 31.08                | 10            | 31.7                   | 31.7                   | -0.2%    |
| AWO_SD1_070   | 419111 | 565758 | 31.08                | 10            | 31.7                   | 31.6                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| AWO_SD1_080   | 419108 | 565749 | 31.08                | 10            | 31.6                   | 31.6                   | -0.2%    |
| AWO_SD1_090   | 419105 | 565739 | 31.08                | 10            | 31.6                   | 31.6                   | -0.2%    |
| AWO_SD1_100   | 419103 | 565729 | 31.08                | 10            | 31.6                   | 31.5                   | -0.2%    |
| AWO_SD1_110   | 419100 | 565720 | 31.08                | 10            | 31.5                   | 31.5                   | -0.2%    |
| AWO_SD1_120   | 419098 | 565710 | 31.08                | 10            | 31.5                   | 31.5                   | -0.1%    |
| AWO_SD1_130   | 419095 | 565700 | 31.08                | 10            | 31.5                   | 31.5                   | -0.2%    |
| AWO_SD1_140   | 419093 | 565691 | 31.08                | 10            | 31.5                   | 31.5                   | -0.1%    |
| AWO_SD1_150   | 419090 | 565681 | 31.08                | 10            | 31.5                   | 31.5                   | -0.2%    |
| AWO_SD1_160   | 419087 | 565671 | 31.08                | 10            | 31.5                   | 31.5                   | -0.1%    |
| AWO_SD1_170   | 419085 | 565662 | 31.08                | 10            | 31.5                   | 31.4                   | -0.1%    |
| AWO_SD1_180   | 419082 | 565652 | 31.08                | 10            | 31.4                   | 31.4                   | -0.1%    |
| AWO_SD1_190   | 419080 | 565642 | 31.08                | 10            | 31.4                   | 31.4                   | -0.2%    |
| AWO_SD1_200   | 419077 | 565633 | 31.08                | 10            | 31.4                   | 31.4                   | -0.1%    |
| LNR_BN1_000   | 421681 | 563854 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_010   | 421679 | 563844 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_020   | 421676 | 563834 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%    |
| LNR_BN1_030   | 421674 | 563824 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_040   | 421672 | 563815 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_050   | 421670 | 563805 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_060   | 421668 | 563795 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%    |
| LNR_BN1_070   | 421666 | 563785 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%    |
| LNR_BN1_080   | 421664 | 563775 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%    |
| LNR_BN1_090   | 421661 | 563766 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%    |
| LNR_BN1_100   | 421659 | 563756 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_110   | 421657 | 563746 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_120   | 421655 | 563736 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_130   | 421653 | 563727 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%    |
| LNR_BN1_140   | 421651 | 563717 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LNR_BN1_150   | 421648 | 563707 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%      |
| LNR_BN1_160   | 421646 | 563697 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%      |
| LNR_BN1_170   | 421644 | 563688 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%      |
| LNR_BN1_180   | 421642 | 563678 | 27.86                | 5             | 28.1                   | 28.1                   | -0.2%      |
| LNR_BN1_190   | 421640 | 563668 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%      |
| LNR_BN1_200   | 421638 | 563658 | 27.86                | 5             | 28.1                   | 28.1                   | -0.1%      |
| LNR_CL1_000   | 421260 | 562247 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_010   | 421257 | 562238 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_020   | 421254 | 562228 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_030   | 421252 | 562218 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_040   | 421249 | 562209 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_050   | 421246 | 562199 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_060   | 421244 | 562189 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_070   | 421241 | 562180 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_080   | 421238 | 562170 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_090   | 421236 | 562161 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_100   | 421233 | 562151 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_110   | 421230 | 562141 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_120   | 421228 | 562132 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_130   | 421225 | 562122 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_140   | 421222 | 562112 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_150   | 421220 | 562103 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_160   | 421217 | 562093 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_170   | 421214 | 562083 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_180   | 421212 | 562074 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_190   | 421209 | 562064 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_CL1_200   | 421206 | 562055 | 27.86                | No Habitat    | -                      | -                      | No Habitat |
| LNR_DD1_000   | 419448 | 564830 | 26.88                | 10            | 33.4                   | 33.1                   | -2.5%      |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LNR_DD1_010   | 419458 | 564830 | 26.88                | 10            | 31.9                   | 31.8                   | -1.6%    |
| LNR_DD1_020   | 419468 | 564829 | 26.88                | 10            | 31.0                   | 30.9                   | -1.3%    |
| LNR_DD1_030   | 419478 | 564829 | 26.88                | 10            | 30.4                   | 30.3                   | -1.1%    |
| LNR_DD1_040   | 419488 | 564829 | 26.88                | 10            | 30.0                   | 29.9                   | -1.0%    |
| LNR_DD1_050   | 419498 | 564829 | 26.88                | 10            | 29.6                   | 29.6                   | -0.9%    |
| LNR_DD1_060   | 419508 | 564829 | 26.88                | 10            | 29.4                   | 29.3                   | -0.8%    |
| LNR_DD1_070   | 419518 | 564829 | 26.88                | 10            | 29.2                   | 29.1                   | -0.8%    |
| LNR_DD1_080   | 419528 | 564829 | 26.88                | 10            | 29.0                   | 28.9                   | -0.8%    |
| LNR_DD1_090   | 419538 | 564829 | 26.88                | 10            | 28.8                   | 28.8                   | -0.7%    |
| LNR_DD1_100   | 419548 | 564829 | 26.88                | 10            | 28.7                   | 28.6                   | -0.6%    |
| LNR_DD1_110   | 419558 | 564829 | 26.88                | 10            | 28.6                   | 28.5                   | -0.6%    |
| LNR_DD1_120   | 419568 | 564829 | 26.88                | 10            | 28.5                   | 28.4                   | -0.6%    |
| LNR_DD1_130   | 419578 | 564829 | 26.88                | 10            | 28.4                   | 28.3                   | -0.6%    |
| LNR_DD1_140   | 419588 | 564829 | 26.88                | 10            | 28.3                   | 28.3                   | -0.5%    |
| LNR_DD1_150   | 419598 | 564829 | 26.88                | 10            | 28.3                   | 28.2                   | -0.5%    |
| LNR_DD1_160   | 419608 | 564829 | 26.88                | 10            | 28.2                   | 28.2                   | -0.5%    |
| LNR_DD1_170   | 419618 | 564829 | 26.88                | 10            | 28.1                   | 28.1                   | -0.5%    |
| LNR_DD1_180   | 419628 | 564829 | 26.88                | 10            | 28.1                   | 28.1                   | -0.4%    |
| LNR_DD1_190   | 419638 | 564829 | 26.88                | 10            | 28.1                   | 28.0                   | -0.4%    |
| LNR_DD1_200   | 419648 | 564829 | 26.88                | 10            | 28.0                   | 28.0                   | -0.4%    |
| LNR_DD2_000   | 419727 | 564698 | 26.88                | 10            | 28.1                   | 28.1                   | 0.2%     |
| LNR_DD2_010   | 419718 | 564700 | 26.88                | 10            | 27.9                   | 27.9                   | -0.1%    |
| LNR_DD2_020   | 419708 | 564703 | 26.88                | 10            | 27.9                   | 27.9                   | -0.2%    |
| LNR_DD2_030   | 419698 | 564706 | 26.88                | 10            | 27.9                   | 27.9                   | -0.3%    |
| LNR_DD2_040   | 419689 | 564709 | 26.88                | 10            | 27.9                   | 27.9                   | -0.3%    |
| LNR_DD2_050   | 419679 | 564712 | 26.88                | 10            | 28.0                   | 27.9                   | -0.4%    |
| LNR_DD2_060   | 419670 | 564714 | 26.88                | 10            | 28.0                   | 27.9                   | -0.4%    |
| LNR_DD2_070   | 419660 | 564717 | 26.88                | 10            | 28.0                   | 28.0                   | -0.4%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LNR_DD2_080   | 419650 | 564720 | 26.88                | 10            | 28.0                   | 28.0                   | -0.4%    |
| LNR_DD2_090   | 419641 | 564723 | 26.88                | 10            | 28.1                   | 28.0                   | -0.4%    |
| LNR_DD2_100   | 419631 | 564725 | 26.88                | 10            | 28.1                   | 28.1                   | -0.4%    |
| LNR_DD2_110   | 419621 | 564728 | 26.88                | 10            | 28.2                   | 28.1                   | -0.5%    |
| LNR_DD2_120   | 419612 | 564731 | 26.88                | 10            | 28.2                   | 28.2                   | -0.5%    |
| LNR_DD2_130   | 419602 | 564734 | 26.88                | 10            | 28.3                   | 28.2                   | -0.5%    |
| LNR_DD2_140   | 419593 | 564736 | 26.88                | 10            | 28.3                   | 28.3                   | -0.5%    |
| LNR_DD2_150   | 419583 | 564739 | 26.88                | 10            | 28.4                   | 28.4                   | -0.6%    |
| LNR_DD2_160   | 419573 | 564742 | 26.88                | 10            | 28.5                   | 28.4                   | -0.6%    |
| LNR_DD2_170   | 419564 | 564745 | 26.88                | 10            | 28.6                   | 28.5                   | -0.6%    |
| LNR_DD2_180   | 419554 | 564747 | 26.88                | 10            | 28.7                   | 28.6                   | -0.7%    |
| LNR_DD2_190   | 419545 | 564750 | 26.88                | 10            | 28.8                   | 28.7                   | -0.7%    |
| LNR_DD2_200   | 419535 | 564753 | 26.88                | 10            | 29.0                   | 28.9                   | -0.8%    |
| LNR_SP1_000   | 419465 | 563344 | 26.88                | 10            | 33.2                   | 32.6                   | -5.3%    |
| LNR_SP1_010   | 419455 | 563340 | 26.88                | 10            | 29.9                   | 29.6                   | -2.7%    |
| LNR_SP1_020   | 419446 | 563336 | 26.88                | 10            | 28.9                   | 28.7                   | -1.8%    |
| LNR_SP1_030   | 419437 | 563332 | 26.88                | 10            | 28.4                   | 28.3                   | -1.3%    |
