



Report to the Partnership for South Hampshire Joint Committee

Date: **14 February 2021**
Report of: **Simon Kennedy, PfSH Strategic Environmental Planning Officer**
Subject: **Update on nutrient neutrality in the Solent**

Summary

The purpose of this report is to identify the key findings of the work of the Strategic Environmental Planning Officer (SEPO) and provides an update to the report presented to the Partnership for South Hampshire (PfSH) Joint Committee on 27 July 2021¹ (27th July report). The report will focus on an update to the supply and demand analysis provided in appendix 2 of the 27 July 2021 report.

Recommendation

It is recommended that Joint Committee:-

- i) NOTES the contents of this update.

1. Background

- 1.1 The report on 27 July 2021, along with numerous other reports provided to Joint Committee previously², are considered to provide sufficient background for those not already familiar with nutrient neutrality in the Solent.
- 1.2 The 27 July report set out a number of recommendations to member local planning authorities (LPAs) that were endorsed by Joint Committee. The following paragraphs set out an update relating to each recommendation.

¹ <https://www.push.gov.uk/wp-content/uploads/2021/07/Item-13-Nutrient-Mitigation-Recommendations-part-exempt.pdf>

² [PfSH Joint Committee Meeting Page - Nutrient Neutrality Updates from 2019 - 2021](#)

Recommendation-

'Local planning authorities consider the purchase of nitrogen mitigation credits from mitigation suppliers specifically to meet the needs of minor development based on an individual authority's assessment of need.'

After careful consideration, including assessment of potential uptake by developers, the majority of LPAs have chosen to rely on provision of credits directly to developers from mitigation providers rather than invest public money on the direct purchase of credits.

Recommendation –

'Local planning authorities that wish to purchase credits are recommended to do so on a combined catchment basis to ensure best market value is achieved.'

As there were insufficient LPAs in a position to purchase credits, this recommendation was not taken forward. However, it should be noted that LPAs such as Havant Borough Council, Eastleigh Borough Council and Test Valley District Council have all directly intervened to financially support, or directly deliver, mitigation schemes.

Recommendation –

'Local planning authorities use a standard suite of template legal agreements to reduce the legal costs to developers and to make the determination of application process more efficient.'

This recommendation has been carried forward by all but one of the impacted LPAs with the outstanding LPA likely to adopt a similar approach in early 2022.

By entering into overarching legal agreements with mitigation providers and other LPAs, permitting LPAs are able to ensure that there is an appropriate framework for management and maintenance that is enforceable by the permitting authority, even where the mitigation is not in their administrative area. This system has also helped to greatly reduce the time and cost associated with permitting schemes using strategic offsite mitigation. The benefit of this approach can be seen through the use of strategic schemes, to support sustainable development, as shown in the next section of this report.

2. Availability of Credits

- 2.1 There is now a sufficient supply of 'strategic' nutrient neutrality mitigation options to aid the delivery of growth in the Solent region. There are currently ten strategic mitigation sites listed on the PfSH website³ to guide developers to potential mitigation schemes. Additionally, two further schemes are available to satisfy the strategic need for mitigation which are not yet listed on the PfSH website (Warblington Farm and Heaton Farms).

³ <https://www.push.gov.uk/work/mitigation-schemes-available-to-developers/>

- 2.2 A December 2021 review of nutrient neutrality credits sold, from strategic mitigation providers, has shown that credits are now available in all catchments of the sub-region. The review has also shown that, supported by an effective legal framework, mitigation sites are actively selling credits to support planning applications and that this is allowing sustainable development to take place. This review undertakes an in-depth analysis of supply and demand in the Test and Itchen and East Hants catchments as this represents the large majority of planned growth for PfSH members.
- 2.3 Figure 1 shows the available strategic mitigation schemes, including the Warblington Farm and Heaton Farm schemes, the total credits available from the scheme and the total credits remaining from the scheme.
- 2.4 Key facts and limitations relating to the data shown in Figure 1:
- 4,270 credits have been sold to support planning applications.
 - Approximately 2872 dwellings unlocked through strategic mitigation⁴.
 - The value of credits sold is in excess of £11m⁵.
 - This does not account for on-site, mitigation solutions.
 - Nor does it account for developer led small scale off-site mitigation

⁴ Based on 0.8 credits per dwelling for credits sold in the East Hampshire Catchment and 2 credits per dwelling for the Test and Itchen Catchment

