Hampshire Water Transfer and Water Recycling Project

Consultation Report Appendix G – Statutory Spring 2025 Consultation – 1 of 2 Documents

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G.1 Information sheets

Design Refinement 1 – Budds Farm Wastewater Treatment Works

Where is the proposed change?

This design refinement relates to a pumping station that is now required at Budds Farm Wastewater Treatment Works to transfer treated wastewater to the water recycling plant. Budds Farm Wastewater Treatment Works is located within Havant Borough Council's administrative area. At the Summer 2024 Consultation we had not confirmed whether a pumping station would be required at Budds Farm Wastewater Treatment Works due to the ongoing engineering design of the water recycling plant and the pipelines. At the time it was considered that treated wastewater could be transferred to the water recycling plant by gravity.

The design presented at the Summer 2024 Consultation can be seen in **Figure 1**.

What is changing and why?

Further design development has confirmed that we are now likely to require a pumping station at Budds Farm Wastewater Treatment Works to pump the treated wastewater to the water recycling plant.

An area for the proposed pumping station has therefore been identified on the western side of Budds Farm Wastewater Treatment Works, shown in **Figure 2**. The pumping station would have a maximum length of 12 metres, width of 7 metres, and height of 3.3 metres. The area identified for the pumping station (Limits of Deviation) in **Figure 2** is much larger than these maximum dimensions, in order to provide flexibility for where this might eventually be located in this area, pending the detailed design of the pumping station, the connecting pipelines, and other separate works planned in this area of Budds Farm Wastewater Treatment Works.

We have also identified two additional construction compounds at Budds Farm Wastewater Treatment Works, these would support construction of the pumping station and the pipeline to the water recycling plant.

The proposed design refinement can be seen in **Figure 2**.

How might the change affect you or the environment?

Whilst the pumping station would be within the boundaries of the existing operational Wastewater Treatment Works, the pumping station would be in close proximity to Langstone Harbour. This is designated as a Special Area of Conservation, a Special Protection Area, and a Ramsar site to ensure environmental protection and safeguard protected species. The Limits of Deviation we have identified for the pumping station would also be adjacent to a Solent Waders and Brent Geese Strategy site. Works to construct the pumping station will be controlled by the Outline Construction Environmental Management Plan that forms part of our Development Consent Order. This plan will ensure that potential pollution and disturbance is minimised, therefore reducing the potential for effects on this site. Vegetation removal will also be reduced as far as reasonably practicable.

Although the pumping station is relatively small in comparison to the wider Wastewater Treatment Works and will be seen against the backdrop of the Wastewater Treatment Works, it may be visible from Solent Way and other nearby footpaths. Any potential effects will be reduced by minimising loss of vegetation, retaining the existing embankment, levels and vegetation along the south-western boundary of the site, and by positioning the building away from the existing embankment and close to existing structures of the Wastewater Treatment Works.

Figure 1 Budds Farm Wastewater Treatment Works – Summer 2024 Consultation design

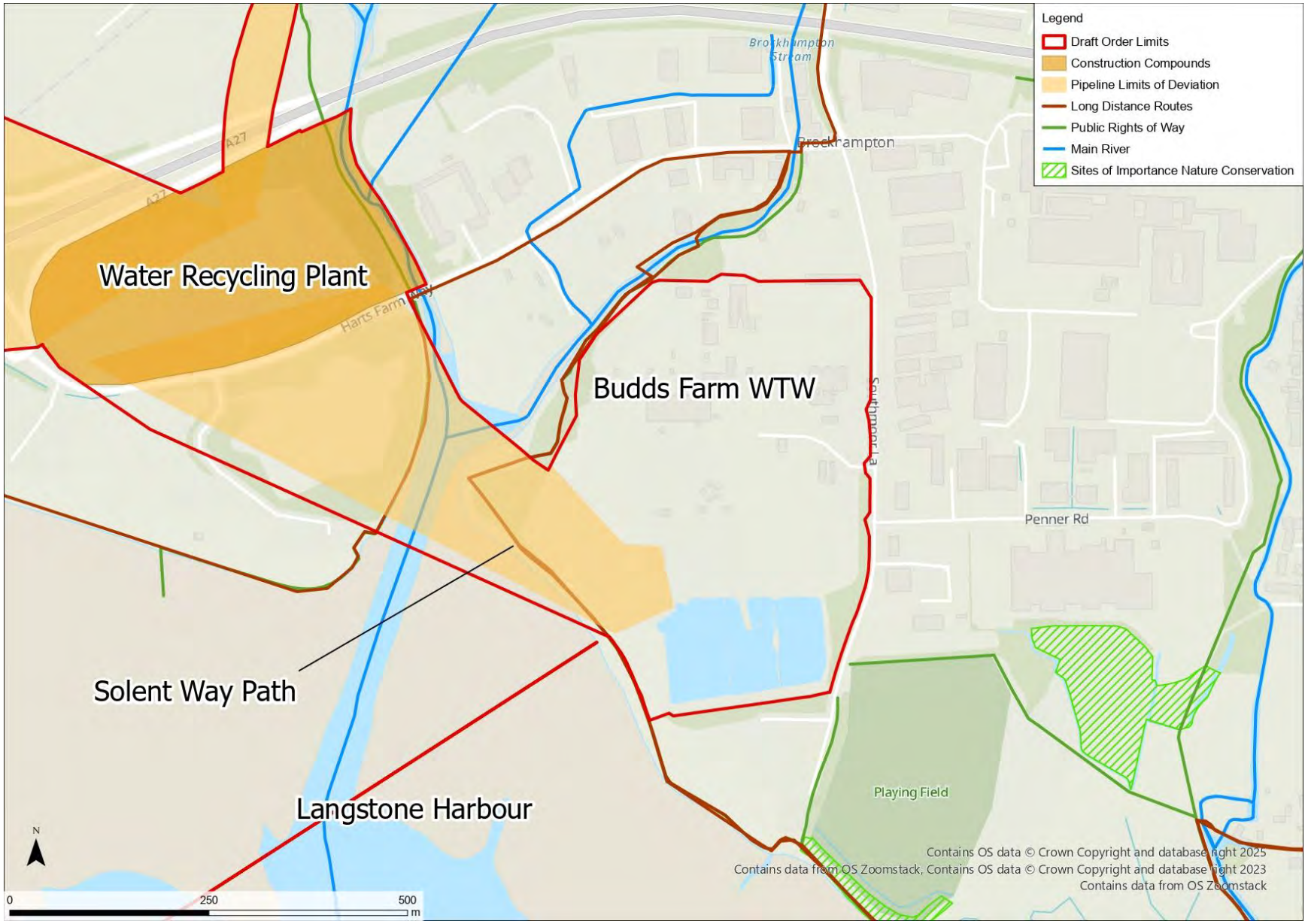
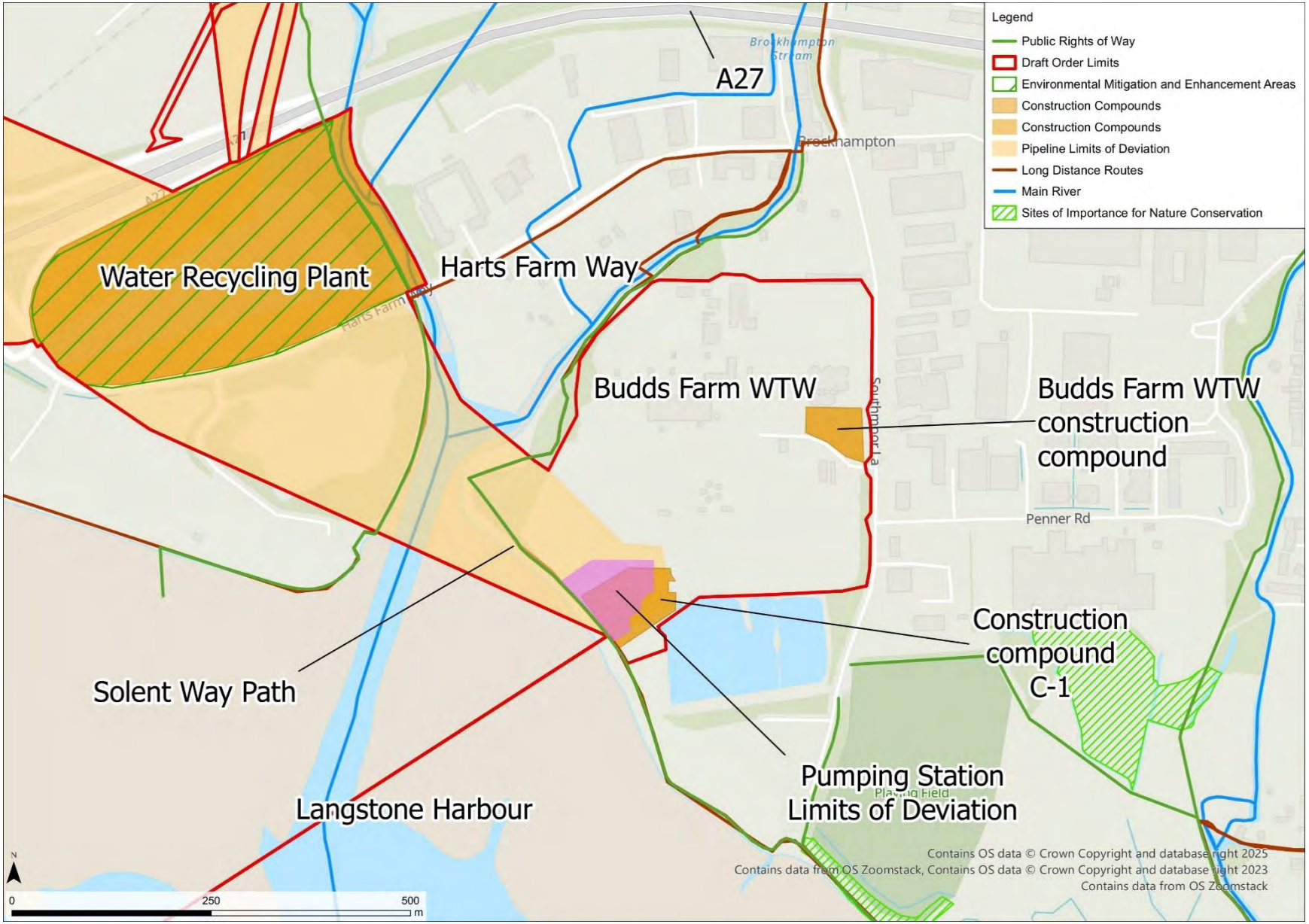


Figure 2 Budds Farm Wastewater Treatment Works – Design Refinement



Design Refinement 2 – Water Recycling Plant

Where is the proposed change?

The water recycling plant site is proposed to be located to the north of Broadmarsh Coastal Park, between the A27 to the north and Harts Farm Way to the south, and is within Havant Borough Council's administrative area.

What and why is it changing?

As set out in the Summer 2024 Consultation, we are considering the potential of having a green roof (a roof covered with vegetation) on the main process building at the water recycling plant site, in order to provide on-site habitat enhancement.

To accommodate this, the proposed maximum height of the main process building may need to increase from 13m, which was the proposed maximum height of the water recycling plant at the Summer 2024 Consultation, to 14.5m due to the engineering requirements associated with a green roof.

Our Environmental Water Quality Report, published as part of this consultation, highlights the potential requirement for additional phosphorous treatment to manage water quality within Havant Thicket Reservoir. Our current expectation is that this can be accommodated within the parameters of the water recycling plant without requiring any further changes to the building's maximum dimensions or external appearance.

An environmental mitigation and enhancement area has been added to the water recycling plant site so we can deliver environmental enhancements across the site, including landscaping to screen views of the water recycling plant.

There are no figures for this design refinement.

How might the change affect you or the environment?

The increase to the maximum height of the water recycling plant to accommodate a new green roof will inevitably result in the building becoming slightly more prominent in the landscape. Whilst the final assessment of the effects of this will be reported in the Environmental Statement accompanying the Development Consent Order application, it is not anticipated at this stage that there would a material change to the ecology, landscape or heritage effects previously reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation.

Increasing the maximum height of the water recycling plant would allow us to implement a green roof and provide enhancements on site which would provide environmental benefits.

Design Refinement 3 – Pipeline Sections A and B

Where is the proposed change?

Sections A and B are located within Havant Borough Council's administrative area and comprise the two pipelines that would transfer purified recycled water and source water between the water recycling plant and the Havant Thicket Reservoir. Section A covers the area around Staunton Country Park and Section B covers the area south of Staunton Country Park to the water recycling plant.

There are two options for the pipelines in Section A and B:

- **Preferred option** – Two pipelines would be installed between the water recycling plant and Bedhampton Springs. At Bedhampton Springs, our pipelines would connect into pipelines that are being proposed by Portsmouth Water between Bedhampton Springs and Havant Thicket Reservoir and which are being consented separately.
- **Backup option** – In the event that Portsmouth Water's pipelines between Bedhampton Springs and the Havant Thicket Reservoir are not granted planning permission, we are currently progressing with a backup option. For this option, there would be two continuous pipelines between the water recycling plant and Havant Thicket Reservoir located within a single tunnel that would be constructed at a depth of over 20 metres below ground level through Havant.

The design presented at the Summer 2024 Consultation is shown in **Figures 3, 4 and 5**.

What is changing and why?

We are proposing the following design refinements to the preferred option and backup option within Section A and B, which are highlighted in **Figures 6, 7 and 8**.

Preferred option design refinement

- At Staunton Country Park and Havant Rugby Football Club, we have made minor changes to the draft Order Limits to ensure that Portsmouth Water's pipelines between Bedhampton Springs and Havant Thicket Reservoir are fully included within the Order Limits. This ensures that the use of these pipelines as part of this project can be authorised by our Development Consent Order.
- Through ongoing discussions with Portsmouth Water on the construction of the pipeline within the Bedhampton Springs site, the draft Order Limits have been extended at Bedhampton Springs to include an existing access road and an additional construction compound. We have also extended the draft Order Limits slightly at the north side of the site to ensure there is enough space to construct the pipelines parallel to the railway. We may need to locate the pipeline here as we have identified veteran trees to the south of the site.
- A new temporary construction access from an existing access point on the A27 slip road has been added to support access to construction compound B1-1 located west of Mill Lane. This access has been added as some of the abnormal and heavy construction vehicles may not be able to pass over the Mill Lane railway bridge. This access would only be used by a low number of these construction vehicles.
- We have also identified two areas where we may need to undertake temporary highway works to the draft Order Limits to facilitate some of the larger construction vehicles we require. One of these is at the Bedhampton Road and Brookside Road junction, where we may need to make modifications to the junction geometry and the traffic islands. The other location is at the West Street and Meyrick Road junction, where we may need to implement a temporary parking restriction to ensure vehicles can use the junction safely. Following the completion of construction works we will reinstate these junctions to their current condition in line with Hampshire County Council's requirements. These junctions will be kept open whilst works are undertaken.

Backup option design refinement

- Through ongoing engagement with Hampshire County Council and further investigation of the construction vehicle access requirements, the two access points to construction compound B2-1 from

Middle Park Way, shown at the Summer 2024 Consultation, have now been amended to one single access point better suited for construction access.

- At the Summer 2024 Consultation, engagement with Havant Rugby Football Club identified that the access to construction compound B2-2, which would be used for the intermediate tunnel shaft, would impact a floodlit grass rugby pitch. This tunnel shaft location would also have been in close proximity to St Thomas More's Catholic Primary School and Pre-school. In consultation with both the Rugby Football Club and Hampshire County Council, a new location for the construction compound is now proposed with access from Hook's Farm Way to the north.
- An environmental mitigation and enhancement area for grassland and woodland reinstatement has been identified around the pipeline construction works within Staunton Country Park to help mitigate for any habitats lost.
- The draft Order Limits for the tunnelled sections of the pipeline have been reduced to remove potential settlement areas given that we are not proposing construction works in these areas. We will of course continue to engage with all residents and stakeholders in the proximity of any tunnelling works during the construction phase.

How might the change affect you or the environment?

Preferred option design refinements

- **Mill Lane Construction Compound Access** – The additional access route to the construction compound west of Mill Lane from the A27 would only be used by a very low number of construction vehicles, such as abnormal loads or those which could be too heavy to use the existing bridge over the railway. Subject to further engagement with National Highways, we could temporarily use traffic management on the slip road to facilitate these vehicle movements. Using this access will reduce the number of abnormal load/heavy construction vehicles using Mill Lane.
- **Bedhampton Springs** – The amendments at Bedhampton Springs are not anticipated to have any environmental effects compared to those in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation, as the new works would be contained within the existing operational site. The refinements help to ensure environmental effects are reduced, for example by avoiding veteran trees.

Backup option design refinements

- **Intermediate Tunnel Shaft at Havant Rugby Football Club** – The amended location of the intermediate tunnel shaft and construction compound is marginally closer to residential properties along Hooks Farm Way and Hooks Lane. This could increase the levels of noise experienced temporarily by these properties. The construction compound would be further away from St Thomas More's Catholic Primary School and Pre-School, and Bidbury Junior and Infant Schools, which would experience reduced levels of construction noise. Compared to the Summer 2024 Consultation design, the tunnel shaft and access will be closer together, which would mean that the two key noise sources will be in the same area. This could increase the total level of noise experienced at the residential properties on Hooks Farm Way and Hooks Lane. To mitigate any additional noise impacts, we will implement measures set out in the Outline Construction Environmental Management Plan which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these effects.
- **Staunton Country Park** – The refinement to the construction compound access within Staunton Country Park would move construction works away from residential properties along Middle Park Way, Bitterne Close and Bondfields Crescent. The change also means that less vegetation would be removed to facilitate access, and protected species would be avoided.

Figure 3 Pipeline Sections A and B – Summer 2024 Consultation design

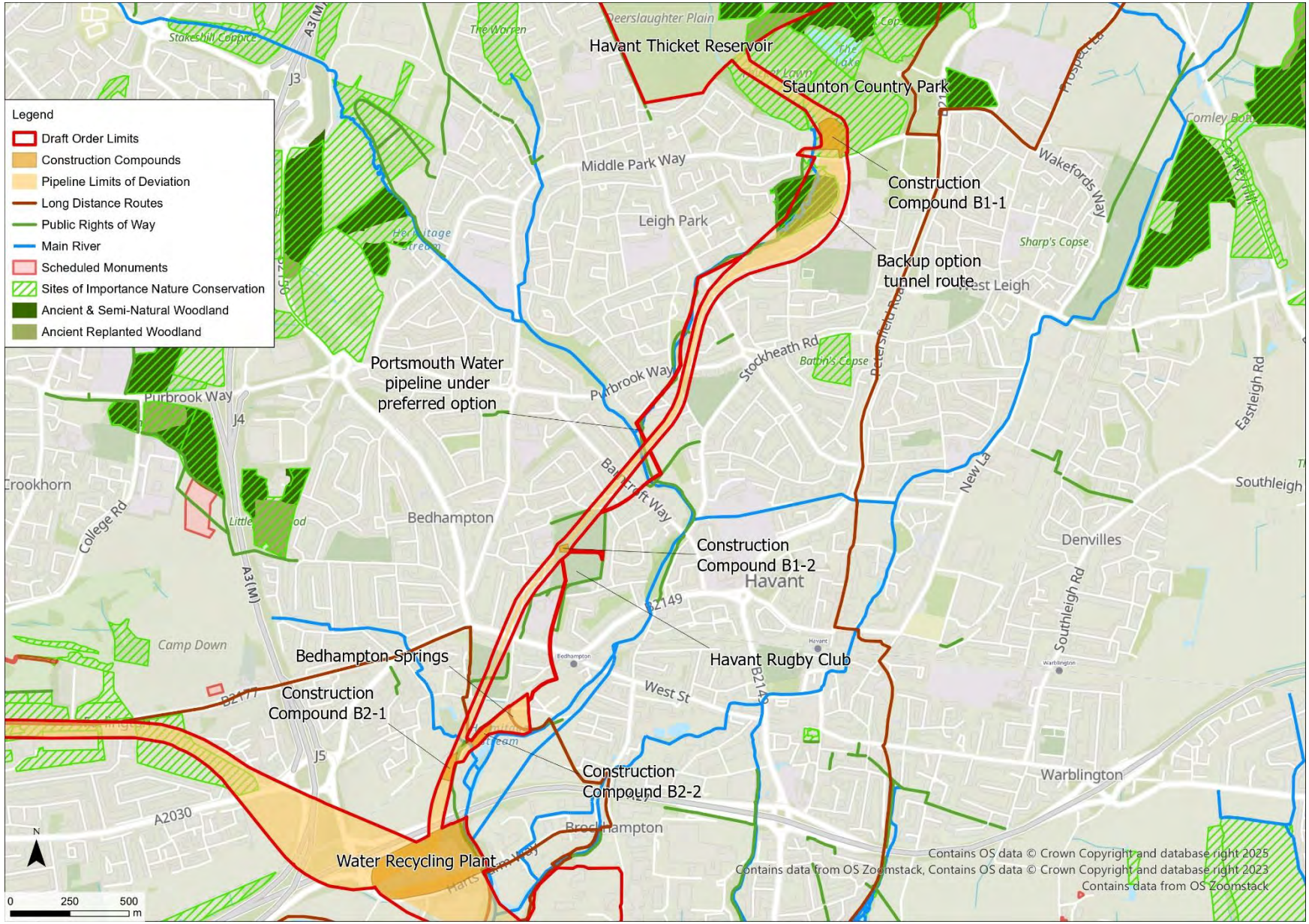


Figure 4 Bedhampton Springs – Summer 2024 Consultation design

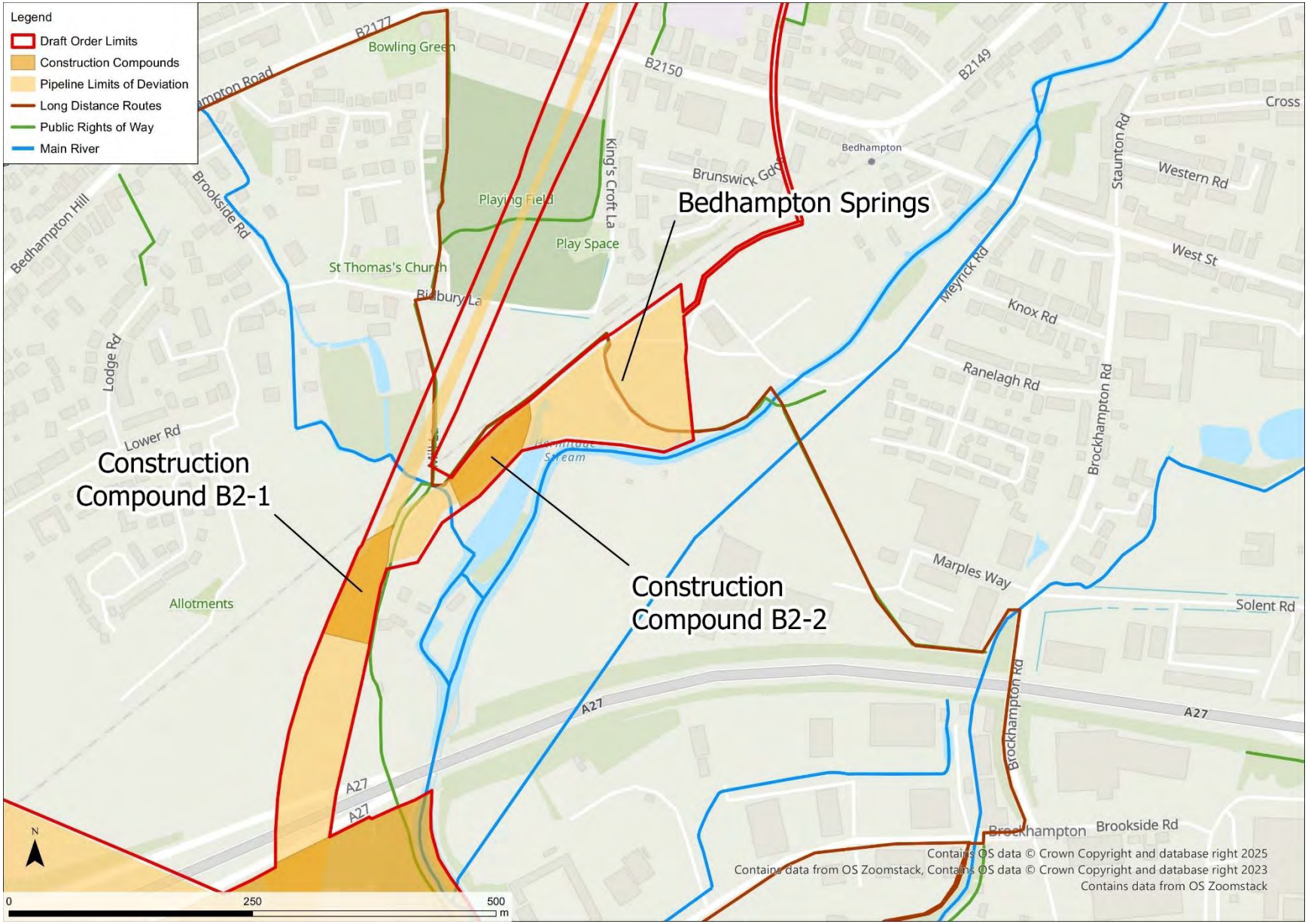


Figure 5 Intermediate tunnel shaft area – Summer 2024 Consultation design

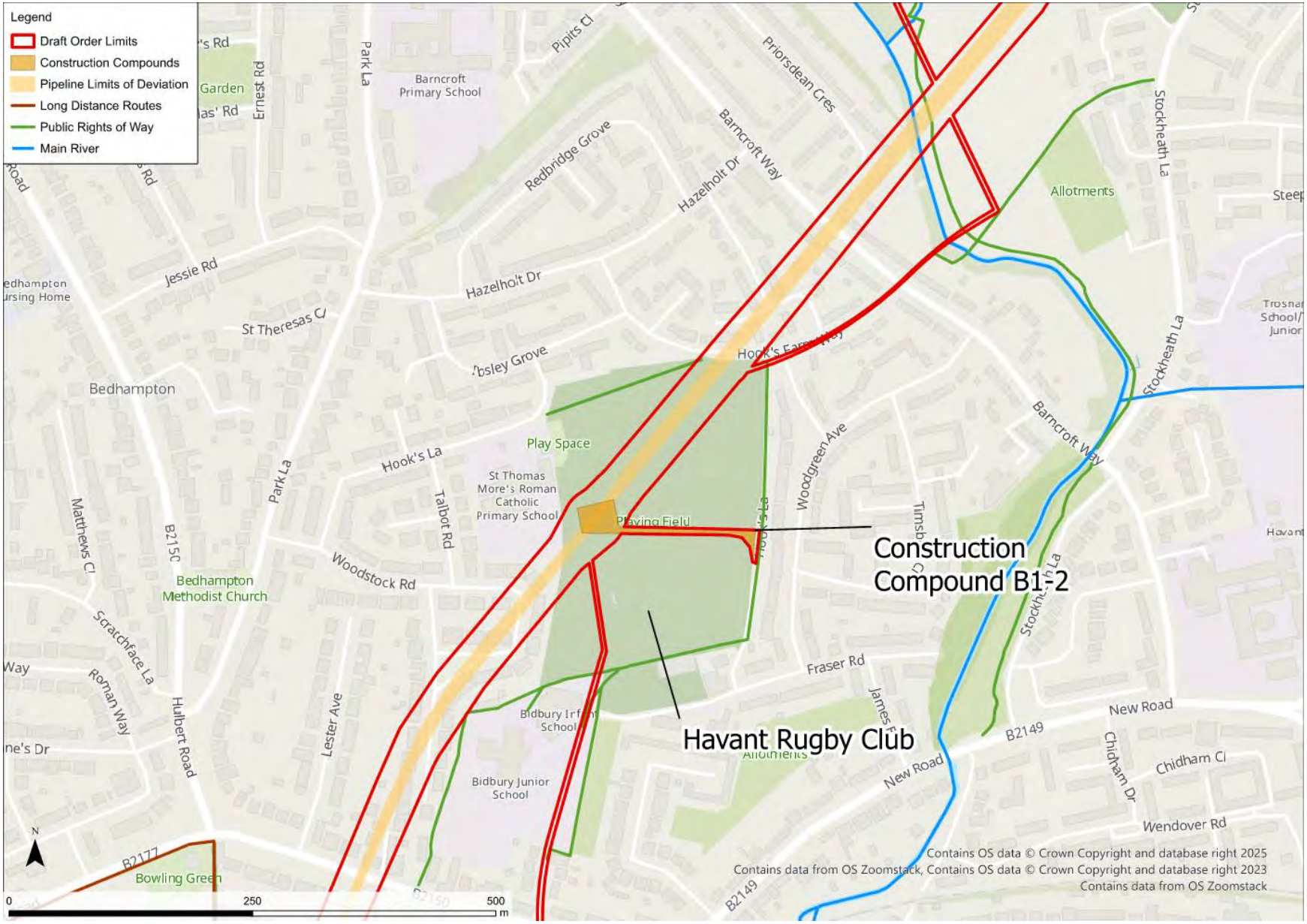


Figure 6 Pipeline Sections A and B – Design Refinement

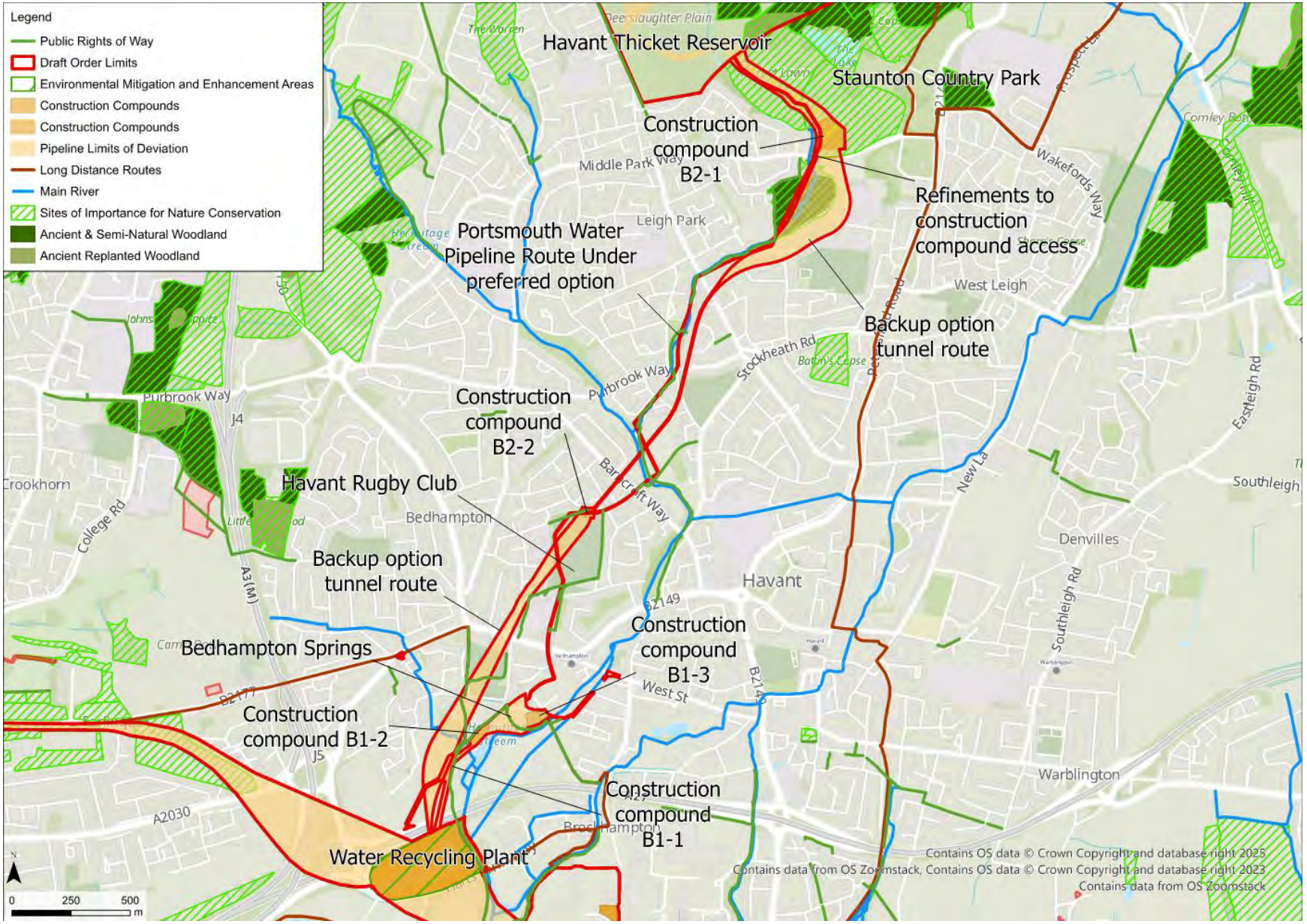


Figure 7 Bedhampton Springs – Design Refinement

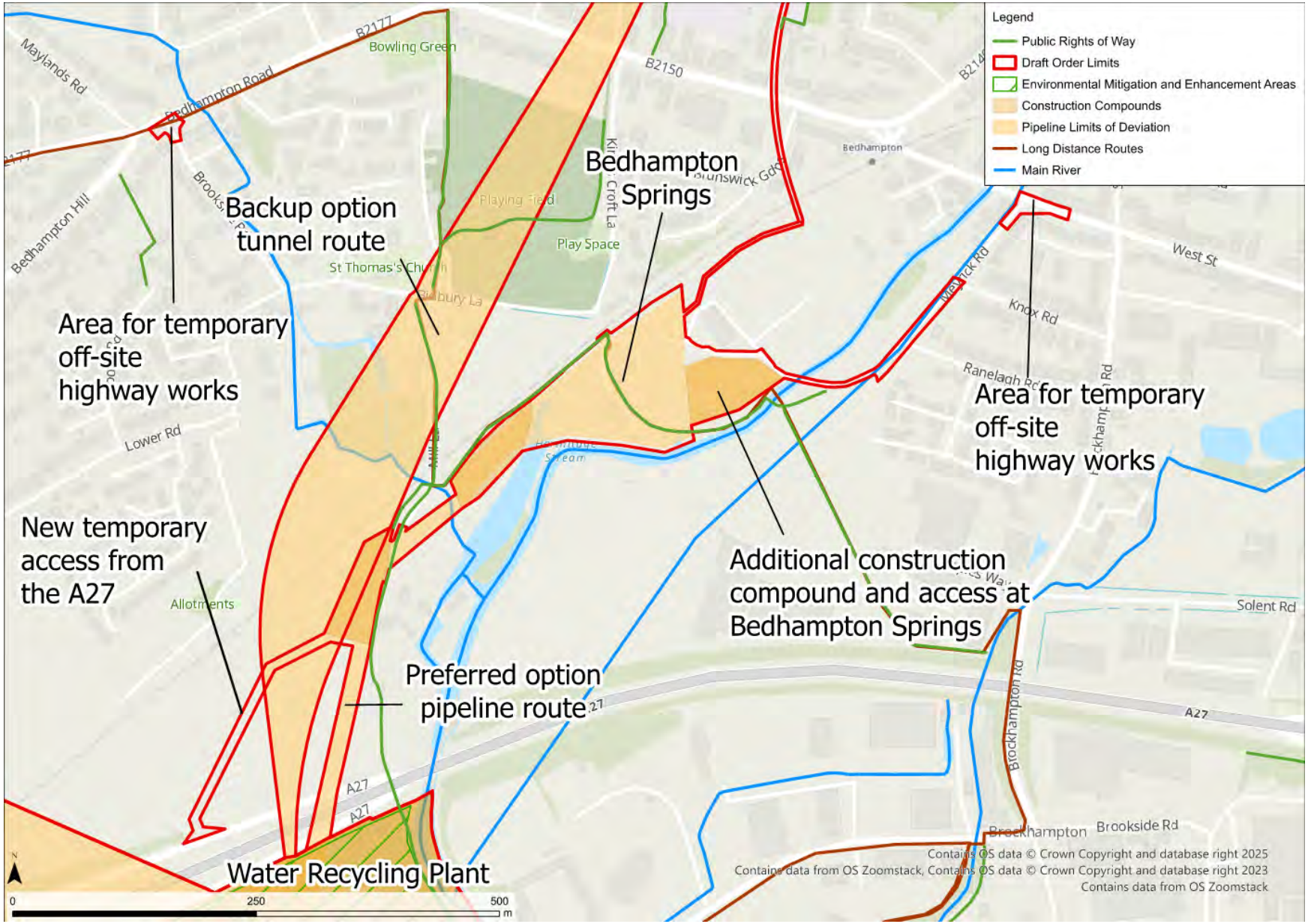
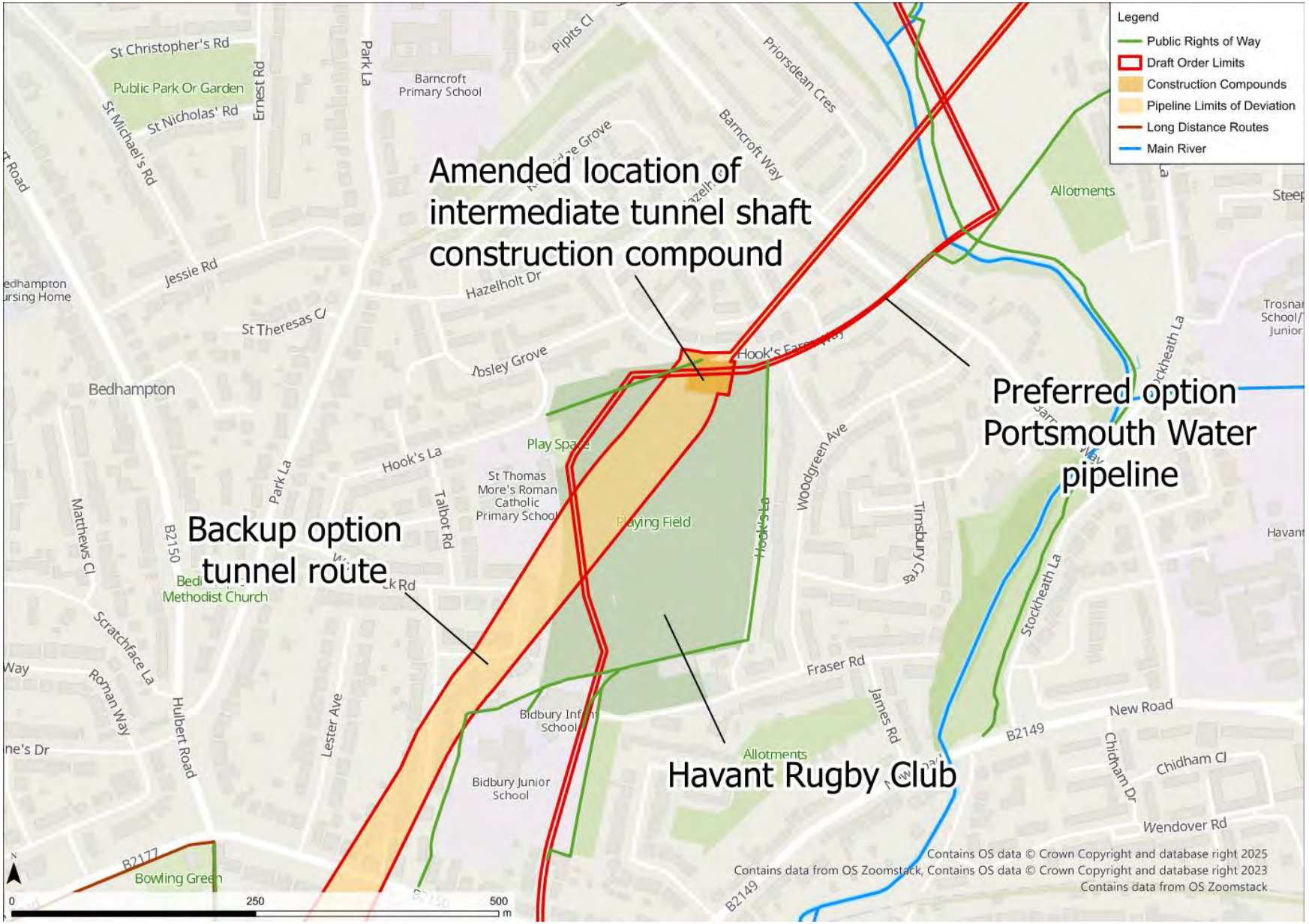


Figure 8 Intermediate tunnel shaft area – Design Refinement



Design Refinement 4 – Havant Thicket Reservoir

Where is the proposed change?