| LNR_SP1_040   | 419428 | 563328 | 26.88                | 10            | 28.1                   | 28.0                   | -1.1%    |
| LNR_SP1_050   | 419419 | 563325 | 26.88                | 10            | 27.9                   | 27.8                   | -0.9%    |
| LNR_SP1_060   | 419409 | 563321 | 26.88                | 10            | 27.8                   | 27.7                   | -0.8%    |
| LNR_SP1_070   | 419400 | 563317 | 26.88                | 10            | 27.7                   | 27.6                   | -0.6%    |
| LNR_SP1_080   | 419391 | 563313 | 26.88                | 10            | 27.6                   | 27.5                   | -0.6%    |
| LNR_SP1_090   | 419382 | 563309 | 26.88                | 10            | 27.5                   | 27.5                   | -0.5%    |
| LNR_SP1_100   | 419372 | 563306 | 26.88                | 10            | 27.5                   | 27.4                   | -0.5%    |
| LNR_SP1_110   | 419363 | 563302 | 26.88                | 10            | 27.4                   | 27.4                   | -0.4%    |
| LNR_SP1_120   | 419354 | 563298 | 26.88                | 10            | 27.4                   | 27.4                   | -0.4%    |
| LNR_SP1_130   | 419345 | 563294 | 26.88                | 10            | 27.4                   | 27.3                   | -0.4%    |
| LNR_SP1_140   | 419335 | 563290 | 26.88                | 10            | 27.3                   | 27.3                   | -0.3%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LNR_SP1_150   | 419326 | 563286 | 26.88                | 10            | 27.3                   | 27.3                   | -0.3%    |
| LNR_SP1_160   | 419317 | 563283 | 26.88                | 10            | 27.3                   | 27.3                   | -0.2%    |
| LNR_SP1_170   | 419308 | 563279 | 26.88                | 10            | 27.3                   | 27.2                   | -0.3%    |
| LNR_SP1_180   | 419298 | 563275 | 26.88                | 10            | 27.3                   | 27.2                   | -0.2%    |
| LNR_SP1_190   | 419289 | 563271 | 26.88                | 10            | 27.2                   | 27.2                   | -0.2%    |
| LNR_SP1_200   | 419280 | 563267 | 26.88                | 10            | 27.2                   | 27.2                   | -0.2%    |
| LWS_AP1_000   | 419698 | 562370 | 26.88                | 10            | 27.2                   | 27.2                   | 0.0%     |
| LWS_AP1_010   | 419692 | 562362 | 26.88                | 10            | 27.1                   | 27.1                   | -0.1%    |
| LWS_AP1_020   | 419686 | 562354 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_030   | 419679 | 562347 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_040   | 419673 | 562339 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_050   | 419667 | 562331 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_060   | 419661 | 562323 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_070   | 419655 | 562315 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_080   | 419649 | 562307 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_090   | 419643 | 562299 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_100   | 419636 | 562292 | 26.88                | 10            | 27.1                   | 27.1                   | 0.0%     |
| LWS_AP1_110   | 419630 | 562284 | 26.88                | 10            | 27.1                   | 27.0                   | 0.0%     |
| LWS_AP1_120   | 419624 | 562276 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_AP1_130   | 419618 | 562268 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_AP1_140   | 419612 | 562260 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_AP1_150   | 419606 | 562252 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_AP1_160   | 419599 | 562244 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_AP1_170   | 419593 | 562236 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_AP1_180   | 419587 | 562229 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_AP1_190   | 419581 | 562221 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_AP1_200   | 419575 | 562213 | 26.88                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_BN1_000   | 427860 | 556756 | 28.84                | 10            | 29.7                   | 29.7                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_BN1_010   | 427851 | 556760 | 28.84                | 10            | 29.7                   | 29.7                   | -0.2%    |
| LWS_BN1_020   | 427842 | 556764 | 28.84                | 10            | 29.7                   | 29.7                   | -0.2%    |
| LWS_BN1_030   | 427833 | 556767 | 28.84                | 10            | 29.7                   | 29.6                   | -0.2%    |
| LWS_BN1_040   | 427823 | 556771 | 28.84                | 10            | 29.7                   | 29.6                   | -0.2%    |
| LWS_BN1_050   | 427814 | 556775 | 28.84                | 10            | 29.6                   | 29.6                   | -0.2%    |
| LWS_BN1_060   | 427805 | 556779 | 28.84                | 10            | 29.6                   | 29.6                   | -0.2%    |
| LWS_BN1_070   | 427796 | 556783 | 28.84                | 10            | 29.6                   | 29.6                   | -0.2%    |
| LWS_BN1_080   | 427787 | 556787 | 28.84                | 10            | 29.6                   | 29.6                   | -0.2%    |
| LWS_BN1_090   | 427777 | 556791 | 28.84                | 10            | 29.6                   | 29.6                   | -0.2%    |
| LWS_BN1_100   | 427768 | 556795 | 28.84                | 10            | 29.6                   | 29.6                   | -0.1%    |
| LWS_BN1_110   | 427759 | 556799 | 28.84                | 10            | 29.6                   | 29.6                   | -0.1%    |
| LWS_BN1_120   | 427750 | 556803 | 28.84                | 10            | 29.6                   | 29.6                   | -0.1%    |
| LWS_BN1_130   | 427741 | 556807 | 28.84                | 10            | 29.6                   | 29.6                   | -0.1%    |
| LWS_BN1_140   | 427731 | 556810 | 28.84                | 10            | 29.6                   | 29.5                   | -0.1%    |
| LWS_BN1_150   | 427722 | 556814 | 28.84                | 10            | 29.5                   | 29.5                   | -0.1%    |
| LWS_BN1_160   | 427713 | 556818 | 28.84                | 10            | 29.5                   | 29.5                   | -0.2%    |
| LWS_BN1_170   | 427704 | 556822 | 28.84                | 10            | 29.5                   | 29.5                   | -0.1%    |
| LWS_BN1_180   | 427695 | 556826 | 28.84                | 10            | 29.5                   | 29.5                   | -0.1%    |
| LWS_BN1_190   | 427685 | 556830 | 28.84                | 10            | 29.5                   | 29.5                   | -0.2%    |
| LWS_BN1_200   | 427676 | 556834 | 28.84                | 10            | 29.5                   | 29.5                   | -0.1%    |
| LWS_BN2_000   | 427841 | 556833 | 28.84                | 10            | 30.1                   | 30.1                   | -0.3%    |
| LWS_BN2_010   | 427837 | 556824 | 28.84                | 10            | 30.0                   | 30.0                   | -0.3%    |
| LWS_BN2_020   | 427832 | 556815 | 28.84                | 10            | 29.9                   | 29.9                   | -0.2%    |
| LWS_BN2_030   | 427828 | 556806 | 28.84                | 10            | 29.8                   | 29.8                   | -0.2%    |
| LWS_BN2_040   | 427824 | 556797 | 28.84                | 10            | 29.8                   | 29.7                   | -0.2%    |
| LWS_BN2_050   | 427820 | 556788 | 28.84                | 10            | 29.7                   | 29.7                   | -0.2%    |
| LWS_BN2_060   | 427816 | 556779 | 28.84                | 10            | 29.7                   | 29.6                   | -0.2%    |
| LWS_BN2_070   | 427811 | 556770 | 28.84                | 10            | 29.6                   | 29.6                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_BN2_080   | 427807 | 556761 | 28.84                | 10            | 29.6                   | 29.6                   | -0.2%    |
| LWS_BN2_090   | 427803 | 556752 | 28.84                | 10            | 29.5                   | 29.5                   | -0.2%    |
| LWS_BN2_100   | 427799 | 556743 | 28.84                | 10            | 29.5                   | 29.5                   | -0.1%    |
| LWS_BN2_110   | 427795 | 556734 | 28.84                | 10            | 29.5                   | 29.5                   | -0.1%    |
| LWS_BN2_120   | 427791 | 556725 | 28.84                | 10            | 29.5                   | 29.5                   | -0.1%    |
| LWS_BN2_130   | 427786 | 556715 | 28.84                | 10            | 29.4                   | 29.4                   | -0.1%    |
| LWS_BN2_140   | 427782 | 556706 | 28.84                | 10            | 29.4                   | 29.4                   | -0.1%    |
| LWS_BN2_150   | 427778 | 556697 | 28.84                | 10            | 29.4                   | 29.4                   | -0.1%    |
| LWS_BN2_160   | 427774 | 556688 | 28.84                | 10            | 29.4                   | 29.4                   | -0.1%    |
| LWS_BN2_170   | 427770 | 556679 | 28.84                | 10            | 29.4                   | 29.4                   | -0.1%    |
| LWS_BN2_180   | 427765 | 556670 | 28.84                | 10            | 29.4                   | 29.3                   | -0.1%    |
| LWS_BN2_190   | 427761 | 556661 | 28.84                | 10            | 29.3                   | 29.3                   | -0.1%    |
| LWS_BN2_200   | 427757 | 556652 | 28.84                | 10            | 29.3                   | 29.3                   | -0.1%    |
| LWS_BR1_000   | 426910 | 557208 | 28.84                | 10            | 33.1                   | 33.1                   | 0.2%     |
| LWS_BR1_010   | 426903 | 557202 | 28.84                | 10            | 30.5                   | 30.5                   | 0.0%     |
| LWS_BR1_020   | 426895 | 557195 | 28.84                | 10            | 30.0                   | 30.0                   | 0.0%     |
| LWS_BR1_030   | 426888 | 557188 | 28.84                | 10            | 29.8                   | 29.8                   | 0.0%     |
| LWS_BR1_040   | 426880 | 557182 | 28.84                | 10            | 29.6                   | 29.6                   | 0.0%     |
| LWS_BR1_050   | 426872 | 557175 | 28.84                | 10            | 29.6                   | 29.6                   | 0.0%     |
| LWS_BR1_060   | 426865 | 557169 | 28.84                | 10            | 29.5                   | 29.5                   | 0.0%     |
| LWS_BR1_070   | 426857 | 557162 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%     |
| LWS_BR1_080   | 426850 | 557156 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%     |
| LWS_BR1_090   | 426842 | 557149 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%     |
| LWS_BR1_100   | 426835 | 557143 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_BR1_110   | 426827 | 557136 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_BR1_120   | 426820 | 557129 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_BR1_130   | 426812 | 557123 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_BR1_140   | 426805 | 557116 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_BR1_150   | 426797 | 557110 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%     |
| LWS_BR1_160   | 426789 | 557103 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%     |
| LWS_BR1_170   | 426782 | 557097 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%     |
| LWS_BR1_180   | 426774 | 557090 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%     |