⁵ Based on an average value of all credits sold of £2750 per Kg/TN/Yr

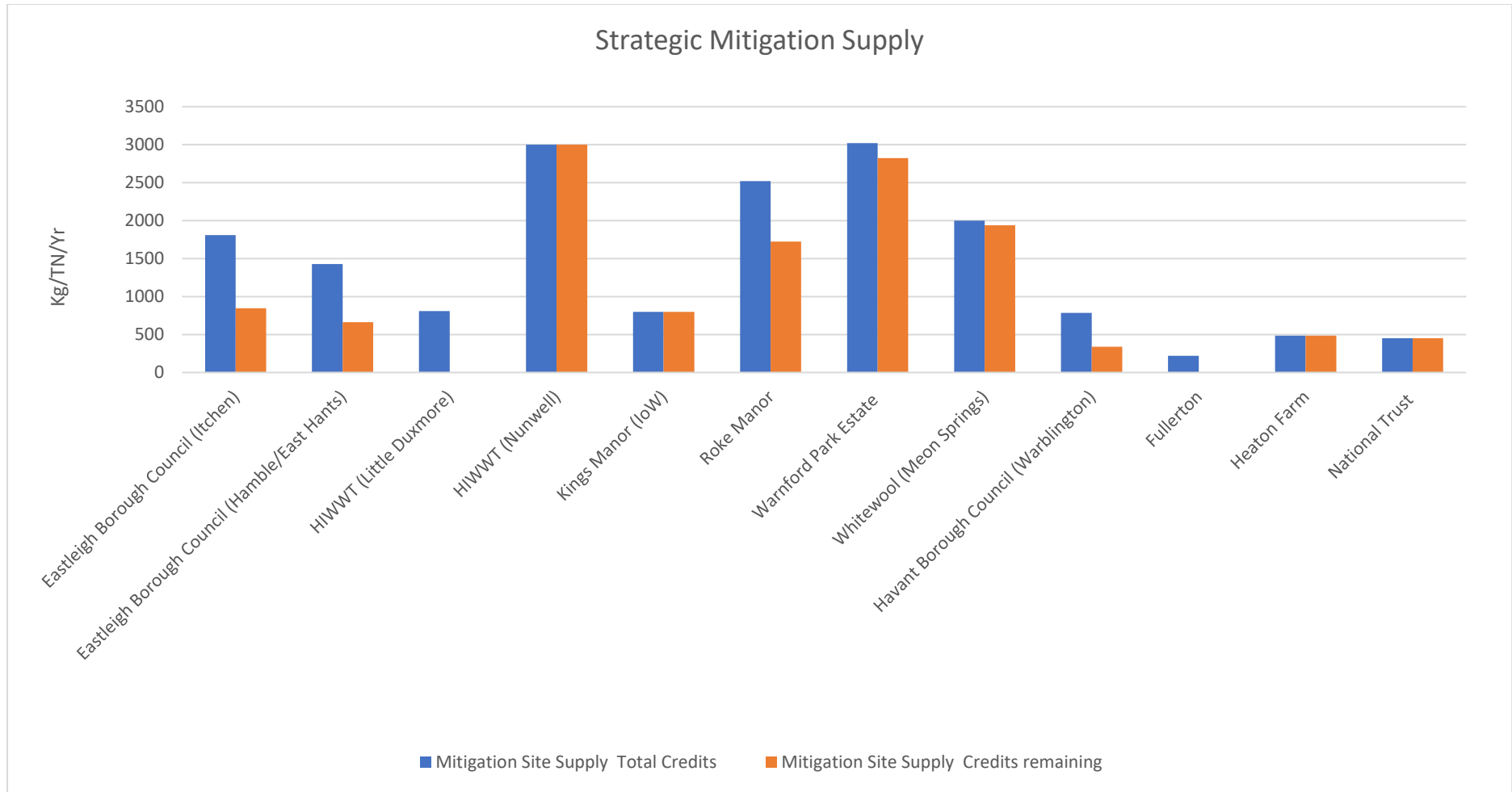


Figure 1 - Strategic Mitigation Supply

3. Supply and demand

- 3.1 In the Solent sub-region we are now in a position where sustainable growth can continue with the support of private land owners, institutional landowners and local authorities all contributing to the supply of suitable nutrient mitigation land. However, both the concept of nutrient neutrality, in the context of residential development, and the Solent's emerging mitigation market are still in the relatively early stages of development. As such the situation must be monitored closely in order to ensure that the mitigation market is sustainable, so that growth can continue across the sub-region. PfSH has recently extended the role of the SEPO until up to December 2023 and part of the ongoing role of the SEPO will be to produce six-monthly updates to the supply and demand analysis in order to confirm the sustainability of the current approach.
- 3.2 The supply and demand position for the East Hants and Test and Itchen catchments are shown under the relevant subheadings below. However, the following limitations to the data and interpretations must be considered.
- These data have been collected mid-financial year, with LPA housing trajectories using a financial year reporting period. As such, the housing supply trajectory data for the 2021/22 reporting period has been reduced by 75% to account for the time remaining in this accounting period.
 - These data do not account for the supply of on-site solutions or off-site solutions that are not strategic and available to multiple developments, this may result in significant over-estimation of the demand figures.
 - Development in some LPAs can be served by different waste water treatments works with differing permit levels, in these instances an average credit per dwelling figure is used to represent the available waste water treatment works that may serve the development.
- 3.3 The limitations to the data shown in paragraph 5.2 may, in part, be overcome in the forthcoming summer 2022 supply and demand update. The limitation of the current data may result in demand being double counted in instances where large developments may be meeting their mitigation needs on-site. The summer 2022 supply and demand update will be able to use total new dwelling permission figures collated at financial year end by Hampshire County Council. This will allow the data to be synchronised with housing trajectory reporting whilst providing a much greater indication of the number of dwellings permitted outside of strategic schemes, such as through on-site provision.

East Hampshire Supply and Demand Position

- 3.4 The current supply and demand position for the East Hampshire catchment is shown in figure 2. Key facts and limitations relating to the data in figure 2 are:
- Supply shown excludes 2,287 credits already sold to permitted schemes, permitted schemes account for development of approximately 1,830 homes.
 - A figure of 0.8 Kg/TN/Yr per dwelling was used to calculate demand.