This design refinement relates to the interface between the Project and the Havant Thicket Reservoir. The Project proposes the use of Havant Thicket Reservoir, which is currently being constructed by Portsmouth Water, for the storage of recycled water. There are currently two options under consideration for the pipelines between the water recycling plant site and Havant Thicket Reservoir within Sections A and B. Both options would comprise two pipelines that would facilitate the transfer of purified recycled water and source water between the water recycling plant and the Havant Thicket Reservoir.

The preferred option involves us constructing a connection between the water recycling plant and Bedhampton Springs, and using the pipelines that Portsmouth Water are seeking planning permission for between Bedhampton Springs and Havant Thicket Reservoir. If this preferred option does not secure planning permission, our backup option is to construct continuous pipelines between the Water Recycling Plant site and Havant Thicket Reservoir.

Under the backup option, we would additionally need to seek consent as part of our Development Consent Order to construct the inlet pipeline that connects into Havant Thicket Reservoir.

The design we presented at the Summer 2024 Consultation at Havant Thicket Reservoir is shown in **Figure 9**. This shows the draft Limits of Deviation for the pipeline ending at the boundary of the Havant Thicket Reservoir site.

What is changing and why?

Since the Summer 2024 Consultation, we have been working closely with Portsmouth Water to identify where our pipelines would need to connect into Havant Thicket Reservoir as part of the backup option. We have now developed a connection point and route to this location from Staunton Country Park.

As a result, we have extended the draft Limits of Deviation from the boundary of the reservoir site to the discharge point within the reservoir. The draft Order Limits in this location remain the same as they already encompassed the whole reservoir site.

The proposed design refinement is shown in **Figure 10**.

How might the change affect you or the environment?

No new or different effects are anticipated compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation, as the construction of this pipeline will take place within the Havant Thicket Reservoir site, which is currently under construction.

Figure 9 Havant Thicket Reservoir – Summer 2024 Consultation design

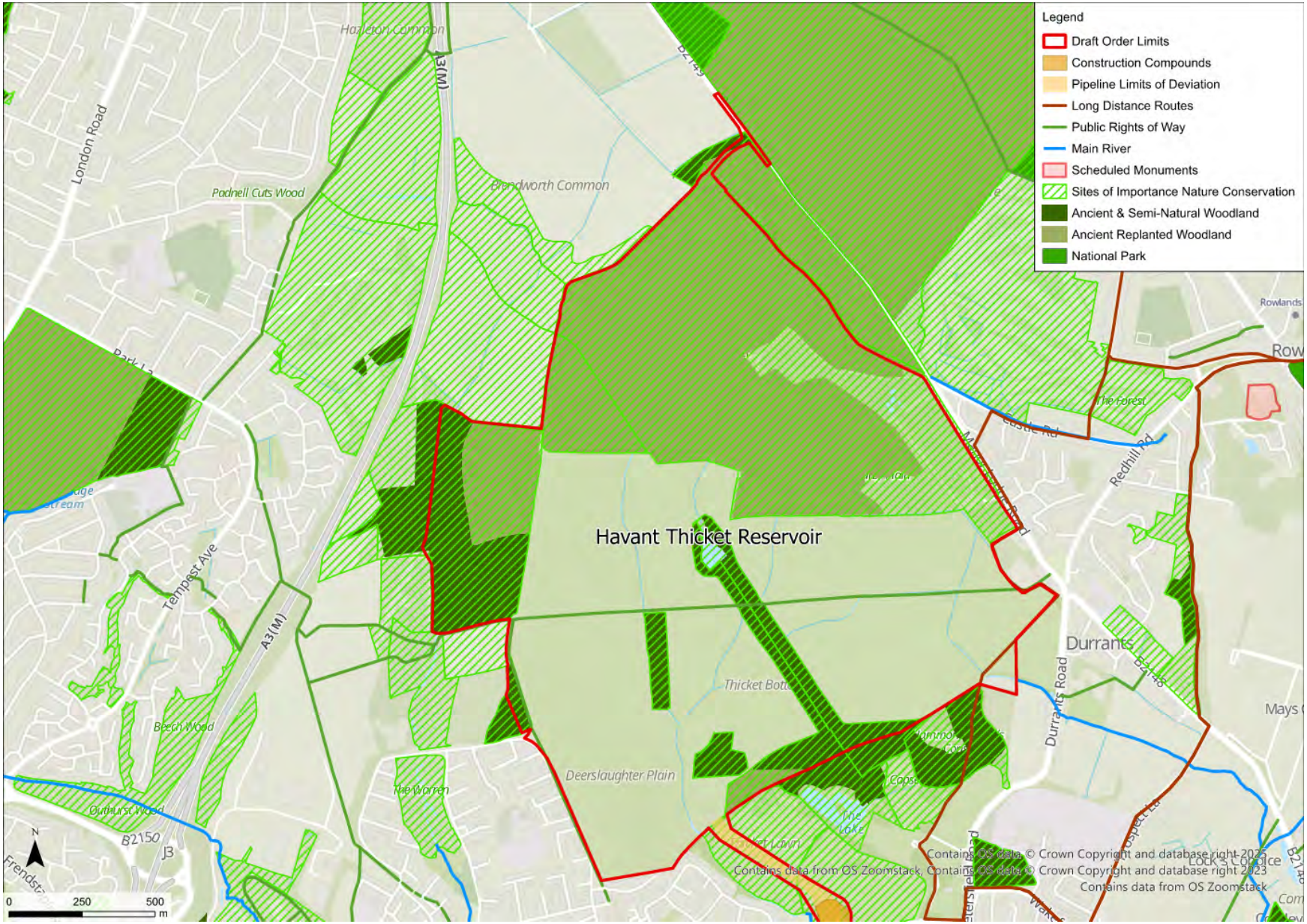
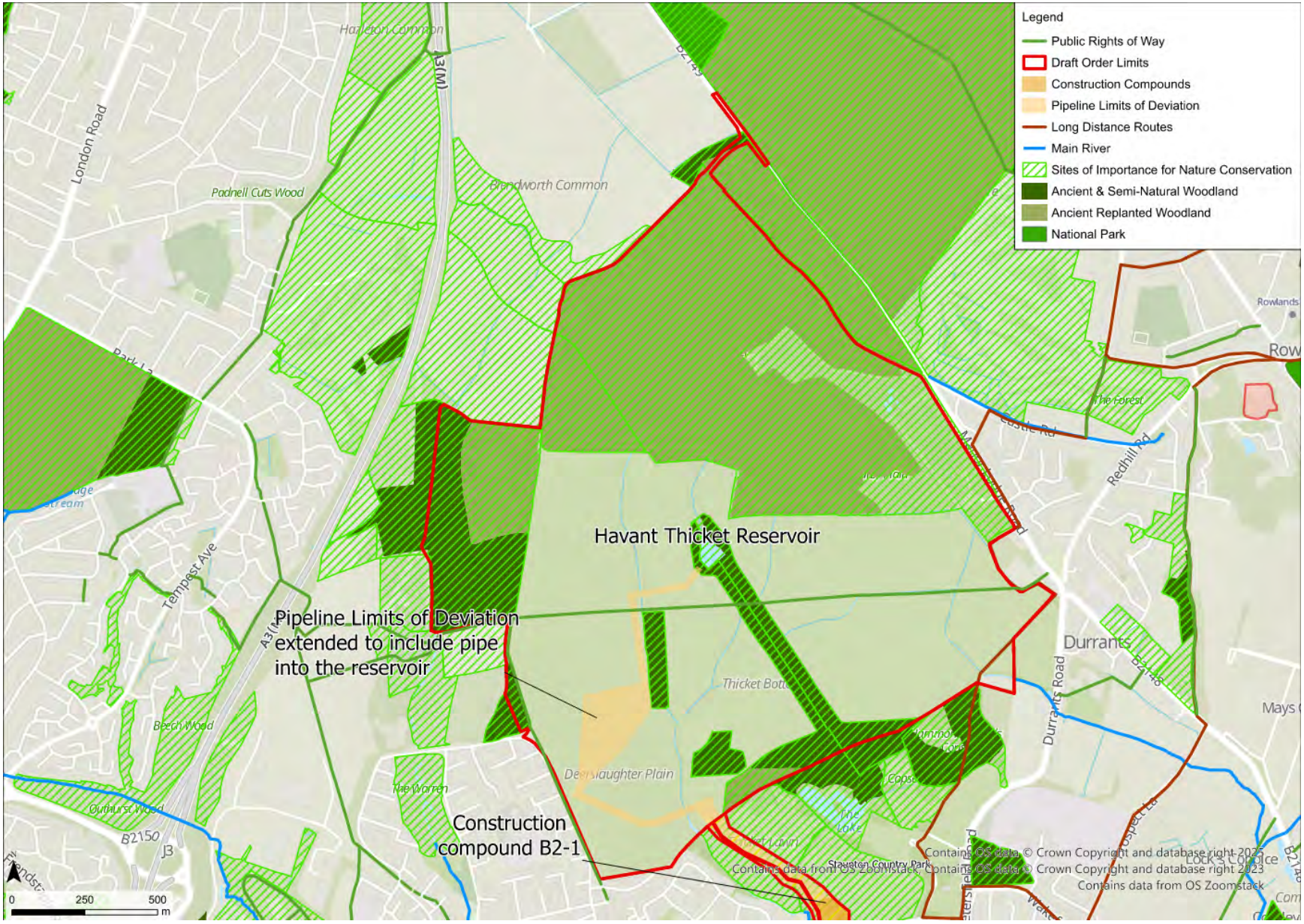


Figure 10 Havant Thicket Reservoir – Design Refinement



Design Refinement 5 – Pipeline Section D

Where is the proposed change?

Section D of the proposed pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works is located between the proposed Water Recycling Plant site and Portsdown Hill, southwest of Widley. Section D extends across the administrative areas of Havant Borough Council and Portsmouth City Council. Section D would be entirely constructed as an underground tunnel, with the only above ground works taking place at the intermediate tunnel shaft construction compound. Section D would pass to the north of Farlington and Drayton, following part of the alignment of Portsdown Hill Road (B2177).

The design presented at the Summer 2024 Consultation is shown in **Figure 11**.

What is changing and why?

Ongoing design development since the Summer 2024 Consultation has led to some changes to the tunnelling route.

At the east of Section D, the draft Order Limits have been reduced and towards the west of Section D, the draft Order Limits have been widened slightly. These changes have been made to ensure that there is sufficient space to accommodate different angles of curvature for the tunnel boring machine. We have retained flexibility to allow for efficiencies to be identified during the detailed design of the tunnel.

Located centrally to Section D is a construction compound for an intermediate tunnel shaft that may be required during construction. The construction compound is situated to the south of Portsdown Hill Road (B2177) and west of Gillman Road. The construction compound isn't proposed to change but the draft Order Limits in the vicinity of the compound have reduced slightly. We have also reduced the draft Order Limits in other areas of Section D. These reductions have been made to remove tunnel settlement areas, which are do not need to be included within the draft Order Limits. Although these areas have been removed, we will continue to engage with all residents and stakeholders in the proximity of tunnelling works to communicate any potential impacts.

The proposed design refinement can be seen in **Figure 12**.

How might the change affect you or the environment?

The proposed design refinements to the tunnel are not considered to result in any new or different environmental effects compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. This is because there would be no change to the construction works undertaken at surface level. As the tunnel will be at least 40 metres deep and up to 80 metres deep in this location, it is expected that the tunnelling works would not be noticeable, however we will undertake further assessments as part of our Development Consent Order application to confirm this.

Figure 11 Pipeline Section D – Summer 2024 Consultation design

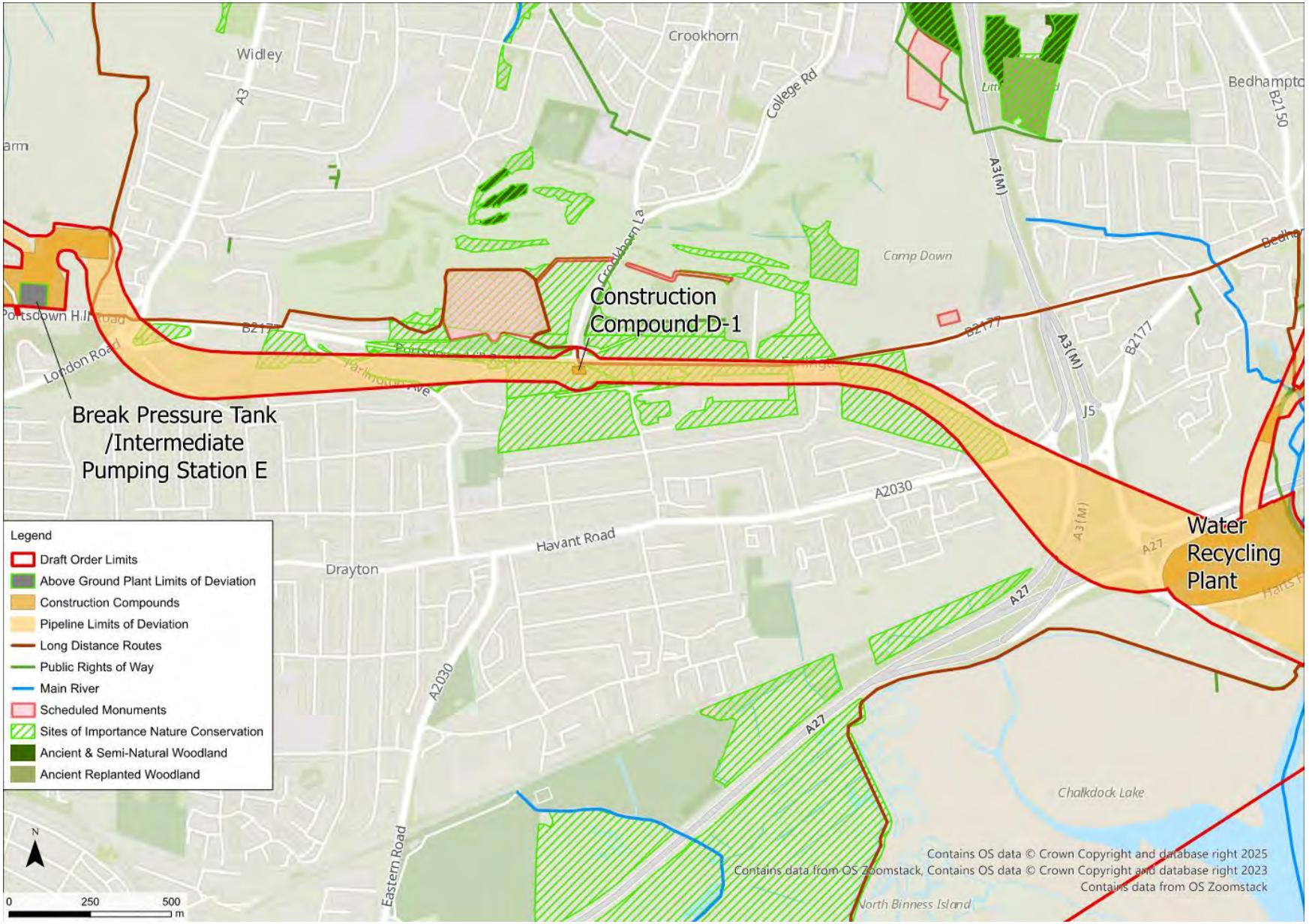
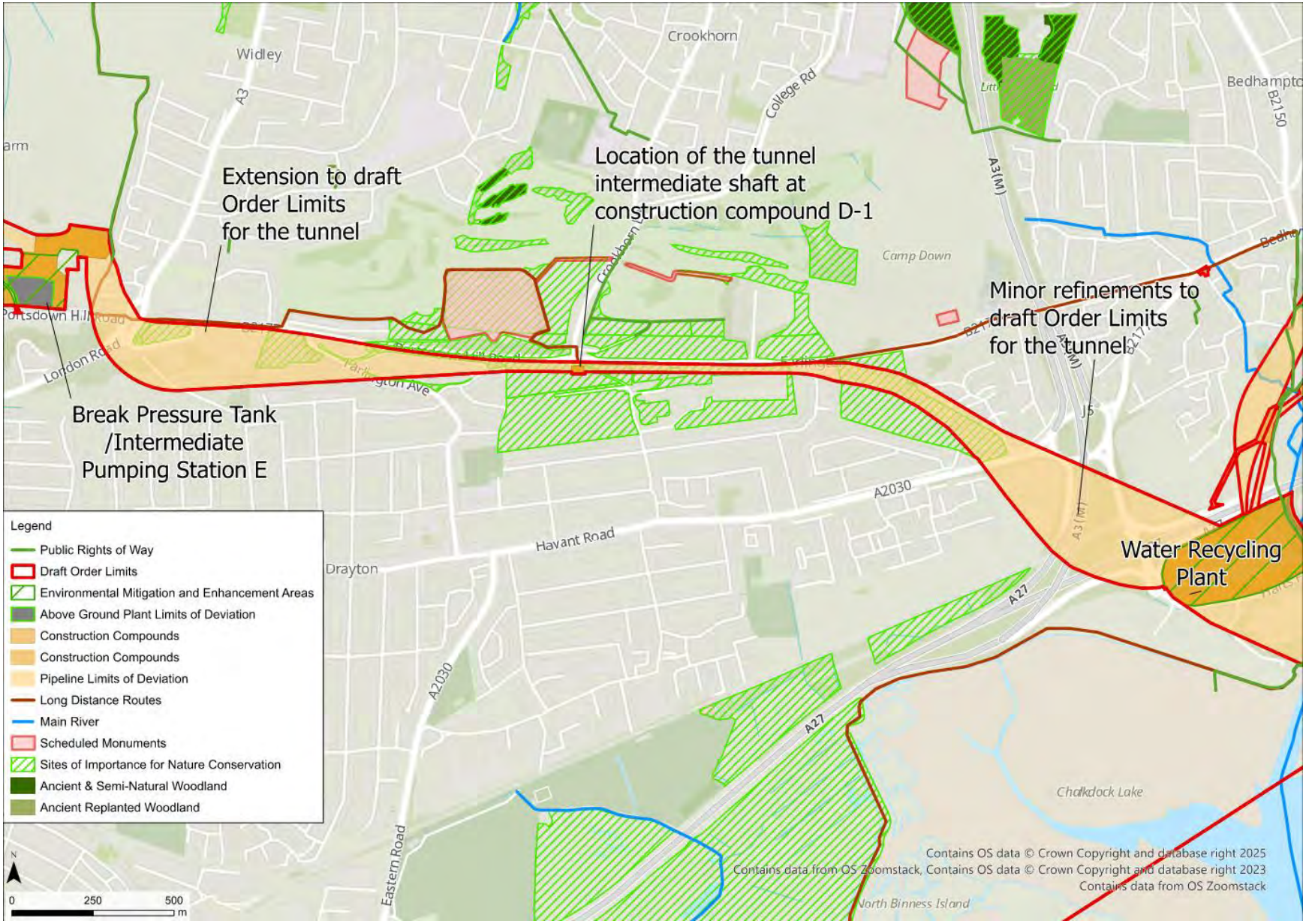


Figure 12 Pipeline Section D – Design Refinement



Design Refinement 6 – Break Pressure Tank and Intermediate Pumping Station E

Where is the proposed change?

The proposed site for Break Pressure Tank and Intermediate Pumping Station E is located within the vicinity of Portsdown Hill, to the north of Portsdown Hill Road (B2177) and west of Widley. It extends across the boundaries of Winchester City Council and Portsmouth City Council's administrative areas and is situated within Section E of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

We require a break pressure tank at this location to manage water pressure at this high point along the pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works and a pumping station to pump water to Intermediate Pumping Station F. Following approval of our Development Consent Order application, detailed design will be undertaken which will confirm the exact topography of the pipeline route, and therefore hydraulics. This could confirm that the intermediate pumping station element may not be required.

The design for Break Pressure Tank and Intermediate Pumping Station E, presented at the Summer 2024 Consultation, is shown in **Figure 13**.

What is changing and why?

Following the Summer 2024 Consultation, protected species were identified in a number of locations in the vicinity of Break Pressure Tank and Intermediate Pumping Station E. Changes are now proposed to the draft Order Limits and draft Limits of Deviation to reduce impacts on these species. However, we are aware that these protected species are active in this area and may have moved prior to construction works. Therefore we have added areas for mitigation, and in addition to the pipeline route presented at the Summer 2024 Consultation, an alternative pipeline route option to the west of the site is proposed, which provides further flexibility to ensure that any impacts to protected species can be avoided or reduced during the construction phase. Final protected species surveys will be undertaken prior to construction to inform whether the northern or the western pipeline route option is constructed.

Security requirements set out by the Department for Environment, Food and Rural Affairs have also identified the need for additional fencing around the plant. To accommodate this, it is proposed that the footprint for Break Pressure Tank and Intermediate Pumping Station E is increased, and therefore the draft Limits of Deviation would also increase. The shape of the draft Limits of Deviation are also proposed to be amended to ensure there is sufficient flexibility to avoid potential conflicts with a new pipeline that Portsmouth Water is also installing in this location.

Since the Summer 2024 Consultation, we have continued to develop our landscaping and planting proposals to help integrate Break Pressure Tank and Intermediate Pumping Station E into the existing landscape to reduce visual impacts. We proposed cutting the site into the hillside at the Summer 2024 Consultation to reduce its height above ground level, and we are proposing to cut the site deeper to mitigate the increase to the footprint of the site. The illustrative design for the site will be included in the Development Consent Order application. Also, we are now proposing chalk grass habitat enhancement in the field to the west and some interspersed planting to help blend the new landscaping and promote habitat connectivity. The full extent of these environmental mitigation and enhancement areas are shown to the east and west of New Down Lane.

The proposed design refinement can be seen in **Figure 14**.

How might the change affect you or the environment?

Our initial assessments indicate that the increase in the footprint and draft Limits of Deviation for the site and additional fencing requirements would not result in any additional landscape or visual effects compared to the effects reported in our Preliminary Environmental Information Report presented at the Summer 2024

Consultation. The site would be screened by new planting and landscaping to integrate it into the existing landscape. The pumping station would also be partially embedded into the ground to reduce its height above the existing ground level.

The design refinements seek to avoid impacts on protected species, including by allowing some flexibility in the location of the pipeline. As explained above, only one pipeline option would be constructed depending on final protected species surveys at the time. Any vegetation lost along field boundaries from either option would be reinstated after construction.

The addition of the environmental mitigation and enhancement area to the west of New Down Lane provides an opportunity to bring forward chalk grassland enhancements as part of our Project, which will support the mitigation for the Break Pressure Tank and Intermediate Pumping Station E and promote habitat connectivity.

Figure 13 Break Pressure Tank and Intermediate Pumping Station E – Summer 2024 Consultation design

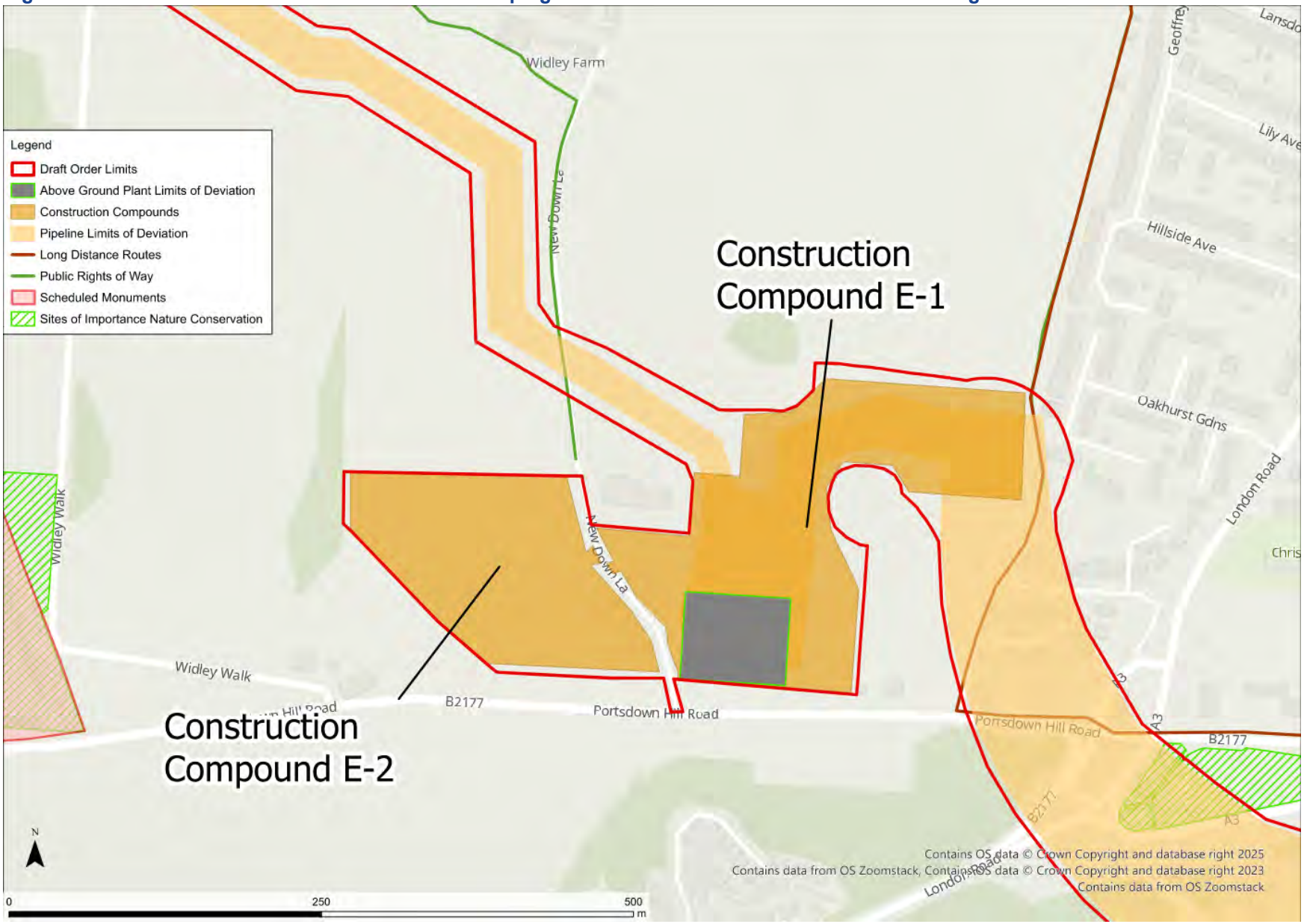
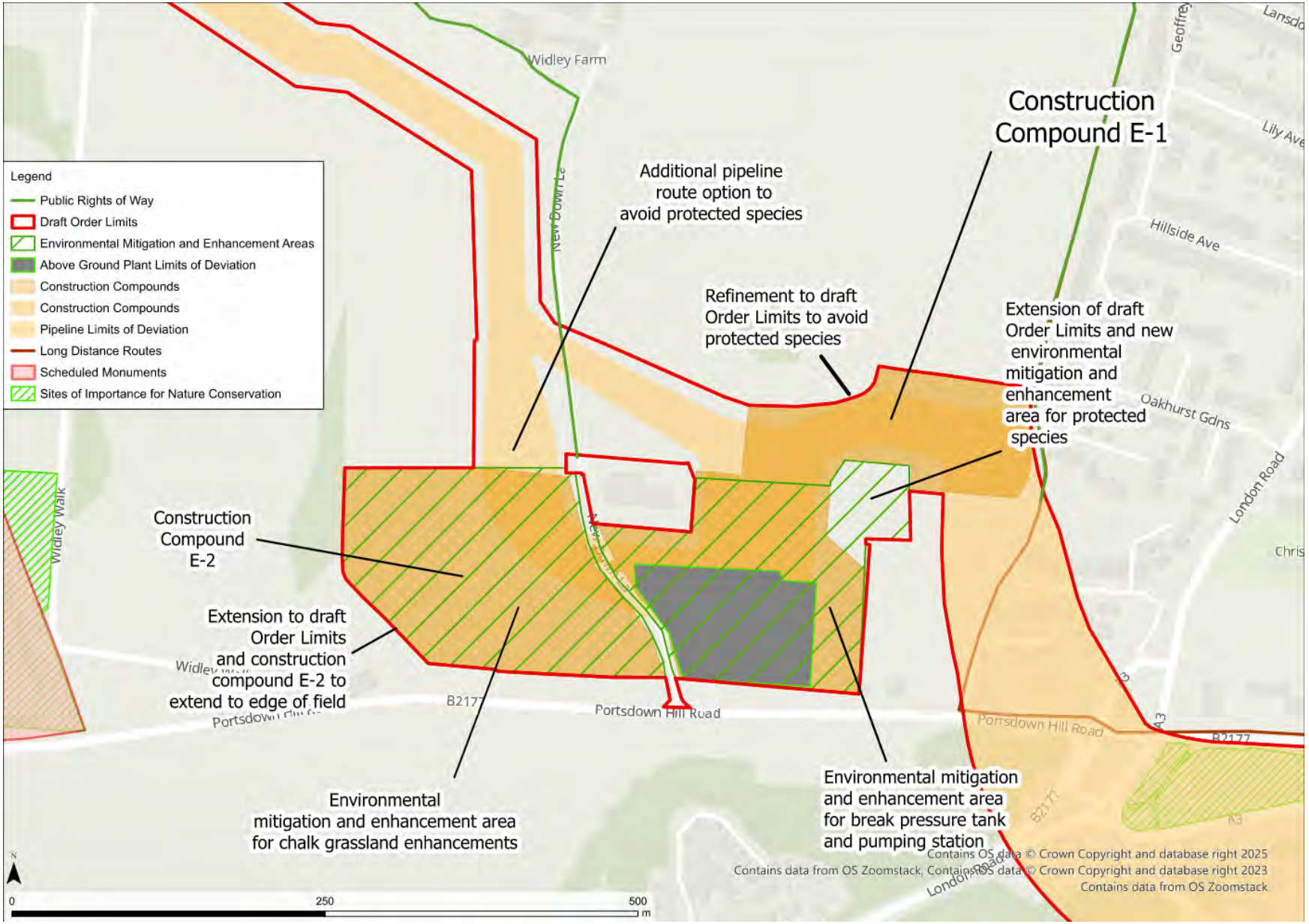


Figure 14 Break Pressure Tank and Intermediate Pumping Station E – Design Refinement



Design Refinement 7 – Pigeon House Farm

Where is the proposed change?

The design refinement is located east of Southwick Road (B2177) and the Portsdown Technology Park, and to the west of Pigeon House Lane, within Winchester City Council's administrative area. It is situated within Section E of the pipeline between the Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 15**.

What is changing and why?

At the Summer 2024 Consultation, the draft Order Limits at this location included some flexibility in width to account for a World War II aircraft crash site in the fields to the south of Pigeon House Farm. Since the Summer 2024 Consultation, the location of the aircraft crash site has been confirmed through engagement with the Ministry of Defence, Historic England and local planning authorities.

We have therefore refined the design to remove the area of flexibility in width that was previously included so that the aircraft crash site can be avoided and a buffer from the construction works provided. The pipeline route and associated construction works would therefore be located at the northern end of the field, just south of Pigeon House Farm.

The refined design can be seen in **Figure 16**.

How might the change affect you or the environment?

This change reduces the extent of the Project to the south of Pigeon House Farm in order to avoid the aircraft crash site. As the land required for the development is being reduced, the environmental impacts from this change are considered to be negligible compared to our Preliminary Environmental Information Report presented at the Summer 2024 Consultation.

Figure 15 Pigeon House Farm – Summer 2024 Consultation design

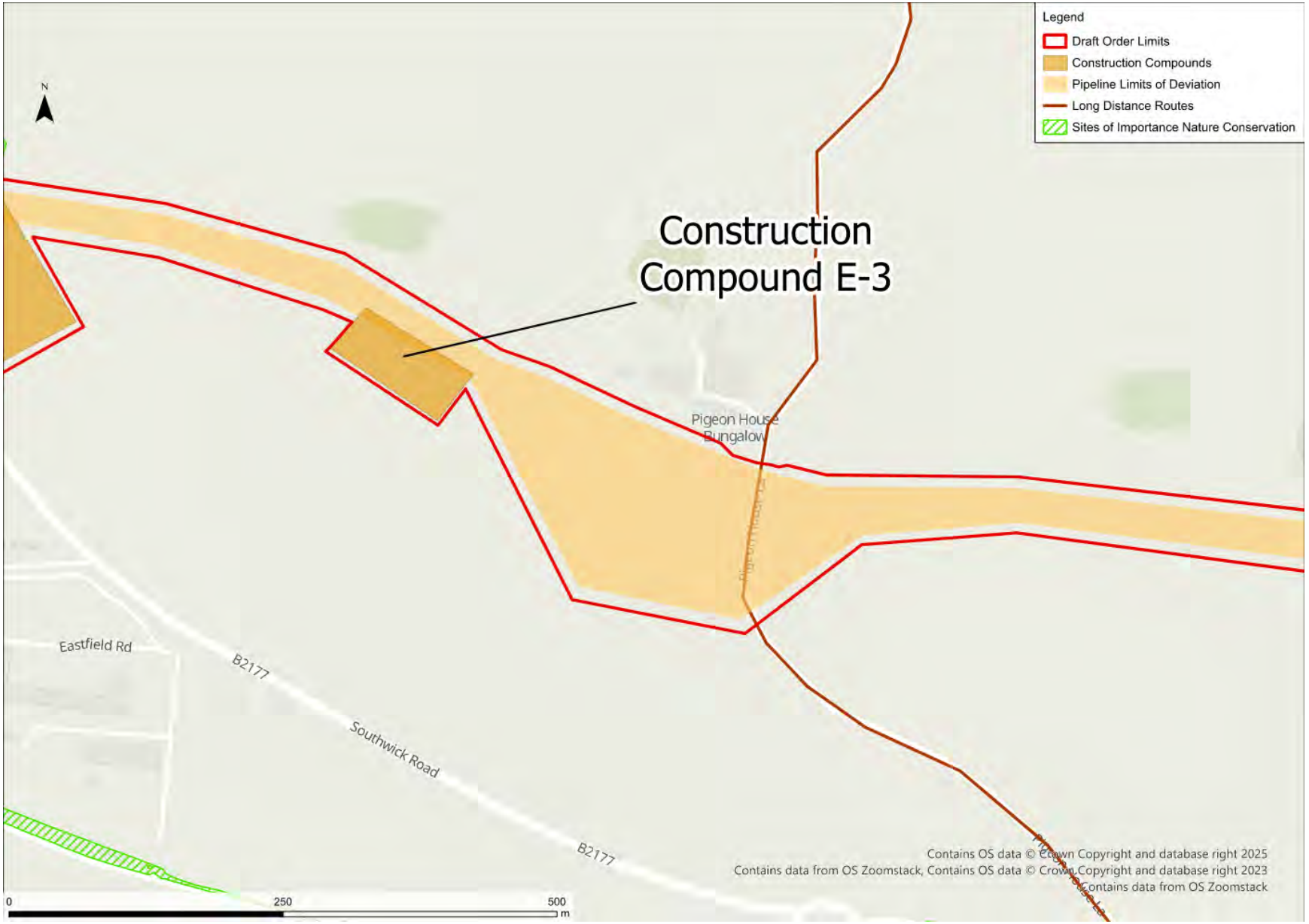


Figure 16 Pigeon House Farm – Design Refinement

Design Refinement 8 – Construction Compound E-6b

Where is the proposed change?

Construction Compound E-6b is located off Boarhunt Road, south west of Southwick within Winchester City Council's administrative area. At the Summer 2024 Consultation, we presented two construction compound options, E-6a is to the east of Boarhunt Road and E-6b is to the west of Boarhunt Road.

The design for Construction Compound E-6b presented at the Summer 2024 Consultation is shown in **Figure 17**.

What is changing and why?

The draft Order Limits and the construction compound boundary at the western side of Construction Compound E-6b have been reduced to avoid an area of trees and scrub to the west of the construction compound and to provide a buffer between it and the draft Order Limits. To allow for this reduction and ensure there is sufficient space for construction, we have included a small area of additional land to the north east.

No changes to Construction Compound E-6a are proposed. To retain flexibility, both construction compound options are still included in the Project. However, only one of the construction compound options would be used during the construction phase.

The proposed design refinement is shown in **Figure 18**.

How might the change affect you or the environment?

The change is proposed to reduce environmental effects by avoiding an area of vegetation. The minor extension of the construction compound is not expected to result in any additional environmental effects compared to those reported in our Preliminary Environment Information Report presented at the Summer 2024 Consultation. This is because it has been extended into agricultural land with limited ecological sensitivities and the appearance of the construction compound would remain unchanged.