| LWS_BR1_190   | 426767 | 557084 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%     |
| LWS_BR1_200   | 426759 | 557077 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%     |
| LWS_BR2_000   | 426928 | 557201 | 28.84                | 10            | 37.1                   | 37.1                   | 0.5%     |
| LWS_BR2_010   | 426936 | 557206 | 28.84                | 10            | 32.7                   | 32.7                   | 0.2%     |
| LWS_BR2_020   | 426945 | 557212 | 28.84                | 10            | 31.5                   | 31.5                   | 0.1%     |
| LWS_BR2_030   | 426953 | 557217 | 28.84                | 10            | 30.9                   | 30.9                   | 0.1%     |
| LWS_BR2_040   | 426961 | 557223 | 28.84                | 10            | 30.6                   | 30.6                   | 0.0%     |
| LWS_BR2_050   | 426970 | 557228 | 28.84                | 10            | 30.4                   | 30.4                   | 0.0%     |
| LWS_BR2_060   | 426978 | 557234 | 28.84                | 10            | 30.3                   | 30.3                   | 0.0%     |
| LWS_BR2_070   | 426987 | 557239 | 28.84                | 10            | 30.2                   | 30.2                   | 0.0%     |
| LWS_BR2_080   | 426995 | 557245 | 28.84                | 10            | 30.2                   | 30.2                   | -0.1%    |
| LWS_BR2_090   | 427003 | 557250 | 28.84                | 10            | 30.2                   | 30.2                   | -0.1%    |
| LWS_BR2_100   | 427012 | 557256 | 28.84                | 10            | 30.2                   | 30.2                   | -0.2%    |
| LWS_BR2_110   | 427020 | 557261 | 28.84                | 10            | 30.2                   | 30.2                   | -0.2%    |
| LWS_BR2_120   | 427028 | 557267 | 28.84                | 10            | 30.2                   | 30.2                   | -0.3%    |
| LWS_BR2_130   | 427037 | 557272 | 28.84                | 10            | 30.3                   | 30.2                   | -0.4%    |
| LWS_BR2_140   | 427045 | 557278 | 28.84                | 10            | 30.4                   | 30.3                   | -0.5%    |
| LWS_BR2_150   | 427053 | 557283 | 28.84                | 10            | 30.5                   | 30.4                   | -0.6%    |
| LWS_BR2_160   | 427062 | 557289 | 28.84                | 10            | 30.6                   | 30.6                   | -0.9%    |
| LWS_BR2_170   | 427070 | 557294 | 28.84                | 10            | 30.9                   | 30.8                   | -1.2%    |
| LWS_BR2_180   | 427078 | 557300 | 28.84                | 10            | 31.2                   | 31.0                   | -1.8%    |
| LWS_BR2_190   | 427087 | 557305 | 28.84                | 10            | 31.8                   | 31.5                   | -3.0%    |
| LWS_BR2_200   | 427095 | 557311 | 28.84                | 10            | 32.9                   | 32.3                   | -6.0%    |
| LWS_BW1_000   | 423465 | 573354 | 25.2                 | 10            | 27.9                   | 27.7                   | -2.3%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_BW1_010   | 423455 | 573353 | 25.2                 | 10            | 27.1                   | 27.0                   | -1.6%    |
| LWS_BW1_020   | 423445 | 573352 | 25.2                 | 10            | 26.7                   | 26.6                   | -1.2%    |
| LWS_BW1_030   | 423435 | 573350 | 25.2                 | 10            | 26.4                   | 26.3                   | -1.0%    |
| LWS_BW1_040   | 423425 | 573349 | 25.2                 | 10            | 26.3                   | 26.2                   | -0.8%    |
| LWS_BW1_050   | 423416 | 573348 | 25.2                 | 10            | 26.1                   | 26.1                   | -0.7%    |
| LWS_BW1_060   | 423406 | 573346 | 25.2                 | 10            | 26.0                   | 26.0                   | -0.6%    |
| LWS_BW1_070   | 423396 | 573345 | 25.2                 | 10            | 25.9                   | 25.9                   | -0.5%    |
| LWS_BW1_080   | 423386 | 573343 | 25.2                 | 10            | 25.9                   | 25.8                   | -0.5%    |
| LWS_BW1_090   | 423376 | 573342 | 25.2                 | 10            | 25.8                   | 25.8                   | -0.4%    |
| LWS_BW1_100   | 423366 | 573341 | 25.2                 | 10            | 25.8                   | 25.8                   | -0.4%    |
| LWS_BW1_110   | 423356 | 573339 | 25.2                 | 10            | 25.8                   | 25.7                   | -0.4%    |
| LWS_BW1_120   | 423346 | 573338 | 25.2                 | 10            | 25.7                   | 25.7                   | -0.4%    |
| LWS_BW1_130   | 423336 | 573337 | 25.2                 | 10            | 25.7                   | 25.7                   | -0.3%    |
| LWS_BW1_140   | 423326 | 573335 | 25.2                 | 10            | 25.7                   | 25.6                   | -0.3%    |
| LWS_BW1_150   | 423317 | 573334 | 25.2                 | 10            | 25.7                   | 25.6                   | -0.3%    |
| LWS_BW1_160   | 423307 | 573332 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.3%    |
| LWS_BW1_170   | 423297 | 573331 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.3%    |
| LWS_BW1_180   | 423287 | 573330 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.2%    |
| LWS_BW1_190   | 423277 | 573328 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.2%    |
| LWS_BW1_200   | 423267 | 573327 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.2%    |
| LWS_BW2_000   | 423444 | 573507 | 25.2                 | 10            | 29.5                   | 29.1                   | -3.9%    |
| LWS_BW2_010   | 423434 | 573505 | 25.2                 | 10            | 27.7                   | 27.5                   | -2.2%    |
| LWS_BW2_020   | 423424 | 573503 | 25.2                 | 10            | 27.0                   | 26.9                   | -1.5%    |
| LWS_BW2_030   | 423414 | 573501 | 25.2                 | 10            | 26.6                   | 26.5                   | -1.2%    |
| LWS_BW2_040   | 423405 | 573499 | 25.2                 | 10            | 26.4                   | 26.3                   | -1.0%    |
| LWS_BW2_050   | 423395 | 573496 | 25.2                 | 10            | 26.2                   | 26.1                   | -0.8%    |
| LWS_BW2_060   | 423385 | 573494 | 25.2                 | 10            | 26.1                   | 26.0                   | -0.7%    |
| LWS_BW2_070   | 423375 | 573492 | 25.2                 | 10            | 26.0                   | 25.9                   | -0.6%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_BW2_080   | 423366 | 573490 | 25.2                 | 10            | 25.9                   | 25.9                   | -0.6%    |
| LWS_BW2_090   | 423356 | 573488 | 25.2                 | 10            | 25.9                   | 25.8                   | -0.5%    |
| LWS_BW2_100   | 423346 | 573486 | 25.2                 | 10            | 25.8                   | 25.8                   | -0.4%    |
| LWS_BW2_110   | 423336 | 573484 | 25.2                 | 10            | 25.8                   | 25.7                   | -0.4%    |
| LWS_BW2_120   | 423326 | 573482 | 25.2                 | 10            | 25.7                   | 25.7                   | -0.4%    |
| LWS_BW2_130   | 423317 | 573480 | 25.2                 | 10            | 25.7                   | 25.7                   | -0.4%    |
| LWS_BW2_140   | 423307 | 573478 | 25.2                 | 10            | 25.7                   | 25.6                   | -0.3%    |
| LWS_BW2_150   | 423297 | 573476 | 25.2                 | 10            | 25.7                   | 25.6                   | -0.3%    |
| LWS_BW2_160   | 423287 | 573474 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.3%    |
| LWS_BW2_170   | 423277 | 573472 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.3%    |
| LWS_BW2_180   | 423268 | 573470 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.3%    |
| LWS_BW2_190   | 423258 | 573468 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.2%    |
| LWS_BW2_200   | 423248 | 573466 | 25.2                 | 10            | 25.6                   | 25.6                   | -0.2%    |
| LWS_DD1_000   | 420076 | 565244 | 29.4                 | 10            | 30.9                   | 30.9                   | 0.6%     |
| LWS_DD1_010   | 420069 | 565251 | 29.4                 | 10            | 30.4                   | 30.5                   | 0.2%     |
| LWS_DD1_020   | 420062 | 565257 | 29.4                 | 10            | 30.3                   | 30.3                   | 0.1%     |
| LWS_DD1_030   | 420054 | 565264 | 29.4                 | 10            | 30.2                   | 30.2                   | 0.0%     |
| LWS_DD1_040   | 420047 | 565271 | 29.4                 | 10            | 30.2                   | 30.2                   | 0.0%     |
| LWS_DD1_050   | 420039 | 565278 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%    |
| LWS_DD1_060   | 420032 | 565284 | 29.4                 | 10            | 30.2                   | 30.1                   | -0.1%    |
| LWS_DD1_070   | 420025 | 565291 | 29.4                 | 10            | 30.2                   | 30.1                   | -0.1%    |
| LWS_DD1_080   | 420017 | 565298 | 29.4                 | 10            | 30.2                   | 30.1                   | -0.2%    |
| LWS_DD1_090   | 420010 | 565305 | 29.4                 | 10            | 30.2                   | 30.1                   | -0.2%    |
| LWS_DD1_100   | 420003 | 565312 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.2%    |
| LWS_DD1_110   | 419995 | 565318 | 31.08                | 10            | 31.9                   | 31.8                   | -0.2%    |
| LWS_DD1_120   | 419988 | 565325 | 31.08                | 10            | 31.9                   | 31.8                   | -0.2%    |
| LWS_DD1_130   | 419981 | 565332 | 31.08                | 10            | 31.9                   | 31.9                   | -0.2%    |
| LWS_DD1_140   | 419973 | 565339 | 31.08                | 10            | 31.9                   | 31.9                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LWS_DD1_150   | 419966 | 565345 | 31.08                | 10            | 31.9                   | 31.9                   | -0.3%      |
| LWS_DD1_160   | 419958 | 565352 | 31.08                | 10            | 31.9                   | 31.9                   | -0.2%      |
| LWS_DD1_170   | 419951 | 565359 | 31.08                | 10            | 31.9                   | 31.9                   | -0.3%      |
| LWS_DD1_180   | 419944 | 565366 | 31.08                | 10            | 32.0                   | 31.9                   | -0.3%      |
| LWS_DD1_190   | 419936 | 565372 | 31.08                | 10            | 32.0                   | 31.9                   | -0.3%      |
| LWS_DD1_200   | 419929 | 565379 | 31.08                | 10            | 32.0                   | 32.0                   | -0.3%      |
| LWS_DD2_000   | 420129 | 565429 | 29.4                 | 10            | 30.8                   | 30.8                   | 0.2%       |
| LWS_DD2_010   | 420124 | 565420 | 29.4                 | 10            | 30.5                   | 30.5                   | 0.1%       |
| LWS_DD2_020   | 420120 | 565411 | 29.4                 | 10            | 30.4                   | 30.4                   | 0.0%       |
| LWS_DD2_030   | 420115 | 565402 | 29.4                 | 10            | 30.3                   | 30.3                   | 0.0%       |
| LWS_DD2_040   | 420111 | 565393 | 29.4                 | 10            | 30.3                   | 30.3                   | -0.1%      |