- No account has been made for sites that may be able to utilise on-site mitigation and as such the actual demand figure may be lower than shown
 - A small proportion of development in Havant is likely to drain to WWTWs in Chichester. There is sufficient mitigation in the Chichester catchment to satisfy the demand in Havant.
- 3.5 Development in the East Hampshire catchment is predominantly served by Budds Farm and Peel Common WWTWs. Both treatment works employ the best available technology available within the sub-region for the removal of total nitrogen. As such, it is considered unlikely that more effective technology will be employed for nitrogen removal in waste-water treatments works in the East Hampshire catchment, and no sensitivity testing has been completed in this regard.
- 3.6 There has been a number of privately led mitigation schemes developed within the East Hampshire catchment. Given the available schemes coming forward within the last two years, an assessment has been made of the ongoing supply and demand position on the basis that mitigation continues to come forward at the same rate. The effect of this projected supply against demand is shown in figure 3. The following basic formula was used to project future delivery:

Total new supply of credits for 20/21 and 21/22 = 11,346

$11,346 / 2 =$ an average of 5,673 Kg/TN/Yr of new supply per year

The limitations of assessing assumed future delivery of mitigation schemes, based on currently available data, is recognised. However, based on the emerging market it is considered that figure 3 provides a realistic view of future supply and demand, whilst making clear the need to support further mitigation schemes to continue to come forward.

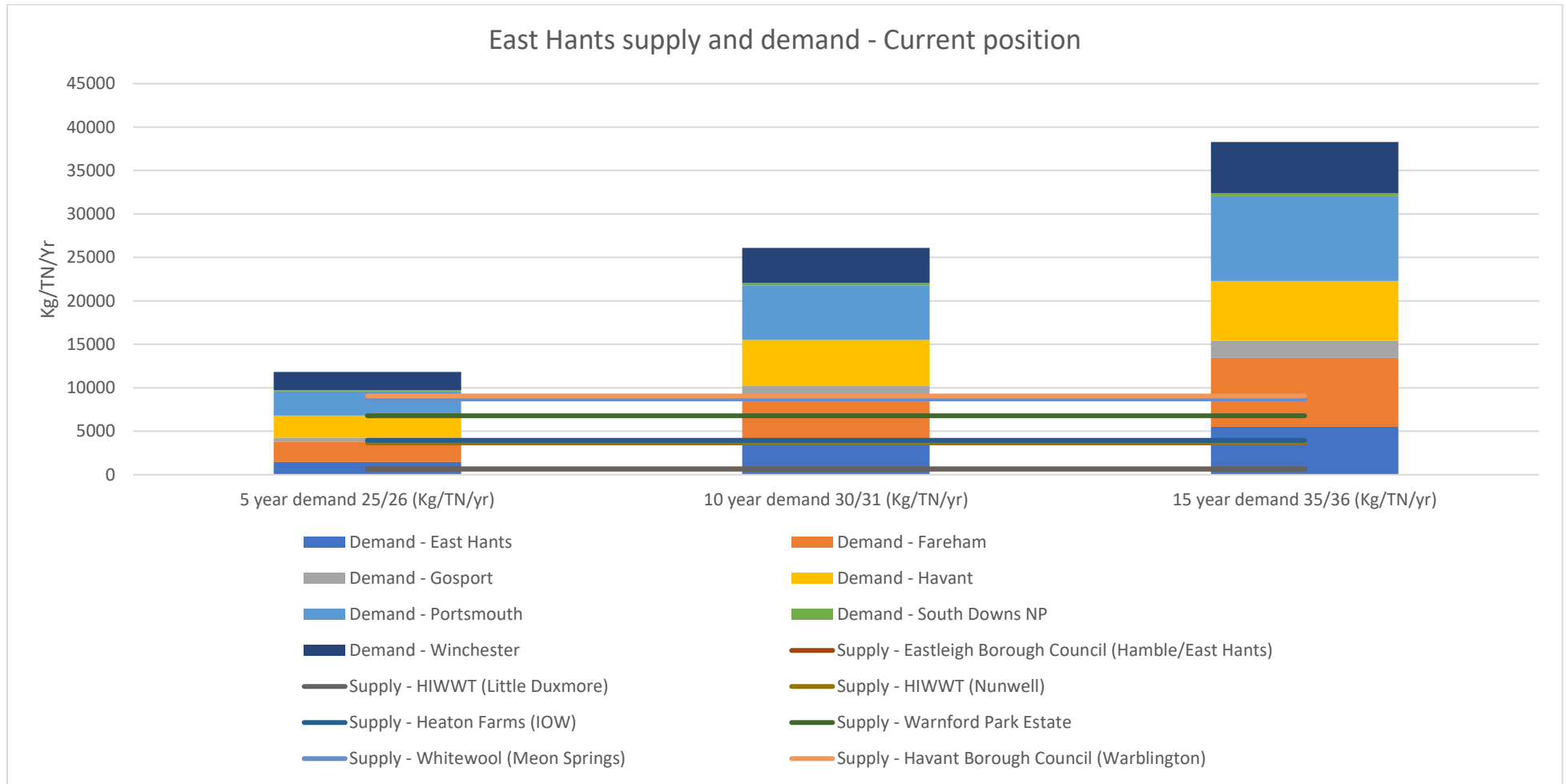


Figure 2 - East Hants Supply and Demand - Current Position - Note: Demand calculated at 0.8 Kg/TN/yr per dwelling