Figure 17 Construction Compound E-6b – Summer 2024 Consultation design

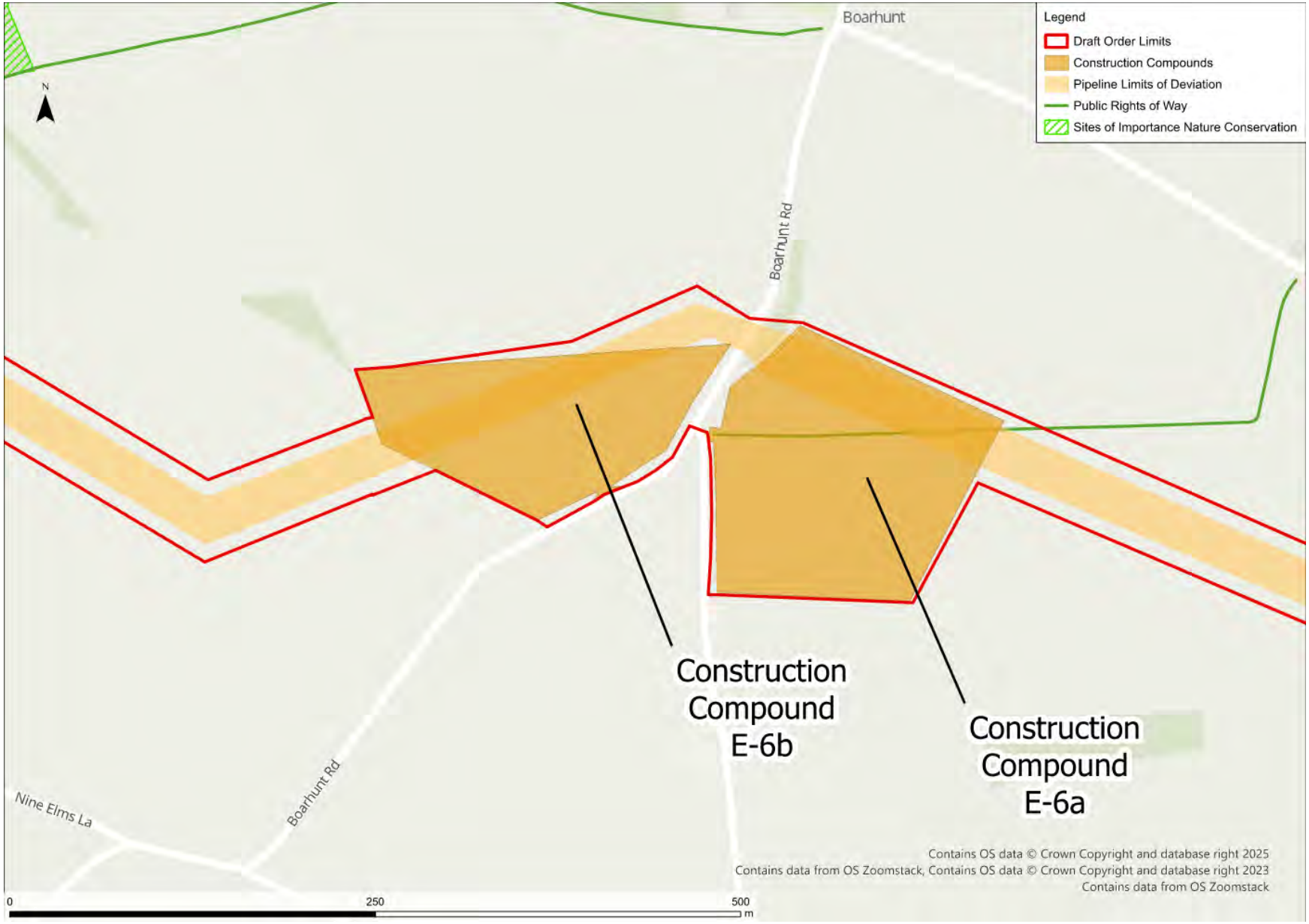
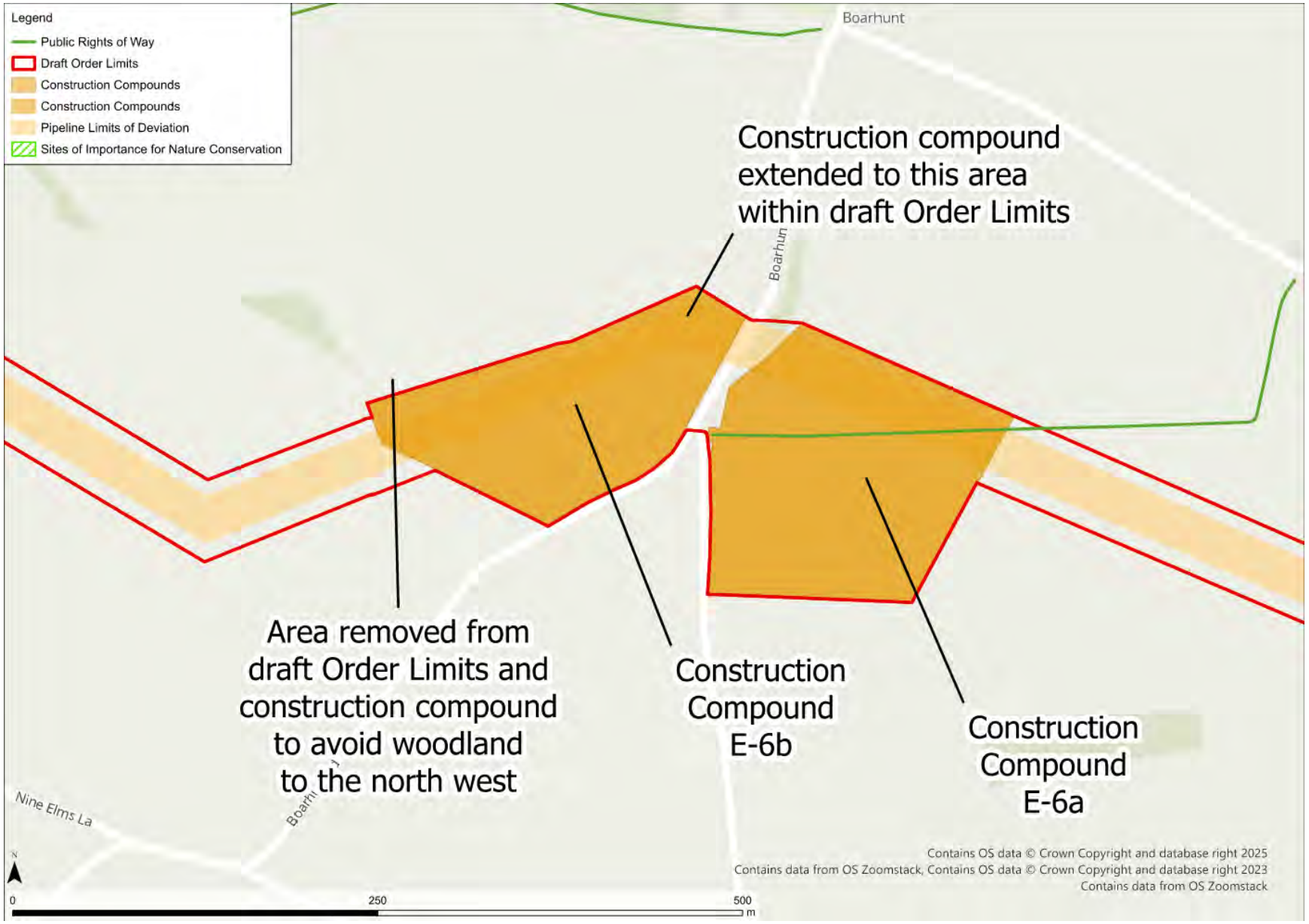


Figure 18 Construction compound E-6b – Design Refinement



Design Refinement 9 – Intermediate Pumping Station F

Where is the proposed change?

Intermediate Pumping Station F is proposed to be located to the east of Wickham Road (A32), south west of Crockerhill, within Fareham Borough Council's administrative area. Intermediate Pumping Station F is situated within Section F of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

This Intermediate Pumping Station is required to repressurise the pipeline after it has passed through the River Wallington valley, and support the flow of water as the topography rises and falls towards Wickham and through the River Meon valley. The site is adjacent to the Welborne Garden Village development which is delivering 6,000 homes, schools and other community facilities to the west and east of Wickham Road (A32).

The design for Intermediate Pumping Station F presented at the Summer 2024 Consultation is shown in **Figure 19**.

What is changing and why?

Security requirements set out by the Department for Environment, Food and Rural Affairs have also identified the need for additional fencing around the plant. To accommodate this, it is proposed that the footprint for Intermediate Pumping Station F is increased, and therefore the draft Limits of Deviation would also need to increase.

The increased draft Limits of Deviation for Intermediate Pumping Station F now overlap with a Public Right of Way (Fareham 103), so the draft Order Limits have therefore been amended to ensure this Public Right of Way can be diverted around the site and retained during the construction and operational phases of the Project.

Since the Summer 2024 Consultation, we have continued to develop our landscaping and planting proposals to help integrate Intermediate Pumping Station F into the landscape and reduce visual impacts, and refined the landscaping and planting proposals to account for the increase in proposed footprint and draft Limits of Deviation of the pumping station site. An environmental mitigation and enhancement area has been added which shows the area that this would be undertaken within alongside the pumping station site.

The proposed design refinement can be seen in **Figure 20**. This figure also shows refinements to the east of Forest Lane. A description of these refinements is set out in the information sheet for design refinement 10.

How might the change affect you or the environment?

Our initial assessments indicate that the increase in the footprint and draft Limits of Deviation for the site and additional fencing requirements would not result in any additional landscape or visual effects compared to those reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. The site would be screened by new planting and landscaping, to integrate it into the existing landscape. The additional proposed mitigation and enhancement area to the west of the site would help screen the pumping station from views from the new Welbourne Garden Village development.

The Fareham 103 Public Right of Way will need to be diverted temporarily prior to the construction phase and will then be diverted permanently to route the footpath around the pumping station site. This will have a negligible impact on the length of the footpath and those using it during the operation or construction.

Figure 19 Intermediate Pumping Station F – Summer 2024 Consultation design

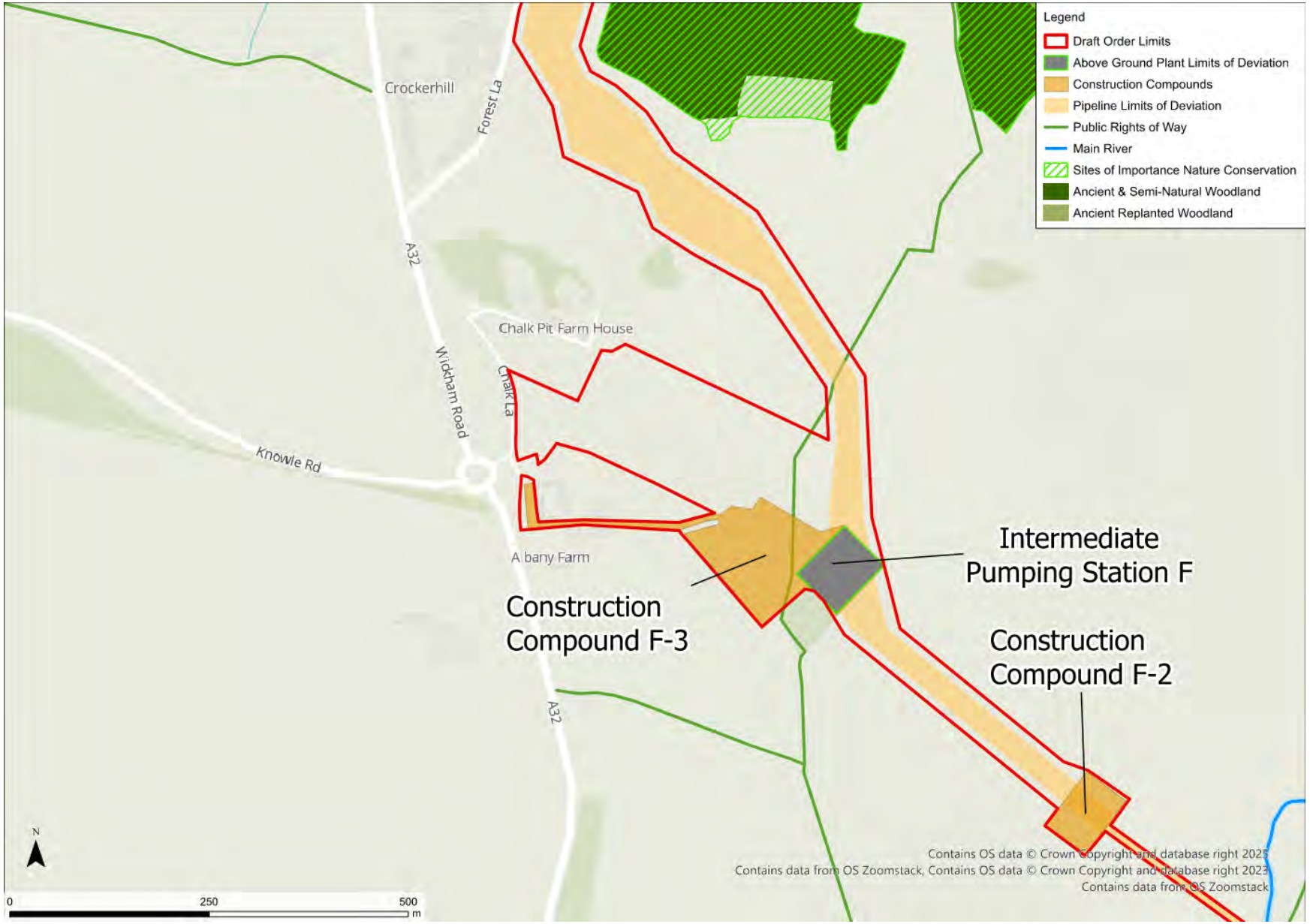
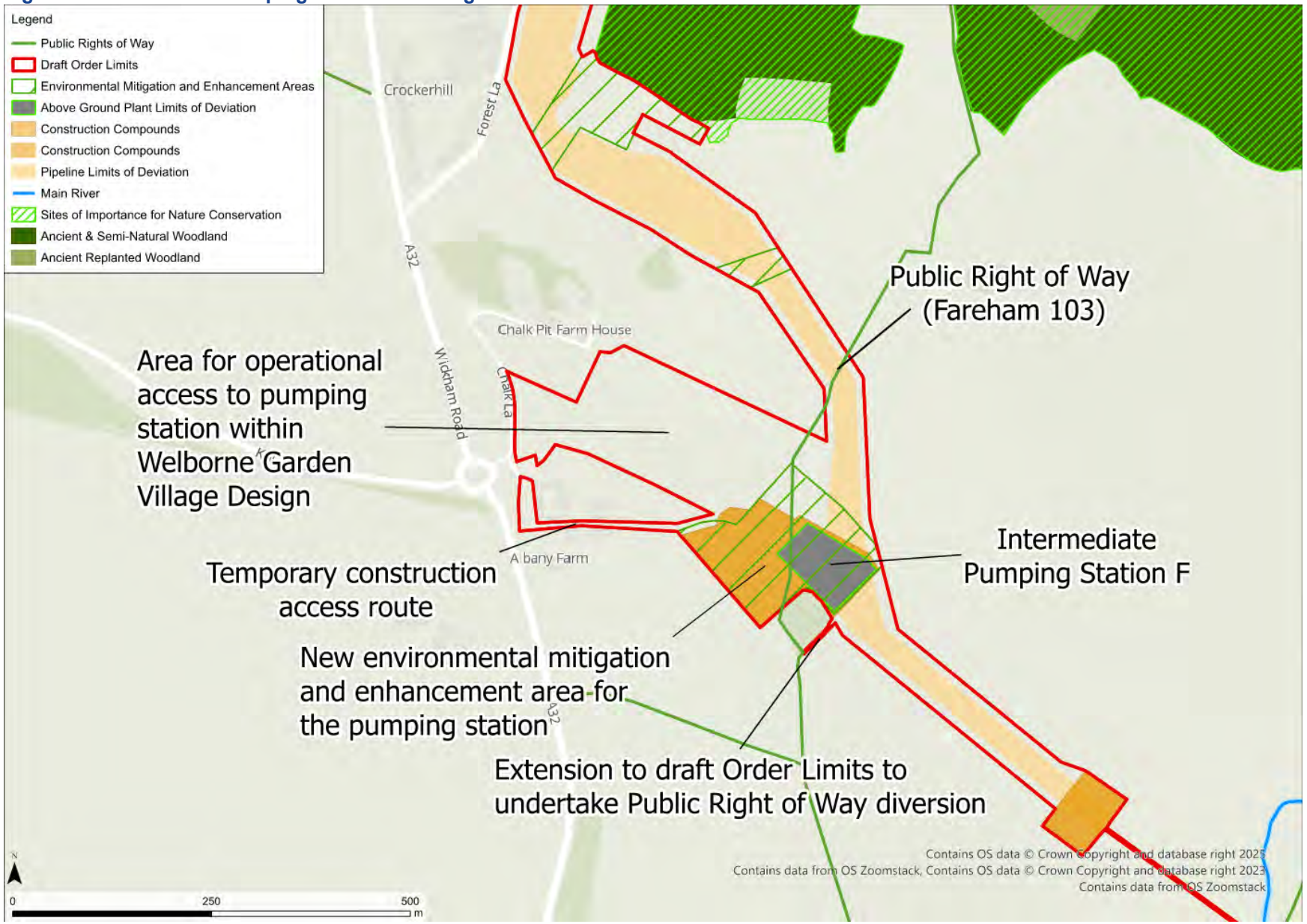


Figure 20 Intermediate Pumping Station F – Design Refinement



Design Refinement 10 – Forest Lane

Where is the proposed change?

The design refinement is located east of Forest Lane, Crockerhill, and the A32, which is north of Junction 27 of the M27, within Fareham Borough Council's administrative area. It is situated within Section F of the pipeline between the Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 21**.

What is changing and why?

Following the Summer 2024 Consultation, further survey work identified protected species within this area and that the pipeline was in close proximity to a veteran tree.

Alternative pipeline routes in the local area were considered to address this but, environmental and technical constraints limited the options available. These constraints included nearby ancient woodland and the utilities that are proposed by the Welborne Garden Village development.

We are therefore proposing an amendment to the draft Order Limits to reduce impacts of the pipeline on protected species and ensure construction works avoid the root protection area of the veteran tree. The draft Order Limits have also been increased to incorporate an environmental mitigation and enhancement area to provide for ecological mitigation and associated buffer zones from the pipeline. This is required to mitigate potential impacts on protected species, as we have been unable to completely realign the pipeline to avoid these habitats. We have also identified an opportunity to provide woodland enhancements on the edge of the ancient woodland to the north. Another environmental mitigation and enhancement area has been added further to the south east, to mitigate tree loss and provide additional tree planting in this location. **Figure 22** shows the refined design.

How might the change affect you or the environment?

The design change would move construction working areas slightly closer to residential properties to the south west on Forest Lane, leading to a potential minor increase in noise and vibration from temporary construction works compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. Temporary noise screening could be used to effectively mitigate any increase in noise. We will also implement mitigation measures set out in our Outline Construction Environmental Management Plan, which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these effects.

Figure 21 Forest Lane – Summer 2024 Consultation design

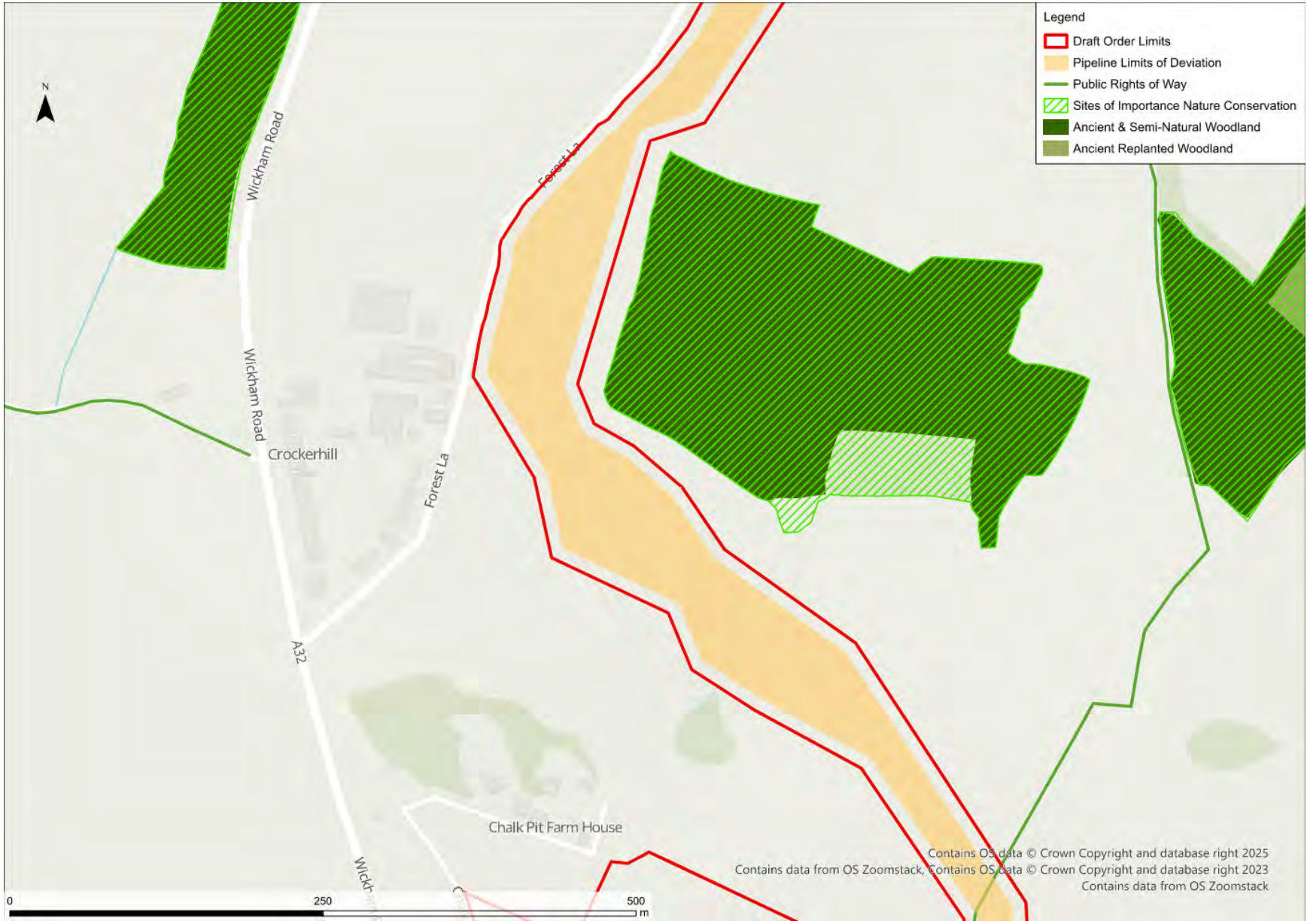
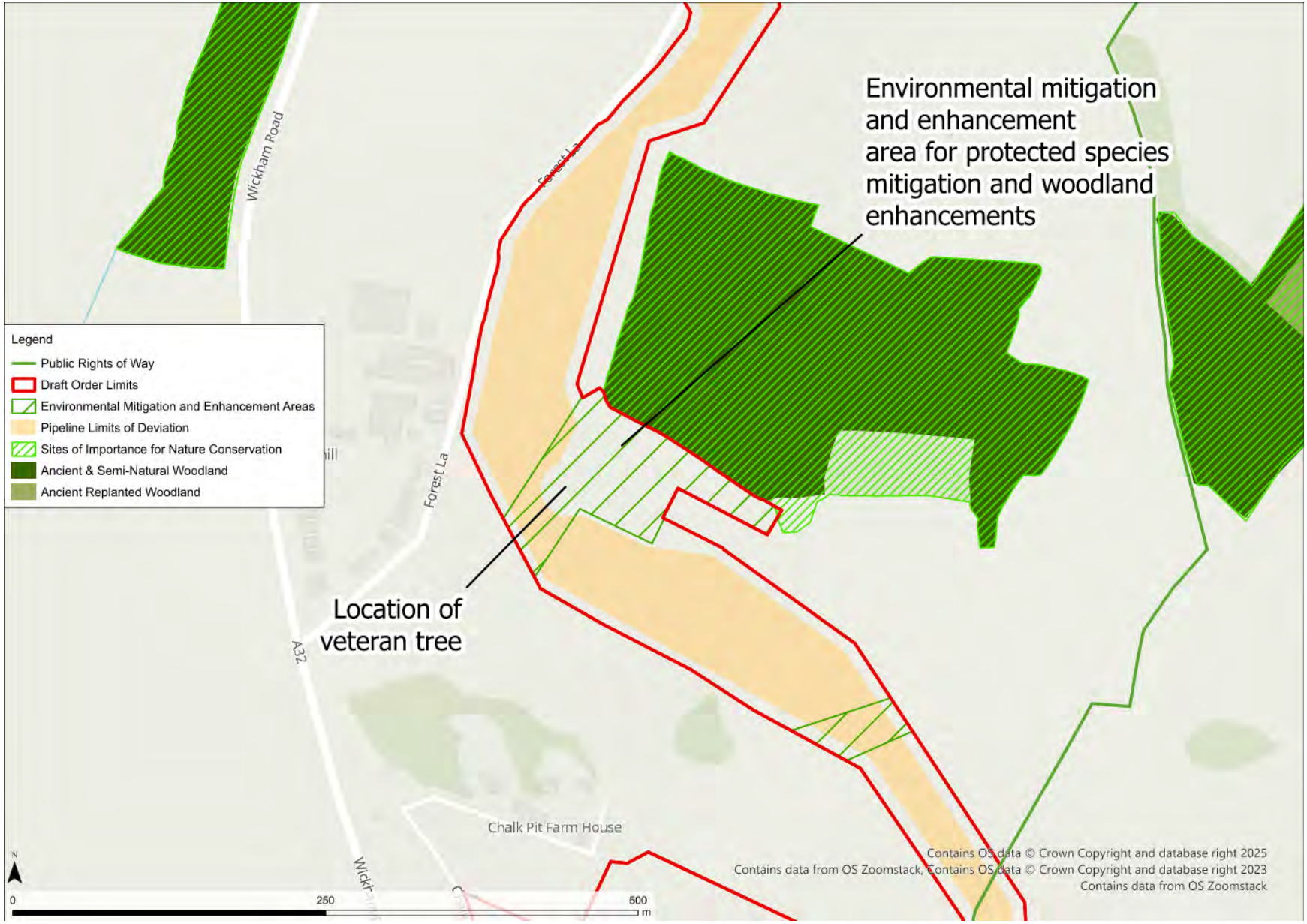


Figure 22 Forest Lane – Design Refinement



Design Refinement 11 – West of Crockerhill Farm

Where is the proposed change?

This design refinement is located west of Crockerhill Farm, to the south of Wickham, within Fareham Borough Council's administrative area. The design refinement is situated within Section F of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 23**.

What is changing and why?

Since the Summer 2024 Consultation, ongoing environmental surveys identified protected species west of Crockerhill Farm. We are proposing to move the pipeline route and draft Order Limits to the west to ensure the protected species can be avoided without other major impacts arising.

The design refinement can be seen in **Figure 24**.

How might the change affect you or the environment?

The design refinement would result in the construction works avoiding impacts to nearby protected species. The amended design would also move construction works further from residential properties and therefore there would be a minor reduction in air quality, noise, and vibration effects at these properties compared to the effects set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation.

Figure 23 West of Crockerhill Farm – Summer 2024 Consultation design

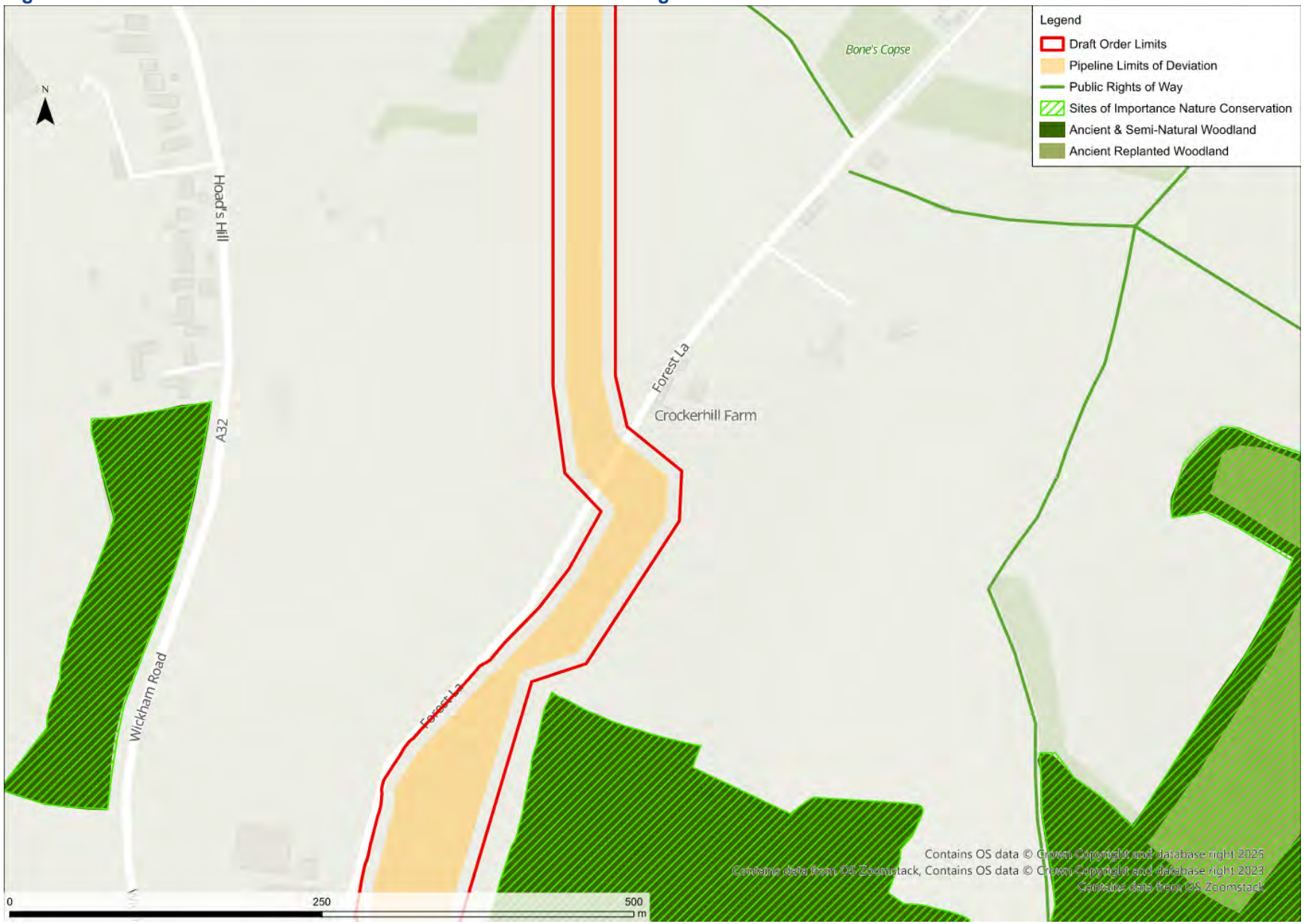


Figure 24 West of Crockerhill Farm – Design Refinement

Design Refinement 12 – Hoad's Hill and Castle Farm Lane

Where is the proposed change?

Hoad's Hill (A32) and Castle Farm Lane are located to the south east of Wickham, within Winchester City Council's administrative area. Hoad's Hill and Castle Farm Lane are both located within Section G of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 25**.

What is changing and why?

Adjacent to the construction compound located east of Hoad's Hill, the draft Order Limits have been reduced to remove an area of land that was previously included to provide flexibility east of construction compound G-1. This is no longer required as we have a better understanding of the space we require for the construction compound. Minor refinements to the draft Order Limits are also proposed at Hoad's Hill to ensure sufficient space can be provided for temporary construction access, and land previously included for visibility splays has been removed following further consideration of the access design and requirements.

Ongoing environmental surveys also identified two veteran trees within the vicinity of Hoad's Hill and Castle Farm Lane. Veteran trees are old and mature trees that are protected due to their high level of ecological importance. The design presented at the Summer 2024 Consultation would have resulted in construction works taking place within the root protection zone for these trees, which should be avoided. The draft Order Limits have therefore been realigned in two areas to move the pipeline and construction works away from the root protection areas to avoid harm to these trees.

The refined design can be seen in **Figure 26**.

How might the change affect you or the environment?

There is potential for the design amendments to result in a minor increase in vegetation loss at Hoad's Hill compared to what was set out in our Summer 2024 Consultation, to ensure that construction vehicles can access working areas safely. The amendment to avoid the veteran tree east of Hoad's Hill has also moved the pipeline closer to other trees and vegetation, some of which may need to be removed, however, the veteran trees would no longer be impacted by the construction works. Overall, it is considered that the environmental changes are positive, as they avoid the most sensitive and important trees and environmental features. Vegetation removal to facilitate construction in this area will be reinstated once works are completed.

Figure 25 Hoad's Hill and Castle Farm Lane – Summer 2024 Consultation design

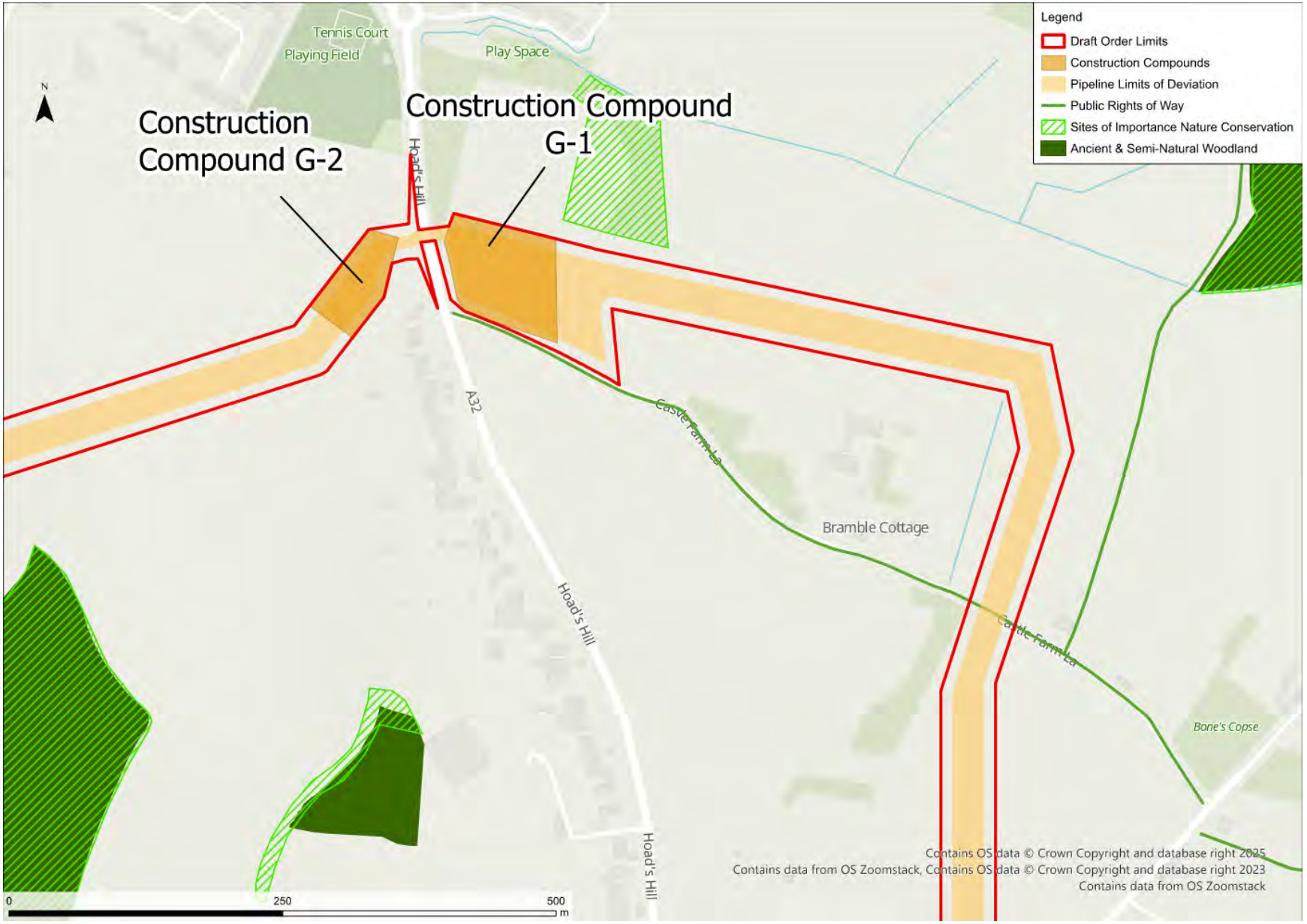
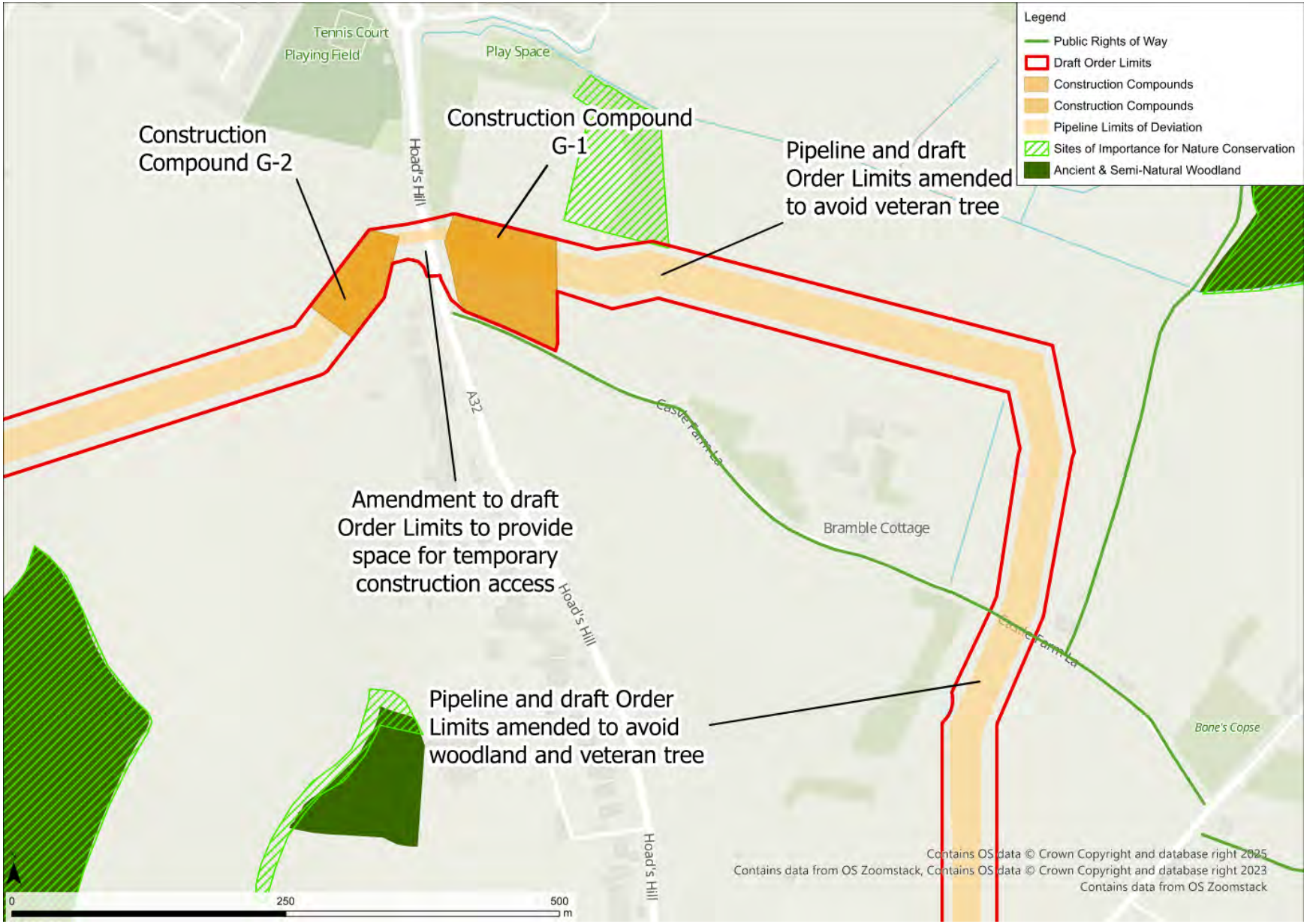


Figure 26 Hoad's Hill and Castle Farm Lane – Design Refinement



Design Refinement 13 – Wickham Park Golf Club and River Meon

Where is the proposed change?

Wickham Park Golf Club is situated east of Titchfield Lane to the south west of Wickham. The River Meon is just south of Wickham Park Golf Club. Wickham Park Golf Club and the River Meon are both located within Section G of the proposed pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works. Section G is located within Winchester City Council's administrative area.

The design presented at the Summer 2024 Consultation is shown in **Figure 27**.

What is changing and why?