| LWS_DD2_050   | 420107 | 565384 | 29.4                 | 10            | 30.3                   | 30.3                   | -0.1%      |
| LWS_DD2_060   | 420102 | 565375 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_070   | 420098 | 565366 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_080   | 420094 | 565357 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_090   | 420089 | 565348 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_100   | 420085 | 565339 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_110   | 420080 | 565330 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_120   | 420076 | 565321 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_130   | 420072 | 565312 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_140   | 420067 | 565303 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_150   | 420063 | 565294 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_160   | 420059 | 565285 | 29.4                 | 10            | 30.2                   | 30.2                   | 0.0%       |
| LWS_DD2_170   | 420054 | 565276 | 29.4                 | 10            | 30.2                   | 30.2                   | -0.1%      |
| LWS_DD2_180   | 420050 | 565267 | 29.4                 | 10            | 30.2                   | 30.2                   | 0.0%       |
| LWS_DD2_190   | 420045 | 565258 | 29.4                 | 10            | 30.2                   | 30.2                   | 0.0%       |
| LWS_DD2_200   | 420041 | 565249 | 29.4                 | 10            | 30.2                   | 30.2                   | 0.0%       |
| LWS_DF1_000   | 427187 | 557310 | 28.84                | No Habitat    | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LWS_DF1_010   | 427193 | 557318 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_020   | 427198 | 557327 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_030   | 427203 | 557335 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_040   | 427209 | 557344 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_050   | 427214 | 557352 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_060   | 427220 | 557360 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_070   | 427225 | 557369 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_080   | 427230 | 557377 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_090   | 427236 | 557386 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_100   | 427241 | 557394 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_110   | 427246 | 557403 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_120   | 427252 | 557411 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_130   | 427257 | 557419 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_140   | 427263 | 557428 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_150   | 427268 | 557436 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_160   | 427273 | 557445 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_170   | 427279 | 557453 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_180   | 427284 | 557462 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_190   | 427289 | 557470 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DF1_200   | 427295 | 557478 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_000   | 428137 | 557868 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_010   | 428132 | 557860 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_020   | 428127 | 557851 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_030   | 428122 | 557842 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_040   | 428117 | 557834 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_050   | 428111 | 557825 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_060   | 428106 | 557816 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_070   | 428101 | 557808 | 28.84                | No Habitat    | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LWS_DP1_080   | 428096 | 557799 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_090   | 428091 | 557791 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_100   | 428086 | 557782 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_110   | 428081 | 557773 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_120   | 428076 | 557765 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_130   | 428071 | 557756 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_140   | 428066 | 557747 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_150   | 428061 | 557739 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_160   | 428056 | 557730 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_170   | 428051 | 557721 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_180   | 428046 | 557713 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_190   | 428041 | 557704 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_DP1_200   | 428036 | 557696 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LA1_000   | 426139 | 557803 | 28.84                | 10            | 31.2                   | 31.2                   | -0.5%      |
| LWS_LA1_010   | 426133 | 557795 | 28.84                | 10            | 30.6                   | 30.6                   | 0.0%       |
| LWS_LA1_020   | 426126 | 557788 | 28.84                | 10            | 30.3                   | 30.3                   | 0.1%       |
| LWS_LA1_030   | 426119 | 557781 | 28.84                | 10            | 30.1                   | 30.1                   | 0.1%       |
| LWS_LA1_040   | 426112 | 557773 | 28.84                | 10            | 29.9                   | 29.9                   | 0.1%       |
| LWS_LA1_050   | 426106 | 557766 | 28.84                | 10            | 29.8                   | 29.8                   | 0.2%       |
| LWS_LA1_060   | 426099 | 557758 | 28.84                | 10            | 29.7                   | 29.7                   | 0.1%       |
| LWS_LA1_070   | 426092 | 557751 | 28.84                | 10            | 29.6                   | 29.6                   | 0.1%       |
| LWS_LA1_080   | 426086 | 557744 | 28.84                | 10            | 29.6                   | 29.6                   | 0.1%       |
| LWS_LA1_090   | 426079 | 557736 | 28.84                | 10            | 29.5                   | 29.5                   | 0.1%       |
| LWS_LA1_100   | 426072 | 557729 | 28.84                | 10            | 29.5                   | 29.5                   | 0.1%       |
| LWS_LA1_110   | 426065 | 557721 | 28.84                | 10            | 29.4                   | 29.4                   | 0.1%       |
| LWS_LA1_120   | 426059 | 557714 | 28.84                | 10            | 29.4                   | 29.4                   | 0.1%       |
| LWS_LA1_130   | 426052 | 557707 | 28.84                | 10            | 29.4                   | 29.4                   | 0.1%       |
| LWS_LA1_140   | 426045 | 557699 | 28.84                | 10            | 29.3                   | 29.3                   | 0.1%       |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_LA1_150   | 426039 | 557692 | 28.84                | 10            | 29.3                   | 29.3                   | 0.1%     |
| LWS_LA1_160   | 426032 | 557684 | 28.84                | 10            | 29.3                   | 29.3                   | 0.1%     |
| LWS_LA1_170   | 426025 | 557677 | 28.84                | 10            | 29.3                   | 29.3                   | 0.1%     |
| LWS_LA1_180   | 426018 | 557670 | 28.84                | 10            | 29.3                   | 29.3                   | 0.1%     |
| LWS_LA1_190   | 426012 | 557662 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%     |
| LWS_LA1_200   | 426005 | 557655 | 28.84                | 10            | 29.2                   | 29.2                   | 0.1%     |
| LWS_LA2_000   | 425794 | 558215 | 28.84                | 10            | 36.1                   | 39.2                   | 30.7%    |
| LWS_LA2_010   | 425787 | 558209 | 28.84                | 10            | 32.2                   | 32.7                   | 4.5%     |
| LWS_LA2_020   | 425779 | 558202 | 28.84                | 10            | 31.2                   | 31.5                   | 2.4%     |
| LWS_LA2_030   | 425771 | 558195 | 28.84                | 10            | 30.8                   | 30.9                   | 1.7%     |
| LWS_LA2_040   | 425764 | 558189 | 28.84                | 10            | 30.5                   | 30.6                   | 1.4%     |
| LWS_LA2_050   | 425756 | 558182 | 28.84                | 10            | 30.3                   | 30.4                   | 1.1%     |
| LWS_LA2_060   | 425749 | 558176 | 28.84                | 10            | 30.1                   | 30.2                   | 0.9%     |
| LWS_LA2_070   | 425741 | 558169 | 28.84                | 10            | 30.0                   | 30.1                   | 0.9%     |
| LWS_LA2_080   | 425734 | 558162 | 28.84                | 10            | 30.0                   | 30.0                   | 0.8%     |
| LWS_LA2_090   | 425726 | 558156 | 28.84                | 10            | 29.9                   | 30.0                   | 0.7%     |
| LWS_LA2_100   | 425719 | 558149 | 28.84                | 10            | 29.8                   | 29.9                   | 0.6%     |
| LWS_LA2_110   | 425711 | 558143 | 28.84                | 10            | 29.8                   | 29.8                   | 0.6%     |
| LWS_LA2_120   | 425704 | 558136 | 28.84                | 10            | 29.7                   | 29.8                   | 0.5%     |
| LWS_LA2_130   | 425696 | 558130 | 28.84                | 10            | 29.7                   | 29.7                   | 0.5%     |
| LWS_LA2_140   | 425689 | 558123 | 28.84                | 10            | 29.6                   | 29.7                   | 0.5%     |
| LWS_LA2_150   | 425681 | 558116 | 28.84                | 10            | 29.6                   | 29.6                   | 0.4%     |
| LWS_LA2_160   | 425674 | 558110 | 28.84                | 10            | 29.5                   | 29.6                   | 0.4%     |
| LWS_LA2_170   | 425666 | 558103 | 28.84                | 10            | 29.5                   | 29.6                   | 0.4%     |
| LWS_LA2_180   | 425659 | 558097 | 28.84                | 10            | 29.5                   | 29.5                   | 0.3%     |
| LWS_LA2_190   | 425651 | 558090 | 28.84                | 10            | 29.5                   | 29.5                   | 0.3%     |
| LWS_LA2_200   | 425643 | 558084 | 28.84                | 10            | 29.4                   | 29.5                   | 0.3%     |
| LWS_LA3_000   | 425709 | 558192 | 28.84                | 10            | 30.7                   | 30.9                   | 1.5%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_LA3_010   | 425717 | 558187 | 28.84                | 10            | 30.3                   | 30.4                   | 1.1%     |
| LWS_LA3_020   | 425726 | 558182 | 28.84                | 10            | 30.1                   | 30.2                   | 1.0%     |
| LWS_LA3_030   | 425735 | 558177 | 28.84                | 10            | 30.1                   | 30.2                   | 0.9%     |
| LWS_LA3_040   | 425743 | 558172 | 28.84                | 10            | 30.1                   | 30.2                   | 0.9%     |
| LWS_LA3_050   | 425752 | 558167 | 28.84                | 10            | 30.1                   | 30.2                   | 0.9%     |
| LWS_LA3_060   | 425761 | 558162 | 28.84                | 10            | 30.1                   | 30.2                   | 0.9%     |
| LWS_LA3_070   | 425769 | 558157 | 28.84                | 10            | 30.1                   | 30.2                   | 0.9%     |
| LWS_LA3_080   | 425778 | 558152 | 28.84                | 10            | 30.2                   | 30.3                   | 1.0%     |