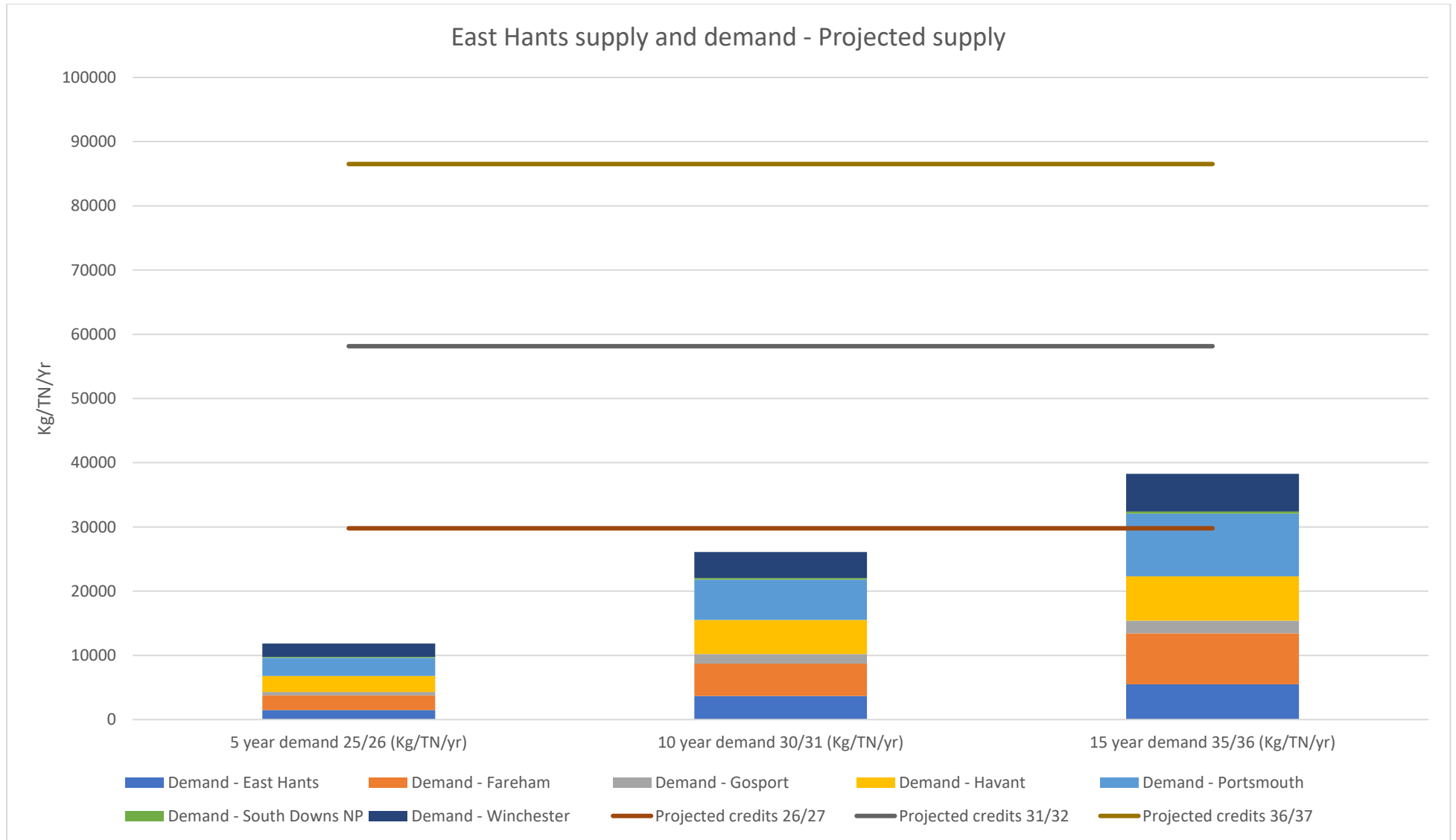


Figure 3 - East Hants catchment supply and demand - Projected supply

East Hampshire Catchment Summary

3.7 The East Hampshire catchment has a current supply of strategic mitigation for approximately 11,323 dwellings. There are a number of emerging mitigation schemes at varying stages of development within the catchment, based on these currently emerging schemes it is considered very likely that sufficient schemes will come forward to meet the supply of nutrient mitigation in the short medium and long term as shown in figure 3. Further reviews of supply and demand will be required to ensure that supply continues to outstrip demand.

Test and Itchen Supply and Demand Position

- 3.8 The current supply and demand position for the Test and Itchen catchment is shown in figure 4. Key facts and limitations relating to the data in figure 4 are:
- Supply figures shown excludes 2084 credits already sold to development schemes. These schemes account for development of approximately 1,042 homes.
 - No account has been made for sites that may be able to utilise on-site mitigation⁶ and as such the actual demand figure may be lower than shown
 - Calculating the demand for nutrient mitigation in the Test and Itchen catchment is particularly complex due to the large number of waste-water treatment works with differing total nitrogen permit limits. Permit limits for waste-water treatment works in the Test and Itchen could result in between 0.8 Kg/TN/Yr and 2.9 Kg/TN/Yr of mitigation required per dwelling, dependent on which waste-water treatment works the development drains to. Table 1 shows the assumptions made with regard to amount of mitigation required per dwelling in each local planning authority area, based in most cases on an average of permit levels within WwTWs serving the Local Authority area.

Table 1 - Mitigation multiplier assumptions

Local Authority	Notes
Basingstoke and Deane	1.2 Kg per dwelling average
East Hants	0.8 Kg per dwelling average
Eastleigh	1.2 Kg per dwelling average
New Forest District	Full assessment made regarding likely permit limits for planned development
New Forest NP	2kg per dwelling average
Southampton	1.5kg per dwelling average
Test Valley	2.4kg per dwelling average
Winchester	1.2kg per dwelling average

⁶ With the exception of the allocated development at Fawley which has a proposed mitigation solution, the associated dwellings are not included in the demand for New Forest District Council.