The following design refinements are proposed:

- Following the Summer 2024 Consultation, engagement with Wickham Park Golf Club has continued. In response to this, the draft Order Limits have been reduced, excluding much of the southern part of the golf course, as it intended that the pipeline will be located in the north east of the golf course and to the east of the clubhouse. An access track to the east of the clubhouse has also been included in the draft Order Limits and draft Limits of Deviation, as this area may be used to construct and install the pipeline. The draft Order Limits have also been extended to include the full extent of another golf club access track up to the boundary of Titchfield Lane, which is proposed to be used as a temporary construction access.
- Through ongoing design development, a second option for the trenchless crossing of the River Meon has been identified to the east of the trenchless crossing presented at the Summer 2024 Consultation. The new eastern trenchless crossing would utilise the same construction compounds shown at the Summer 2024 Consultation. The northern end of the eastern trenchless crossing option terminates in Wickham Wastewater Treatment Works which is a Southern Water asset. The draft Order Limits now include this new option. Including both crossing options within the draft Order Limits provides flexibility to find the least impactful route across the golf course. Only one crossing option would of course be constructed.

The refined design can be seen in **Figure 28**.

How might the change affect you or the environment?

The changes at the golf club do not introduce any new environmental effects as the extent of the draft Order Limits have been reduced to narrow the pipeline route across the golf course. The draft Order Limits have been extended to include an existing access track to the east of the club house for construction of the pipeline. This is assumed to have minor impacts due to the removal of some vegetation which would be mitigated through measures in the Outline Construction Environmental Management Plan which will form part of our Development Consent Order application. The extension of the draft Order Limits up to Titchfield Lane would also not have any new environmental impacts, as we had previously considered that construction vehicles would use this access point from Titchfield Lane.

The addition of the alternative trenchless crossing location does not introduce any additional environmental effects as no new surface level works have been introduced, and no below ground impacts have been identified.

Figure 27 Wickham Park Golf Club and the River Meon – Summer 2024 Consultation design

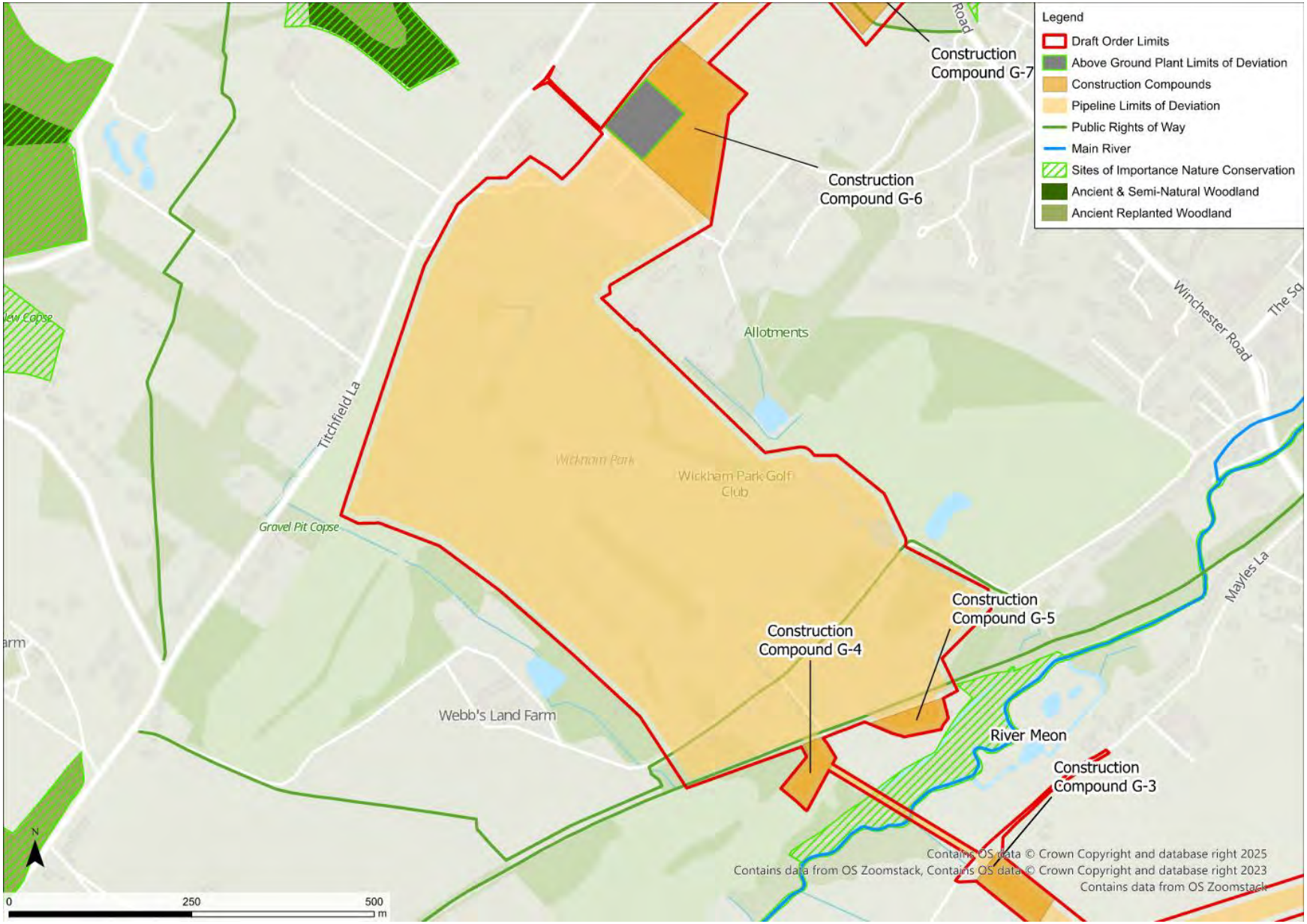
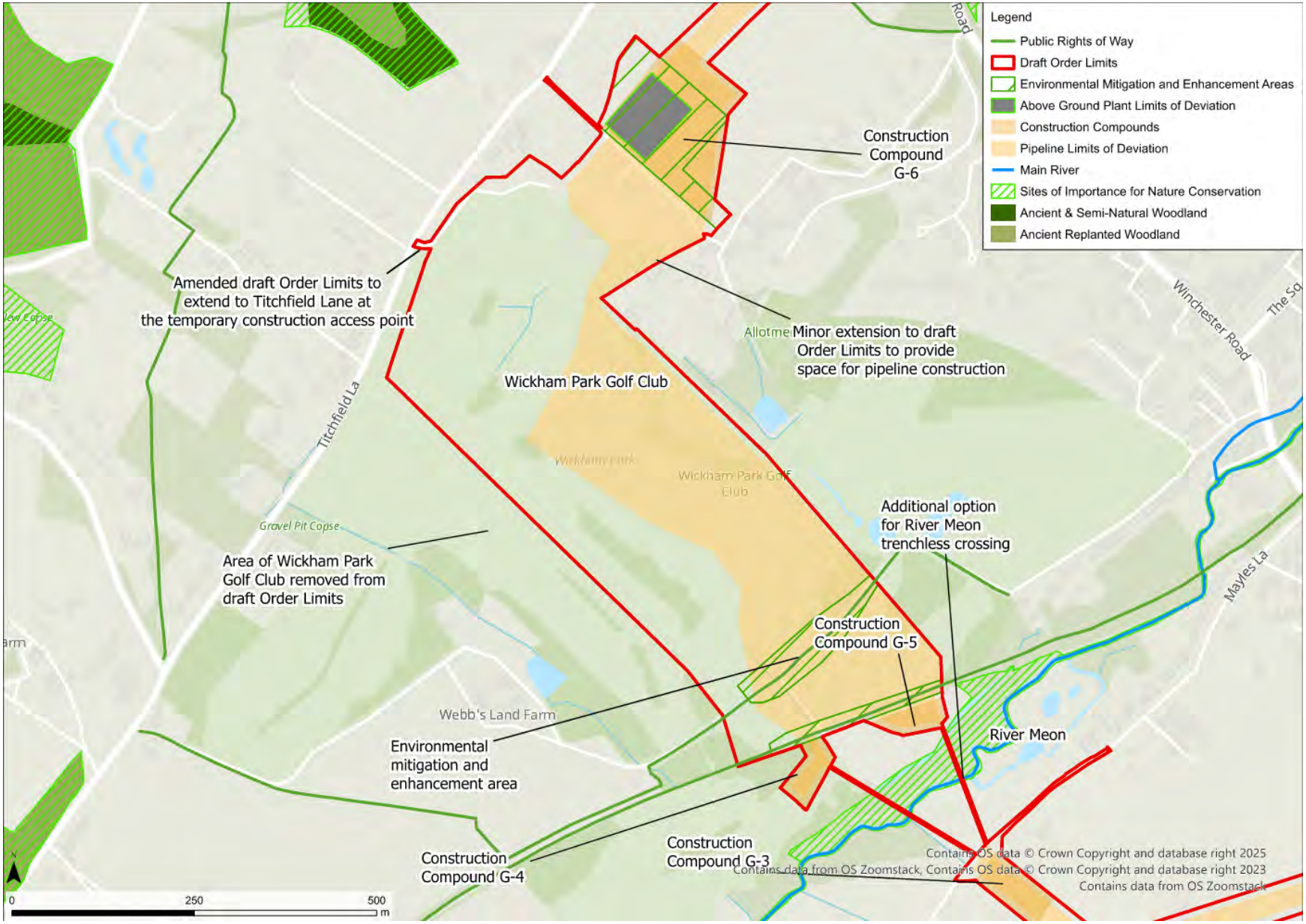


Figure 28 Wickham Park Golf Club and the River Meon – Design Refinement



Design Refinement 14 – Intermediate Pumping Station G

Where is the proposed change?

Intermediate Pumping Station G is proposed to the southeast of Titchfield Lane, north of Wickham Park Golf Club which is to the west of Wickham, within Winchester City Council's administrative area. It is situated within Section G of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

Intermediate Pumping Station G is required to pump water along the pipeline after it has descended and risen through the River Meon valley.

The design for Intermediate Pumping Station G presented at the Summer 2024 Consultation is shown **in Figure 29**.

What is changing and why?

Feedback from the Summer 2024 Consultation highlighted objections to using the existing access track from Titchfield Lane next to Park Place Farm Nursery for construction vehicles. Having now looked at this access in more detail, and having regard to that feedback, we agree that it would be unsuitable for large construction vehicles. A new temporary construction access point from Titchfield Lane has therefore been identified further to the north. This access was identified as the only suitable alternative access to Intermediate Pumping Station G from Titchfield Lane - an access from Winchester Road at the north of the field would not be suitable due to the topography and potential traffic impacts. This temporary access would only be used during the construction phase. During the operational phase, Intermediate Pumping Station G would continue to be accessed (as originally proposed) via the existing access track next to Park Place Farm Nursery. Both accesses are now shown within the draft Order Limits.

Security requirements set out by the Department for Environment, Food and Rural Affairs have also identified the need for additional fencing around the plant. To accommodate this, it is proposed that the footprint for Intermediate Pumping Station F is increased, and therefore the draft Limits of Deviation would also increase.

Other minor design refinements proposed in the vicinity of Intermediate Pumping Station G are as follows:

- To the east and west of Winchester Road (A334) (north east of Intermediate Pumping Station G), the southern extent of the draft Order Limits has been reduced following consolidation of construction compounds G-7 and G-8, and moving them closer to the pipeline route. At the Summer 2024 Consultation we had kept the draft Order Limits wide to and the construction compounds were separate to account for ongoing access investigations. With greater certainty now about our approach to construction and access to the site, we have been able to reduce the draft Order Limits.
- The draft Order Limits at construction compound H-1 to the east of Winchester Road have been set back to provide a sufficient buffer from the woodland and trees next to Winchester Road, to ensure construction works are not adversely impacting tree roots without introducing any other major impacts.
- Since the Summer 2024 Consultation, we have continued to develop our landscaping and planting proposals to help integrate Intermediate Pumping Station G into the landscape and reduce visual impacts. An environmental mitigation and enhancement area has been included around the pumping station site to provide for landscaping and planting in this area.

The proposed design refinement can be seen in **Figure 30**.

How might the change affect you or the environment?

Our initial assessments indicate that the increase in the footprint and draft Limits of Deviation for the site and additional fencing requirements would not result in any additional landscape or visual effects compared to those reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. The site would be screened by new planting and landscaping to integrate it into the existing landscape and reduce effects on nearby residential properties.

The change to the construction access would require additional vegetation removal within an area that is protected by a Tree Preservation Order. We will undertake further investigations and assessments to identify the most suitable alignment for the construction access that reduces the loss of mature and high value trees and vegetation.

Moving the construction access further north along Titchfield Lane would also reduce the volume of construction vehicles passing residential properties along Titchfield Lane, as the vehicles will be coming from Winchester Road at the northern end of Titchfield Lane. This could reduce traffic, air quality, noise and vibration effects upon these residential properties during construction.

Figure 29 Intermediate Pumping Station G – Summer 2024 Consultation design

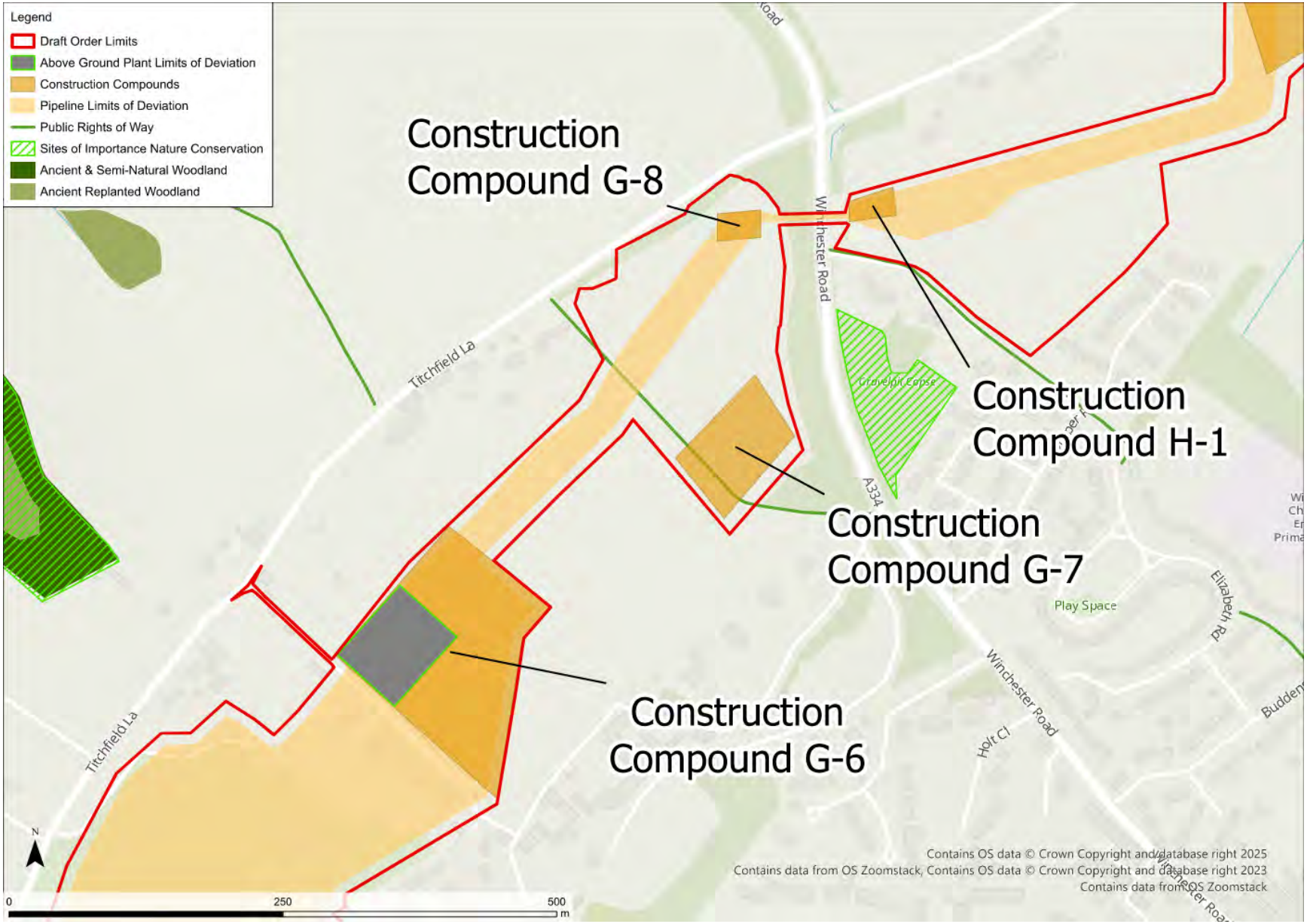
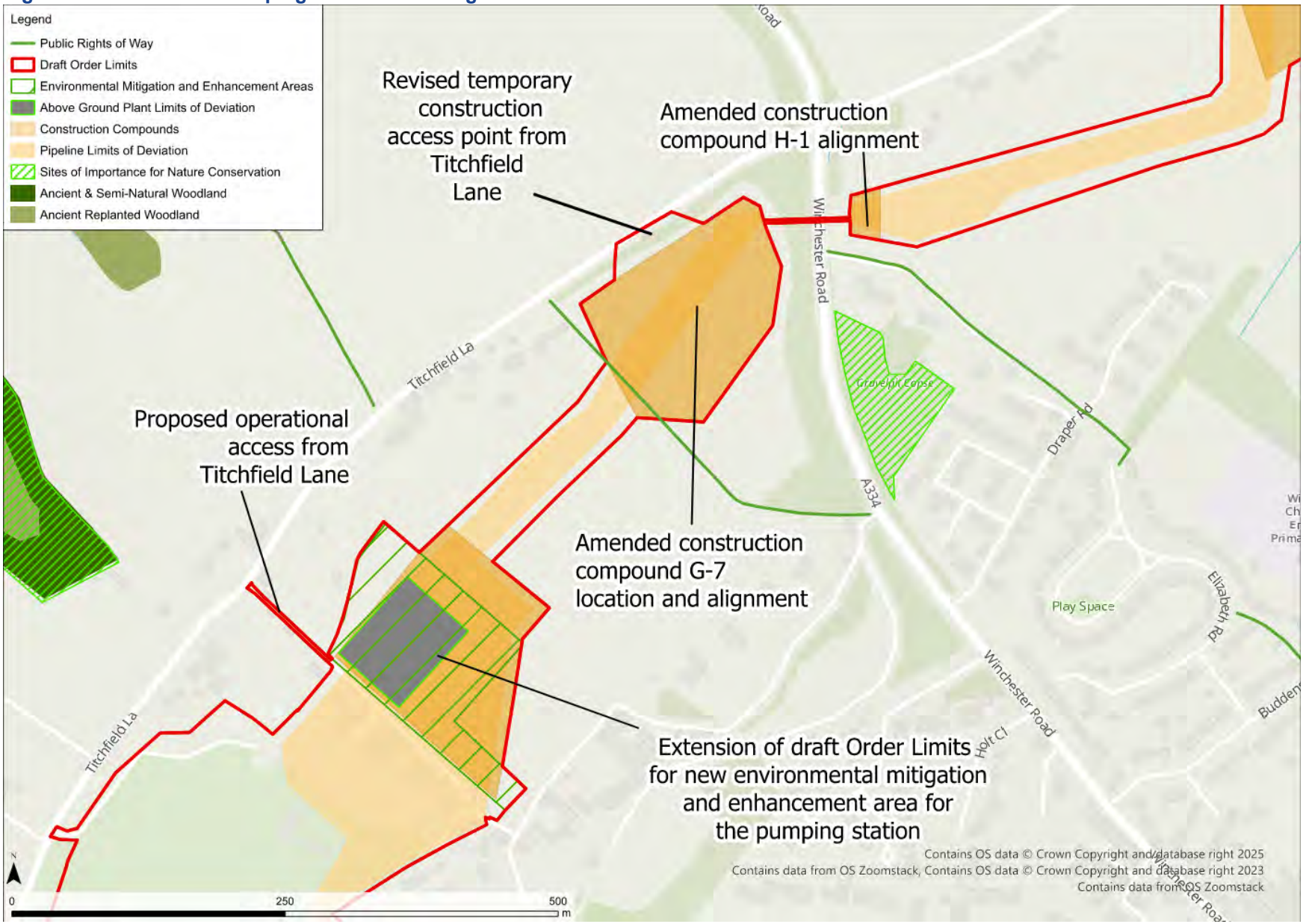


Figure 30 Intermediate Pumping Station G – Design Refinement



Design Refinement 15 – East of Winchester Road and south of Black Horse Lane

Where is the proposed change?

This design refinement is located within Winchester City Council's administrative area, to the north of Shedfield and south west of Shirell Heath. The design refinement is within Section H of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 31**.

What is changing and why?

At the Summer 2024 Consultation, we received feedback from a landowner which identified land of particular personal value to them to the east of Winchester Road. In reviewing relevant technical, engineering and environmental considerations, we have been able to amend the draft Order Limits and construction compound to move these to the north and avoid this area of land without any major impacts arising. The pipeline route and trenchless crossing of Winchester Road remain the same as the Summer 2024 Consultation design.

The refined design can be seen in **Figure 32**.

How might the change affect you or the environment?

The design change would move construction working areas slightly closer to residential properties to the north on Winchester Road, potentially leading to a minor increase in noise and vibration impacts compared to those reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. Temporary noise screening along the north and west boundary could be used to reduce any increases in noise. We will also implement mitigation measures set out in our Outline Construction Environmental Management Plan including limits on working hours and working practices to reduce these effects.

Figure 31 East of Winchester Road and south of Black Horse Lane – Summer 2024 Consultation design

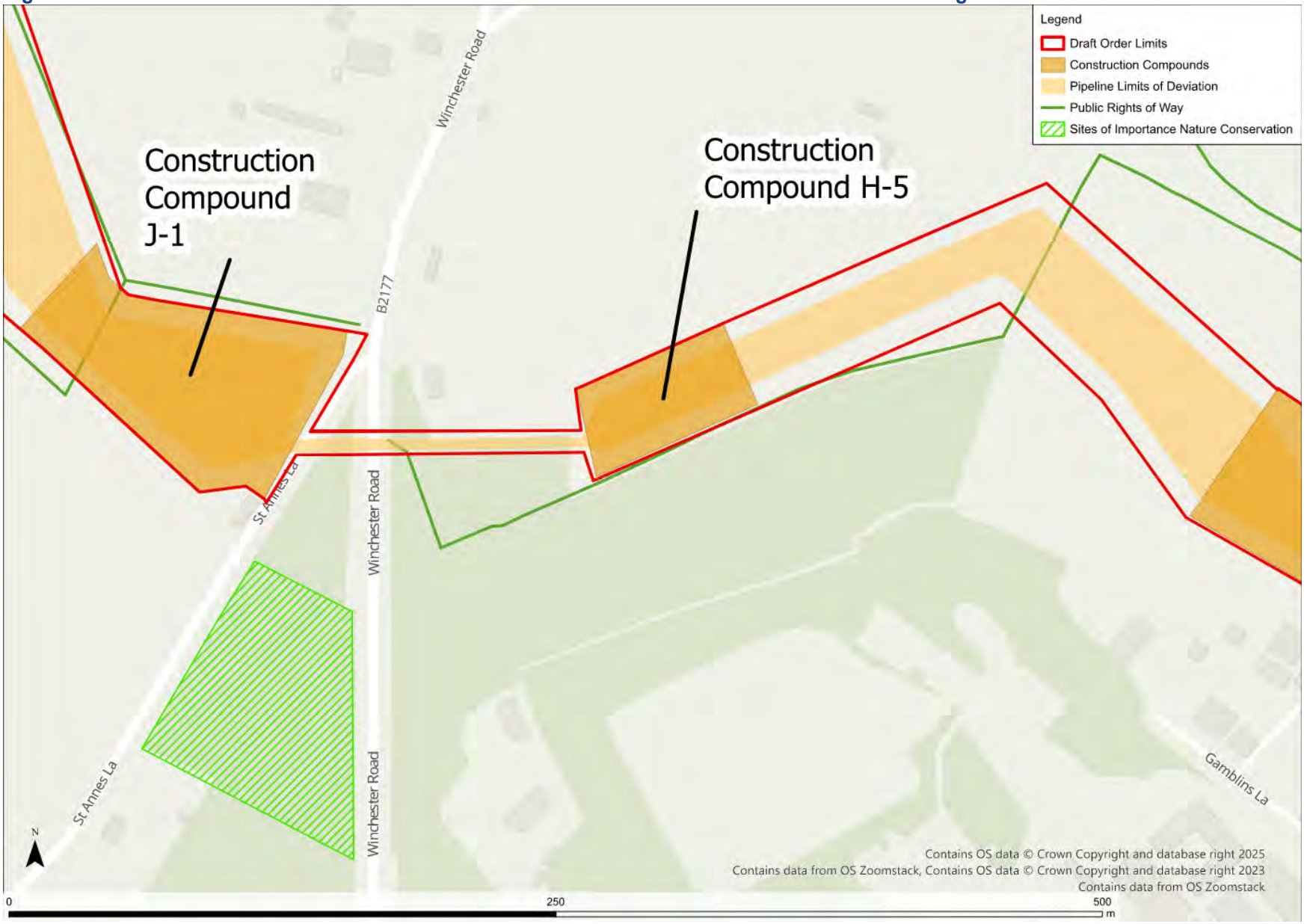
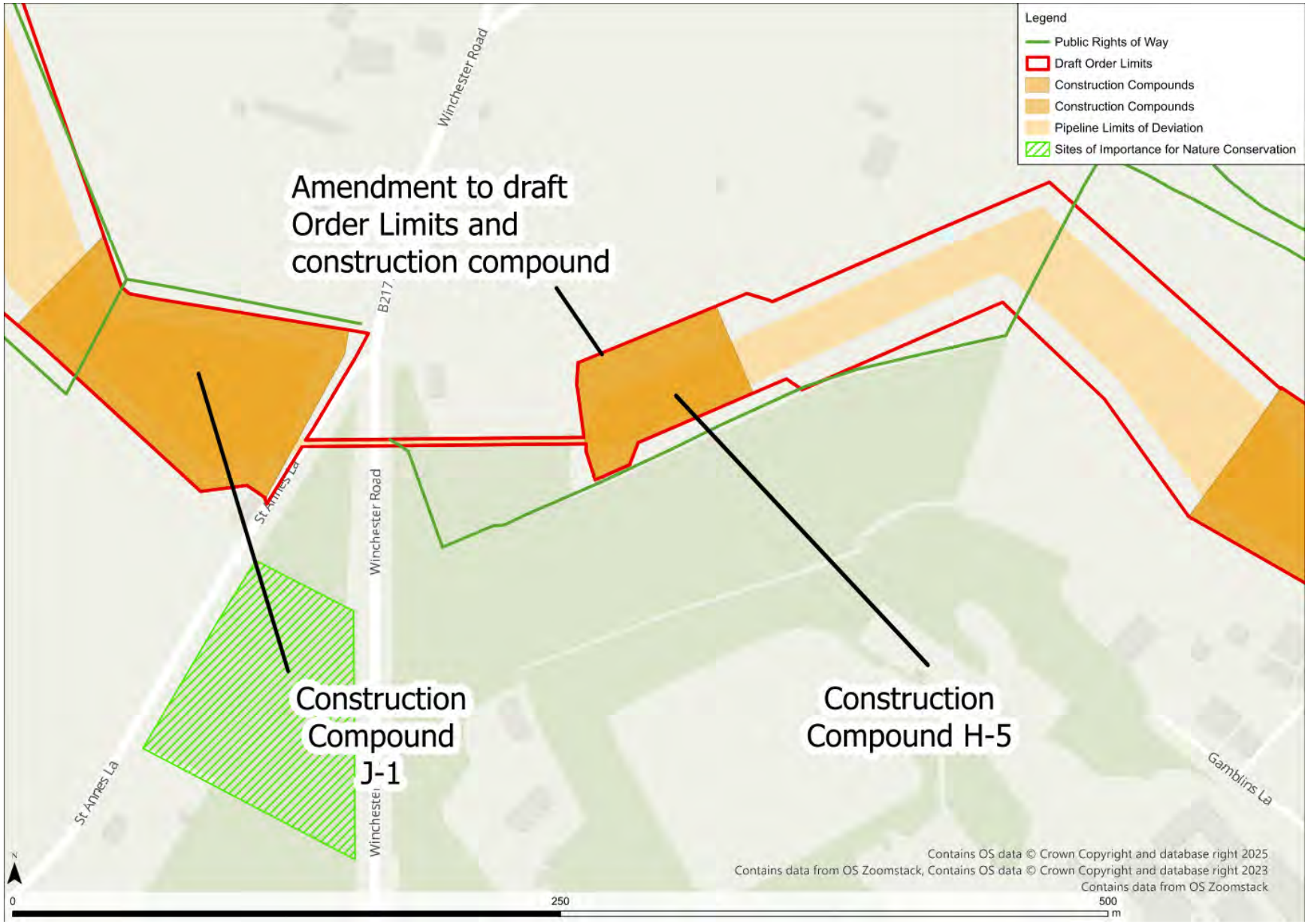


Figure 32 East of Winchester Road and south of Black Horse Lane – Design Refinement



Design Refinement 16 – Little Bull Lane

Where is the proposed change?

Little Bull Lane is located to the west of Winchester Road (B2177) and east of the Meon Valley Golf Club, which is south of Waltham Chase and located within Winchester City Council's administrative area. Little Bull Lane is located within Section J of the pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 33**.

What is changing and why?

Following the Summer 2024 Consultation, two areas for environmental mitigation have been identified within the vicinity of Little Bull Lane. We are proposing to create additional woodland at the edges of existing woodland adjacent or within the draft Order Limits presented at the Summer 2024 Consultation. Whilst we have sought to avoid woodland as far as reasonably practicable along the pipeline route, some trees will be lost. The draft Order Limits have therefore been extended and environmental mitigation and enhancement areas have been included. The woodland creation proposed at these areas would mitigate for areas of woodland loss across the Project and also allow us to incorporate environmental enhancements into the Project.

The refined design can be seen in **Figure 34**.

How might the change affect you or the environment?

The design refinements at Little Bull Lane are proposed to mitigate vegetation removal that is required to facilitate construction of the pipeline. Planting of new trees and woodland in these areas would not have any additional impacts compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation.

Figure 33 Little Bull Lane – Summer 2024 Consultation design

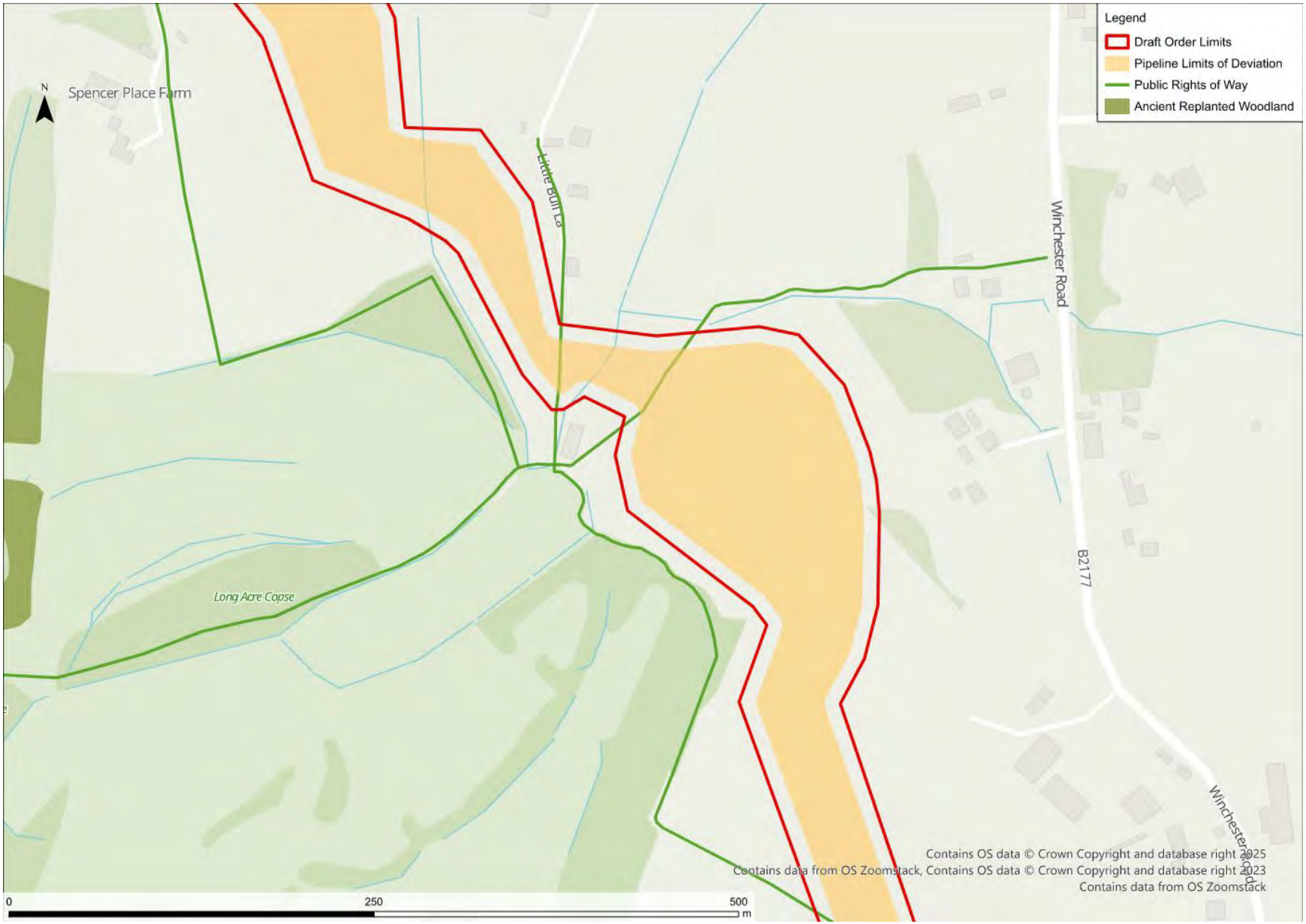
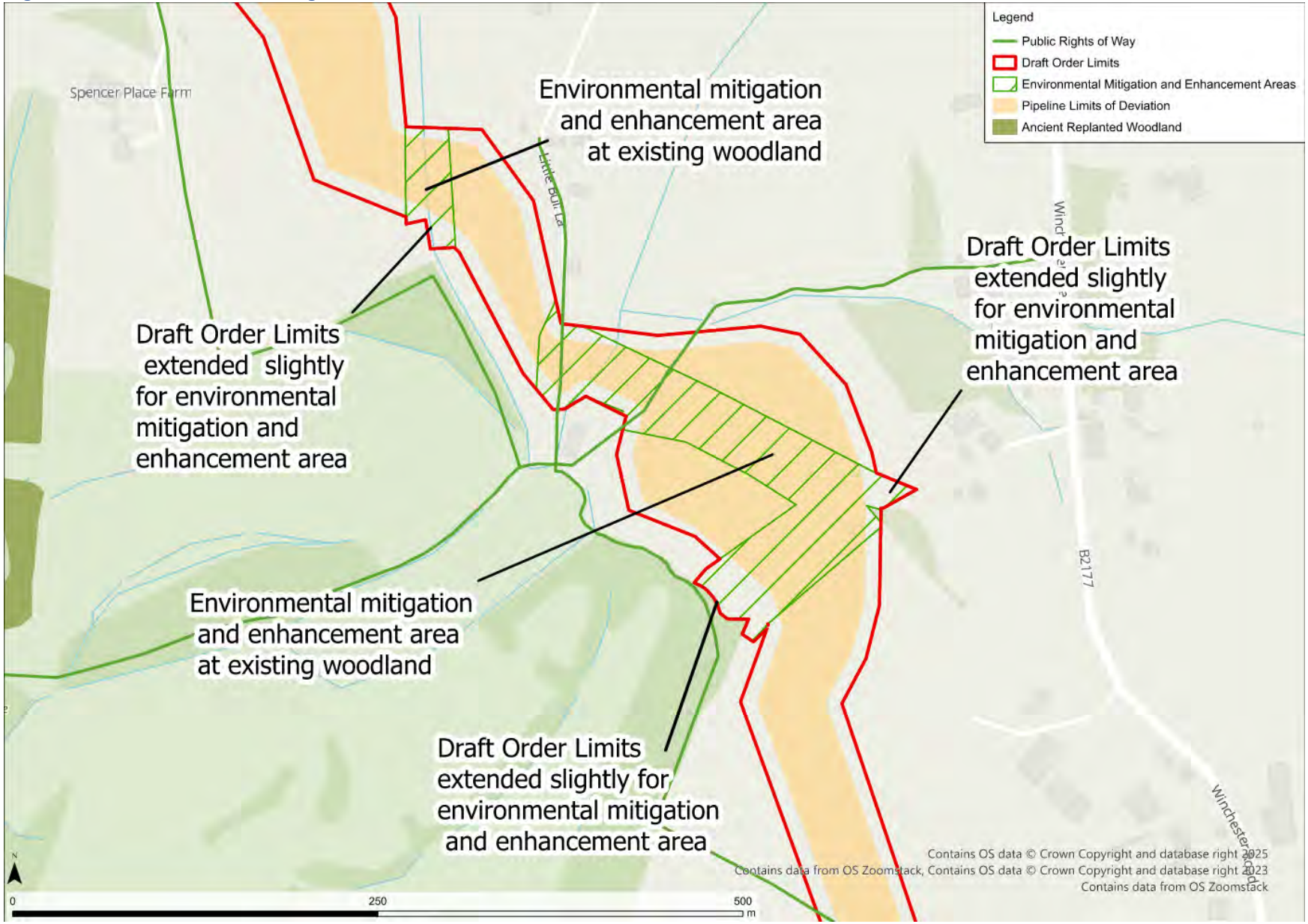


Figure 34 Little Bull Lane – Design Refinement



Design Refinement 17 – Sandy Lane and Woodmans Farm

Where is the proposed change?

The design refinement is located west of Waltham Chase within Winchester City Council's administrative area. It is situated within Section J of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 35**.

What is changing and why?

Feedback from our Summer 2024 Consultation identified that the pipeline route would have an impact on existing equine businesses and agricultural land in the area. When developing the design of the Project, we have aimed to reduce impacts on existing businesses. Therefore, it is proposed to amend the pipeline and draft Order Limits to align with field boundaries as far as reasonably practicable as there was flexibility in this area to achieve this without introducing any other major impacts.

Consideration was given to moving the pipeline further to the north than to the south, however, this area was constrained by existing residential and commercial properties.

We have also identified environmental mitigation and enhancement areas around Sandy Lane to accommodate mitigation for protected species that we identified following the Summer 2024 Consultation as part of our ongoing survey work. North of Curdridge Lane, we have also added an environmental mitigation and enhancement area as there are opportunities for woodland creation and tree planting alongside existing woodland in this area. This has been added to ensure the Project aligns with national planning policy.

The design refinement can be seen in **Figure 36**.

How might the change affect you or the environment?

The proposed design refinement is closer to the Park Lug embankment and landscape feature to the north of Woodmans Farm. If vegetation is removed in this area during the construction phase, there is potential for adverse landscape, ecology and historic environment impacts. As a result, we have ensured that the design avoids the loss of any vegetation, except where woodland is being crossed further to the west. We have also added areas for environmental mitigation and enhancement, to bolster the existing vegetation along the Park Lug.

The design refinement at Sandy Lane has the potential to adversely impact protected species in this area, however we have included space for mitigation if these species are identified prior to the start of construction works.

The design refinement also brings the draft Order Limits closer to residential properties on Sandy Lane, which may lead to greater noise and vibration impacts compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. We will implement mitigation measures set out in our Outline Construction Environmental Management Plan, which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these impacts.