| LWS_LA3_090   | 425787 | 558147 | 28.84                | 10            | 30.2                   | 30.3                   | 1.0%     |
| LWS_LD1_000   | 426680 | 557412 | 28.84                | 10            | 30.6                   | 30.6                   | -0.4%    |
| LWS_LD1_010   | 426671 | 557408 | 28.84                | 10            | 30.3                   | 30.3                   | -0.2%    |
| LWS_LD1_020   | 426662 | 557405 | 28.84                | 10            | 30.1                   | 30.1                   | -0.1%    |
| LWS_LD1_030   | 426652 | 557401 | 28.84                | 10            | 30.0                   | 29.9                   | -0.1%    |
| LWS_LD1_040   | 426643 | 557398 | 28.84                | 10            | 29.8                   | 29.8                   | -0.1%    |
| LWS_LD1_050   | 426634 | 557394 | 28.84                | 10            | 29.8                   | 29.8                   | 0.0%     |
| LWS_LD1_060   | 426624 | 557390 | 28.84                | 10            | 29.7                   | 29.7                   | 0.0%     |
| LWS_LD1_070   | 426615 | 557387 | 28.84                | 10            | 29.6                   | 29.6                   | 0.0%     |
| LWS_LD1_080   | 426606 | 557383 | 28.84                | 10            | 29.6                   | 29.6                   | 0.0%     |
| LWS_LD1_090   | 426596 | 557380 | 28.84                | 10            | 29.5                   | 29.5                   | 0.0%     |
| LWS_LD1_100   | 426587 | 557376 | 28.84                | 10            | 29.5                   | 29.5                   | 0.0%     |
| LWS_LD1_110   | 426578 | 557373 | 28.84                | 10            | 29.5                   | 29.5                   | 0.0%     |
| LWS_LD1_120   | 426568 | 557369 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%     |
| LWS_LD1_130   | 426559 | 557366 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%     |
| LWS_LD1_140   | 426550 | 557362 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%     |
| LWS_LD1_150   | 426540 | 557359 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%     |
| LWS_LD1_160   | 426531 | 557355 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_LD1_170   | 426522 | 557352 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_LD1_180   | 426512 | 557348 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LWS_LD1_190   | 426503 | 557344 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%       |
| LWS_LD1_200   | 426494 | 557341 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%       |
| LWS_LD2_000   | 426638 | 557430 | 28.84                | 10            | 30.3                   | 30.2                   | -0.4%      |
| LWS_LD2_010   | 426634 | 557421 | 28.84                | 10            | 30.0                   | 30.0                   | -0.2%      |
| LWS_LD2_020   | 426631 | 557411 | 28.84                | 10            | 29.9                   | 29.9                   | -0.1%      |
| LWS_LD2_030   | 426627 | 557402 | 28.84                | 10            | 29.8                   | 29.8                   | 0.0%       |
| LWS_LD2_040   | 426624 | 557393 | 28.84                | 10            | 29.7                   | 29.7                   | 0.0%       |
| LWS_LD2_050   | 426620 | 557383 | 28.84                | 10            | 29.6                   | 29.6                   | 0.0%       |
| LWS_LD2_060   | 426617 | 557374 | 28.84                | 10            | 29.6                   | 29.6                   | 0.0%       |
| LWS_LD2_070   | 426613 | 557365 | 28.84                | 10            | 29.5                   | 29.5                   | 0.0%       |
| LWS_LD2_080   | 426610 | 557355 | 28.84                | 10            | 29.5                   | 29.5                   | 0.0%       |
| LWS_LD2_090   | 426606 | 557346 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%       |
| LWS_LD2_100   | 426603 | 557337 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%       |
| LWS_LD2_110   | 426599 | 557327 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%       |
| LWS_LD2_120   | 426596 | 557318 | 28.84                | 10            | 29.4                   | 29.4                   | 0.0%       |
| LWS_LD2_130   | 426592 | 557308 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%       |
| LWS_LD2_140   | 426589 | 557299 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%       |
| LWS_LD2_150   | 426585 | 557290 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%       |
| LWS_LD2_160   | 426582 | 557280 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%       |
| LWS_LD2_170   | 426578 | 557271 | 28.84                | 10            | 29.3                   | 29.3                   | 0.0%       |
| LWS_LD2_180   | 426575 | 557262 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%       |
| LWS_LD2_190   | 426571 | 557252 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%       |
| LWS_LD2_200   | 426568 | 557243 | 28.84                | 10            | 29.2                   | 29.2                   | 0.0%       |
| LWS_LM1_000   | 425202 | 557940 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_010   | 425200 | 557930 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_020   | 425197 | 557921 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_030   | 425195 | 557911 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_040   | 425193 | 557901 | 28.84                | No Habitat    | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LWS_LM1_050   | 425190 | 557891 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_060   | 425188 | 557882 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_070   | 425186 | 557872 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_080   | 425183 | 557862 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_090   | 425181 | 557853 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_100   | 425179 | 557843 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_110   | 425176 | 557833 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_120   | 425174 | 557823 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_130   | 425172 | 557814 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_140   | 425169 | 557804 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_150   | 425167 | 557794 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_160   | 425165 | 557784 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_170   | 425162 | 557775 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_180   | 425160 | 557765 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_190   | 425158 | 557755 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LM1_200   | 425155 | 557746 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_LW1_000   | 423475 | 573508 | 25.2                 | 10            | 33.2                   | 32.8                   | -4.5%      |
| LWS_LW1_010   | 423485 | 573510 | 25.2                 | 10            | 30.4                   | 30.1                   | -3.4%      |
| LWS_LW1_020   | 423495 | 573512 | 25.2                 | 10            | 29.1                   | 28.8                   | -2.7%      |
| LWS_LW1_030   | 423505 | 573514 | 25.2                 | 10            | 28.3                   | 28.1                   | -2.2%      |
| LWS_LW1_040   | 423515 | 573516 | 25.2                 | 10            | 27.9                   | 27.7                   | -2.0%      |
| LWS_LW1_050   | 423524 | 573518 | 25.2                 | 10            | 27.5                   | 27.3                   | -1.7%      |
| LWS_LW1_060   | 423534 | 573520 | 25.2                 | 10            | 27.2                   | 27.1                   | -1.5%      |
| LWS_LW1_070   | 423544 | 573522 | 25.2                 | 10            | 27.0                   | 26.9                   | -1.4%      |
| LWS_LW1_080   | 423554 | 573524 | 25.2                 | 10            | 26.9                   | 26.7                   | -1.2%      |
| LWS_LW1_090   | 423564 | 573526 | 25.2                 | 10            | 26.7                   | 26.6                   | -1.1%      |
| LWS_LW1_100   | 423573 | 573528 | 25.2                 | 10            | 26.6                   | 26.5                   | -1.0%      |
| LWS_LW1_110   | 423583 | 573530 | 25.2                 | 10            | 26.5                   | 26.4                   | -1.0%      |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_LW1_120   | 423593 | 573532 | 25.2                 | 10            | 26.4                   | 26.3                   | -0.9%    |
| LWS_LW1_130   | 423603 | 573534 | 25.2                 | 10            | 26.4                   | 26.3                   | -0.9%    |
| LWS_LW1_140   | 423613 | 573536 | 25.2                 | 10            | 26.3                   | 26.2                   | -0.8%    |
| LWS_LW1_150   | 423622 | 573538 | 25.2                 | 10            | 26.2                   | 26.2                   | -0.8%    |
| LWS_LW1_160   | 423632 | 573540 | 25.2                 | 10            | 26.2                   | 26.1                   | -0.8%    |
| LWS_LW1_170   | 423642 | 573542 | 25.2                 | 10            | 26.1                   | 26.1                   | -0.7%    |
| LWS_LW1_180   | 423652 | 573544 | 25.2                 | 10            | 26.1                   | 26.0                   | -0.7%    |
| LWS_LW1_190   | 423662 | 573546 | 25.2                 | 10            | 26.1                   | 26.0                   | -0.6%    |
| LWS_LW1_200   | 423671 | 573548 | 25.2                 | 10            | 26.0                   | 26.0                   | -0.6%    |
| LWS_RP1_000   | 424142 | 558770 | 25.76                | 10            | 28.3                   | 28.4                   | 1.3%     |
| LWS_RP1_010   | 424134 | 558764 | 25.76                | 10            | 27.6                   | 27.7                   | 0.8%     |
| LWS_RP1_020   | 424126 | 558758 | 25.76                | 10            | 27.2                   | 27.3                   | 0.6%     |
| LWS_RP1_030   | 424118 | 558751 | 25.76                | 10            | 26.9                   | 27.0                   | 0.5%     |
| LWS_RP1_040   | 424111 | 558745 | 25.76                | 10            | 26.8                   | 26.8                   | 0.4%     |
| LWS_RP1_050   | 424103 | 558739 | 25.76                | 10            | 26.6                   | 26.7                   | 0.3%     |
| LWS_RP1_060   | 424095 | 558733 | 25.76                | 10            | 26.5                   | 26.6                   | 0.3%     |
| LWS_RP1_070   | 424087 | 558727 | 25.76                | 10            | 26.5                   | 26.5                   | 0.2%     |
| LWS_RP1_080   | 424079 | 558720 | 25.76                | 10            | 26.4                   | 26.4                   | 0.2%     |
| LWS_RP1_090   | 424071 | 558714 | 25.76                | 10            | 26.3                   | 26.3                   | 0.2%     |
| LWS_RP1_100   | 424063 | 558708 | 25.76                | 10            | 26.3                   | 26.3                   | 0.2%     |
| LWS_RP1_110   | 424056 | 558702 | 25.76                | 10            | 26.2                   | 26.3                   | 0.2%     |
| LWS_RP1_120   | 424048 | 558696 | 25.76                | 10            | 26.2                   | 26.2                   | 0.1%     |
| LWS_RP1_130   | 424040 | 558689 | 25.76                | 10            | 26.2                   | 26.2                   | 0.1%     |
| LWS_RP1_140   | 424032 | 558683 | 25.76                | 10            | 26.2                   | 26.2                   | 0.1%     |
| LWS_RP1_150   | 424024 | 558677 | 25.76                | 10            | 26.1                   | 26.1                   | 0.1%     |
| LWS_RP1_160   | 424016 | 558671 | 25.76                | 10            | 26.1                   | 26.1                   | 0.1%     |