- 3.9 Calculating the demand for nutrient mitigation in the Test and Itchen catchment is particularly complex due to the large number of waste water treatment works with differing total nitrogen permit limits. Permit limits for waste water treatment works in the Test and Itchen could result in between 0.8 Kg/TN/Yr and 2.9 Kg/TN/Yr of mitigation required per dwelling, dependent on which waste water treatment works the development drains to. To play their part in restoring the areas protected habitats to favourable condition, it is anticipated that Southern Water will seek to improve the technology in waste-water treatment works in their next funding round. As such an assessment has been made of the impact should all development in the Test and Itchen catchment require 0.8 Kg/Tn/Yr as mitigation. 0.8 Kg/TN/Yr was used as this is currently the best technology employed in waste water treatment works in the impacted area. Figure 5 shows the results of this assessment.
- 3.10 There has been a number of privately led mitigation schemes developed within the Test and Itchen catchment, with all available schemes coming forward within the last two years an assessment has been made of the ongoing supply and demand position on the basis that mitigation continues to come forward at the same rate. The effect of this projected supply against demand is shown in figure 6. The following basic formula was used to project future delivery:

Total new supply of credits for 20/21 and 21/22 = 6,138

$6,138 / 2 =$ an average of 3,069 Kg/TN/Yr of new supply per year

The limitations of assessing assumed future delivery of mitigation schemes, based on currently available data, is recognised. However, based on the emerging market it is considered that figure 6 provides a realistic view of future supply and demand, whilst making clear the need to support further mitigation schemes to continue to come forward.

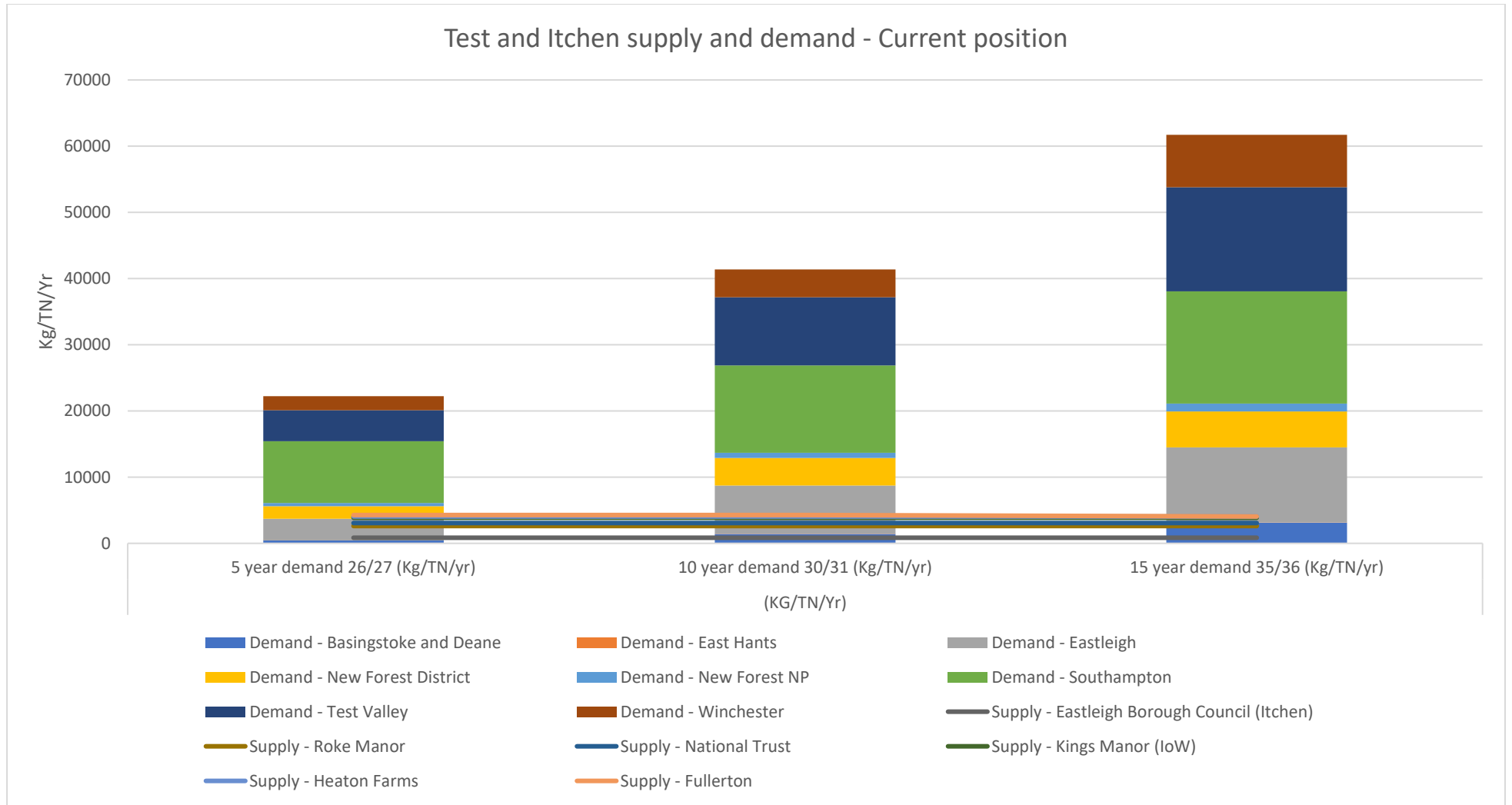


Figure 4 - Test and Itchen supply and demand - current position

Test and Itchen supply and demand - Projected supply and demand based on waste water treatment work improvements (0.8Kg/TN/Yr)