Figure 35 Sandy Lane and Woodmans Farm – Summer 2024 Consultation design

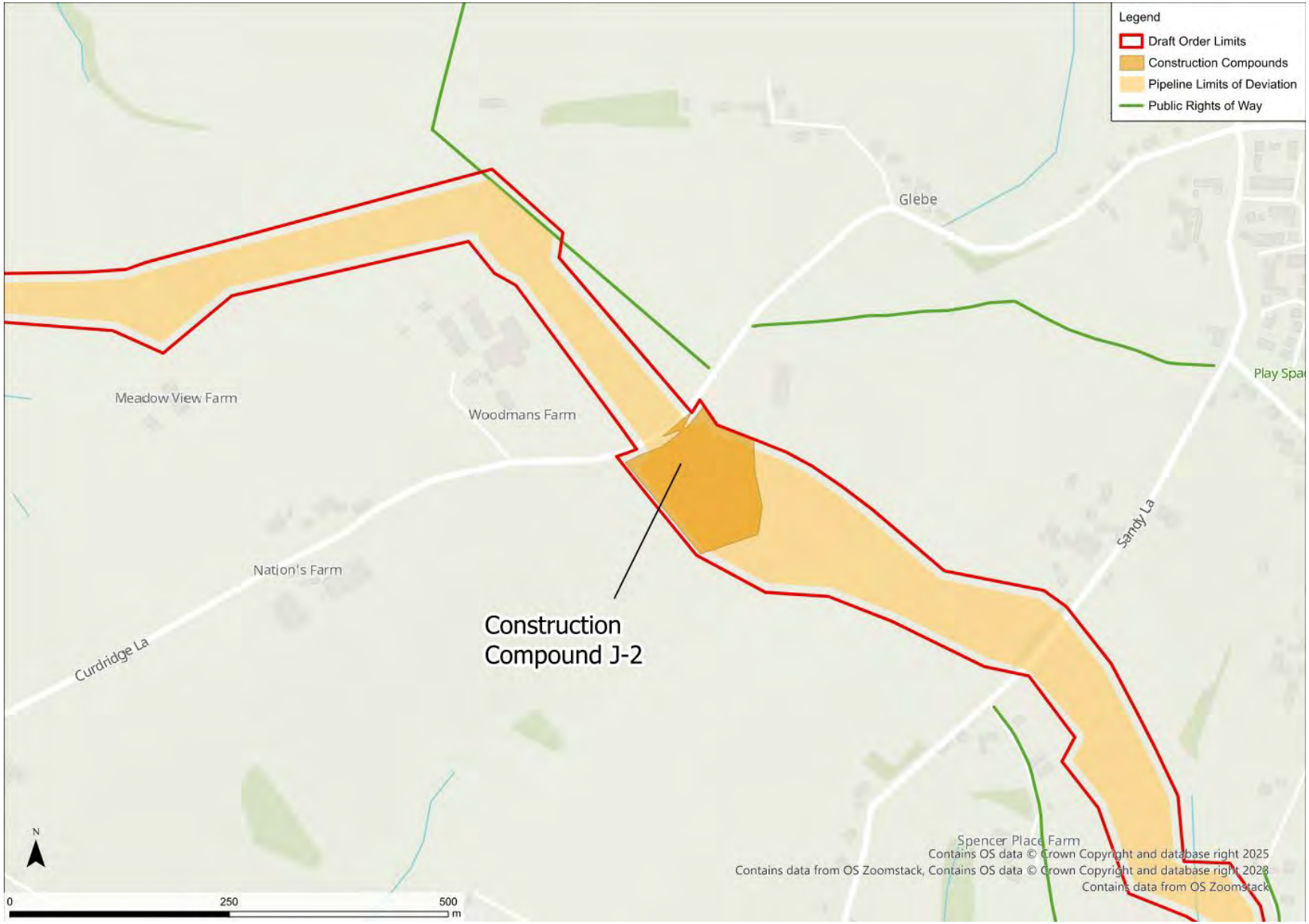
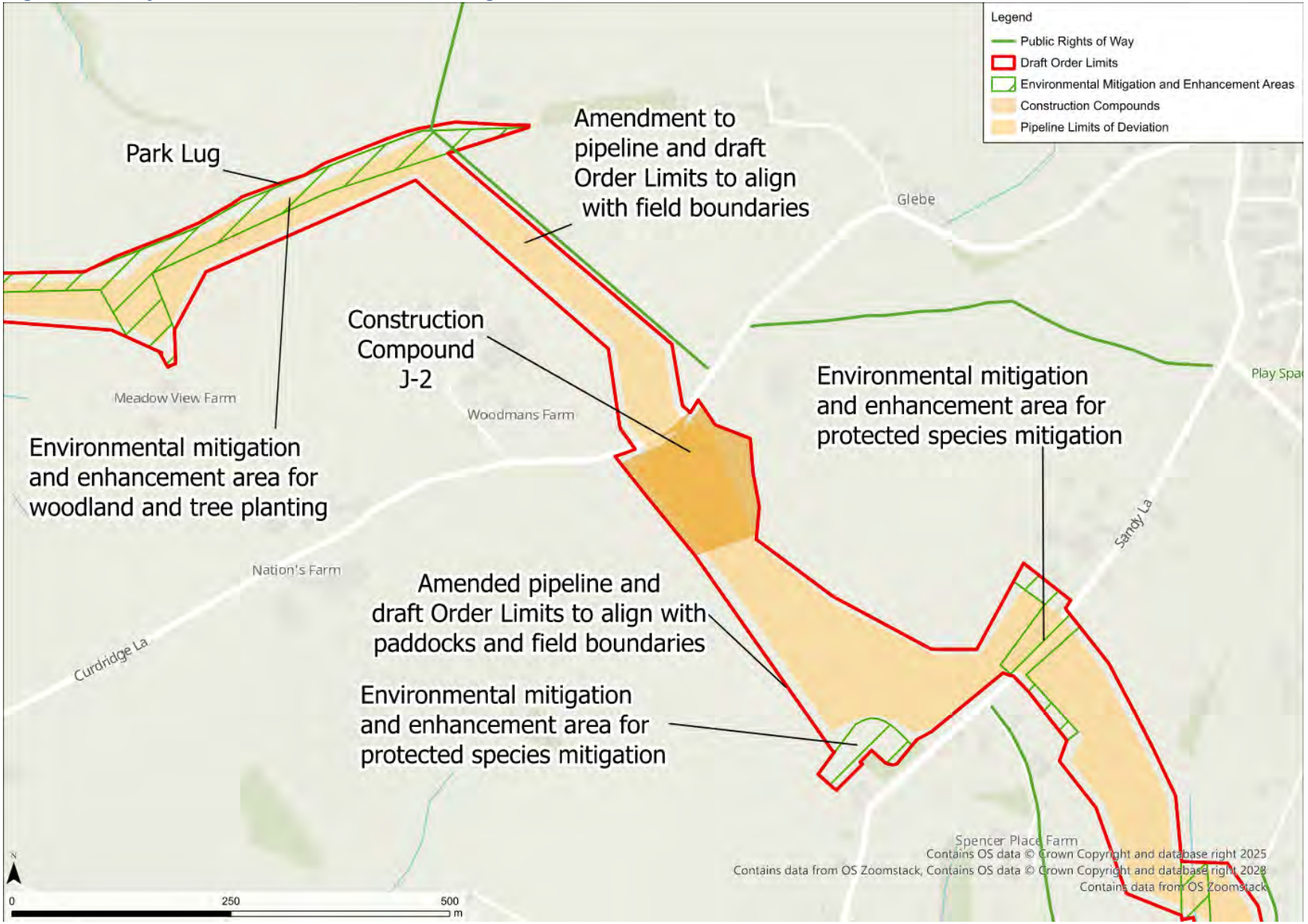


Figure 36 Sandy Lane and Woodmans Farm – Design Refinement



Design Refinement 18 – The River Hamble and Ford Farm

Where is the proposed change?

The River Hamble and Ford Farm are both located to the north west of Botley Road, south west of Bishop's Waltham and within Winchester City Council's administrative area. This area is situated within Section K of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 37**.

What is changing and why?

We have realigned the location of the trenchless crossing of the River Hamble[1] to a location further to the north. This change is proposed for the following reasons:

- Following the Summer 2024 Consultation, ongoing environmental surveys identified two veteran trees close to the pipeline route and northern construction compound K-1, which would be used for trenchless construction under the River Hamble. If we were to keep the trenchless crossing at this location, there would be restricted space for the construction compound and pipeline route when the root protection areas for the veteran trees are considered.
- Our ongoing survey work also identified a number of trees of high quality and value (Category A) at the access point to construction compound J-3 to the south of the River Hamble and Botley Road.
- The previous design also intersected a soft fruit farm at Ford Farm, including an area of the farm which has received planning permission for the development of additional polytunnels. When developing the design of the Project we have aimed to reduce adverse impacts to existing businesses.

The revised location of the trenchless crossing ensures we can reduce vegetation loss and impact to veteran trees in this area and avoids the pipeline route conflicting with the proposed new polytunnels at Ford Farm. The location for this trenchless crossing and associated pipeline route was selected as it had the least technical constraints and environmental impact compared to other options.

Areas for environmental mitigation and enhancement have also been identified, specifically for wet grassland and habitat connectivity improvements along the pipeline route in this area. The areas to the north side of the River Hamble are considered as most suitable for ecology enhancements.

This proposed design refinement can be seen in **Figure 38** overleaf. **Figure 38** shows a new environmental mitigation and enhancement area at the Park Lug. This is described in the information sheet for design refinement 17.

How might the change affect you or the environment?

As part of this proposed design refinement, the draft Order Limits and pipeline have been moved closer to the River Hamble, however we would ensure that construction works remain 30 metres from the watercourse so potential effects are reduced.

The new location of construction compound J-3 will intersect with a Roman road between Wickham and Winchester. We will undertake investigations prior to the commencement of construction to identify any potential impacts on buried archaeology and necessary mitigation.

In some locations, the construction works would be slightly closer to residential properties on Botley Road, however the amendments are not expected to result in any noticeable new air quality or noise and vibration effects compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. We will implement mitigation measures set out in our Outline Construction

[1]A typographical error in this sentence has been corrected, for details please see the 'Consultation Information typographical errors' sheet here https://hampshirewtwrp.co.uk/typographicalerrors.pdf.

Environmental Management Plan which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these effects.

The design refinement will move the construction works closer to a public right of way along the River Hamble (Bishop's Waltham 502). There is potential for increased visibility of construction works from the public right of way, however the implementation of mitigation would reduce this impact and which could include reducing vegetation loss and using visual screening.

The addition of environmental mitigation and enhancement areas also allows the delivery of habitat improvements in this area which will support local ecology.

Figure 37 River Hamble and Ford Farm – Summer 2024 Consultation design

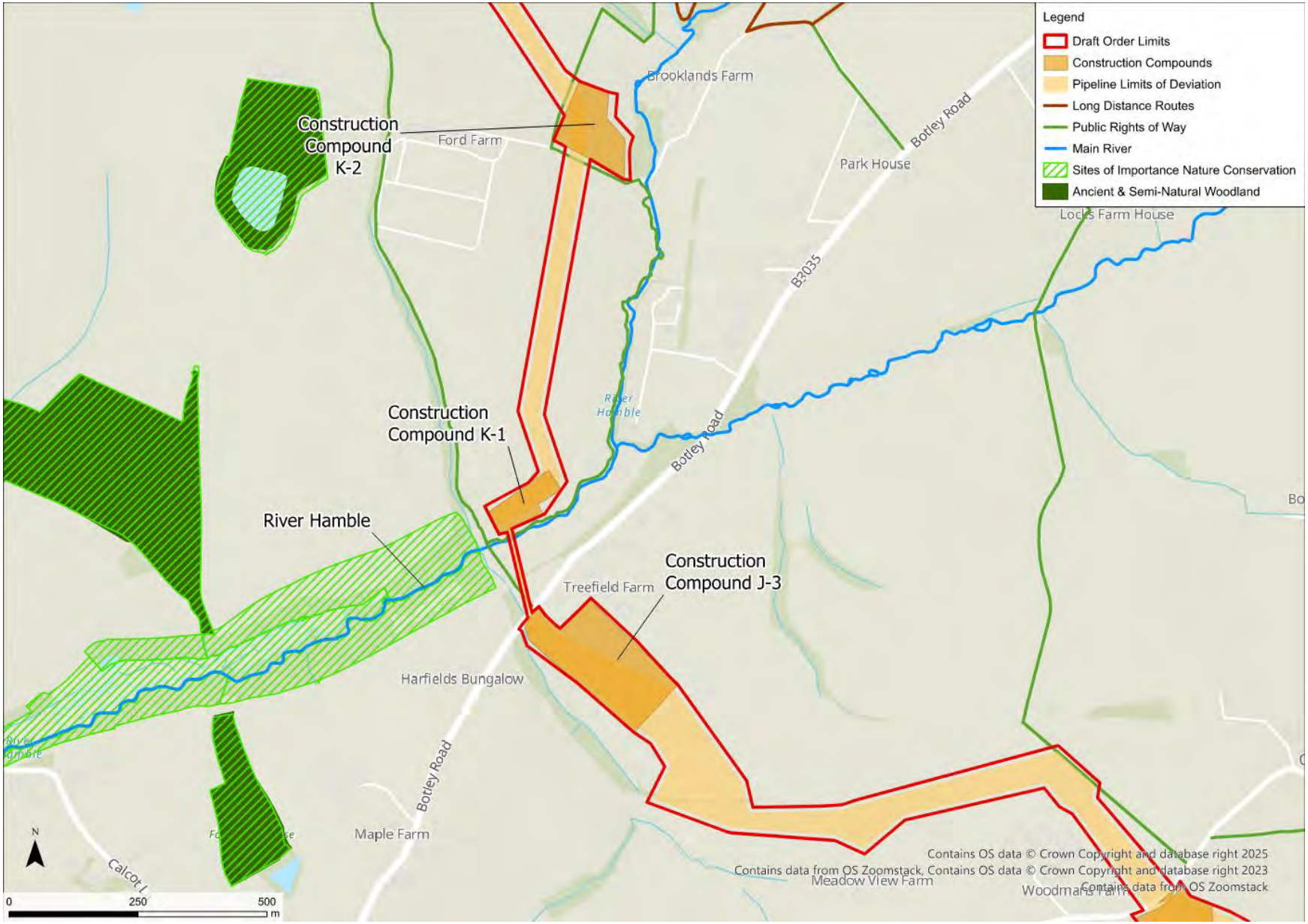
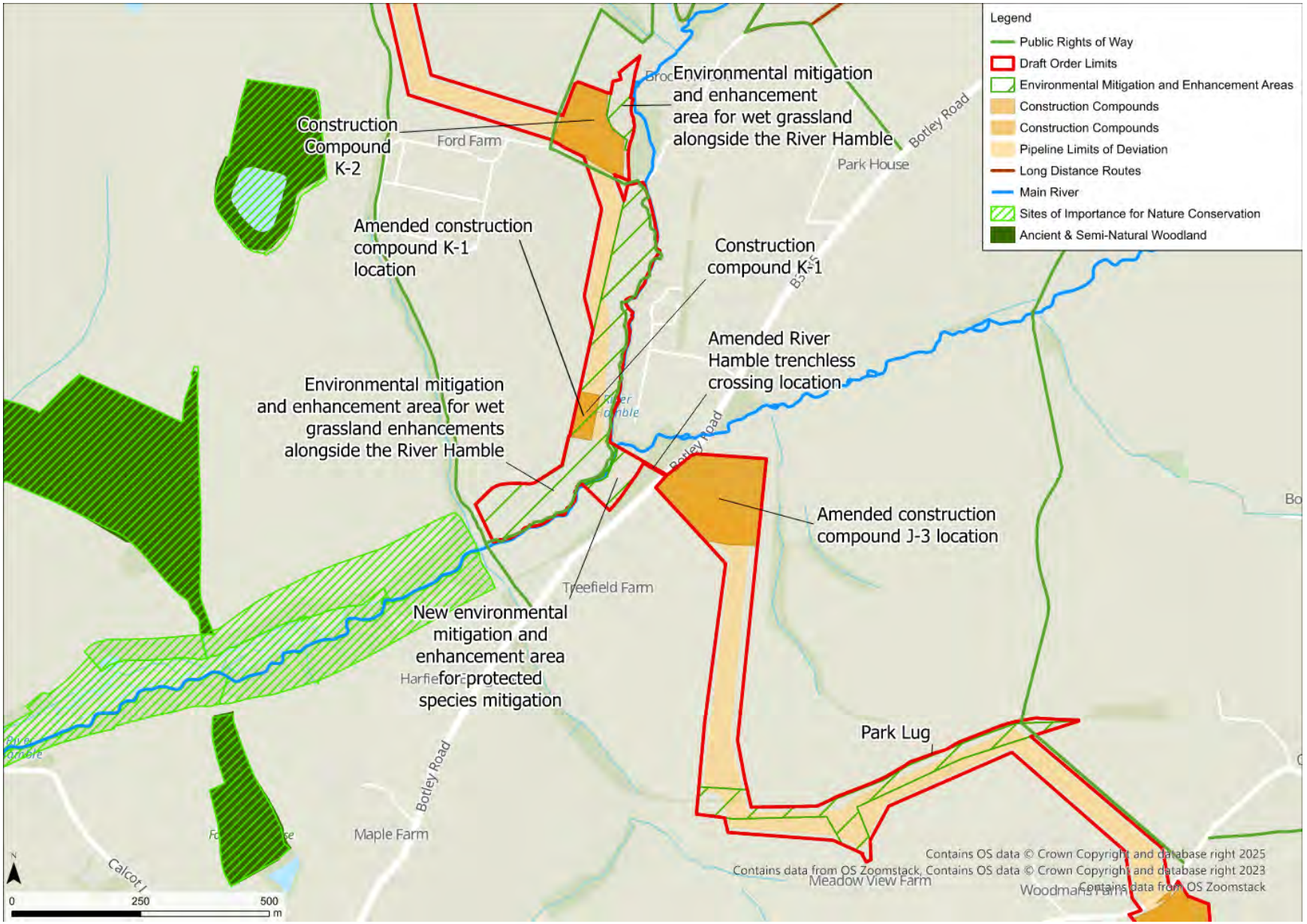


Figure 38 River Hamble and Ford Farm – Design Refinement



Design Refinement 19 – Tangier Farm

Where is the proposed change?

This design change is located to the south of Winters Hill Road, west of Newtown and within Winchester City Council's administrative area. It is situated within Section K of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design we presented at the Summer 2024 Consultation is shown in **Figure 39**.

What is changing and why?

Feedback from our Summer 2024 Consultation identified that the pipeline route would have an impact on existing equine businesses and agricultural land in this area, as the pipeline route and construction works were located across the centre of multiple fields. When developing the design of the Project, we have aimed to reduce impacts on existing businesses.

We considered whether the pipeline route and construction works could be realigned to the edge of fields as far as reasonably practicable so effects on agricultural and equestrian uses could be minimised. We identified that the route could be moved to the south west without having any major impacts on the construction and operation of the pipeline, or the environment. We considered other options to amend the pipeline route in this area, but these would either constrain the construction and operability of the pipeline, or introduce new environmental impacts.

This design refinement can be seen in **Figure 40**.

How might the change affect you or the environment?

The design refinement is closer to trees and woodland associated with the Park Lug, which is an historic embankment and landscape feature, however, construction works will not result in the loss of vegetation along the Park Lug, and root protection areas for high value and mature trees will be avoided. This will avoid any additional impacts to this feature or the landscape character.

The design refinement will move the construction works closer to a Public Right of Way (Bishop's Waltham 44) that runs along the Park Lug. There is potential for an increase in temporary visual and noise effects on the users of this footpath compared to effects reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. Mitigation measures will however be implemented during the construction phase to reduce any effects.

Figure 39 Tangier Farm – Summer 2024 Consultation design

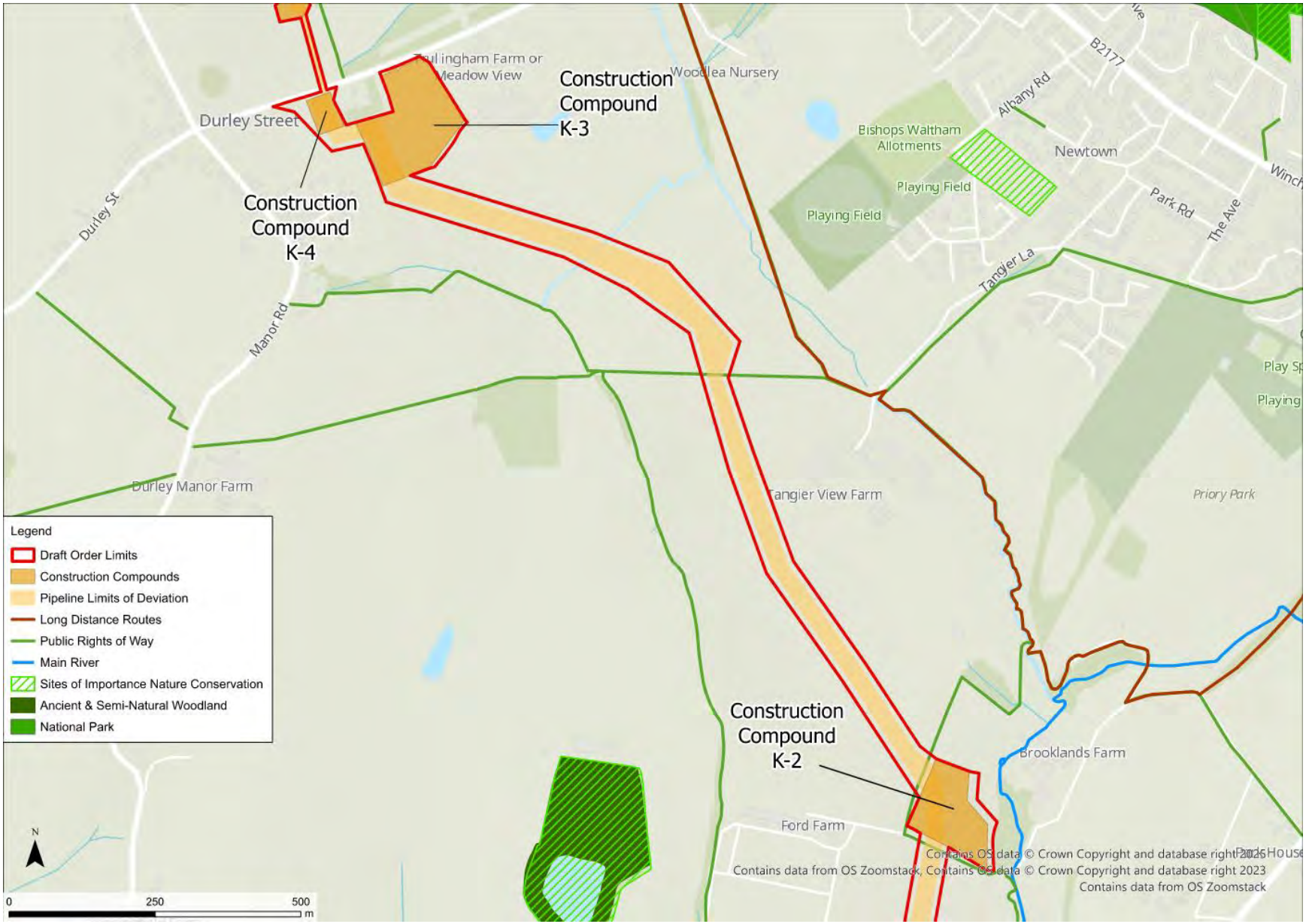
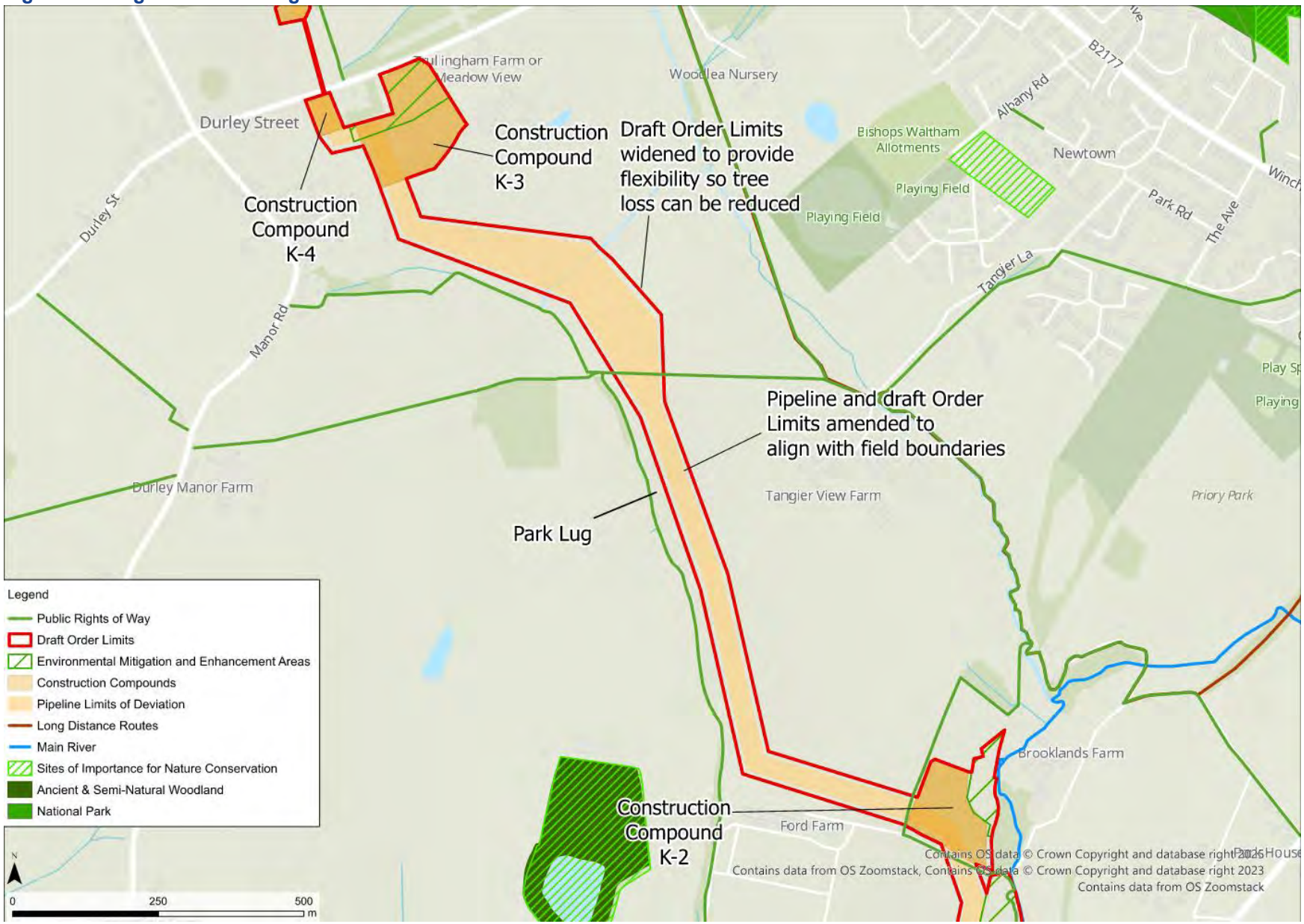


Figure 40 Tangier Farm – Design Refinement



Design Refinement 20 – Break Pressure Tank K

Where is the proposed change?

Break Pressure Tank K is proposed to be located north of Durley Street and Wintershill within parkland adjacent to Winters Hill Hall, falling within Winchester City Council's administrative area. It is situated within Section K of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works. Break Pressure Tank K is required to manage pressure in the pipeline after it has been pumped from Intermediate Pumping Station G and control the flow of water as it travels towards Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 41**.

What is changing and why?

The design refinements proposed at Break Pressure Tank K are as follows:

- During and following the Summer 2024 Consultation, engagement with local residents and Hampshire County Council identified that Scivier's Lane would be unsuitable for construction vehicles, and therefore the proposed construction and permanent access to Break Pressure Tank K would need to be amended. An alternative temporary access road has therefore been identified from Winchester Road (B2177) to the north of Break Pressure Tank K. We have retained the Scivier's Lane access in the draft Order Limits, as this may still be required for operational access.
- Through further engagement with landowners, we also identified an alternative permanent operational access route to Break Pressure Tank K, which would use an existing access off Winters Hill to the south east. The draft Order Limits have therefore been amended to include this access route. This would be an alternative to the previously proposed operational access from Scivier's Lane. We are investigating whether the existing access from Winters Hill is suitable for our operational access requirements before confirming our choice of access route, however we would only use one of the proposed operational accesses identified.
- Security requirements set out by the Department for Environment, Food and Rural Affairs have also identified the need for additional fencing around the plant. To accommodate this, it is proposed that the footprint for Break Pressure Tank K is increased, and therefore the draft Limits of Deviation would also increase.
- To help integrate Break Pressure Tank K into the landscape and reduce visual impacts, environmental mitigation and enhancement areas have been added, which show where landscaping and planting is proposed. These areas also provide for enhancements to existing woodlands to mitigate tree and woodland removal during the construction phase. The pipeline route to the south of Break Pressure Tank K within Winters Hill Park has been amended slightly to avoid a veteran tree (which is protected) and its associated root protection area.

The proposed design refinement can be seen in **Figure 42**.

How might the change affect you or the environment?

Our initial assessments indicate that the increase in the footprint and draft Limits of Deviation of the break pressure tank site and additional fencing requirements would not result in any additional landscape or visual effects compared to the effects reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. The site would be screened by new planting and landscaping to integrate it into the existing landscape.

The new construction access from Winchester Road would result in vegetation removal, which would be more visible from Winchester Road and the South Downs National Park. The new construction access is also within a non-designated historic parkland. Whilst this is impact to the historic character of the area is considered to be minimal, further assessment will be required. We have designed this access to minimise the loss of mature vegetation but where vegetation loss is needed, this will be reinstated following the completion of construction works.

The changes in the construction access would mean that construction vehicles would no longer be routed along Scivier's Lane and instead would continue along Winchester Road. We have considered the potential impacts of increased vehicle movements along Winchester Road but do not anticipate that this will have a material impact on existing traffic conditions, however some traffic management may be temporarily required in this location.

Figure 41 Break Pressure Tank K – Summer 2024 Consultation design

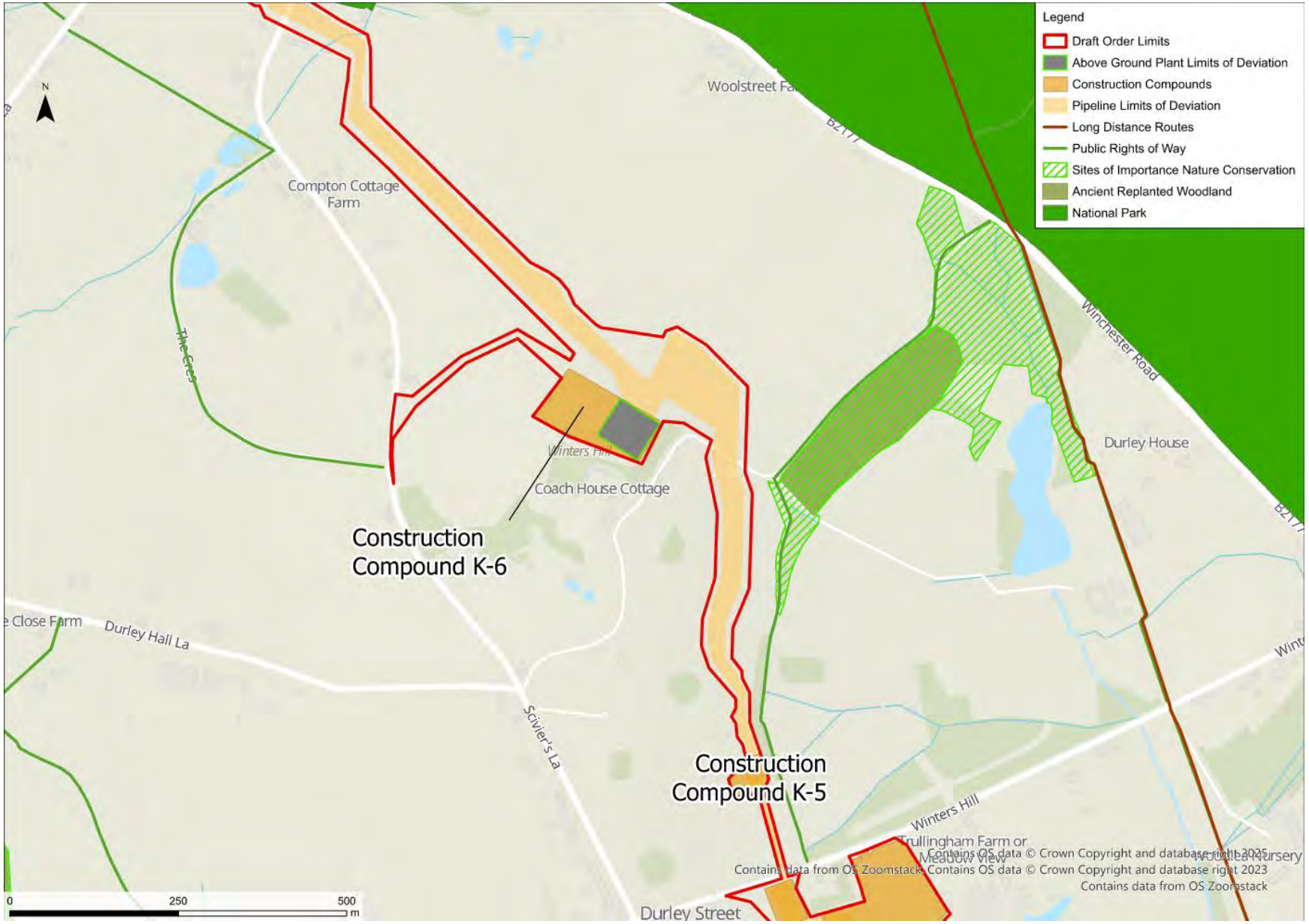
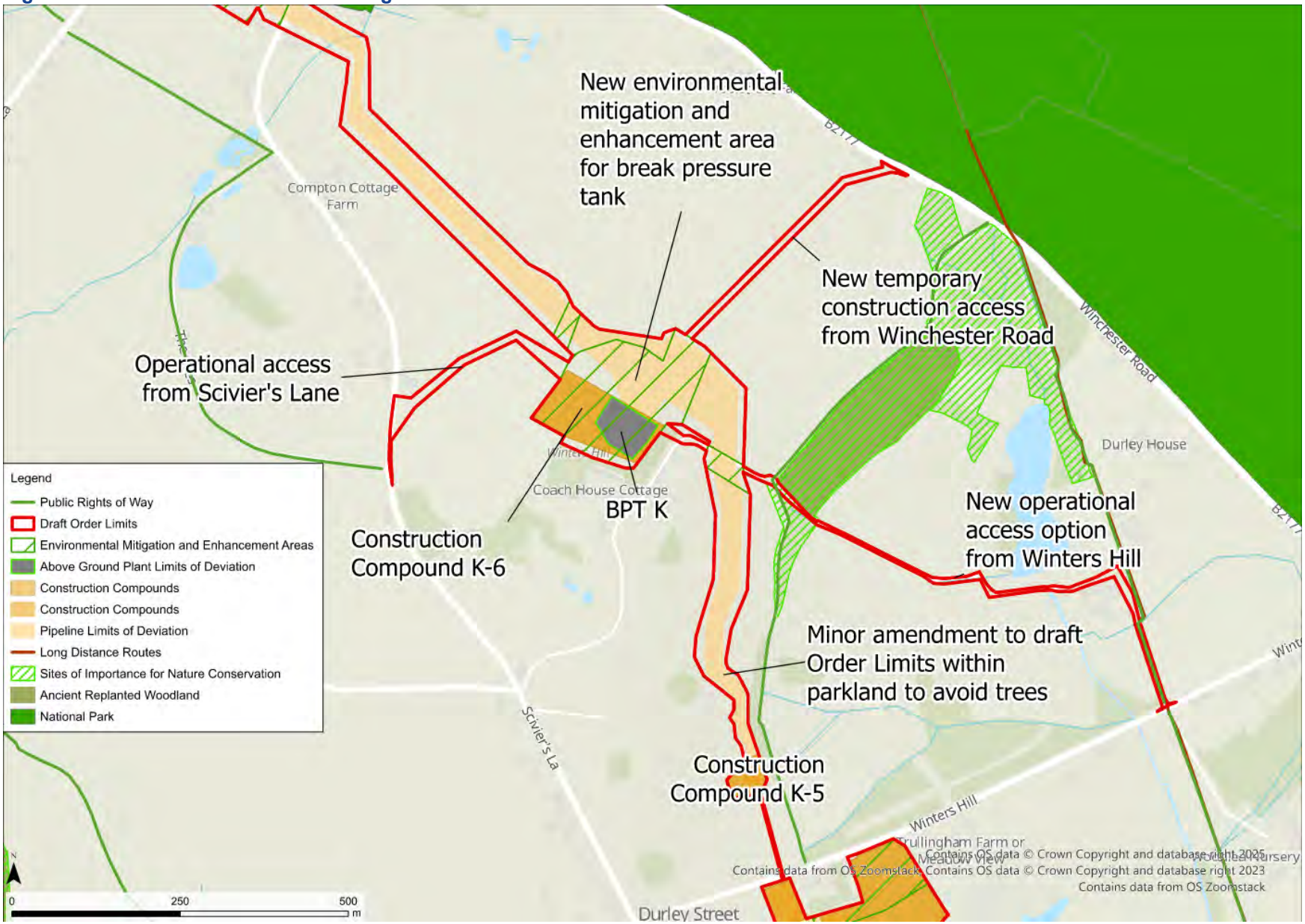


Figure 42 Break Pressure Tank K – Design Refinement



Design Refinement 21 – Alma Lane and Scivier's Lane

Where is the proposed change?

This design refinement is located between Alma Lane and Scivier's Lane, near Lower Upham in Winchester City Council's administrative area. It is situated within Section K of the pipeline between Otterbourne Water Supply Works and Havant Thicket Reservoir.

The design presented at the Summer 2024 Consultation is shown in **Figure 43**.

What is changing and why?

Feedback from our Summer 2024 Consultation, coupled with our own design development, identified that the pipeline route and draft Order Limits in this location would intersect multiple areas of vegetation and cut across the corner of various fields. Due to limited environmental and technical constraints in this area, we are proposing to amend the pipeline route and draft Order Limits to reduce vegetation loss and align the pipeline route with existing land parcel boundaries as far as reasonably practicable.

We are also proposing to extend the draft Order Limits in between Alma Lane and Scivier's Lane to include an environmental mitigation and enhancement area where we are proposing heathland enhancements, in line with opportunities identified by Hampshire County Council's Biodiversity Information Centre. Including this area in the Project will ensure we are supporting nature recovery in Hampshire and are compliant with national planning policy.

The proposed design refinement can be seen in **Figure 44**.

How might the change affect you or the environment?

The design refinement is proposed to align with field boundaries and reduce loss of vegetation (including hedgerows and trees) in this area. The addition of the environmental mitigation and enhancement area also allows us to pursue opportunities to deliver biodiversity and ecology benefits.

Although the refinement would allow us to reduce hedgerow loss, the pipeline route and associated construction working areas would be slightly closer to the nearest residential properties north of the draft Order Limits on Alma Lane. This could slightly increase air quality, noise and visual effects on these properties from temporary construction works, compared to the effects we reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. We will implement mitigation measures set out in our Outline Construction Environmental Management Plan which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these effects.