| LWS_RP1_170   | 424009 | 558665 | 25.76                | 10            | 26.1                   | 26.1                   | 0.1%     |
| LWS_RP1_180   | 424001 | 558658 | 25.76                | 10            | 26.1                   | 26.1                   | 0.1%     |

| <b>Receptor Name</b> | <b>X</b> | <b>Y</b> | <b>APIS Long Deposition</b> | <b>Critical Load</b> | <b>DM Nitrogen Deposition</b> | <b>DS Nitrogen Deposition</b> | <b>% change</b> |
|----------------------|----------|----------|-----------------------------|----------------------|-------------------------------|-------------------------------|-----------------|
| LWS_RP1_190          | 423993   | 558652   | 25.76                       | 10                   | 26.1                          | 26.1                          | 0.1%            |
| LWS_RP1_200          | 423985   | 558646   | 25.76                       | 10                   | 26.1                          | 26.1                          | 0.0%            |
| LWS_RT1_000          | 419447   | 563921   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_010          | 419457   | 563919   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_020          | 419467   | 563918   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_030          | 419476   | 563917   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_040          | 419486   | 563915   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_050          | 419496   | 563914   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_060          | 419506   | 563913   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_070          | 419516   | 563911   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_080          | 419526   | 563910   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_090          | 419536   | 563909   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_100          | 419546   | 563908   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_110          | 419556   | 563906   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_120          | 419566   | 563905   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_130          | 419576   | 563904   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_140          | 419585   | 563902   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_150          | 419595   | 563901   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_160          | 419605   | 563900   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_170          | 419615   | 563898   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_180          | 419625   | 563897   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_190          | 419635   | 563896   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT1_200          | 419645   | 563894   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT2_000          | 419432   | 564018   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT2_010          | 419422   | 564019   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT2_020          | 419412   | 564020   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT2_030          | 419402   | 564021   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |
| LWS_RT2_040          | 419392   | 564022   | 26.88                       | No Habitat           | -                             | -                             | No Habitat      |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LWS_RT2_050   | 419382 | 564024 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_060   | 419372 | 564025 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_070   | 419362 | 564026 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_080   | 419352 | 564027 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_090   | 419342 | 564029 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_100   | 419332 | 564030 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_110   | 419322 | 564031 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_120   | 419313 | 564032 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_130   | 419303 | 564034 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_140   | 419293 | 564035 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_150   | 419283 | 564036 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_160   | 419273 | 564037 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_170   | 419263 | 564039 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_180   | 419253 | 564040 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_190   | 419243 | 564041 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_RT2_200   | 419233 | 564042 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_000   | 428274 | 557189 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_010   | 428282 | 557194 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_020   | 428291 | 557199 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_030   | 428300 | 557204 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_040   | 428308 | 557209 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_050   | 428317 | 557214 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_060   | 428326 | 557219 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_070   | 428334 | 557224 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_080   | 428343 | 557229 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_090   | 428352 | 557234 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_100   | 428360 | 557239 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_110   | 428369 | 557244 | 28.84                | No Habitat    | -                      | -                      | No Habitat |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LWS_SH1_120   | 428378 | 557249 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_130   | 428386 | 557254 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_140   | 428395 | 557259 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_150   | 428404 | 557264 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_160   | 428412 | 557269 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_170   | 428421 | 557274 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_180   | 428430 | 557279 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_190   | 428438 | 557284 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SH1_200   | 428447 | 557289 | 28.84                | No Habitat    | -                      | -                      | No Habitat |
| LWS_SM1_000   | 419492 | 563336 | 26.88                | 10            | 38.7                   | 37.6                   | -11.2%     |
| LWS_SM1_010   | 419501 | 563339 | 26.88                | 10            | 33.8                   | 33.1                   | -6.8%      |
| LWS_SM1_020   | 419511 | 563342 | 26.88                | 10            | 31.8                   | 31.4                   | -4.9%      |
| LWS_SM1_030   | 419520 | 563345 | 26.88                | 10            | 30.8                   | 30.4                   | -3.9%      |
| LWS_SM1_040   | 419530 | 563348 | 26.88                | 10            | 30.1                   | 29.8                   | -3.2%      |
| LWS_SM1_050   | 419540 | 563351 | 26.88                | 10            | 29.7                   | 29.4                   | -2.7%      |
| LWS_SM1_060   | 419549 | 563354 | 26.88                | 10            | 29.3                   | 29.1                   | -2.4%      |
| LWS_SM1_070   | 419559 | 563357 | 26.88                | 10            | 29.1                   | 28.9                   | -2.2%      |
| LWS_SM1_080   | 419568 | 563360 | 26.88                | 10            | 28.9                   | 28.7                   | -1.9%      |
| LWS_SM1_090   | 419578 | 563363 | 26.88                | 10            | 28.7                   | 28.5                   | -1.7%      |
| LWS_SM1_100   | 419587 | 563366 | 26.88                | 10            | 28.6                   | 28.4                   | -1.6%      |
| LWS_SM1_110   | 419597 | 563369 | 26.88                | 10            | 28.4                   | 28.3                   | -1.4%      |
| LWS_SM1_120   | 419606 | 563372 | 26.88                | 10            | 28.4                   | 28.2                   | -1.4%      |
| LWS_SM1_130   | 419616 | 563376 | 26.88                | 10            | 28.3                   | 28.1                   | -1.3%      |
| LWS_SM1_140   | 419625 | 563379 | 26.88                | 10            | 28.2                   | 28.1                   | -1.2%      |
| LWS_SM1_150   | 419635 | 563382 | 26.88                | 10            | 28.1                   | 28.0                   | -1.1%      |
| LWS_SM1_160   | 419644 | 563385 | 26.88                | 10            | 28.1                   | 28.0                   | -1.0%      |
| LWS_SM1_170   | 419654 | 563388 | 26.88                | 10            | 28.0                   | 27.9                   | -1.0%      |
| LWS_SM1_180   | 419663 | 563391 | 26.88                | 10            | 28.0                   | 27.9                   | -0.9%      |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_SM1_190   | 419673 | 563394 | 26.88                | 10            | 27.9                   | 27.8                   | -0.9%    |
| LWS_SM1_200   | 419682 | 563397 | 26.88                | 10            | 27.9                   | 27.8                   | -0.8%    |
| LWS_SM2_000   | 419807 | 562875 | 26.88                | 10            | 35.0                   | 34.8                   | -2.7%    |
| LWS_SM2_010   | 419814 | 562881 | 26.88                | 10            | 31.8                   | 31.7                   | -1.5%    |
| LWS_SM2_020   | 419822 | 562888 | 26.88                | 10            | 30.7                   | 30.6                   | -1.1%    |
| LWS_SM2_030   | 419829 | 562895 | 26.88                | 10            | 30.1                   | 30.0                   | -1.0%    |
| LWS_SM2_040   | 419836 | 562901 | 26.88                | 10            | 29.7                   | 29.6                   | -0.8%    |
| LWS_SM2_050   | 419844 | 562908 | 26.88                | 10            | 29.4                   | 29.3                   | -0.7%    |
| LWS_SM2_060   | 419851 | 562915 | 26.88                | 10            | 29.2                   | 29.1                   | -0.6%    |
| LWS_SM2_070   | 419859 | 562922 | 26.88                | 10            | 29.0                   | 28.9                   | -0.6%    |
| LWS_SM2_080   | 419866 | 562928 | 26.88                | 10            | 28.9                   | 28.8                   | -0.5%    |
| LWS_SM2_090   | 419873 | 562935 | 26.88                | 10            | 28.7                   | 28.7                   | -0.5%    |
| LWS_SM2_100   | 419881 | 562942 | 26.88                | 10            | 28.6                   | 28.6                   | -0.5%    |
| LWS_SM2_110   | 419888 | 562948 | 26.88                | 10            | 28.5                   | 28.5                   | -0.5%    |
| LWS_SM2_120   | 419896 | 562955 | 26.88                | 10            | 28.4                   | 28.4                   | -0.4%    |
| LWS_SM2_130   | 419903 | 562962 | 26.88                | 10            | 28.4                   | 28.3                   | -0.4%    |
| LWS_SM2_140   | 419911 | 562968 | 26.88                | 10            | 28.3                   | 28.3                   | -0.4%    |
| LWS_SM2_150   | 419918 | 562975 | 26.88                | 10            | 28.2                   | 28.2                   | -0.4%    |
| LWS_SM2_160   | 419925 | 562982 | 26.88                | 10            | 28.2                   | 28.1                   | -0.4%    |
| LWS_SM2_170   | 419933 | 562989 | 26.88                | 10            | 28.1                   | 28.1                   | -0.4%    |
| LWS_SM2_180   | 419940 | 562995 | 26.88                | 10            | 28.1                   | 28.0                   | -0.4%    |