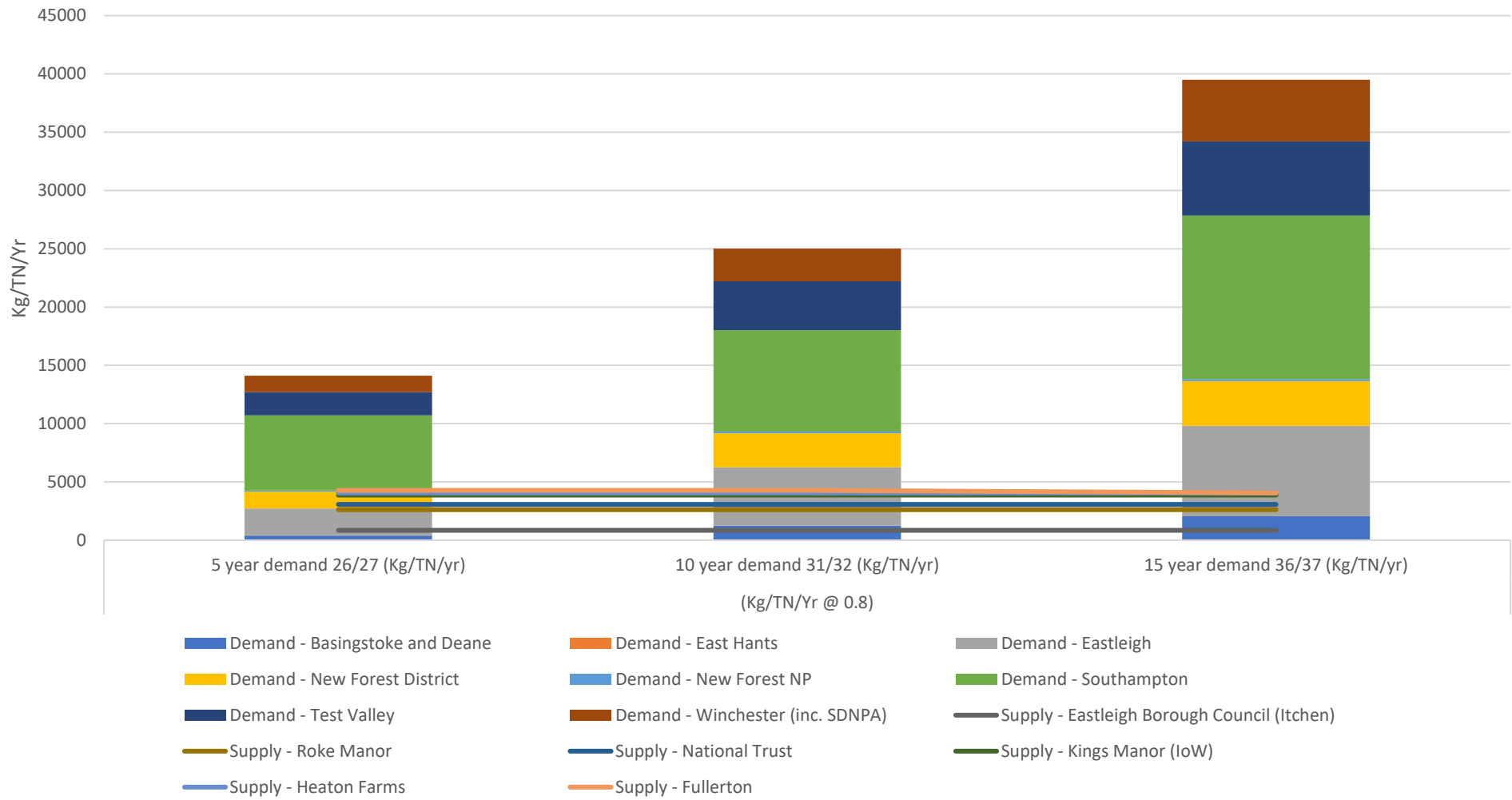


Figure 5 – Test and Itchen supply and demand - Projected supply and demand based on waste water treatment work improvements (0.8Kg/TN/Yr per dwelling)