Figure 43 Alma Lane and Scivier's Lane – Summer 2024 Consultation design

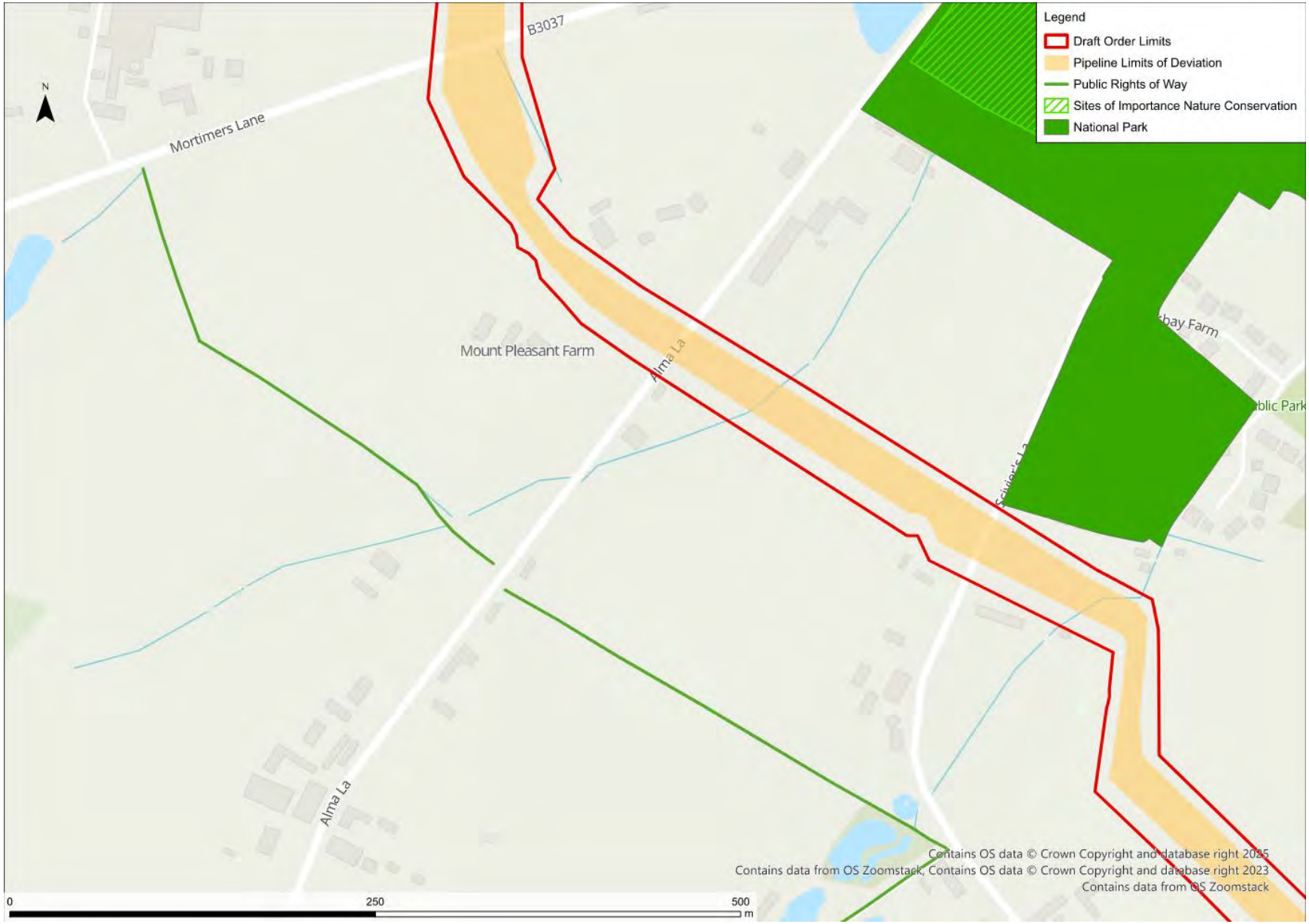
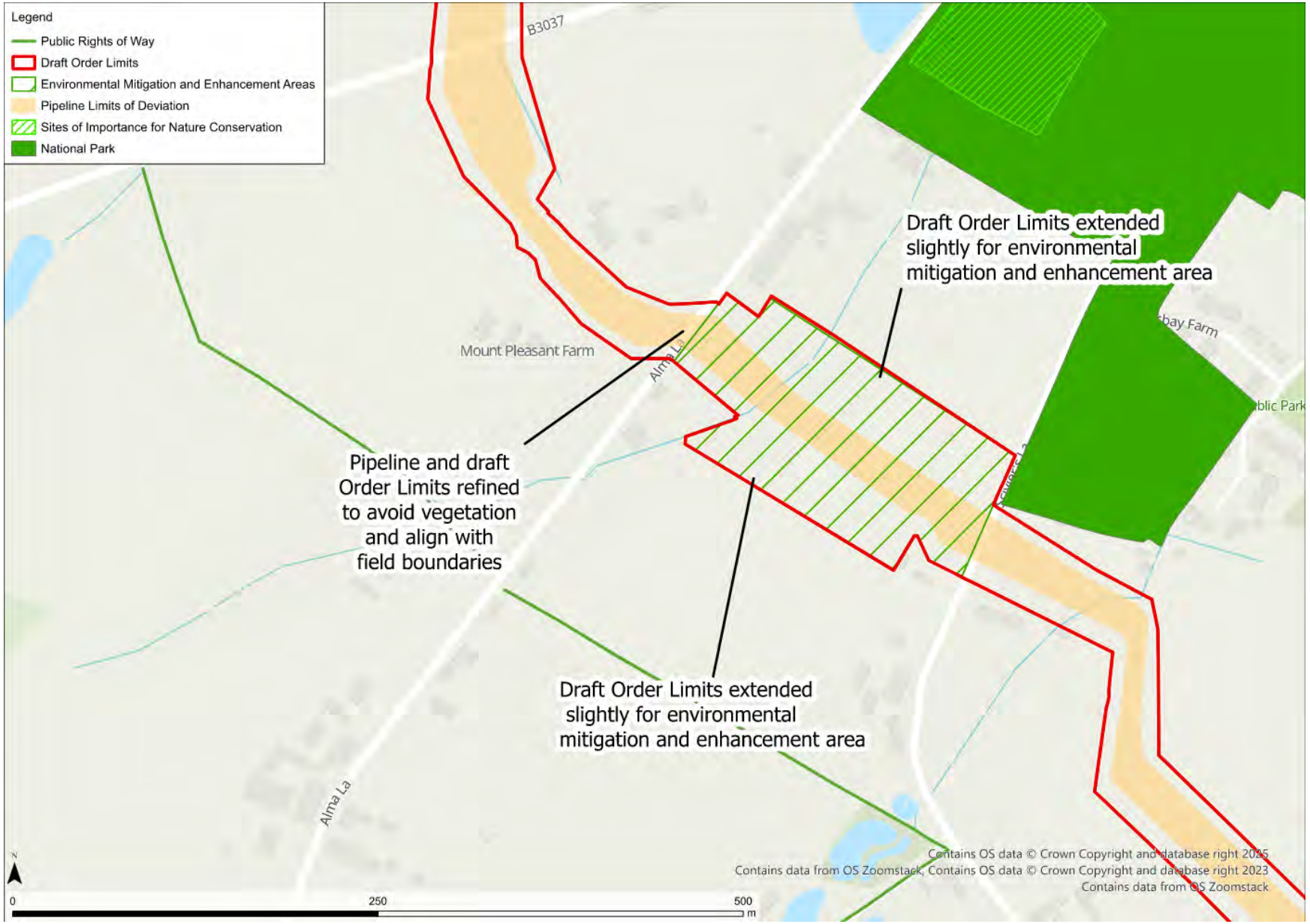


Figure 44 Alma Lane and Scivier's Lane – Design Refinement



Design Refinement 22 – Construction Compound L-1

Where is the proposed change?

Construction compound L-1 is located to the north of Mortimers Lane (B3037) and to the west of Winchester Road (B2177) within Eastleigh Borough Council's[2] administrative area, and within Section L of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works. The construction compound will be accessed by Winchester Road (B2177).

The design for construction compound L-1 presented at the Summer 2024 Consultation is shown in **Figure 45**.

What is changing and why?

Feedback from our Summer 2024 Consultation identified that construction compound L-1 intersected land used as grazing paddocks, potentially impacting the operations of Ashbourne Stables. Our aim is to reduce adverse impacts to existing businesses when designing the Project and have therefore identified the potential to amend the compound to avoid these grazing paddocks. This was achieved by removing the southern section of the compound and extending it further to the north, as there were no major technical or environmental constraints associated with making this change. The draft Order Limits now avoid impacting this land used by Ashbourne Stables.

The construction compound has also been amended to exclude a veteran tree from the draft Order Limits which was identified following the Summer 2024 Consultation.

The refined design can be seen in **Figure 46**.

How might the change affect you or the environment?

The realignment of the construction compound may result in a minor increase in visual impacts compared to those reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation, as it would be slightly closer to residential properties on Stroudwood Lane and the South Downs National Park. Impacts to high value and mature trees would be avoided, however, and existing buffers reducing landscape and visual effects would be retained. Implementation of best practice mitigation measures during construction would help reduce visual effects.

Whilst this compound avoids grazing paddocks associated with an existing business, the refinement moves the construction compound further into the field directly south of Winchester Road. This land will be impacted further temporarily as the compound now extends over most of this field.

[2] A typographical error in this sentence has been corrected, for details please see the 'Consultation Information typographical errors' sheet https://hampshirewtwrp.co.uk/typographicalerrors.pdf.

Figure 45 Construction Compound L-1 – Summer 2024 Consultation design

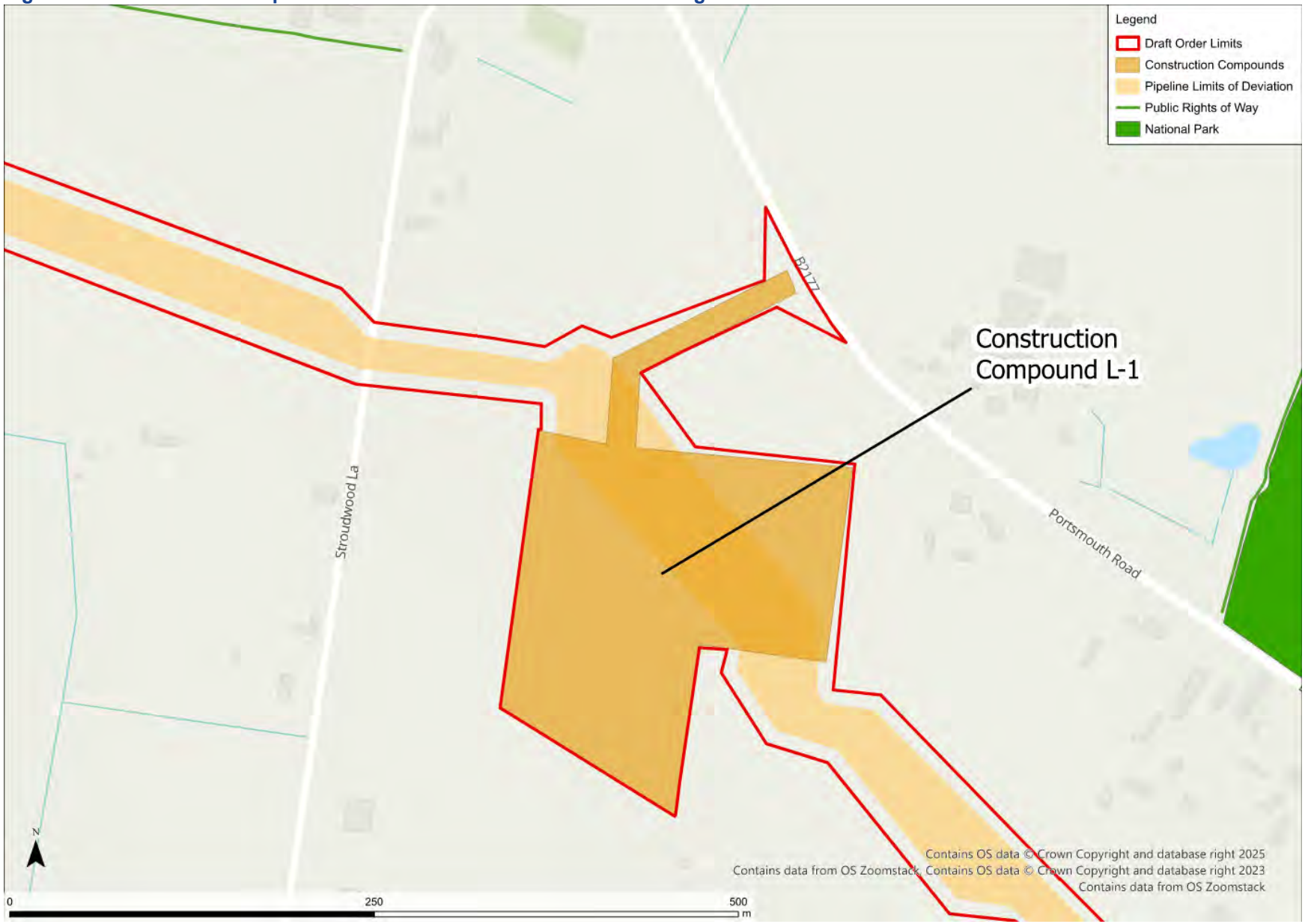


Figure 46 Construction Compound L-1 – Design Refinement

Design Refinement 23 – West of Stroudwood Lane

Where is the proposed change?

This design refinement is located north west of Lower Upham village, south of Portsmouth Road (B2177), west of Stroudwood Lane and south of Winchester Road, within Winchester City Council's[3] administrative area. It is situated within Section L of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 47**.

What is changing and why?

Following the Summer 2024 Consultation, environmental surveys identified areas of potential ancient woodland and high value and mature trees to the west of Stroudwood Lane and south of Thistle Ridge Farm. Therefore, we are proposing to move the pipeline route and draft Order Limits slightly further south, so that the pipeline route and construction works are a greater distance from the trees without other major impacts arising.

The refined design can be seen in **Figure 48**.

How might the change affect you or the environment?

The design change would move the construction works away from trees and woodland, therefore potential effects would be reduced when compared to those reported in the Preliminary Environmental Information Report presented at the Summer 2024 Consultation. No other new impacts have been identified.

[3] A typographical error in this sentence has been corrected, for details please see the 'Consultation Information typographical errors' sheet https://hampshirewtwrp.co.uk/typographicalerrors.pdf.

Figure 47 West of Stroudwood Lane – Summer 2024 Consultation design

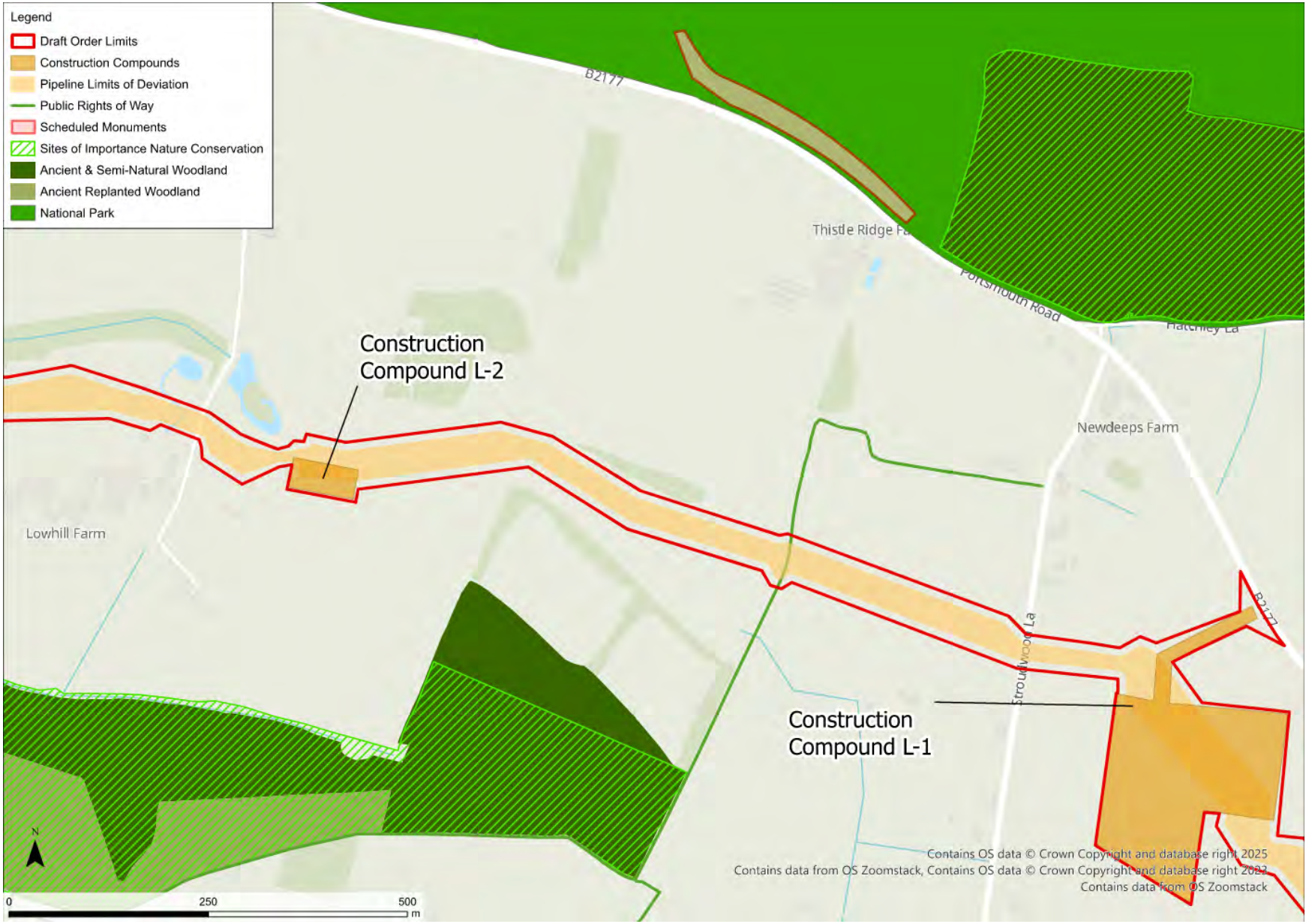


Figure 48 West of Stroudwood Lane – Design Refinement

Design Refinement 24 – Pipeline Section L

Where is the proposed change?

Section L of the proposed pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works comprises the section from Mortimers Lane (B3037) near Lower Upham to Highbridge Road (B3335), west of Brambridge. Section L extends across the administrative areas of Winchester City Council and into Eastleigh Borough Council.

The design for Section L presented at the Summer 2024 Consultation is shown in **Figure 49**.

What is changing and why?

The design refinements within Section L are proposed as follows:

- **South of Colden Common and west of Fisher's Pond** – Consultation feedback from Hampshire County Council and ongoing engagement on construction accesses has concluded that Bishopstoke Lane would not be suitable for construction vehicles. A suitable alternative temporary construction access has therefore been identified from Church Lane to the south of Colden Common. Church Lane is the next closest road to this section of the pipeline and is considered suitable for construction traffic. The pipeline route has also been amended in this area to take account of landowner feedback and align the construction works with field boundaries, thereby avoiding construction works across the centre of fields. We reviewed the technical and environmental implications of this change and did not identify any constraints in realigning the pipeline. In addition, we are proposing wet grassland habitat enhancements to improve ecological conditions on the south side of the Bow Lake watercourse to ensure we can deliver environmental improvements in line with requirements in national planning policy. The environmental mitigation area on **Figure 50** will deliver these enhancements.
- **Fisher's Pond** – Ongoing environmental surveys identified two veteran trees to the south of Fisher's Pond in close proximity to the pipeline route presented at the Summer 2024 Consultation. We have amended the route of the pipeline so that construction works can avoid these veteran trees and ensure that suitable root protection areas can be implemented. An area for proposed grassland/meadow habitat enhancement has also been identified in this location and included in the draft Order Limits. This would provide benefit to the existing Fielders Farm Meadows Site of Importance for Nature Conservation and land to the south of this.
- **South of Portsmouth Road (B2177)** – Feedback from our Summer 2024 Consultation identified that the pipeline route intersected land used as a garden at a property near Lowhill Farm to the south of Portsmouth Road (B2177). One of the key design principles of the Project is to avoid impacts on residents as far as reasonably practicable and we have therefore moved the pipeline route and construction compounds in this area further north. This route was selected as it was the least constrained by environmental or technical factors. For part of this route, we would use short trenchless construction to cross a dense strip of woodland and watercourse. If this was crossed using open cut construction there would be potential for large environmental impacts.
- **East of Fisher's Pond** – To the east of Fisher's Pond, and north of Chestnut Gully Wood, the locations of the pipeline route and construction compounds have been refined to avoid veteran trees, reduce vegetation loss and reduce impacts on a Site of Importance for Nature Conservation following further surveys of these areas. Areas for environmental mitigation and enhancement have also been identified within the draft Order Limits in these area for new tree and woodland planting.
- **North of Wardle Road** – The draft Order Limits have been extended in this location to include an area of woodland where environmental mitigation and enhancement could be undertaken, in line with enhancement opportunities identified by the Hampshire County Council's Biodiversity Information Centre. Including this area in the Project will ensure we are supporting nature recovery in Hampshire and are compliant with national planning policy.

The proposed design refinement can be seen in **Figure 50**.

How might the change affect you or the environment?

South of Colden Common and west of Fisher's Pond – The new temporary construction access from Church Lane may lead to some additional vegetation loss. Whilst construction traffic would no longer use Bishopstoke Lane, the new access would be in closer proximity to some residential properties along Church Lane which could result in an increase of noise, vibration and visual impacts to these properties compared to those that were set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. These effects would be reduced as far as reasonably practicable through our Outline Construction Environmental Management Plan, which will form part of our Development Consent Order application, and will control working hours and practices. The amended pipeline route in this area is also marginally closer to flood zones adjacent to Bow Lake. However, any potential environmental impacts can be mitigated through best practice construction methods.

South of Portsmouth Road (B2177) – The amended pipeline route is marginally closer to the South Downs National Park and construction works may become more visible from the national park and Portsmouth Road during construction. This refinement also brings the Project closer to the Marwell Manor Scheduled Monument and listed buildings, therefore there is potential for increased historic environment impacts as a result of changes to the historic landscape and character. Existing vegetation between the amended pipeline route and Marwell Manor would provide screening to reduce this impact and vegetation loss would be avoided wherever practicable to limits impacts on the landscape. Further investigation and assessment of the potential landscape and historic environment impacts will also be undertaken to better define any impacts and mitigation required.

No other effects were identified for the other design changes detailed above.

Figure 49 Pipeline Section L – Summer 2024 Consultation design

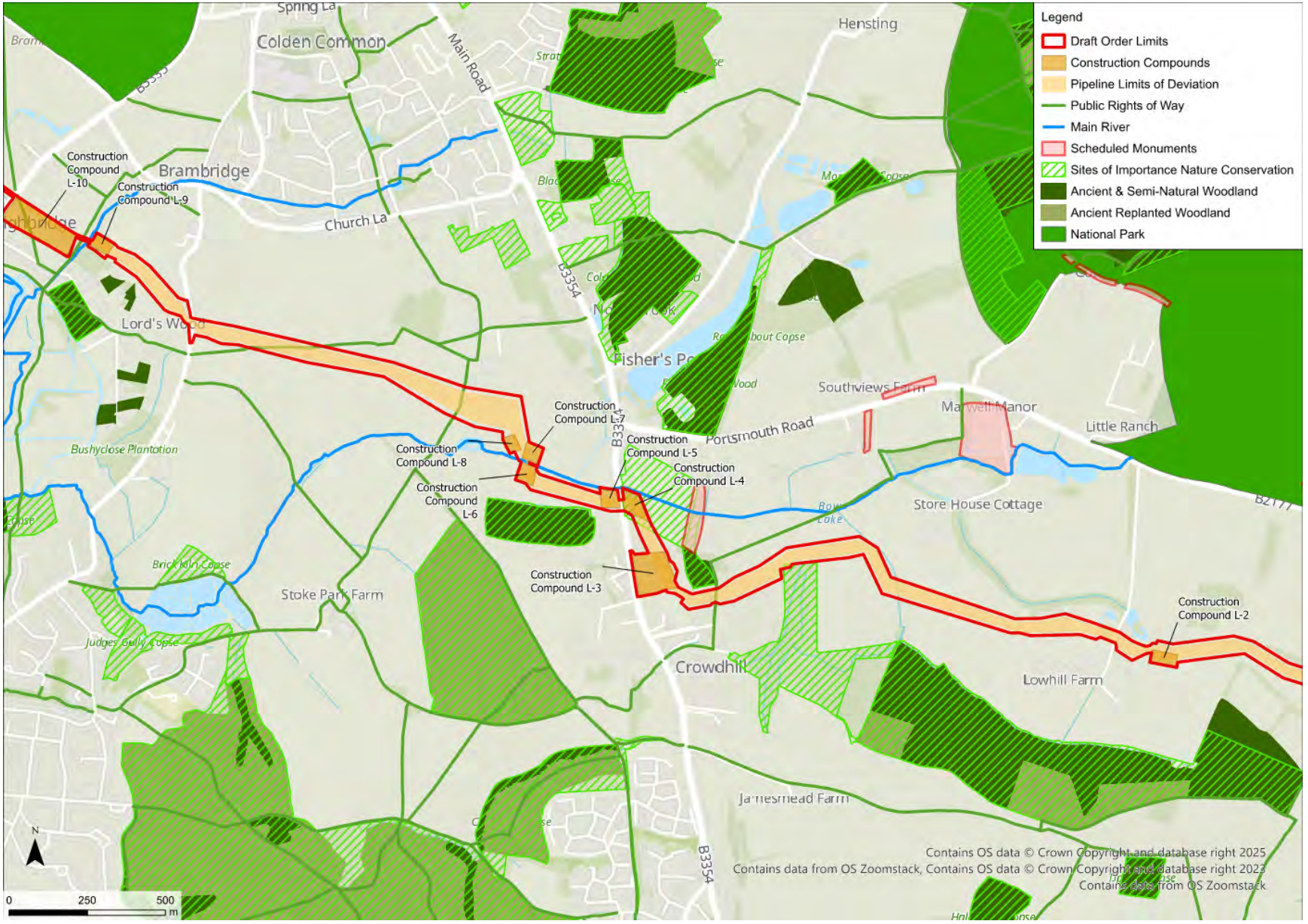
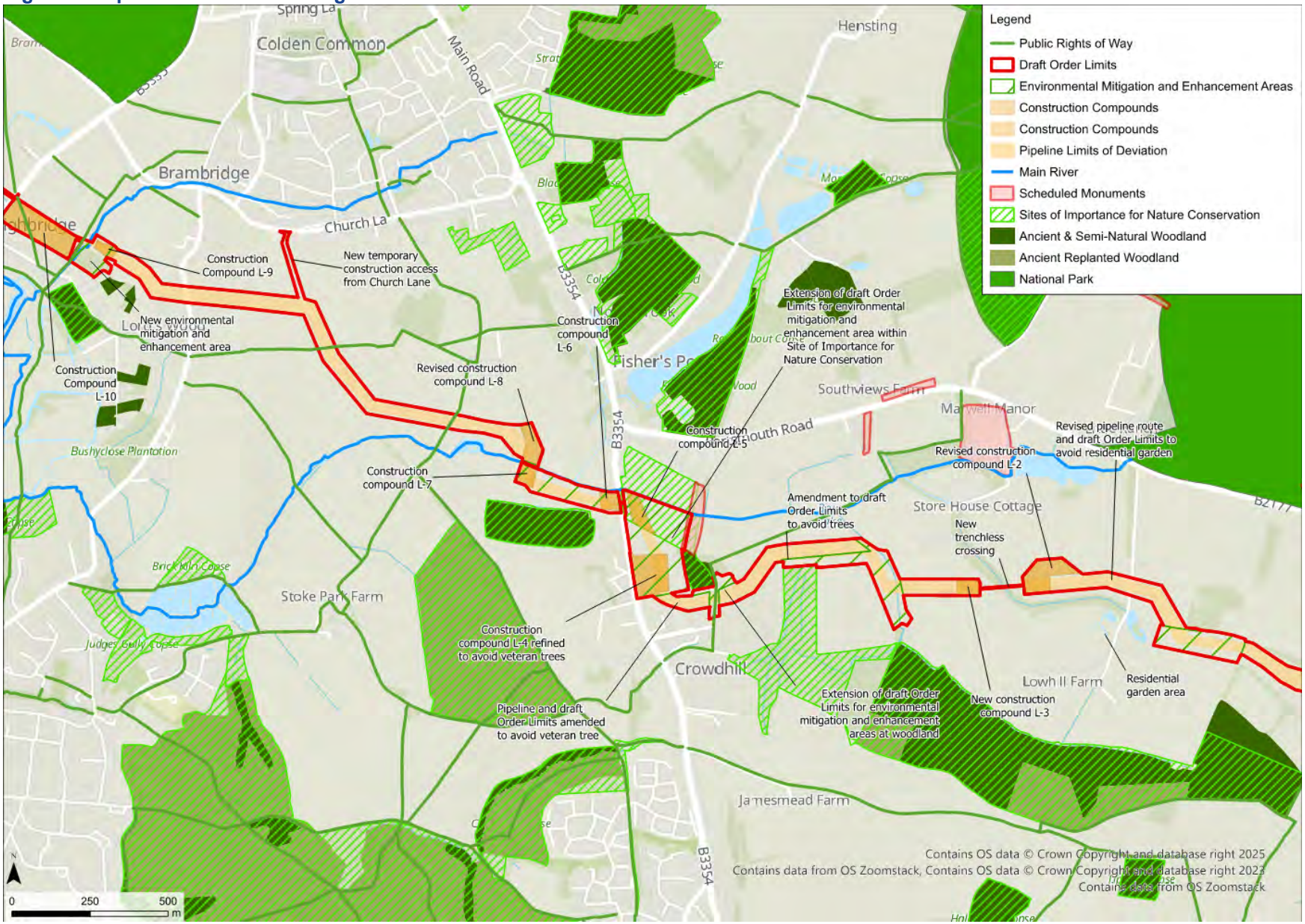


Figure 50 Pipeline Section L – Design Refinement



Design Refinement 25 – Otterbourne Water Supply Works

Where is the proposed change?

The design refinement is located at the Project's interface with Otterbourne Water Supply Works, between Shawford and Otterbourne, within Winchester City Council's administrative area. It is situated within Section M of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design we presented at the Summer 2024 Consultation is shown in **Figure 51**.

What is changing and why?

We are proposing the following refinements at Otterbourne Water Supply Works:

- The draft Order Limits have been extended to the north, to include options for temporary construction access to the Water Supply Works. This ensures we have the correct rights to undertake any temporary access works to facilitate construction vehicle access. We have included options to ensure that access can be provided alongside any changes and upgrades to Otterbourne Water Supply Works that are separate to our Project.
- Two areas for environmental mitigation and enhancement have been included in the draft Order Limits to the south of Otterbourne Water Supply Works. One of these areas will provide wet grassland enhancements around an existing watercourse, and the other will provide woodland and scrub enhancements and mitigation for any losses associated with the temporary access. These areas have been added to ensure we align with national planning policy.
- North of Kiln Lane, the draft Order Limits have been extended to enable us to temporarily divert a Public Right of Way that is being crossed by the pipeline. This would ensure that access along this footpath (as diverted) can be retained during construction works.
- The draft Order Limits have also been reduced just south of Oakwood Park Recreational Ground, as ongoing design development identified that this area is no longer required for the Project to connect into Otterbourne Water Supply Works. This area was included in the draft Order Limits at the Summer 2024 Consultation as there was uncertainty around where the Project would connect into the water supply works.
- An area has been added to the draft Order Limits to cover the junction between Kiln Lane and Otterbourne Lane, so we can undertake temporary highway works if needed, to ensure the largest construction vehicles can pass through this junction. These works could involve the realignment of existing kerbs or the removal of traffic islands. Following the completion of construction works we will reinstate these junctions to their current condition in line with Hampshire County Council's requirements. These junctions will be kept open whilst works are undertaken.

The proposed design refinement can be seen in **Figure 52**.

How might the change affect you or the environment?

No changes to the pipeline route and construction compounds are proposed in this area. To facilitate temporary construction access to the pipeline south of Otterbourne Water Supply Works we may need to remove some additional vegetation within the draft Order Limits. Any environmental impacts arising from this vegetation removal will be mitigated through replacement planting.

The routing of construction vehicles along Sparrowgrove and Waterworks Road from Otterbourne Road are also not anticipated to result in any noticeable traffic, air quality, and noise and vibration effects.

The extension of the draft Order Limits to accommodate the environmental mitigation and enhancement areas allows us to mitigate the environmental impacts of the Project deliver environmental improvements that improve the value of existing habitats.

Figure 51 Otterbourne Water Supply Works – Summer 2024 Consultation design

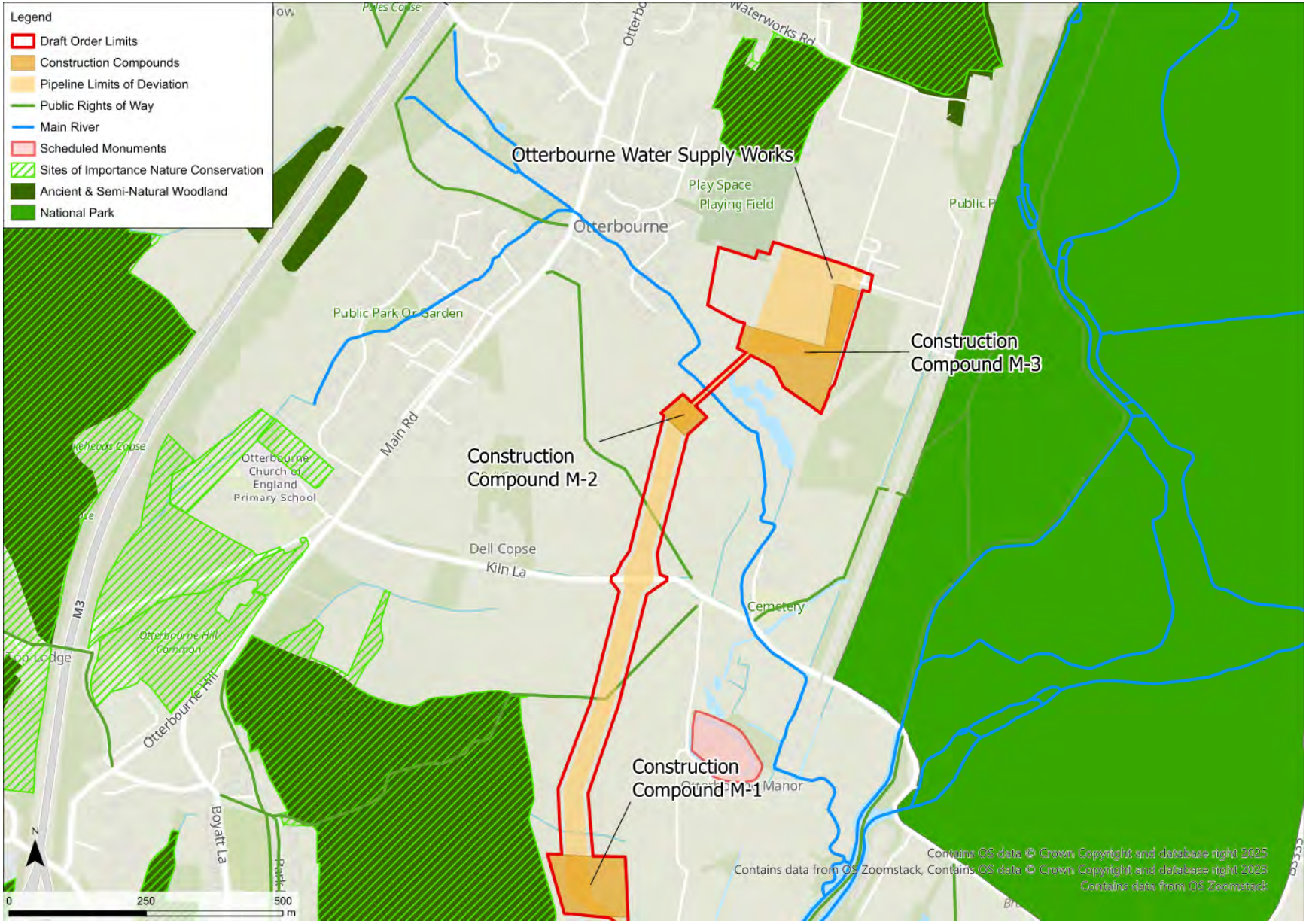
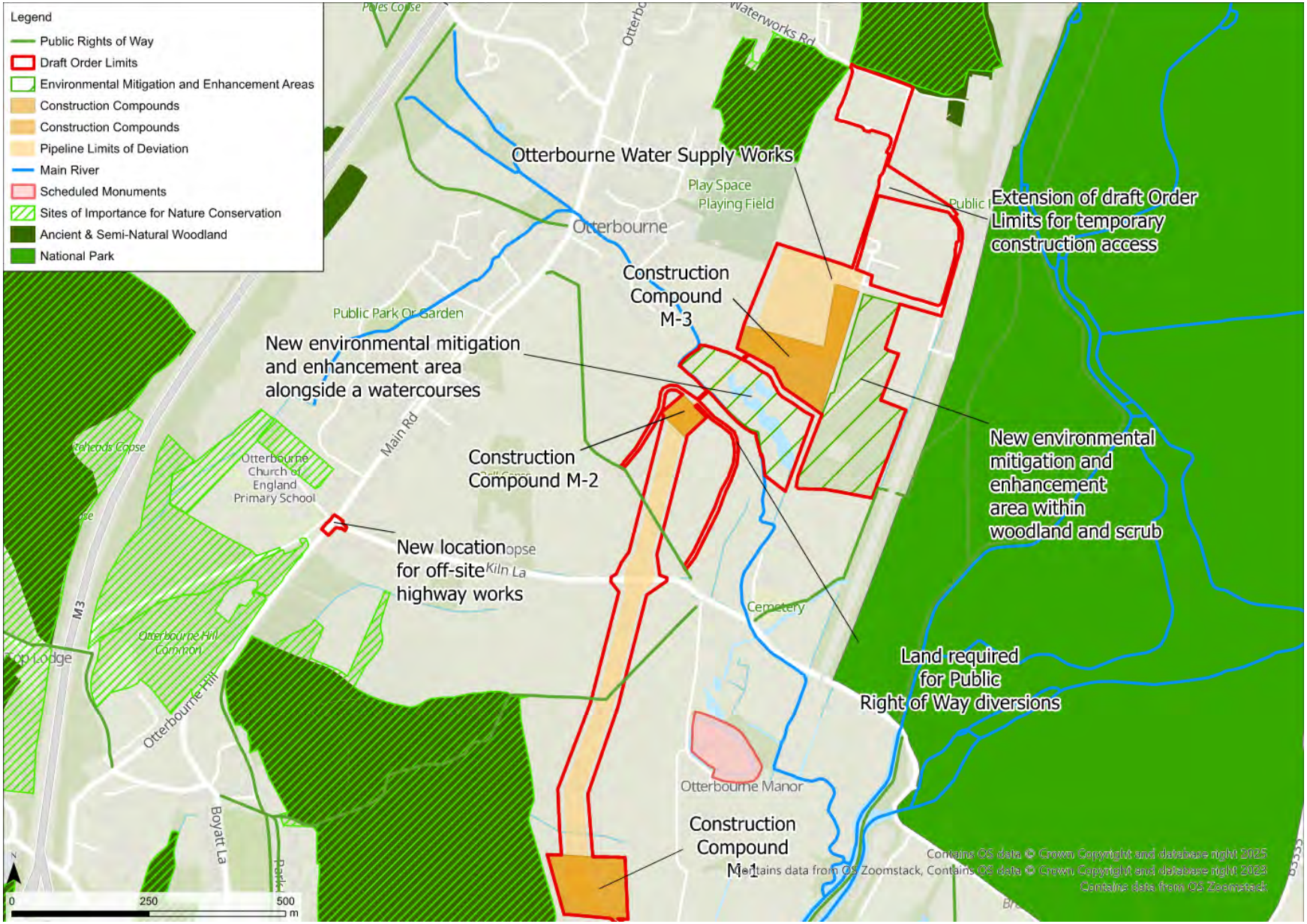


Figure 52 Otterbourne Water Supply Works – Design Refinement



G.2 Environmental Water Quality Report

Hampshire Water Transfer and Water Recycling Project

Environmental Water Quality Report

Spring 2025 Consultation

from Southern Water

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Glossary

Term	Definition
Budds Farm Wastewater Treatment Works (WTW)	This is an existing Southern Water site that treats wastewater prior to release into the Solent via the Eastney Long Sea Outfall. The Project would utilise treated wastewater from the Budds Farm WTW to produce recycled water at the proposed Water Recycling Plant.
“Classic” operation scenario	This scenario refers to the maintenance of water levels in Havant Thicket Reservoir, in accordance with Portsmouth Water’s existing planning permission, through the use of spring water inputs from Bedhampton and Havant Springs only.
Eastney Long Sea Outfall (LSO)	This is an existing Southern Water outfall used to release treated wastewater from Budds Farm WTW into the Solent in an area of high dispersion. No physical works to the Eastney LSO are anticipated as part of the Project, however reject water produced at the proposed Water Recycling Plant is proposed to be released from the Eastney LSO using the existing Eastney Pumping Station and Eastney Transfer Tunnel.
Havant Thicket Reservoir	The Havant Thicket Reservoir is a new reservoir, currently under construction, led by Portsmouth Water. In order to facilitate the water recycling process and associated transfer, the Project interfaces with, and proposes to connect into, the reservoir.
Main River	Watercourses designated as ‘Main’ are generally the larger arterial watercourses. The Environment Agency has permissive powers, but not a duty, to carry out maintenance, improvement or construction work on designated Main Rivers.
Million litres per day (Ml/d)	Unit to describe volumes of water.
Peak operation	The period when the Project would be operating at maximum capacity (i.e. during drought conditions). During peak operation the proposed Water Recycling Plant would produce 60Ml/d of recycled water, which would be transferred to Havant Thicket Reservoir. 90Ml/d of source water would be transferred from Havant Thicket Reservoir to Otterbourne Water Supply Works (WSW), an existing facility operated by Southern Water near Winchester.
“Post WRP” operation scenario	This scenario is used to describe an operational scenario following commissioning of the Project and the release of recycled water into Havant Thicket Reservoir. Under this scenario, recycled water is blended with spring water before entering the reservoir.
Proposed Water Recycling Plant (WRP)	The proposed WRP would use an advanced treatment process to turn treated wastewater from Budds Farm WTW into purified

Term	Definition
	recycled water. The proposed WRP would be located in the vicinity of Budds Farm WTW.
Recycled water	Treated, purified water that has been produced by taking treated wastewater and removing remaining impurities using advanced treatment techniques.
Reject water	During the water recycling process, reject water is produced. Reject water is water containing impurities removed from the treated wastewater and would be released into the Solent using the existing Eastney LSO.
Spring 2025 Consultation	Spring 2025 Consultation focussing, in part, on water quality and biodiversity, underpinned by the content of this Report.
WER	The Water Environment (England and Wales) Regulations 2017 (WER). These Regulations transpose the European Water Framework Directive 2000/60/EC into law in England and Wales.
WFD Directions	The Water Framework Directive (WFD) (Standards and Classification) Directions (England and Wales) 2015 (WFD Directions). The WFD Directions establish a series of thresholds that are used in the classification of water body status under the WER.