| LWS_SM2_190   | 419948 | 563002 | 26.88                | 10            | 28.0                   | 28.0                   | -0.4%    |
| LWS_SM2_200   | 419955 | 563009 | 26.88                | 10            | 28.0                   | 27.9                   | -0.4%    |
| LWS_SM3_000   | 419891 | 562826 | 26.88                | 10            | 33.8                   | 33.7                   | -1.1%    |
| LWS_SM3_010   | 419890 | 562836 | 26.88                | 10            | 31.3                   | 31.2                   | -0.8%    |
| LWS_SM3_020   | 419888 | 562846 | 26.88                | 10            | 30.4                   | 30.4                   | -0.7%    |
| LWS_SM3_030   | 419887 | 562856 | 26.88                | 10            | 30.0                   | 29.9                   | -0.6%    |
| LWS_SM3_040   | 419886 | 562866 | 26.88                | 10            | 29.7                   | 29.6                   | -0.6%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_SM3_050   | 419884 | 562876 | 26.88                | 10            | 29.4                   | 29.4                   | -0.6%    |
| LWS_SM3_060   | 419883 | 562885 | 26.88                | 10            | 29.3                   | 29.2                   | -0.6%    |
| LWS_SM3_070   | 419882 | 562895 | 26.88                | 10            | 29.1                   | 29.1                   | -0.6%    |
| LWS_SM3_080   | 419880 | 562905 | 26.88                | 10            | 29.0                   | 28.9                   | -0.5%    |
| LWS_SM3_090   | 419879 | 562915 | 26.88                | 10            | 28.9                   | 28.8                   | -0.5%    |
| LWS_SM3_100   | 419877 | 562925 | 26.88                | 10            | 28.8                   | 28.7                   | -0.5%    |
| LWS_SM3_110   | 419876 | 562935 | 26.88                | 10            | 28.7                   | 28.7                   | -0.5%    |
| LWS_SM3_120   | 419875 | 562945 | 26.88                | 10            | 28.6                   | 28.6                   | -0.5%    |
| LWS_SM3_130   | 419873 | 562955 | 26.88                | 10            | 28.6                   | 28.5                   | -0.5%    |
| LWS_SM3_140   | 419872 | 562965 | 26.88                | 10            | 28.5                   | 28.4                   | -0.5%    |
| LWS_SM3_150   | 419870 | 562975 | 26.88                | 10            | 28.4                   | 28.4                   | -0.5%    |
| LWS_SM3_160   | 419869 | 562984 | 26.88                | 10            | 28.4                   | 28.3                   | -0.5%    |
| LWS_SM3_170   | 419868 | 562994 | 26.88                | 10            | 28.3                   | 28.3                   | -0.5%    |
| LWS_SM3_180   | 419866 | 563004 | 26.88                | 10            | 28.3                   | 28.2                   | -0.5%    |
| LWS_SM3_190   | 419865 | 563014 | 26.88                | 10            | 28.2                   | 28.2                   | -0.6%    |
| LWS_SM3_200   | 419864 | 563024 | 26.88                | 10            | 28.2                   | 28.1                   | -0.5%    |
| LWS_SN1_000   | 420187 | 564578 | 27.86                | 10            | 28.4                   | 28.4                   | -0.1%    |
| LWS_SN1_010   | 420181 | 564586 | 27.86                | 10            | 28.4                   | 28.4                   | -0.1%    |
| LWS_SN1_020   | 420175 | 564594 | 27.86                | 10            | 28.4                   | 28.3                   | -0.1%    |
| LWS_SN1_030   | 420170 | 564602 | 27.86                | 10            | 28.4                   | 28.3                   | -0.1%    |
| LWS_SN1_040   | 420164 | 564611 | 27.86                | 10            | 28.4                   | 28.3                   | -0.1%    |
| LWS_SN1_050   | 420158 | 564619 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_060   | 420152 | 564627 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_070   | 420147 | 564635 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_080   | 420141 | 564643 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_090   | 420135 | 564651 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_100   | 420129 | 564659 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_110   | 420123 | 564668 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_SN1_120   | 420118 | 564676 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_130   | 420112 | 564684 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_140   | 420106 | 564692 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_150   | 420100 | 564700 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_160   | 420094 | 564708 | 27.86                | 10            | 28.4                   | 28.4                   | -0.2%    |
| LWS_SN1_170   | 420089 | 564716 | 27.86                | 10            | 28.4                   | 28.3                   | -0.2%    |
| LWS_SN1_180   | 420083 | 564725 | 27.86                | 10            | 28.4                   | 28.4                   | -0.2%    |
| LWS_SN1_190   | 420077 | 564733 | 27.86                | 10            | 28.4                   | 28.4                   | -0.2%    |
| LWS_SN1_200   | 420071 | 564741 | 27.86                | 10            | 28.4                   | 28.4                   | -0.2%    |
| LWS_TC1_000   | 426511 | 557854 | 28.84                | 10            | 32.7                   | 32.5                   | -2.1%    |
| LWS_TC1_010   | 426521 | 557857 | 28.84                | 10            | 31.7                   | 31.6                   | -1.1%    |
| LWS_TC1_020   | 426530 | 557860 | 28.84                | 10            | 31.2                   | 31.1                   | -0.7%    |
| LWS_TC1_030   | 426540 | 557863 | 28.84                | 10            | 30.9                   | 30.9                   | -0.5%    |
| LWS_TC1_040   | 426549 | 557866 | 28.84                | 10            | 30.7                   | 30.7                   | -0.3%    |
| LWS_TC1_050   | 426559 | 557869 | 28.84                | 10            | 30.6                   | 30.6                   | -0.2%    |
| LWS_TC1_060   | 426568 | 557872 | 28.84                | 10            | 30.5                   | 30.5                   | -0.2%    |
| LWS_TC1_070   | 426578 | 557875 | 28.84                | 10            | 30.4                   | 30.4                   | -0.1%    |
| LWS_TC1_080   | 426587 | 557878 | 28.84                | 10            | 30.3                   | 30.3                   | -0.1%    |
| LWS_TC1_090   | 426597 | 557881 | 28.84                | 10            | 30.3                   | 30.3                   | 0.0%     |
| LWS_TC1_100   | 426606 | 557884 | 28.84                | 10            | 30.2                   | 30.2                   | 0.0%     |
| LWS_TC1_110   | 426616 | 557887 | 28.84                | 10            | 30.2                   | 30.2                   | 0.0%     |
| LWS_TC1_120   | 426625 | 557890 | 28.84                | 10            | 30.1                   | 30.1                   | 0.0%     |
| LWS_TC1_130   | 426635 | 557893 | 28.84                | 10            | 30.1                   | 30.1                   | 0.0%     |
| LWS_TC1_140   | 426644 | 557896 | 28.84                | 10            | 30.1                   | 30.1                   | 0.0%     |
| LWS_TC1_150   | 426654 | 557899 | 28.84                | 10            | 30.0                   | 30.0                   | 0.0%     |
| LWS_TC1_160   | 426663 | 557902 | 28.84                | 10            | 30.0                   | 30.0                   | 0.0%     |
| LWS_TC1_170   | 426673 | 557905 | 28.84                | 10            | 30.0                   | 30.0                   | 0.0%     |
| LWS_TC1_180   | 426682 | 557908 | 28.84                | 10            | 30.0                   | 30.0                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_TC1_190   | 426692 | 557912 | 28.84                | 10            | 29.9                   | 29.9                   | 0.1%     |
| LWS_TC1_200   | 426701 | 557915 | 28.84                | 10            | 29.9                   | 29.9                   | 0.0%     |
| LWS_VW1_000   | 428690 | 554185 | 26.04                | 10            | 27.2                   | 27.2                   | 0.0%     |
| LWS_VW1_010   | 428688 | 554195 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_020   | 428686 | 554205 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_030   | 428685 | 554215 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| LWS_VW1_040   | 428683 | 554225 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| LWS_VW1_050   | 428682 | 554235 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| LWS_VW1_060   | 428680 | 554244 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| LWS_VW1_070   | 428678 | 554254 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| LWS_VW1_080   | 428677 | 554264 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| LWS_VW1_090   | 428675 | 554274 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| LWS_VW1_100   | 428674 | 554284 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%     |
| LWS_VW1_110   | 428672 | 554294 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_120   | 428671 | 554304 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_130   | 428669 | 554314 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_140   | 428667 | 554323 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_150   | 428666 | 554333 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_160   | 428664 | 554343 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_170   | 428663 | 554353 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_180   | 428661 | 554363 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_190   | 428659 | 554373 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW1_200   | 428658 | 554383 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%     |
| LWS_VW2_000   | 428508 | 554174 | 26.04                | 10            | 29.1                   | 29.1                   | 0.0%     |
| LWS_VW2_010   | 428509 | 554184 | 26.04                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_VW2_020   | 428510 | 554194 | 26.04                | 10            | 29.5                   | 29.5                   | 0.0%     |
| LWS_VW2_030   | 428511 | 554204 | 26.04                | 10            | 29.5                   | 29.5                   | 0.0%     |
| LWS_VW2_040   | 428512 | 554214 | 26.04                | 10            | 29.3                   | 29.3                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| LWS_VW2_050   | 428513 | 554224 | 26.04                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_VW2_060   | 428513 | 554234 | 26.04                | 10            | 29.2                   | 29.2                   | 0.0%     |
| LWS_VW2_070   | 428514 | 554244 | 26.04                | 10            | 29.1                   | 29.1                   | 0.0%     |
| LWS_VW2_080   | 428515 | 554254 | 26.04                | 10            | 29.0                   | 29.0                   | 0.0%     |
| LWS_VW2_090   | 428516 | 554264 | 26.04                | 10            | 28.9                   | 28.9                   | 0.0%     |
| LWS_VW2_100   | 428517 | 554274 | 26.04                | 10            | 28.9                   | 28.9                   | 0.0%     |
| LWS_VW2_110   | 428518 | 554283 | 26.04                | 10            | 28.8                   | 28.8                   | 0.0%     |
| LWS_VW2_120   | 428519 | 554293 | 26.04                | 10            | 28.8                   | 28.8                   | 0.0%     |
| LWS_VW2_130   | 428520 | 554303 | 26.04                | 10            | 28.7                   | 28.7                   | 0.0%     |
| LWS_VW2_140   | 428521 | 554313 | 26.04                | 10            | 28.6                   | 28.6                   | 0.1%     |