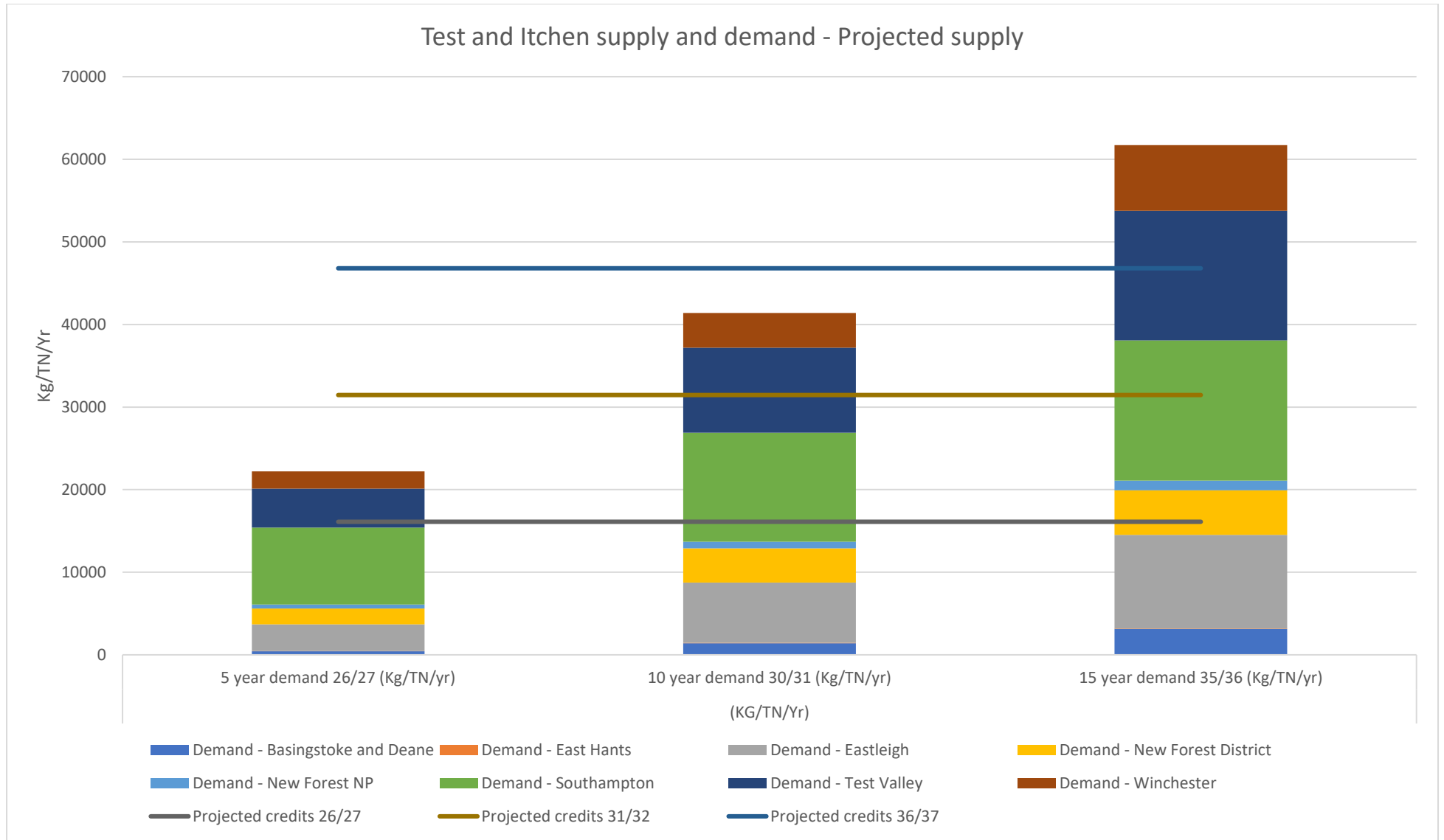


Figure 6 - Test and Itchen supply and demand - Projected supply

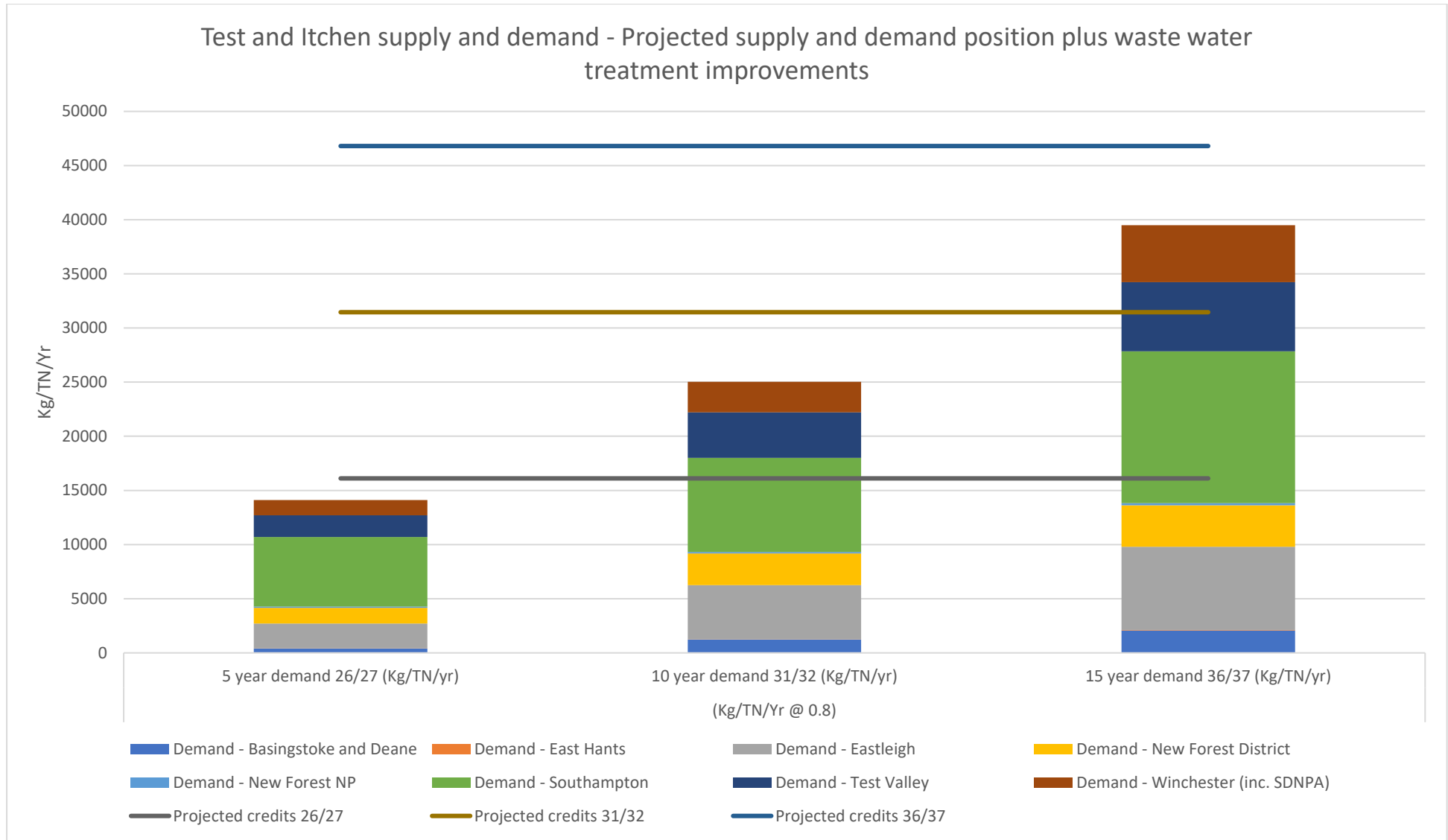


Figure 7 – Test and Itchen supply and demand - Projected supply and demand position plus waste water improvement works

Test and Itchen Catchment Summary

- 3.11 The Test Valley catchment has a current supply of strategic mitigation for approximately 2,000 dwellings. There are a number of emerging mitigation schemes at varying stages of development within the catchment. However, it is considered likely that delivery of mitigation schemes would need to substantially increase, or waste-water treatment work improvements be made, to meet future demand as shown in figure 7. It is considered very likely that a combination of both will be required to meet long term demand.
- 3.12 The Environment Agency is currently undertaking a review of waste-water treatment work permit limits in the Solent sub-region. It is expected that this review will be undertaken in order for Southern Water to request the required budget for improvements within the next funding cycle (AMP 8 2025-2030).
- 3.13 Delivery of new schemes in the Test and Itchen catchment may also be substantially accelerated by the introduction of the Solent Nutrient Market Pilot, as well as the ongoing work undertaken by local planning authorities, Hampshire and Isle of Wight Wildlife Trust and other stakeholders.

Solent Nutrient Market Pilot

- 3.14 The Solent Nutrient Market Pilot is the operating name of the work referred to in previous reports as the Defra Trading Pilot. In late 2021 Defra appointed a consortium led by EnTrade to design and operate the Pilot Nutrient Market for the Solent. The consortium is made up of the members shown in table 2 and aims to support landowners to make long term land-use changes in the Test and Itchen Catchment that reduce nitrogen pollution and deliver wider environmental benefits; and enable new developments to meet the requirement to deliver Nutrient Neutrality on protected sites. It is currently anticipated that the Market Pilot will commence operation by autumn 2022.

Table 2 - EnTrade consortium members

En Trade	A Wessex Water business that creates and operates on-line markets for nature-based solutions
Arcadian Ecology	Hampshire and Isle of Wight Wildlife Trust's ecological consultancy. They are leading the engagement with landowners
Arup	Leading the establishment of the Trading Platform Management System and the User Testing of the Platform
University of Exeter	Leading the design and development of the market settlement process.
Wheatley Young and Partners	Specialists in environmental policy and strategy, are leading the design of the nutrient market and supporting market information and communications.

4. Summary and next steps

- 4.1. It is clear from the evidence in this report that there is now a fully functioning, privately led, nitrogen mitigation market within the Solent sub-region. Currently, all development within the Solent sub-region has an available strategic mitigation scheme available. In the Test and Itchen and East Hants