Non-Technical Summary

This report provides an overview of the environmental water quality modelling and assessments being carried out as part of the Hampshire Water Transfer and Water Recycling Project (the 'Project'). This comprehensive suite of investigations is helping us to understand the potential effects of the Project on the quality of water in the environment and how this may benefit or impact wildlife.

The report specifically looks at the potential effects that may occur in several water bodies as a result of the Project and how they might need to be managed.

These water bodies are:

- Havant Thicket Reservoir
- Riders Lane Stream and Hermitage Stream
- Langstone Harbour and the Solent

We are consulting on the information in this report, before it is developed further and finalised as part of our Development Consent Order application later this year.

A non-technical summary of the key findings for each water body is presented below.

Havant Thicket Reservoir

The water quality modelling and assessments have not highlighted any potential environmental effects from storing purified recycled water in Havant Thicket Reservoir, other than for phosphorus.

The initial water quality modelling predicts an increase in phosphorus in the reservoir following the introduction of purified recycled water from the proposed Water Recycling Plant. This increase is predicted to stimulate the growth of algae in the reservoir.

A water body high in phosphorus would typically have low biodiversity (i.e. it would not support a diverse range of aquatic plants and animals). This is because algae limit the amount of light passing through the water. Also, when algae die, they can reduce the amount of oxygen in the water. As a result, the reservoir would be expected to become home to a smaller range of aquatic wildlife than if there was a lower level of phosphorus within it.

An assessment has been undertaken of how the planned bubbler system in the reservoir, which mixes the water by pumping air through it, would reduce the growth of algae in the summer and retain more oxygen in the water. While using the bubbler would help reduce algae and retain more oxygen in the reservoir, it would not reduce the predicted increase in phosphorus arising from the purified recycled water.

Modelling has predicted that reducing phosphorus in the purified recycled water would support a more diverse range of aquatic plants and animals. As a result, our Development Consent Order application will provide for additional phosphorus treatment measures as part of the water recycling process. As our environmental regulator, the Environment Agency will set the water quality requirements of the purified recycled water that can go into the reservoir.

The level of nitrates would be significantly lower in the purified recycled water than the spring water in the reservoir. This is predicted to reduce the level of nitrates in the reservoir however this is not sufficient enough to offset the increase in phosphorus and likelihood of algal growth.

Riders Lane Stream and Hermitage Stream

Once filled, Havant Thicket Reservoir will help to maintain and improve flows within the downstream watercourses of Riders Lane Stream and Hermitage Stream which will receive water from it.

When purified recycled water is added to the reservoir, these watercourses are predicted to experience some changes in water quality. Levels of nitrate would beneficially decrease. Alkalinity and pH would also decrease while phosphorus would increase. Unlike the reservoir though, the phosphorus would not be at a level which is likely to limit biodiversity. Whilst the modelling has predicted an increase in Biochemical Oxygen Demand (a measure of the amount of oxygen used by small organisms in the water) the level of oxygen in the water is predicted to increase as a result of the operation of the reservoir, resulting in a potential benefit to biodiversity. Adding purified recycled water to the reservoir would support this benefit.

Overall, the predicted changes in water quality arising from the Project in Riders Lane Stream and Hermitage Stream are not predicted to result in any negative effects on biodiversity.

Langstone Harbour and the Solent

As Riders Lane Stream and Hermitage Stream feed into Langstone Harbour, the water quality changes predicted within them are expected to result in some small changes in the harbour too. These changes are not expected to result in negative effects on water quality and the wildlife of the harbour.

The reject water that would be released from the proposed Water Recycling Plant into the Solent, 5.7km offshore via the existing Eastney Long Sea Outfall, is predicted to result in very small water quality changes. These changes are not expected to result in negative effects on the water quality or biodiversity of the Solent.

The proposed Water Recycling Plant would include a surface water drainage system, including a new outfall, to release rainwater to the Hermitage Stream and Langstone Harbour. Modelling has predicted that this outfall would not have negative effects on water quality in the Hermitage Stream or Langstone Harbour.

Next steps

As the design of Havant Thicket Reservoir progresses, further water quality modelling will be undertaken to take account of changes in the design and operation of the reservoir. We will reflect this ongoing modelling work, where possible, in the Development Consent Order application.

Overall, environmental water quality in the downstream watercourses, the harbour and the Solent is predicted to be largely unaffected by the addition of purified recycled water or reject water from the water recycling process. However, the modelling predicts an increase in phosphorus in the reservoir from the introduction of purified recycled water which may limit biodiversity. Our Development Consent Order application will therefore include additional measures for reducing phosphorus as part of the water recycling treatment process.

An Environmental Permit is required for the release of purified recycled water into Havant Thicket Reservoir and of reject water from the proposed Water Recycling Plant to the Solent. We will apply for this permit alongside our Development Consent Order application.

The Environment Agency, our environmental regulator, will stipulate in the Environmental Permit the water quality requirements of the purified recycled water that can go into the reservoir, including for phosphorus. We are working with the Environment Agency to determine how the phosphorus treatment measures are best introduced. Confirming the Environmental Permit requirements is essential to informing these measures and ensuring the Project meets regulatory requirements while delivering best value for customers.

1 Introduction

1.1 Hampshire Water Transfer and Water Recycling Project

Overview of the Project

1.1.1 Abstraction licence reductions, climate change and population growth mean Southern Water is facing a shortfall of 200 million litres of water a day in Hampshire during a drought. As a result, the company is developing new sources of supply to make up this shortfall and maintain public supplies while protecting the county's chalk rivers.

1.1.2 Southern Water is proposing to submit an application for a Development Consent Order (DCO) for the Hampshire Water Transfer and Water Recycling Project (hereafter 'Project') under the Planning Act 2008. The Project seeks to create a new drought resilient source of water that protects and enhances the environment, comprising a combination of both water transfer and water recycling technology that during drought conditions would play a major role in making up any shortfall in water supply across the Hampshire supply area. The Project would be operational throughout the year however peak operation would only occur during drought conditions.

1.1.3 The Project would use an advanced treatment process to turn treated wastewater into purified recycled water (hereafter 'recycled water') at a proposed Water Recycling Plant (WRP), to be located south of Havant in the vicinity of Budds Farm Wastewater Treatment Works (WTW). A portion of the treated wastewater from Budds Farm WTW would be redirected for advanced treatment within the proposed WRP. This would produce recycled water for transfer to Havant Thicket Reservoir, where it would supplement the spring water that will be stored in the reservoir in accordance with Portsmouth Water's existing planning permission. The reject stream from this new treatment process would then be transferred back to Budds Farm WTW by pipeline and released into the existing Eastney Transfer Tunnel, downstream of the treated wastewater channel, where it would be blended with the unused treated wastewater from Budds Farm WTW and released via the existing Eastney Long Sea Outfall (LSO) into the Solent.

1.1.4 Under Portsmouth Water's existing planning permission, the Havant Thicket Reservoir project will require the release of 'compensatory flows' to Riders Lane Stream, a Main River (as classified by the Environment Agency - typically denoting larger watercourses), which flows south from the reservoir before joining the Hermitage Stream. The Hermitage Stream continues to flow south through Bedhampton and into Langstone Harbour. The purpose of the compensatory flows is to maintain and improve flows within these watercourses once the reservoir is operational. The addition of recycled water into the reservoir would not alter the compensatory flow volumes which has been agreed by Portsmouth Water with the Environment Agency as part of the reservoir impoundment licence.

1.1.5 The proposed WRP would also include an on-site surface water Sustainable Drainage System (SuDS) which includes a new outfall releasing to the tidal reach of the adjacent Hermitage Stream, which subsequently flows into Langstone Harbour.

1.1.6 In parallel with the DCO application, Southern Water is seeking to apply for a new Environmental Permit from the Environment Agency for the release of recycled water into Havant Thicket Reservoir and the release of WRP reject water into the Solent via the Eastney LSO. These releases require a surface water pollution risk assessment. Southern Water is engaging with the Environment Agency through a pre-application process to confirm the requirements of this risk assessment and Environmental Permit application process.

Summer 2022 and 2024 Consultations

1.1.7 Southern Water consulted on the Project in Summer 2022 and, more recently, in Summer 2024. During the Summer 2024 Consultation, the company actively sought feedback from consultees and stakeholders on its proposals.

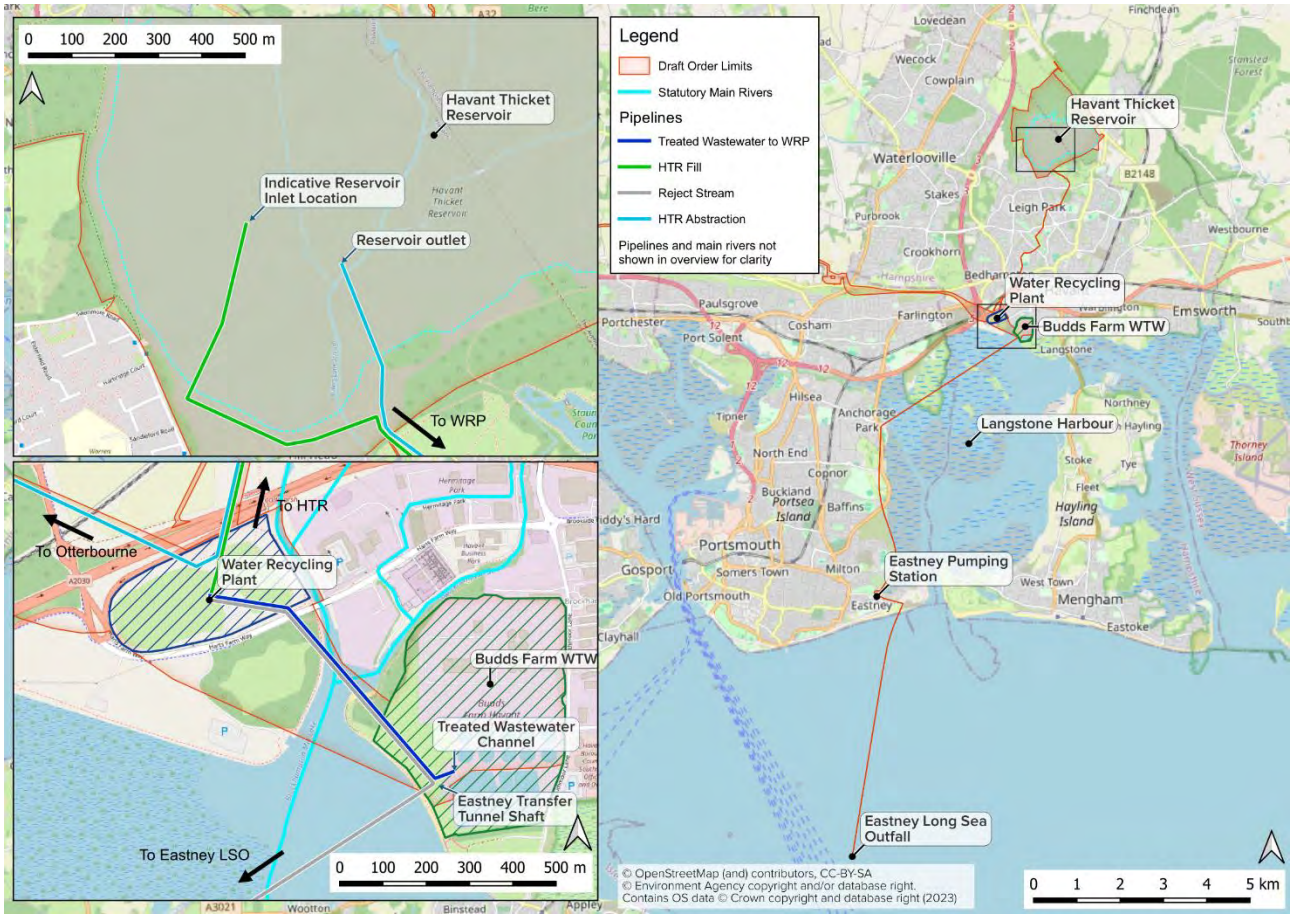
1.1.8 Preliminary impacts and initial proposals for mitigation were provided in a Preliminary Environmental Information (PEI) Report. The PEI Report was prepared to enable consultees to understand the likely significant environmental effects of the Project based on the information available at the time. The PEI Report built on the findings of the Environmental Impact Assessment (EIA) Scoping Report submitted on 21 July 2023, taking account of the EIA Scoping Opinion adopted by the Secretary of State (SoS) on 31 August 2023.

1.2 Spring 2025 Consultation and purpose of this Report

1.2.1 Since the Summer 2024 Consultation, water quality modelling and assessment work, undertaken jointly by Southern Water and Portsmouth Water, has enabled further understanding of the potential effects of the Project on the water environment and supported biodiversity. This Spring 2025 Consultation now provides an opportunity for consultees to provide feedback on this latest information, prior to this being developed further to support the DCO application.

1.2.2 This ‘Environmental Water Quality Report, Spring 2025 Consultation’ (hereafter ‘Report’) is focussed solely on water quality matters associated with Havant Thicket Reservoir, downstream watercourses (Riders Lane Stream, Hermitage Stream), Langstone Harbour and the Solent, including consideration of how water quality changes may impact nationally and internationally designated sites, and supported freshwater and marine flora and fauna. The key features considered within this Report are presented in Figure 1-1. The locations of the Riders Lane Stream and Hermitage Stream are presented in Figure 3-1.

Figure 1-1 Key features and water bodies assessed within this Report



1.2.3 The Report primarily utilises the baseline information presented within the PEI Report, supplemented by further additional baseline data collected since the Summer 2024 Consultation.

1.2.4 The emerging conclusions of the water quality assessment work have, and will continue to be, regularly discussed with relevant stakeholders as Southern Water develops and finalises the DCO application.

1.2.5 Water quality modelling has comprised the following four activities:

- Water quality modelling within Havant Thicket Reservoir. The purpose of this modelling is to assess the potential water quality changes associated with releasing recycled water into the reservoir. This modelling is summarised in section 3.1.
- Water quality modelling of water bodies downstream of Havant Thicket Reservoir. The purpose of this modelling is to assess the potential water quality effects to compensatory flows as a result of releasing recycled water into the reservoir. This modelling is summarised in section 3.2.
- Dispersion modelling of reject water via the Eastney LSO in the Solent. This modelling considers the change to the existing release from the Eastney LSO from Budds Farm WTW as a result of the Project. This modelling is summarised in section 3.3.
- Proposed WRP SuDS modelling. The purpose of this modelling is to assess the potential water quality effects of the proposed release of treated surface

water runoff from the proposed WRP SuDS outfall into the tidal reach of the Hermitage Stream and Langstone Harbour. This modelling is summarised in section 3.4. The indicative location of the outfall is shown in Figure 3-14.

1.2.6 Separately to the Project and proposed DCO application, Southern Water is considering changes to Budds Farm WTW so that in times of wet weather storm flows from the site, currently releasing to Langstone Harbour, would instead be directed to Eastney LSO. Treated wastewater (currently releasing via the Eastney LSO) would instead be released from the Langstone Harbour Short Sea Outfall (SSO). Due to the configuration of Budds Farm WTW and its connection to the Eastney Transfer Tunnel, it is not possible for reject water from the proposed WRP to be released into Langstone Harbour via the existing SSO. As this potential reconfiguration project is not sufficiently developed at this stage, the potential interactions with the Project are not considered in this Report. If the reconfiguration project is sufficiently progressed at the time of DCO application, this will be considered within the Environmental Statement.

1.2.7 This Report considers the outcomes of the ongoing modelling activities stated above in terms of the following topics:

- Water environment (including freshwater, estuarine and marine water bodies), as set out in section 4. This section includes a preliminary assessment of compliance of the Project against water quality thresholds established in the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 (see section 2 for further information).
- Freshwater biodiversity, as set out in section 5.
- Marine biodiversity, as set out in section 6.

1.2.8 These topics are presented within this Report as the full assessment of water quality modelling will be provided within these equivalent chapters of the Environmental Statement.

1.2.9 This Report is not presented as an addendum to the PEI Report, in that receptor value, magnitude of impact or significance (i.e. ‘neutral’, ‘moderate’, ‘minor’ or ‘major’) are not assigned in accordance with the Project’s EIA methodology (as set out in the PEI Report Chapter 5: EIA Approach and Methodology, Volume I). However, commentary is provided on whether the potential for any new or materially different significant effects, since the PEI Report, have been identified. The modelling and assessments will be refined, finalised and fully reported in the Environmental Statement which will include an assessment of significance. Furthermore, where the potential need for mitigation has been identified, Southern Water’s approach to determining and agreeing this with relevant regulators is summarised and will also be presented further within the Environmental Statement.

1.2.10 Further details of the water quality modelling and assessment work is provided in section 3.

1.3 Report structure

1.3.1 This Report is structured as follows:

- Section 1: Introduction

- Section 2: Water quality parameters and summary of baseline conditions
- Section 3: Summary of ongoing water quality assessments
- Section 4: Potential effects on the water environment
- Section 5: Potential effects on freshwater biodiversity
- Section 6: Potential effects on marine biodiversity
- Section 7: Summary and next steps

2 Water quality parameters and summary of baseline conditions

2.1 Introduction

2.1.1 This section provides a summary of background information on how water quality in rivers, lakes, estuarine and coastal waters is assessed under the Water Framework Directive 2000/60/EC (WFD) (section 2.2), defines the study area assessed in this Report (section 2.3) and describes the baseline conditions of each water body, based on desk study and survey data (section 2.4).

2.1.2 The WFD is a key piece of European environmental legislation aiming to improve and protect the water environment on a catchment scale. Relevant legislation and terminology relating to the WFD used within this Report is presented below:

- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (hereafter 'WER'). The WER transpose the WFD into law in England and Wales.
- The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 (hereafter 'WFD Directions'). The WFD Directions establish a series of thresholds that are used in the classification of water body status under the WER.
- WER Compliance Assessment – an assessment of compliance with the WER that must be undertaken for all major infrastructure projects such as this Project, as required by the Planning Inspectorate (2024).

2.2 Water quality parameters

Environmental water quality and the Water Environment Regulations

2.2.2 Government requirements for water quality in rivers, lakes, estuarine and coastal waters are set out in the WER. These regulations continue to be in force following the United Kingdom's withdrawal from the European Union under the terms of the Floods and Water (Amendment etc.) (EU Exit) Regulations 2019.

2.2.3 The WER require Defra and the Environment Agency to prevent deterioration and protect and enhance the status of aquatic ecosystems. These authorities must ensure that new activities do not adversely impact upon the status of aquatic ecosystems or limit the improvements that can be achieved in the future. The potential impacts of historical activities and modifications also need to be considered. The WER apply to all types of water bodies, including those that are artificial, such as reservoirs.

2.2.4 There are two separate components used to classify the status of surface water bodies; ecological and chemical.

2.2.5 The ecological status of a surface water body is assessed according to the condition of:

- Biological quality elements, including fish, invertebrates and aquatic flora.

- Physico-chemical quality elements, including temperature, salinity, pH, and nutrient concentrations.
- Hydromorphological quality elements, including morphological conditions, hydrological regime and tidal regime.

2.2.6 The ecological status of surface waters is recorded on a scale of 'high', 'good', 'moderate', 'poor' and 'bad'. The ecological status of a water body is determined by the Environment Agency using the lowest scoring quality element, which means that the condition of a single quality element can cause a water body to fail to reach the overall environmental objective of Good Ecological Status (GES).

2.2.7 The chemical status of a water body is recorded as either 'good' or 'fail' and is determined by the recorded concentrations of a range of potentially toxic chemicals, which are collectively referred to as 'priority substances' and 'priority hazardous substances'. Concentrations of several "ubiquitous, persistent, bioaccumulative, toxic substances" (uPBTs) found in all surface waters means that no water bodies in England or Wales are currently at 'good' chemical status.

2.2.8 By comparing measured or modelled values of water quality parameters to thresholds set in the WFD Directions, it is possible to determine the status of a water body and therefore provide an indication of its environmental 'quality'.

Definition of key parameters

2.2.9 A brief description of the key water quality parameters assessed in this Report, and their relevance as physico-chemical quality elements under the WFD Directions, is provided below in Table 2-1.

Table 2-1 Water quality parameters and relevance to WFD Directions

Parameter	Description	Relevance to WFD Directions
Basic water quality parameters		
pH	A measure of the acidity or alkalinity of a liquid. Although different organisms have different levels of tolerance to high (alkaline, pH 8 – 14) or low (acid, pH 1 - 6) pH, most organisms prefer broadly neutral pH (pH 6 – 8).	pH is used to classify the physico-chemical status of rivers in the WFD Directions. Status class thresholds are set on the basis of the 5th, 10th and 95th percentiles of the measured data rather than absolute values.
Dissolved Oxygen (DO)	DO is a measure of the amount of gaseous oxygen dissolved in water, which indicates how much oxygen is available to aquatic organisms. Higher DO concentrations are usually indicative of good water quality. As cold water can contain more oxygen than warmer water, DO is subject to natural seasonal variations.	DO is used to classify the physico-chemical status of rivers, lakes, estuaries and coastal waters under the WFD Directions. Status class thresholds for rivers are set on the basis of the 90th percentile of the measured data rather than absolute values. In lakes, thresholds are expressed as mean values for July and August. In estuaries and coastal waters, the 5th percentile is used.

Parameter	Description	Relevance to WFD Directions
Biochemical Oxygen Demand (BOD)	BOD is a measure of the amount of DO required by bacteria to metabolise (consume) organic compounds in water.	Although the WFD Directions sets out thresholds for BOD in rivers, these are not used to classify water body status but are sometimes used by the Environment Agency to determine site-specific limits for releases as part of the Environmental Permitting process.
Nutrients		
Orthophosphate (PO_4)	PO_4, alternatively known as Soluble Reactive Phosphorus or simply 'phosphate', is a soluble, inorganic form of phosphorus that is found in water and is taken up directly by plant cells. Phosphorus is an essential nutrient for aquatic life that is naturally found in water. Phosphorus is an important controller of phytoplankton growth, which can be inhibited if concentrations are too low. However, if concentrations become too high, excess phytoplankton growth can occur, thereby reducing the amount of DO available in the water body and reducing species diversity.	PO_4 is used to classify the physico-chemical status of rivers under the WFD Directions. Status class thresholds are established on the basis of annual mean concentrations.
Total Phosphorus (TP)	TP is a measure of all forms of phosphorus found in water, including PO_4, larger condensed phosphates (linked groups of PO_4 molecules) and organic phosphates (PO_4 molecules linked to an organic molecule).	TP is used to classify the physico-chemical status of lake water bodies under the WFD Directions. Status class thresholds are established on the basis of annual mean concentrations.
Total Ammonia as Nitrogen (TAN)	The term "total ammonia as N' is used to refer to the sum of a range of different chemical compounds that contain nitrogen, including ammonia and (NH_3), ammonium (NH_4). Like phosphorus, nitrogen is an essential nutrient that is naturally found in water, but high concentrations can result in excess phytoplankton growth and adverse impacts on other aquatic organisms.	Total ammonia as N is used to classify the physico-chemical status of rivers and lakes under the WFD Directions. Status class thresholds are set on the basis of the 90th percentile of the measured data rather than absolute values.
Total Nitrogen (TN)	TN is a measure of all forms of nitrogen found in water, including NH_3 and NH_4 and inorganic nitrate (NO_3) and nitrite (NO_2). Nitrates and nitrites are produced by the bacterial breakdown of ammonia	Although TN is not directly used to classify water body status, its importance as a nutrient for phytoplankton growth means that it was considered as part of the reservoir modelling discussed in section 3.1.
Dissolved Inorganic Nitrogen (DIN)	DIN is a form of nitrogen which includes inorganic ammonia, NO_2 and NO_3. Plant cells can very easily take up DIN from water, which means that it is an important controller of phytoplankton growth in sea water.	DIN concentrations are used to classify the physico-chemical status of transitional and coastal water bodies under the WFD Directions. Status class thresholds are established on the basis of mean concentrations between November and February.

Parameter	Description	Relevance to WFD Directions
Other parameters		
Dissolved Organic Carbon (DOC)	DOC is a measure of organic carbon found in water. It is formed as a result of the decomposition of organic matter and is an important food source for aquatic life.	DOC concentrations are not directly used to classify water body status under the WFD Directions. However, DOC is used to determine which thresholds are applicable to the acid neutralising capacity of river water bodies and which standards for invertebrates should be used in lake water bodies.
Dissolved Inorganic Carbon (DIC)	DIC is a measure of the inorganic carbon compounds dissolved in water and includes carbon dioxide (CO_2) bicarbonates (HCO_3), and carbonates (CO_3).	DIC plays an important role in neutralising the acidity of water, but it is not used to classify the physico-chemistry of any water bodies under the WFD Directions.
Chlorophyll-a	Chlorophyll-a is used by plants during photosynthesis and is therefore used as an indicator of phytoplankton growth (i.e., higher concentrations of chlorophyll-a indicate greater growth of phytoplankton).	Chlorophyll-a is not directly used to classify water body status under the WFD Directions. However, it is used as an indicator of phytoplankton growth in lake water bodies.
Total Suspended Solids (TSS)	TSS is a measure of the particulate matter suspended in a body of water and can include inorganic particles of soil and sediment as well as organic particles. TSS influences the turbidity (cloudiness) of water and is therefore a key factor in controlling the amount of light that can penetrate the water column; light availability is important for the growth of aquatic vegetation.	Turbidity is used to determine which thresholds for DIN should be applied in transitional and coastal water bodies under the WFD Directions. However, it is not directly used to classify physico-chemical status.
Total Iron (Fe)	Fe is naturally found in water as either soluble ferrous iron or insoluble ferric iron. Total Fe is a measure of the concentrations of both soluble and insoluble forms of iron in water.	Although Fe is an important nutrient, it can also be toxic in high concentrations. Fe is therefore recognised as a potential pollutant in the WFD Directions and is used to classify water body status.
Total Manganese (Mn)	Like Fe, Mn is naturally found in water. Total Mn is a measure of the concentrations of all forms of manganese in water.	Although Mn is an important nutrient, it can also be toxic in high concentrations. Mn is therefore recognised as a potential pollutant in the WFD Directions and is used to classify water body status.

2.3 Definition of the study area

2.3.1 The study area for this Report encompasses several water bodies which would receive releases of recycled water from the proposed WRP, compensatory flows from Havant Thicket Reservoir or reject water from the Eastney LSO. These water bodies are summarised below:

- Havant Thicket Reservoir: The modelling and assessment presented within this Report assumes that Havant Thicket Reservoir, which will be located in the northern part of the Hermitage Stream catchment, has been constructed. The operational reservoir would receive releases of recycled water from the

proposed WRP. The reservoir will be designated by the Environment Agency as an 'artificial' or 'heavily modified' lake water body under the WER as it will exceed 40ha in area.

- Riders Lane Stream: A tributary of the Hermitage Stream and a Main River currently rising to the north of Havant Thicket and flowing in a broadly southerly direction until it joins the Hermitage Stream. The Riders Lane Stream will be partially severed by the reservoir once constructed, however will receive compensatory flows from the operational reservoir.
- Hermitage Stream: A Main River rising on high ground to the north of Havant, flowing in a broadly southerly direction until it flows into Langstone Harbour.
- Langstone Harbour: A transitional water body located to the south of Havant. The harbour is connected to the Solent via a narrow mouth between Eastney and Hayling Island.
- The Solent: The coastal waters of the Solent are located to the south of Havant and Langstone Harbour. Eastney LSO is an existing Southern Water outfall which releases into the Solent.

2.4 Summary of baseline ecology and water quality conditions

2.4.1 This section summarises the water quality and ecological baseline conditions of the water bodies identified in the study area. In addition to summarising the information already presented as part of the Summer 2024 Consultation, this section also presents more recent supplementary field survey and desk review undertaken to inform the Environmental Statement.

Havant Thicket Reservoir

2.4.2 As Havant Thicket Reservoir has not yet been constructed, there is no water quality or ecological monitoring data available to establish measured baseline conditions. Modelling has therefore been used to predict water quality in the reservoir throughout the "classic" operation phase and "post-WRP" operation phase (see section 3 for details).

Riders Lane Stream

2.4.3 Riders Lane Stream is a headwater stream which currently flows intermittently and is fed by both groundwater and rainfall sources, rising to the north of Havant Thicket and flowing in a broadly southerly direction until it joins the Hermitage Stream.

2.4.4 Riders Lane Stream forms part of the larger Hermitage Stream water body and therefore has the same ecological status (see below). Water quality data for the stream is relatively limited, although monitoring undertaken by Portsmouth Water to inform the EIA for Havant Thicket Reservoir (Portsmouth Water, 2019) suggests that water quality is generally good.

2.4.5 In terms of ecology, the upstream extents of Riders Lane Stream were recorded as largely dry and/or ponded during ecological surveys completed in 2022 and 2024. A large culvert beneath Middle Park Way Road presents a significant

obstacle to fish passage and a barrier to flow. Some areas of low flowing run and glide habitat are present downstream of the culvert, however in general instream vegetation is largely absent and macrophyte diversity and species richness from desk study data and field survey data in 2022 and 2024 is low.

2.4.6 Data from the Environment Agency's National Fish Population Database (NFPD; Environment Agency, 2024), supported by data from fish surveys undertaken in 2022 (Southern Water) and 2024 (Portsmouth Water) identified bullhead (*Cottus gobio*; a species of community interest under Annex II of The Conservation of Habitats and Species Regulations 2017) and European eel (*Anguilla anguilla)*; a Species of Principal Importance (SPI) under the Natural Environment and Rural Communities Act 2006) in Riders Lane Stream. Macroinvertebrate surveys undertaken in 2024 identified a community of low diversity with moderate tolerance to water quality based on the Biological Monitoring Working Party (BMWP; Hawkes (1997)) and Whalley, Hawkes, Paisley and Trigg (WHPT; Paisley *et al.* (2014)) index scores.

Hermitage Stream (freshwater reach)

2.4.7 Hermitage Stream rises on high ground to the north of Havant, flowing in a broadly southerly direction until it flows into Langstone Harbour. It is adversely affected by existing point source pollution from public domestic misconnections and urban runoff (Environment Agency, 2023). As a result, the water body is at 'moderate' ecological potential for orthophosphate and pH and fails to meet the required chemical status for mercury and its compounds and polybrominated diphenyl ethers (PBDE) (Environment Agency, 2023). All other physico-chemical parameters monitored by the Environment Agency (acid neutralising capacity, ammonia, BOD, DO and temperature) are at 'high' status, while the remaining priority substances measured in the water body (e.g. groups of hydrocarbons, dioxins, pesticides and herbicides) are at 'good' status (Environment Agency, 2023).

2.4.8 The freshwater reach of the Hermitage Stream has been extensively modified with a significant weir at Bedhampton Spring, and several outfalls and wooden step weirs documented in the freshwater extents upstream of the tidal limit. In-stream habitats are mostly glide and shallow runs, with dense algae present through the freshwater reach indicating significant nutrient enrichment.

2.4.9 Macrophyte diversity and species richness from EA monitoring data and field survey data in 2022 and 2024 is low and no protected or designated macrophyte or macroinvertebrate species have been identified through survey or desk study data. Bullhead (Annex II species), European eel (SPI species) and three-spined stickleback (*Gasterosteus aculeatus*) have been recorded from EA monitoring data and from surveys to inform the Project in 2022. The current Hermitage Stream WFD status for biological quality elements is 'Moderate' based on poor status for fish and moderate status for invertebrates. Macrophytes and diatoms (combined) are not assessed in this catchment.

2.4.10 Portsmouth Water is developing a range of mitigation and compensation measures in the Hermitage Stream catchment as a result of WER Regulation 19 (derogation) requirements of the Havant Thicket Reservoir planning permission. This includes improvements to watercourse connectivity in Riders Lane Stream and the Hermitage Stream through culvert design and habitat improvements. These works

aim to achieve improvement in ecological conditions of the catchment over time. The future ecological baseline may therefore alter and show improvements in habitat quality and freshwater biodiversity. These changes are unlikely to alter the conclusions of this Report, however further consideration will be given to the restoration works in the Environmental Statement.

2.4.11 The Hermitage Stream water body is within the Chichester, Langstone and Portsmouth Harbours Eutrophic Nitrate Vulnerable Zone and Langstone Harbour Shellfish Water.

Hermitage Stream (tidal reach)

2.4.12 Hermitage Stream experiences tidal effects in its lower reaches. Previous migratory fish surveys undertaken between June 2022 and June 2023 in the tidal section also identified European eel. Intertidal walkover surveys were undertaken in September 2024 between the A27 Havant bypass and the Harts Farm Way bridge and found that for this tidal section of the Hermitage Stream, habitats present were artificial hard structures and littoral mud. Revetment consisting of concrete blocks went from the upper to mid shore. The lower shore consisted of littoral mud habitat with some boulders and pebbles. An abundant species recorded was estuary wrack (*Fucus ceranoides*), a common species in brackish water. Surface water runoff and litter were noted with presence of a rotten egg smell. No protected or designated macrophyte or macroinvertebrate species have been identified through survey or desk study data.

Langstone Harbour

2.4.13 Langstone Harbour is an estuarine water body located to the south of Havant that is connected to the Solent via a narrow mouth between Eastney and Hayling Island. The water body is located in a number of protected areas: Langstone Harbour Site of Special Scientific Interest (SSSI), Chichester and Langstone Harbours Special Protection Area (SPA)/Ramsar site and the Solent Maritime Special Area of Conservation (SAC).

2.4.14 The water body is currently at ‘good’ status for physico-chemistry (Environment Agency, 2023). With the exception of mercury and PBDE, water quality in Langstone Harbour is generally good, with DIN, DO and a range of other pollutants (e.g. groups of hydrocarbons, dioxins, pesticides and herbicides) all at ‘good’ or ‘high’ status.

2.4.15 Langstone Harbour was formerly affected by eutrophication, caused by an excess of nutrients (particularly nitrates). However, nutrient loads (particularly from diffuse agricultural sources) have now decreased, and eutrophication is no longer considered to be an issue in the harbour. The harbour is designated as part of the Chichester, Langstone and Portsmouth Harbours Nitrate Vulnerable Zone and the Langstone Harbour Shellfish Water.

2.4.16 A comparison of seagrass extent mapped by Natural England in summer 2023 with that mapped by the Project from the seagrass survey conducted in summer 2022 (PEI Report Appendix 9.3 Intertidal seagrass survey, Volume II) indicates there were no seagrass beds mapped along the northern part of Langstone Harbour where the downstream of the Hermitage Stream converges with the harbour or around Long Island or North Binness Island. Nevertheless, migratory fish species

European eel and European smelt (*Osmerus eperlanus*) were identified from the previous migratory fish survey at the intertidal zone of Langstone Harbour (refer to PEI Report Appendix 9.2 Migratory fish surveys, Volume II).

Solent

2.4.17 Water quality in the Solent is under pressure from elevated concentrations of dissolved inorganic nitrogen (from diffuse agricultural runoff and point source releases), mercury compounds and PBDEs.

2.4.18 The water body forms part of multiple protected areas, including the Solent and Dorset Coast SPA, the Solent and Southampton Water SPA/Ramsar site, the Solent Maritime SAC and the South Wight Maritime SAC as well as multiple Marine Conservation Zone (MCZ) sites including Bembridge MCZ, Selsey Bills and the Hounds MCZ and Utopia MCZ. The Solent is also located in several Nitrate Vulnerable Zones (e.g. Hamble Estuary, Chichester, Langstone and Portsmouth Harbours, and Newtown Harbour, Medina Estuary and Eastern Yar), Urban Waste Water Treatment Directive protected areas (Chichester Harbour, Newtown Harbour, Medina Estuary), Shellfish Waters (Cowes and Medina, Approaches to Southampton Water, Pennington, Langstone Harbour), and Bathing Waters (Southsea East, Gurnard)).