| LWS_VW2_150   | 428522 | 554323 | 26.04                | 10            | 28.4                   | 28.4                   | 0.1%     |
| LWS_VW2_160   | 428523 | 554333 | 26.04                | 10            | 28.1                   | 28.1                   | 0.1%     |
| LWS_VW2_170   | 428523 | 554343 | 26.04                | 10            | 27.9                   | 27.9                   | 0.1%     |
| LWS_VW2_180   | 428524 | 554353 | 26.04                | 10            | 27.8                   | 27.8                   | 0.1%     |
| LWS_VW2_190   | 428525 | 554363 | 26.04                | 10            | 27.8                   | 27.8                   | 0.1%     |
| LWS_VW2_200   | 428526 | 554373 | 26.04                | 10            | 27.7                   | 27.7                   | 0.0%     |
| LWS_VW3_000   | 428513 | 554272 | 26.04                | 10            | 29.3                   | 29.3                   | 0.0%     |
| LWS_VW3_010   | 428523 | 554273 | 26.04                | 10            | 28.4                   | 28.4                   | 0.0%     |
| LWS_VW3_020   | 428533 | 554273 | 26.04                | 10            | 28.0                   | 28.0                   | 0.0%     |
| LWS_VW3_030   | 428543 | 554274 | 26.04                | 10            | 27.8                   | 27.8                   | 0.0%     |
| LWS_VW3_040   | 428553 | 554275 | 26.04                | 10            | 27.6                   | 27.6                   | 0.0%     |
| LWS_VW3_050   | 428563 | 554276 | 26.04                | 10            | 27.5                   | 27.5                   | 0.0%     |
| LWS_VW3_060   | 428573 | 554277 | 26.04                | 10            | 27.4                   | 27.4                   | 0.0%     |
| LWS_VW3_070   | 428583 | 554277 | 26.04                | 10            | 27.4                   | 27.4                   | 0.0%     |
| LWS_VW3_080   | 428593 | 554278 | 26.04                | 10            | 27.3                   | 27.3                   | 0.0%     |
| LWS_VW3_090   | 428603 | 554279 | 26.04                | 10            | 27.2                   | 27.2                   | 0.0%     |
| LWS_VW3_100   | 428613 | 554280 | 26.04                | 10            | 27.2                   | 27.2                   | 0.0%     |
| LWS_VW3_110   | 428623 | 554281 | 26.04                | 10            | 27.1                   | 27.1                   | 0.0%     |

| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| LWS_VW3_120   | 428633 | 554281 | 26.04                | 10            | 27.1                   | 27.1                   | 0.0%       |
| LWS_VW3_130   | 428643 | 554282 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%       |
| LWS_VW3_140   | 428653 | 554283 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%       |
| LWS_VW3_150   | 428663 | 554284 | 26.04                | 10            | 27.0                   | 27.0                   | 0.0%       |
| LWS_VW3_160   | 428673 | 554285 | 26.04                | 10            | 26.9                   | 27.0                   | 0.0%       |
| LWS_VW3_170   | 428683 | 554285 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%       |
| LWS_VW3_180   | 428693 | 554286 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%       |
| LWS_VW3_190   | 428703 | 554287 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%       |
| LWS_VW3_200   | 428713 | 554288 | 26.04                | 10            | 26.9                   | 26.9                   | 0.0%       |
| SSI_SP1_000   | 419649 | 562967 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_010   | 419640 | 562962 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_020   | 419631 | 562958 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_030   | 419622 | 562954 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_040   | 419613 | 562949 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_050   | 419604 | 562945 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_060   | 419595 | 562941 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_070   | 419586 | 562937 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_080   | 419577 | 562932 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_090   | 419568 | 562928 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_100   | 419559 | 562924 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_110   | 419550 | 562919 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_120   | 419541 | 562915 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_130   | 419532 | 562911 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_140   | 419523 | 562906 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_150   | 419514 | 562902 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_160   | 419505 | 562898 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_170   | 419496 | 562894 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_180   | 419487 | 562889 | 26.88                | No Habitat    | -                      | -                      | No Habitat |

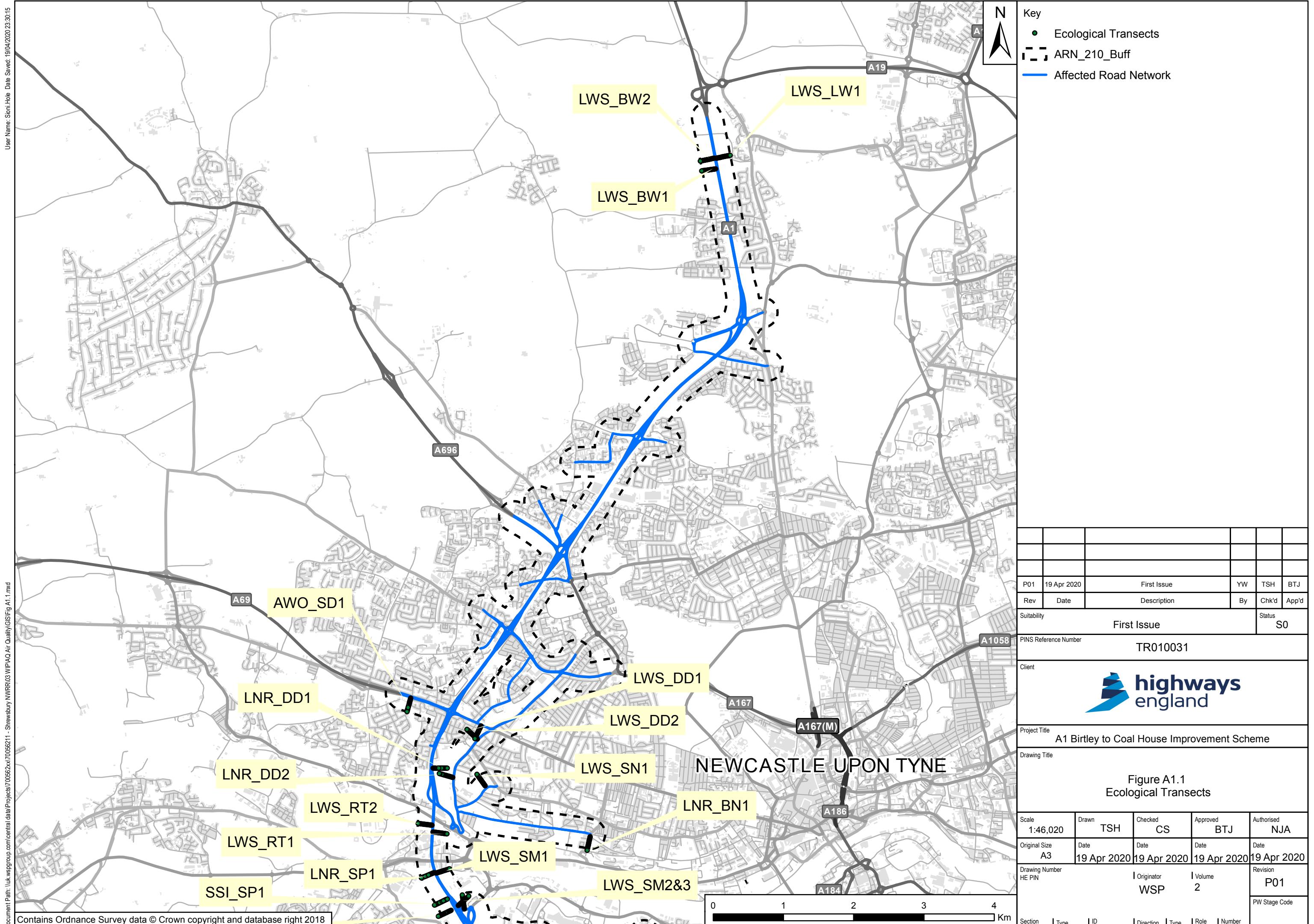
| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change   |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|------------|
| SSI_SP1_190   | 419478 | 562885 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP1_200   | 419469 | 562881 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_000   | 419702 | 562806 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_010   | 419693 | 562802 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_020   | 419684 | 562797 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_030   | 419675 | 562793 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_040   | 419666 | 562789 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_050   | 419657 | 562785 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_060   | 419648 | 562780 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_070   | 419639 | 562776 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_080   | 419630 | 562772 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_090   | 419621 | 562767 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_100   | 419612 | 562763 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_110   | 419603 | 562759 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_120   | 419594 | 562755 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_130   | 419585 | 562750 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_140   | 419576 | 562746 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_150   | 419567 | 562742 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_160   | 419558 | 562737 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_170   | 419549 | 562733 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_180   | 419540 | 562729 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_190   | 419531 | 562725 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| SSI_SP2_200   | 419522 | 562720 | 26.88                | No Habitat    | -                      | -                      | No Habitat |
| 10052         | 422601 | 569599 | 29.40                | 10            | 30.73                  | 30.72                  | -0.1%      |
| 132242        | 421921 | 569391 | 29.40                | 10            | 29.95                  | 29.95                  | 0.0%       |
| 1683          | 419745 | 562225 | 26.88                | 10            | 27.06                  | 27.05                  | 0.0%       |
| 21404         | 421651 | 569359 | 29.40                | 10            | 29.77                  | 29.77                  | 0.0%       |
| 23358         | 425301 | 557909 | 28.84                | 10            | 29.13                  | 29.13                  | 0.0%       |

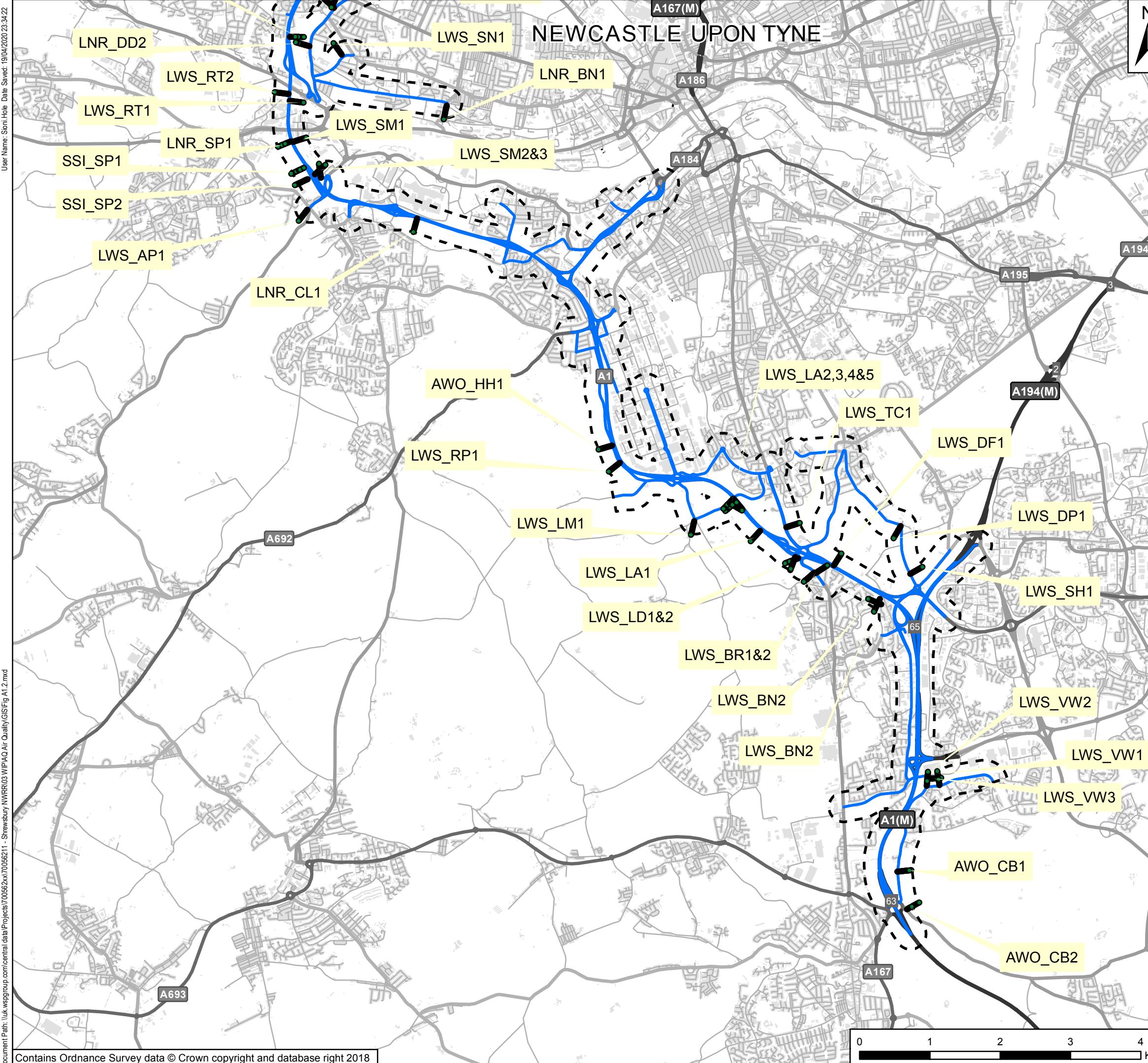
| Receptor Name | X      | Y      | APIS Long Deposition | Critical Load | DM Nitrogen Deposition | DS Nitrogen Deposition | % change |
|---------------|--------|--------|----------------------|---------------|------------------------|------------------------|----------|
| 2053          | 424021 | 559909 | 25.76                | 10            | 28.29                  | 28.29                  | 0.1%     |
| 2056          | 424041 | 559829 | 25.76                | 10            | 28.02                  | 28.03                  | 0.1%     |
| 132241        | 421932 | 569416 | 29.40                | 10            | 29.95                  | 29.94                  | -0.1%    |
| 21048         | 421601 | 569359 | 29.40                | 10            | 29.76                  | 29.75                  | 0.0%     |
| 23360         | 425111 | 557910 | 28.84                | 10            | 29.07                  | 29.08                  | 0.0%     |
| 132243        | 421717 | 569398 | 29.40                | 10            | 29.79                  | 29.79                  | 0.0%     |
| 1651          | 419613 | 562476 | 26.88                | 10            | 27.14                  | 27.13                  | 0.0%     |

# Appendix B

## ECOLOGICAL TRANSECTS







Document Path: /uk/wspgroup.com/central/data/projects/70562xx/7056211 - Shrewsbury/NWRR03 WPAQ Air Quality/GISFig A1.2.mxd

Figure A1.2 Ecological Transects

|   |             |             |             |         |             |          |             |               |             |
|---|-------------|-------------|-------------|---------|-------------|----------|-------------|---------------|-------------|
| P01   | 19 Apr 2020 | First Issue | YW          | TSH     | BTJ         |          |             |               |             |
| Rev   | Date        | Description | By          | Chkd    | App'd       |          |             |               |             |
| Suitability                                 |             |             |             |         | Status      |          |             |               |             |
| First Issue                                 |             |             |             |         | S0          |          |             |               |             |
| PINS Reference Number                       |             |             |             |         |             |          |             |               |             |
| TR010031                                    |             |             |             |         |             |          |             |               |             |
| Client                                      |             |             |             |         |             |          |             |               |             |
|   |             |             |             |         |             |          |             |               |             |
| Project Title                               |             |             |             |         |             |          |             |               |             |
| A1 Birtley to Coal House Improvement Scheme |             |             |             |         |             |          |             |               |             |
| Drawing Title                               |             |             |             |         |             |          |             |               |             |
| Scale                                       | 1:52,969    | Drawn       | TSH         | Checked | CS          | Approved | BTJ         | Authorised    | NJA         |
| Original Size                               | A3          | Date        | 19 Apr 2020 | Date    | 19 Apr 2020 | Date     | 19 Apr 2020 | Date          | 19 Apr 2020 |
| Drawing Number                              | HE PIN      | Originator  | WSP         | Volume  | 2           | Revision | P01         | PW Stage Code |             |
| Section                                     | Type        | ID          | Direction   | Type    | Role        | Number   |             |               |             |

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