catchments, the two main catchments for housing delivery, there are multiple strategic mitigation options available to developers.

- 4.2. In the East Hampshire catchment, supply of mitigation measures is considered likely to keep up with demand due to sufficient schemes in development to justify the projected supply assumptions. As such, planned development will be able to meet its mitigation requirements, through the provision of strategic private mitigation, in the short medium and long term. This statement does not underestimate the level of work required in bringing these mitigation solutions forward to the point that the mitigation can be secured against a development. Further monitoring and reporting is required to ensure that delivery of strategic mitigation sites continue.
- 4.3. In the Test and Itchen catchment it is considered unlikely that supply will keep up with demand and that interventions are required to increase supply. The lack of confidence in supply meeting demand in the future is based on the much higher mitigation demand formed by waste-water treatment works in the Test and Itchen catchment, as well as a relatively low amount of emerging schemes currently in development. There is currently enough strategic mitigation within the Test and Itchen catchment to satisfy demand for 12-18 months and the impact of the Solent Nutrient Trading Pilot and delivery of open market sites will need to be closely monitored during this period to ascertain if any further interventions are required.
- 4.4. The SEPO will produce further supply and demand reports on a six-monthly basis in order to be able to recommend further interventions should the supply of mitigation fail to meet demand in the future. The summer 2022 update will also allow further analysis of the impact of on-site mitigation in relation to the demand for strategic mitigation.
- 4.5. In addition to updates on nutrient neutrality, it is recognised that land use policy for environmental gain is rapidly changing in a number of different ways. These changes are through instruments such as the Environment Act and policies such as Net Zero with Nature. In order to understand the potential impacts on sustainable growth the SEPO intends to work with the work of the Greenprint for South Hampshire to report on the current relationship between development and environmental gain, as well as a review of the potential impact of future proposed changes such as biodiversity net gain requirements. This is all likely to be needed as part of the LPA response to the Environment Act and PfSH is well placed to develop a coordinated approach for the sub-region.
- 4.6. The Solent sub-region is at the forefront of delivering strategic solutions to issues such as nutrient neutrality on a cross boundary basis. It is clear that the work undertaken by PfSH at a strategic level is extremely valuable to help inform government as to the feasibility and effectiveness of its policies, and the impact that these policies may have on sustainable growth.

Recommendation

It is recommended that Joint Committee:-

- i) NOTES the contents of this update.

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