2.4.19 Benthic ecology surveys were undertaken around the Eastney LSO (defined by the area of effect estimated by dispersion modelling during both tidal states (spring and neap)) in early 2024. Broadscale habitats identified were mainly subtidal mud and subtidal mixed sediment across the area, with some subtidal sand and sheltered muddy gravel habitats present. There was no Annex I reef or any notable or protected species observed.

2.4.20 Environmental deoxyribonucleic acid (eDNA) sampling and analysis has been completed to establish which fish communities and other species communities are likely to be present within the waters around the Eastney LSO. A total of 13 fish species were detected as well as other species such as sea squirt, sea anemone, bivalve, polychaete, diatom, algae, plant and fungus species. One notable marine fish species, namely common sole (*Solea solea*) (an SPI in England) was detected.

3 Summary of ongoing water quality assessments

3.1 Havant Thicket Reservoir

Summary of ongoing assessment

Modelling approach

3.1.1 Modelling of reservoir water quality is being conducted jointly by Portsmouth Water and Southern Water using the Aquatic Ecosystem Model – Three Dimensional (AEM3D) model which simulates the temporal behaviour of stratified water bodies. The model simulates the velocity, temperature and salinity of surface waters that are subjected to environmental and anthropogenic (human-caused) forces such as wind, surface heating and cooling, inflows, and withdrawals (Future Water, 2024).

3.1.2 The model also represents different compounds of carbon, nitrogen and phosphorus, DO, inorganic suspended solids, phytoplankton (microscopic organisms) and metals. The model predicts reservoir water quality at depth intervals at several locations in the reservoir.

Modelled parameters

3.1.3 As discussed in section 2.2, the model considered a range of common water quality parameters for which water quality standards have been established for lake water bodies under the WFD Directions (see section 4.2 for further discussion). These include:

- Basic water quality parameters, including temperature, pH, alkalinity, DO and BOD.
- Nutrients, including TP and DIN.
- Other parameters, including DOC, Chlorophyll-a, TSS, Total Iron and Total Manganese.

3.1.4 Initial concentrations of these parameters were estimated using measured data, (e.g. inputs from surface watercourses and long-term groundwater quality data from Portsmouth Water) and initial estimates of the quality of recycled water following treatment at the WRP (Future Water, 2024).

Model scenarios

3.1.5 The reservoir water quality modelling has been used to predict changes in water quality resulting from different periods of use during the operation of the reservoir:

- The initial reservoir filling phase (c. two years, late 2026 – February 2029) with water inputs from Bedhampton and Havant Springs over three winter periods.
- The maintenance of water levels through the use of spring water inputs from Bedhampton and Havant Springs only (c. three years, March 2029 – May 2032). This is referred to as the “classic” operation scenario and is assumed as a circa three-year period based on early 2024 design information.

- The onset of recycled water inputs as a result of the Project (c. 10 years included in the simulation, June 2032 – December 2041). This is referred to as the "post-WRP" operation scenario. This period is predicted to include some stabilisation effects, i.e. the recycled water would be introduced into the reservoir before it has fully stabilised.

3.1.6 The timescales set out above were agreed by Portsmouth Water and Southern Water and considered representative at the time of commissioning the modelling study. Any changes to the construction and operational timescales will be reflected in any further modelling as necessary where this is likely to influence the predicted water quality effects.

3.1.7 The model has tested a number of scenarios to evaluate a range of potential operations of the reservoir. These scenarios included an "extended classic" operational scenario, which simulated how the reservoir would develop beyond the end of the "classic" phase in 2032 without the introduction of recycled water from the proposed WRP. This allows long term water quality within the reservoir to be assessed, with and without the Project.

Assumptions

3.1.8 The model assumes maintenance of Havant Thicket Reservoir at or near its top water level during the "post-WRP" operational phase would be achieved by balancing recycled water and spring water inflows with withdrawals for water supply and compensatory flows to Riders Lane Stream. This water balance regime would also fulfil the original objective of the reservoir serving as an emergency water supply during future droughts.

3.1.9 The model has assumed that the inlet for both spring water and recycled water would be located in deep waters within the reservoir. Withdrawals for water supply and compensatory flows to Riders Lane Stream would be from one of three extraction points located in the south basin. The model also assumed that a bubbler would be installed in the two basins of the reservoir to mix the water.

Limitations

3.1.10 Whilst the comprehensive modelling approach adopted for this Project is an accepted method of analysis used to predict general trends in water quality, it is important to note that it has some limitations. As Havant Thicket Reservoir is still under construction, it is not possible to calibrate or verify the model using measured water quality data. The modelling is based upon several key assumptions, agreed by Southern Water and Portsmouth Water, informed by best available information and expert judgement.

3.1.11 This Report provides a summary of predicted water quality effects based on current design information. The modelling and assessments will be refined, finalised and fully reported in the DCO application, alongside details of proposed monitoring and mitigation.

3.1.12 Although the model outputs provide an indication of the likely impacts of the Project on the water environment, they are not intended to be used in the detailed design of any future mitigation options. Details of any future mitigation will be verified following a suitable period of operation of the Project.

Preliminary findings

Initial filling phase

3.1.13 The model results predict that the water quality in the reservoir varies, as expected, while the reservoir is filled with spring water, flows from the streams located to the north of the reservoir (these currently constitute the headwaters of Riders Lane Stream) and surface water rainfall from the contributing catchment.

3.1.14 High Sediment Oxygen Demand, Dissolved Inorganic Matter (DIM) and Dissolved Organic Matter (DOM) sediment fluxes occur as soils and vegetation within the reservoir basin become inundated, stabilising once the reservoir becomes filled.

3.1.15 The addition of a bubbler to mix water within the reservoir basin creates a well-oxygenated reservoir with low sediment fluxes, low concentrations of nutrient compounds such as phosphate and ammonium, low concentrations of dissolved metals (iron and manganese) and low DOM (including DOC).

"Classic" operation scenario

3.1.16 Water quality during the "classic" operation scenario reflects the input of c. 15Ml/d spring water from Bedhampton for one month each winter, continuous withdrawals of c. 1Ml/d to maintain flows in Riders Lane Stream, and withdrawals of c. 3Ml/d to Farlington WSW for three months over the spring and summer (refer to Future Water, 2024).

3.1.17 In terms of macronutrients which support plant growth, the initial modelling predicts that TP concentrations would gradually rise from c. 0.02mg/l (milligrams per litre) at the beginning of the "classic" phase to c. 0.03mg/l at the end of the phase. Conversely, TN concentrations steadily decrease from c. 6mg/l at the beginning of the "classic" phase to c. 3mg/l at the end of the phase.

3.1.18 For the purposes of the assessment presented in this Report, water quality in the reservoir during the "classic" operation phase is used to represent the future baseline, against which changes that could occur as a result of the addition of recycled water from the WRP into the reservoir are compared.

"Post-WRP" operation scenario

3.1.19 The introduction of recycled water into the reservoir is predicted to result in a change to reservoir water quality. Concentrations of phosphorus and carbon compounds are predicted to increase, reflecting the higher concentrations of these compounds in the recycled water in comparison to the spring water. As a result, phytoplankton growth is expected to increase.

3.1.20 The modelling predicts that, in the absence of further measures, TP concentrations rise from 0.03mg/l at the end of the "classic" operation scenario to c. 0.05mg/l following the introduction of recycled water. They then fluctuate slightly between c. 0.05mg/l and c. 0.06mg/l for the remainder of the 15-year simulation period. Chlorophyll-a concentration (an indicator of phytoplankton growth) shows a similar pattern and is likely to reflect the changes in nutrient concentrations.

3.1.21 Modelled TN concentrations reduce from c. 3mg/l at the end of the "classic" operation scenario to between c. 1.5mg/l and c. 2mg/l for the remainder of the

simulation period. Although nitrogen is an essential nutrient for phytoplankton growth, there was not a simultaneous decline in the modelled chlorophyll-a concentration. This indicates that despite the reduction in TN concentration, there are still sufficient nutrients available during this scenario for uptake by phytoplankton. Further analysis is provided in section 5.2.

Alternative scenarios (Total Phosphorus reduction in recycled water)

3.1.22 To inform the development of measures to address the predicted increase in phytoplankton growth, the modelling has also considered alternative scenarios in which the concentrations of phosphorus compounds in the incoming recycled water from the proposed WRP were reduced to represent different levels of treatment efficiency (Future Water, 2024). A reduction in TP in the input water under each of the three scenarios resulted in correspondingly lower concentrations of TP within the reservoir, and a reduction in phytoplankton growth rates.

Potential environmental effects

3.1.23 Further discussion on the potential environmental effects of the changes described in the section above is provided in sections 4-6.

3.2 Compensatory flows

Summary of ongoing assessment

Modelling approach

3.2.1 The modelling described in section 3.1 was focussed on water quality in the reservoir and did not simulate potential effects on downstream water bodies. The reservoir model did however include a predicted quality envelope for the compensatory flows. This was used to define the input parameters for further downstream dispersion modelling to investigate the mixing and dispersion of water released from the reservoir through compensatory flows into downstream water bodies. The dispersion modelling approach is considered “conservative” for the majority of water quality parameters as it assumed that concentrations of each parameter are not subject to chemical degradation or biological uptake processes and are only affected by physical dispersion processes such as dilution.

3.2.2 Following completion of the preliminary dispersion modelling, additional degradation modelling has also been undertaken to consider the role of chemical and biological processes on a subset of parameters that are considered to be most sensitive to these processes (e.g. DO).

3.2.3 The preliminary model results described in this section will be used to inform the Environmental Statement and associated assessments (e.g. the WER compliance assessment and Habitats Regulations Assessment) and Environmental Permit application.

Modelled parameters

3.2.4 The dispersion model considered a range of water quality parameters included in the reservoir water quality model (Future Water, 2024) that are used to define the

physico-chemical status of river and transitional water bodies and therefore have a water body status threshold set out in the WFD Directions. The following parameters have been modelled:

- Basic water quality parameters, including temperature, pH, alkalinity, DO and BOD.
- Phosphorus parameters, including TP and PO_4.
- Nitrogen parameters, including TN, NH_3 and NO_3.
- Carbon parameters, including DOC and DIC.

3.2.5 The additional degradation modelling focussed on a subset of these parameters, namely DO, BOD, PO_4, HN_4 and NO_3.

Model scenarios

3.2.6 The reservoir modelling has defined concentrations of parameters for the periods pre and post the utilisation of the reservoir for the storage of recycled water from the proposed WRP. This allowed two main scenarios to be considered in the downstream compensatory flow modelling:

- A “pre-implementation” scenario, informed by water quality outputs from the reservoir model during the “classic” operation phase (March 2029 – May 2032), prior to the input of water from the proposed WRP. This represents a future baseline scenario, against which the impacts of the Project need to be assessed.
- The “post-implementation” scenario, informed by water quality outputs from the reservoir model during the operational phase of the Project (June 2032 – December 2041), following the input of recycled water from the proposed WRP.

3.2.7 In each scenario, water quality inputs have been derived from the reservoir water quality model outputs for the corresponding time period. As a precautionary approach, each scenario used the maximum values for each parameter as a worst case, with the exception of DO, where the minimum rather than maximum values were used (reflecting that higher DO concentrations reflect higher water quality).

3.2.8 Water quality in the Hermitage Stream catchment and downstream water bodies is subject to change as a result of natural variations in freshwater flows and tidal patterns, depending upon rainfall events, tidal conditions and seasonality. In order to represent this, the modelling has considered low and bank-full freshwater flows, two spring-neap tidal cycles and summer and winter water temperatures (which are particularly important with respect to degradation modelling).

Comparison with baseline water quality data

3.2.9 The outputs of the modelling, which enables the difference between scenarios to be calculated, have also been compared to measured water quality data from key locations in the downstream water bodies that have been assembled from several sources:

- Water quality data for the Riders Lane Stream and Hermitage Stream collected by Portsmouth Water in 2008 - 2010 and 2018 - 2019 to inform the Havant Thicket Reservoir Environmental Statement (as represented by the “classic” operation phase).

- Water quality data for the Hermitage Stream at New Road from the Environment Agency's online Water Quality Data Archive, encompassing a 24-year period from 2000 to the most recent data available in 2024.
- Water quality data for Langstone Harbour (including the harbour mouth and points further inland) from the Environment Agency Water Quality Data Archive, also encompassing the period from 2000 to 2024.

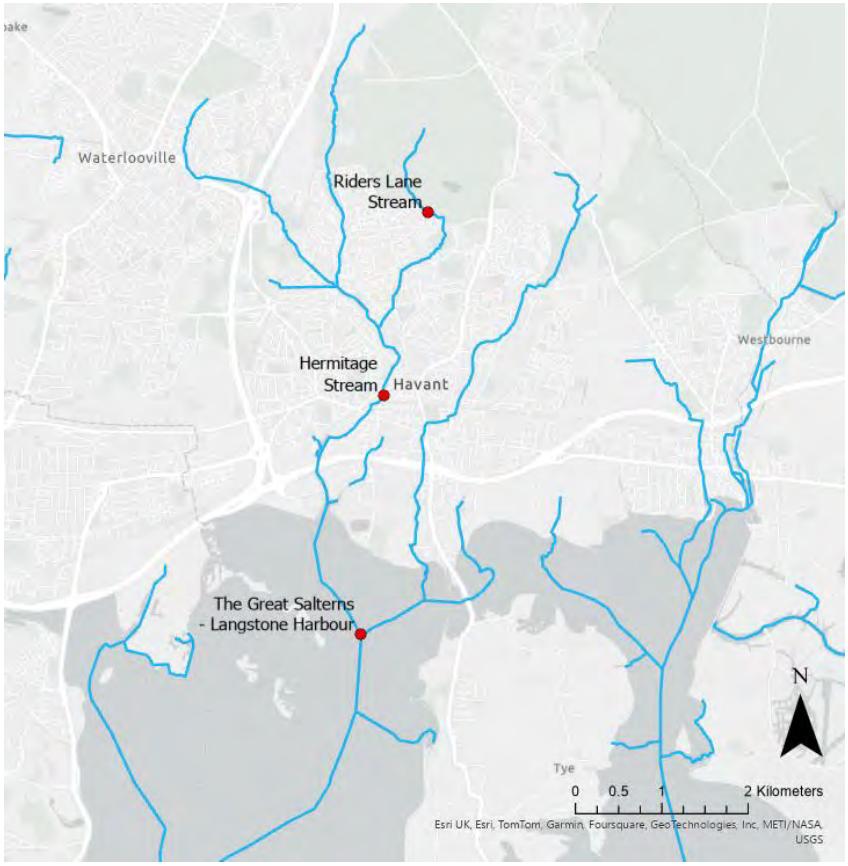
3.2.10 The above data has been used to draw the preliminary conclusions presented in this Report. However, Southern Water is currently collecting further water quality data for the Riders Lane Stream and Hermitage Stream to supplement the Portsmouth Water and Environment Agency data. Once further rounds of this monitoring are available for analysis, this data will be presented in the Environmental Statement included in the DCO application.

3.2.11 The preliminary results of the dispersion modelling have been produced for three sample points, as shown in Figure 3-1.

- Riders Lane Stream (immediately downstream of Havant Thicket Reservoir).
- Hermitage Stream (at the location of the EA water quality monitoring station).
- Great Salterns in Langstone Harbour.

3.2.12 The dispersion modelling outputs included the average (mean) predicted absolute change from the ambient water condition for each chemical parameter at each sample point. The percentage change for each chemical parameter was then predicted by comparing the differences between the baseline data and both modelled scenarios.

Figure 3-1 Sample point locations for comparison of modelled results and measured data



Preliminary findings: Dispersion modelling

3.2.13 Overall, the dispersion modelling predicts that there would be limited differences in concentrations of most water quality parameters between the "classic" and "post-WRP" operation scenarios. Changes are typically greatest in Riders Lane Stream and decrease considerably as water disperses in Langstone Harbour. During summer low flows, changes from the baseline are largely confined to the Riders Lane Stream, Hermitage Stream and the northern parts of Langstone Harbour. The spatial extent of changes increases during periods of higher flow, although they remain confined to the northern part of Langstone Harbour.

3.2.14 The remainder of this section includes a number of 'box and whisker' plots, as set out in Figures 3-2 to 3-4. These plots show the statistical characteristics of each water quality parameter. The vertical 'whiskers' (black lines) show the full range of data, excluding outliers. The solid-coloured boxes for each scenario denote the upper and lower quartiles of each dataset, and the horizontal black lines show the statistical 'median' value. For the purposes of this Report, a median value has been selected, as opposed to mean, to avoid outliers in baseline data skewing the representation of water quality conditions. Further statistical analysis will be completed for the Environmental Statement.

3.2.15 Further discussion on the potential environmental effects of the changes described in the remainder of this section is provided in sections 4, 5 and 6.

Basic water quality parameters: pH, alkalinity, Dissolved Oxygen and Biochemical Oxygen Demand

3.2.16 The median value of pH in Havant Thicket Reservoir is not predicted to change between the "classic" and "post-WRP" operational scenarios, remaining at 8.7 (Figure 3-2).

3.2.17 In Riders Lane Stream, a small increase in median pH from a measured baseline of 7.4 to 7.9 is predicted in the "classic" operation scenario; this returns to 7.7 in the "post-WRP" operation scenario.

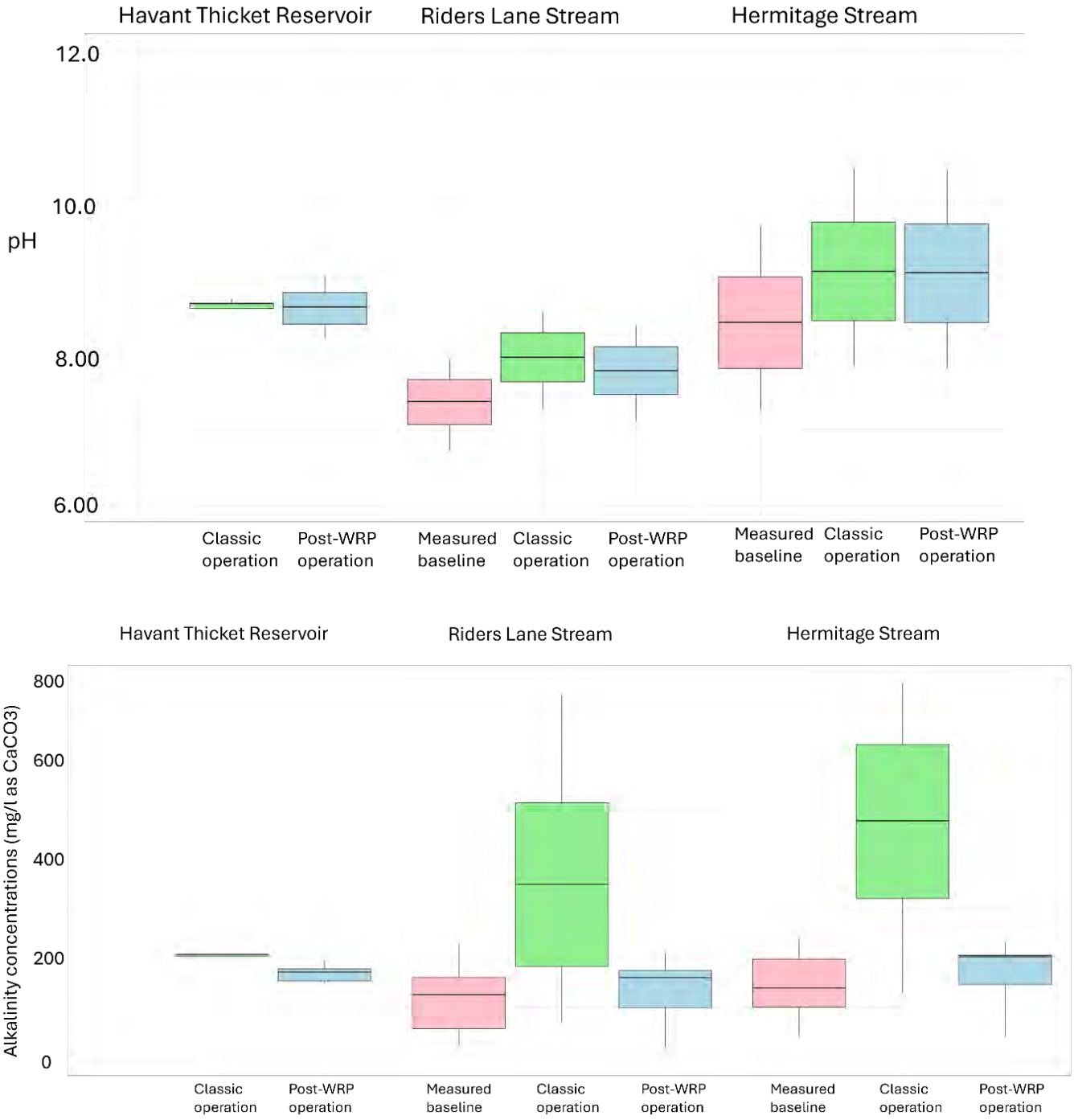
3.2.18 In Hermitage Stream, median pH is predicted to increase from 8.4 in the measured baseline to, 9.1 in the "classic" operation scenario and reduce slightly to 9.0 in the "post-WRP" scenario (Figure 3-2). The WFD Directions do not include a standard for pH in transitional or coastal water bodies, and as such pH has not been routinely measured in Langstone Harbour by the Environment Agency. It is therefore excluded from Figure 3-2.

3.2.19 Within the reservoir, alkalinity is predicted to decrease from a median of 206mg/l in the "classic" operation scenario to 170mg/l in the "post-WRP" operation scenario (Figure 3-2). This represents the dilution of the naturally alkaline groundwater in the "classic" operation scenario with more neutral recycled water from the proposed WRP.

3.2.20 Alkalinity also shows a similar trend between the operational scenarios at each sample point downstream of the reservoir (Figure 3-2). At the Riders Lane Stream sample point, baseline alkalinity (measured as $CaCO_3$) has a measured baseline median of 124mg/l and is predicted to increase in the "classic" operation scenario to 347mg/l before decreasing to 158mg/l in the "post-WRP" operation scenario (Figure 3-2). Alkalinity in the Hermitage Stream shows the same trend, with a

predicted increase in the “classic” operation scenario to a median of 475mg/l (from a measured baseline of 139mg/l) followed by a predicted decrease from “classic” to 201mg/l in the “post-WRP” operation scenario. The WFD Directions do not include a standard for alkalinity in transitional or coastal water bodies. It has not, therefore, been routinely measured in Langstone Harbour by the Environment Agency and is excluded from Figure 3-2.

Figure 3-2 Comparison of baseline data and modelled outputs for pH and alkalinity



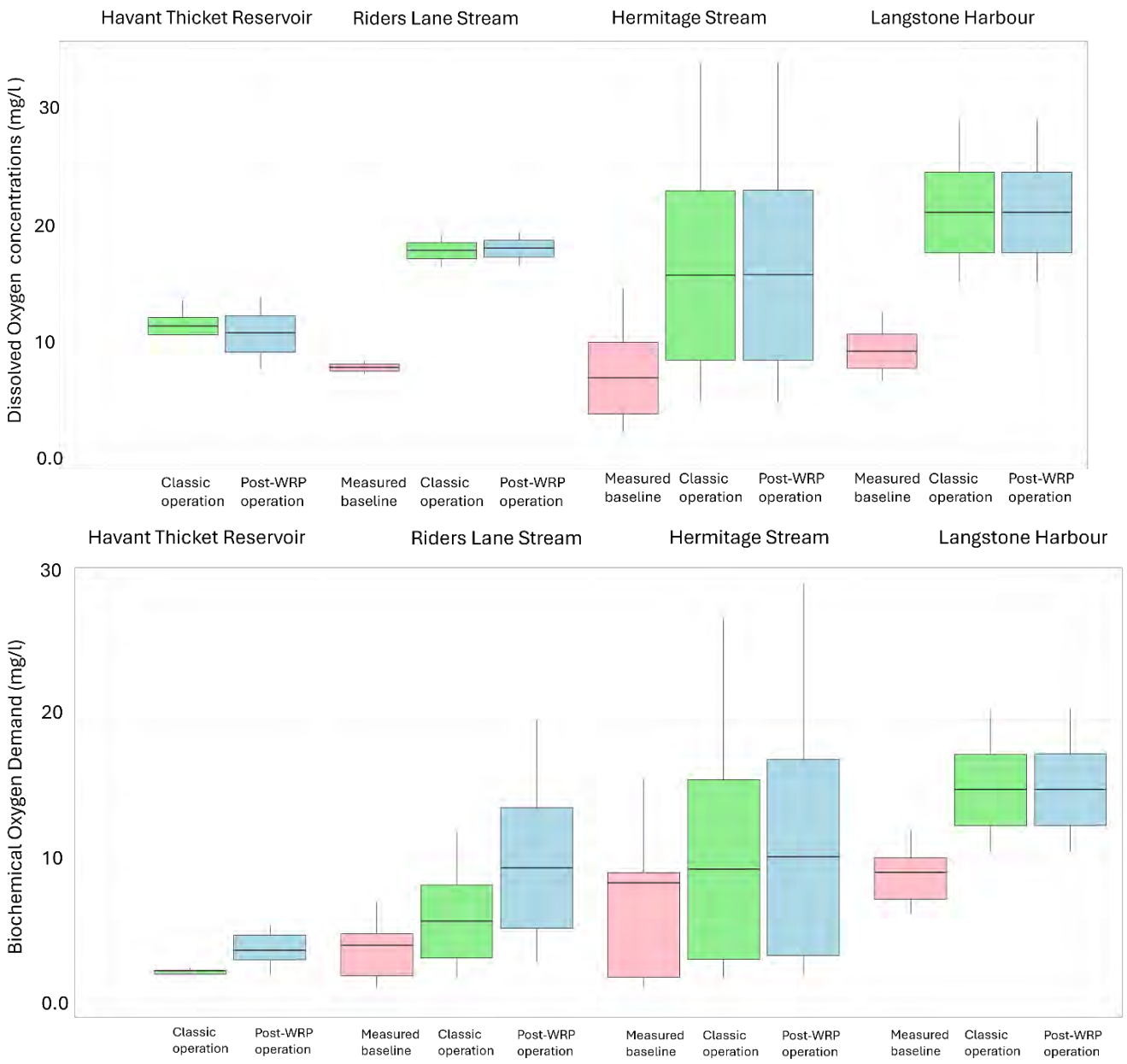
**Note that baseline data for pH and alkalinity is not available for Langstone Harbour.*

3.2.21 Between the “classic” operation and “post-WRP” operation scenarios in Havant Thicket Reservoir, minimum DO decreases from 10.2mg/l in the “classic” to 7.2mg/l in the “post-WRP” operation scenario (Figure 3-2). Although the variance has increased, the median values of DO remain very similar, at 10.9mg/l in the “classic” operation scenario and 10.3mg/l in the “post-WRP” operation scenario. Furthermore, these represent the worst case over the entire period of each scenario and follow the assumption that the operation of a bubbler would ensure that water in the reservoir is well mixed.

3.2.22 In Riders Lane Stream, median DO increases from a measured baseline of 7.4mg/l to 17.5mg/l under the “classic” operation scenario, and increases slightly further to 17.6mg/l in the “post-WRP” operation scenario (Figure 3-3). In Hermitage Stream, the median DO concentration is also predicted to increase from a measured baseline of 6.5mg/l to 15.3mg/l under the “classic” operation scenario and 15.4mg/l under the “post-WRP” operation scenario. Median DO concentrations at the northern (upstream) end of Langstone Harbour are also predicted to increase, from a measured baseline of 8.8mg/l to 20.8mg/l under the “classic” and “post-WRP” operation scenarios.

3.2.23 The median BOD in Havant Thicket Reservoir is predicted to increase from 2.2mg/l in the “classic” scenario to 3.7mg/l in the “post-WRP” scenario. Similarly, median BOD in Riders Lane Stream is predicted to increase from the measured baseline of 3.3mg/l to 5.7mg/l during the “classic” operation scenario. Under the “post-WRP” operation scenario median BOD in Riders Lane Stream is predicted to increase further to 9.5mg/l (Figure 3-3). In Hermitage Stream, median BOD is predicted to increase from a measured baseline of 8.4mg/l to 9.4mg/l during the “classic” operation scenario and is likely to increase further in the “post-WRP” operation scenario to 10.2mg/l. BOD is also predicted to increase in the northern end of Langstone Harbour, from a baseline of 9.1mg/l to 15.0mg/l under both the “classic” and “post-WRP” scenarios.

Figure 3-3 Comparison of baseline data and modelled outputs for DO and BOD



3.2.24 Median Total Phosphorus concentrations are predicted to increase in Havant Thicket Reservoir from 0.026mg/l in the "classic" scenario to 0.051mg/l in the "post-WRP" scenario (Figure 3-4). TP is only routinely measured in lakes and is not routinely measured in other types of water body (including rivers and estuaries), where orthophosphate is instead considered, as described in the following paragraphs.

3.2.25 There is a very small increase in orthophosphate from the baseline in Riders Lane Stream, from a median concentration 0.163mg/l to 0.167mg/l in the "classic" scenario. This is followed by a further increase to 0.187mg/l in the "post-WRP" scenario (Figure 3-4). In the Hermitage Stream, median orthophosphate concentrations are predicted to increase very slightly from the measured baseline (0.133mg/l) under the "classic" scenario (0.136mg/l) and the "post-WRP" scenario (0.137mg/l).). No changes in orthophosphate concentrations are predicted in Langstone Harbour.

3.2.26 In Havant Thicket Reservoir, ammonia concentrations would decrease very slightly from 0.06mg/l in the "classic" operational scenario to 0.05mg/l in the "post-WRP" operational scenario. In Riders Lane Stream, ammonia is predicted to increase from a measured baseline of 0.26mg/l to 0.34mg/l in the "classic" operation scenario, increasing slightly further to 0.37mg/l in the "post-WRP" scenario. In Hermitage Stream, a slight increase in ammonia concentrations is predicted, from the measured baseline of 0.07mg/l to 0.08mg/l under both the "classic" and "post-WRP" operational scenarios. In Langstone Harbour, a small increase over the measured baseline is also predicted, from 0.60mg/l to 0.66mg/l under the "classic" scenario and to 0.67mg/l under the "post-WRP" scenario.

3.2.27 Median ammonia concentrations in Havant Thicket Reservoir are predicted to decrease as a result of the input of water from the WRP, falling from 0.06mg/l in the "classic" operation scenario to 0.05mg/l in the "post-WRP" scenario (Figure 3-5). In Riders Lane Stream, median ammonia is predicted to increase from a baseline of 0.26mg/l to 0.35mg/l in the "classic" operational scenario and 0.38mg/l in the "post-WRP" scenario. A similar pattern is also predicted in Hermitage Stream, where median ammonia would increase from a baseline of 0.07mg/l to 0.08mg/l in both the "classic" and "post-WRP" operation scenarios. In Langstone Harbour, median ammonia would also increase, from the baseline of 0.59mg/l to 0.66mg/l under the "classic" scenario and 0.67mg/l under the "post-WRP" scenario.

3.2.28 Median nitrate concentrations in Havant Thicket Reservoir are expected to decrease between the "classic" operation and "post-WRP" operation scenarios, from 3.83mg/l to 1.67mg/l (Figure 3-5).

3.2.29 In Riders Lane Stream, nitrate concentrations for the "classic" operation scenario are predicted to increase from the baseline of 2.74mg/l to 4.33mg/l in the "classic" operation scenario, then decrease down to 0.91mg/l in the "post WRP" operation scenario.

3.2.30 A similar pattern is shown in Hermitage Stream, where median nitrate concentrations are predicted to increase from a baseline of 3.9mg/l to 6.2mg/l in the "classic" scenario, before decreasing to 5.6mg/l in the "post-WRP" scenario (Figure 3-5). In Langstone Harbour, concentrations of nitrate are predicted to

increase from a baseline of 0.6mg/l to 0.9mg/l under both the “classic” and “post-WRP” scenarios.

Figure 3-4 Comparison of baseline data and modelled outputs for total phosphorus and orthophosphate

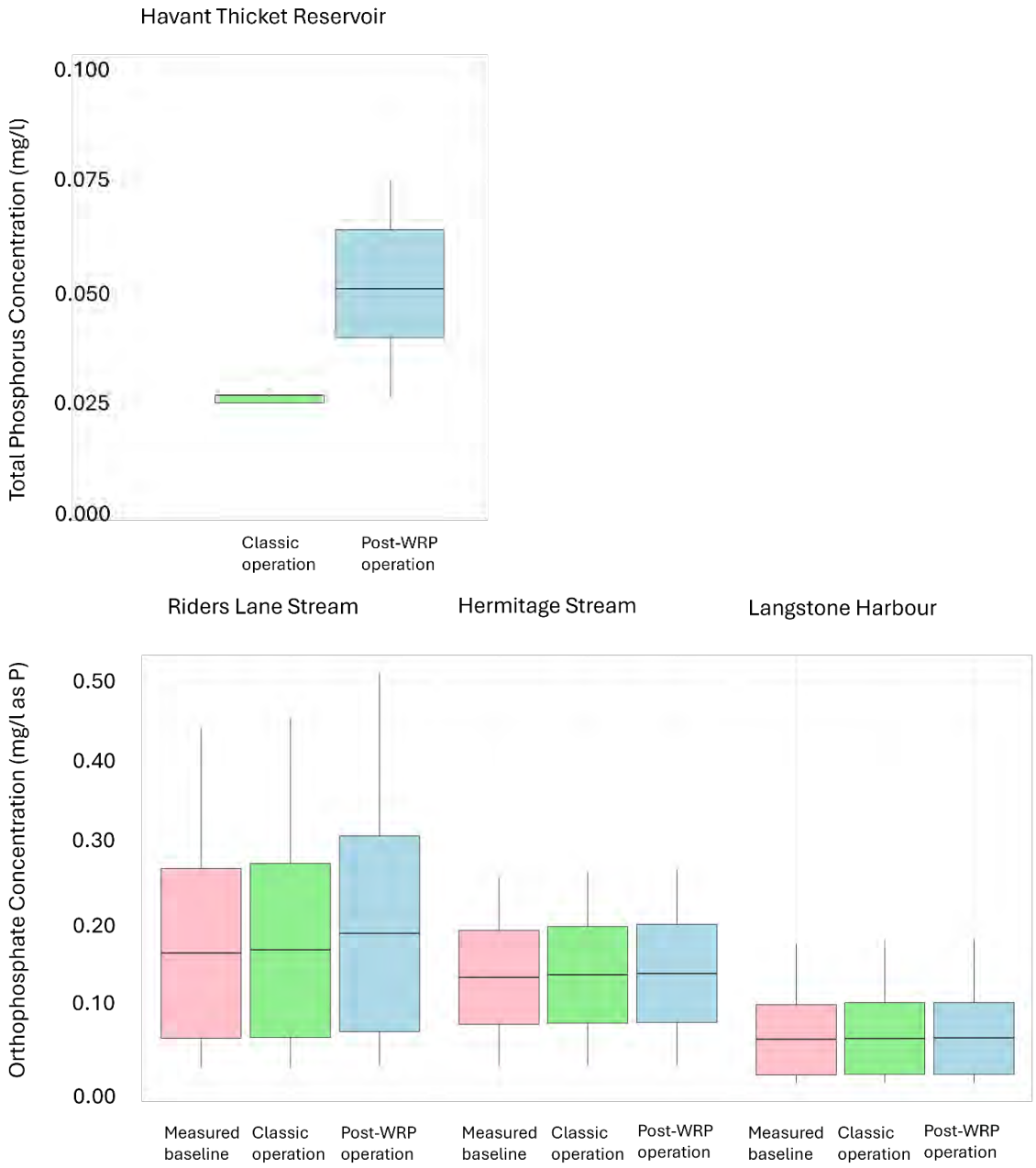
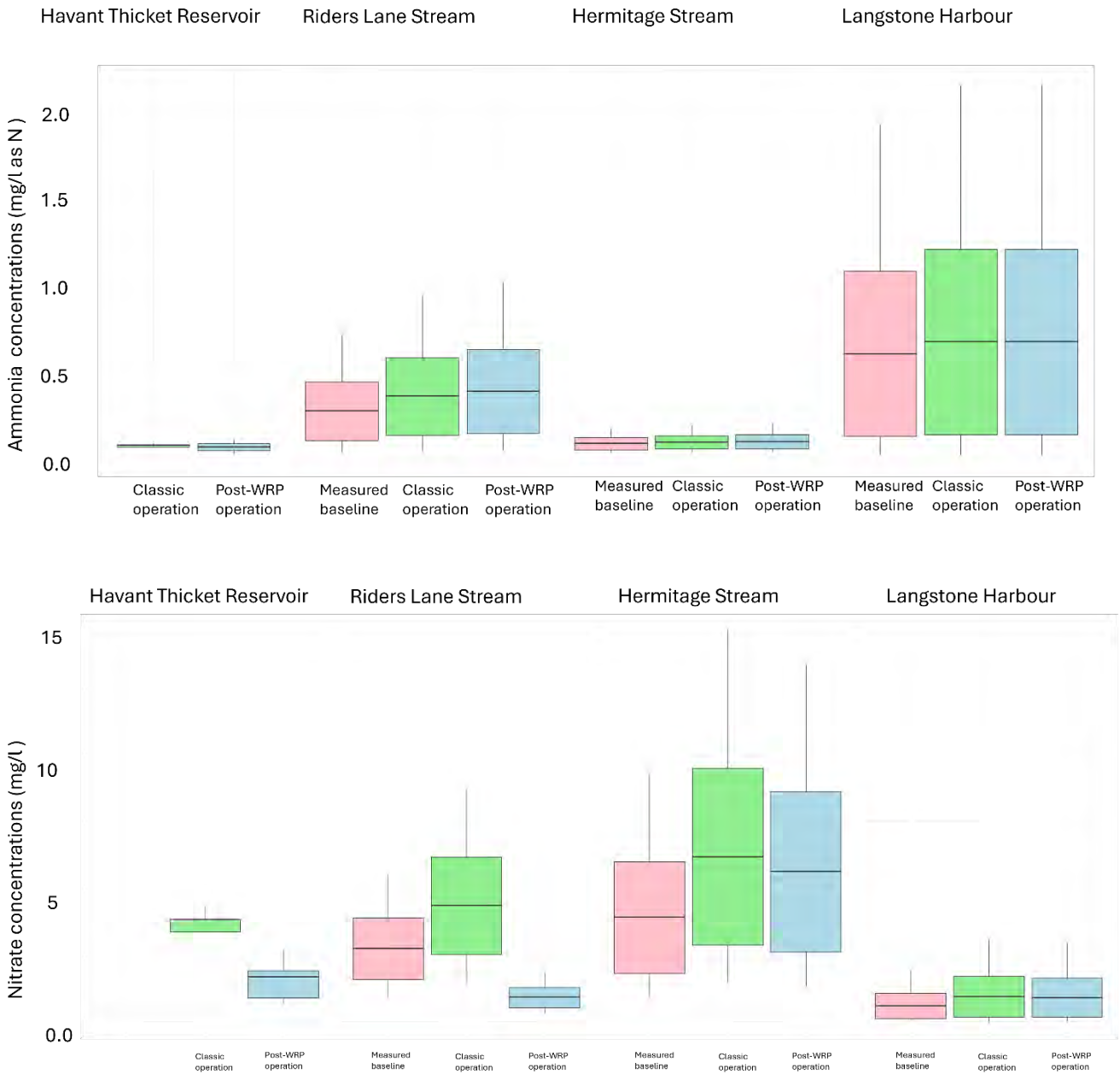


Figure 3-5 Comparison of baseline data and modelled outputs for ammonia and nitrate

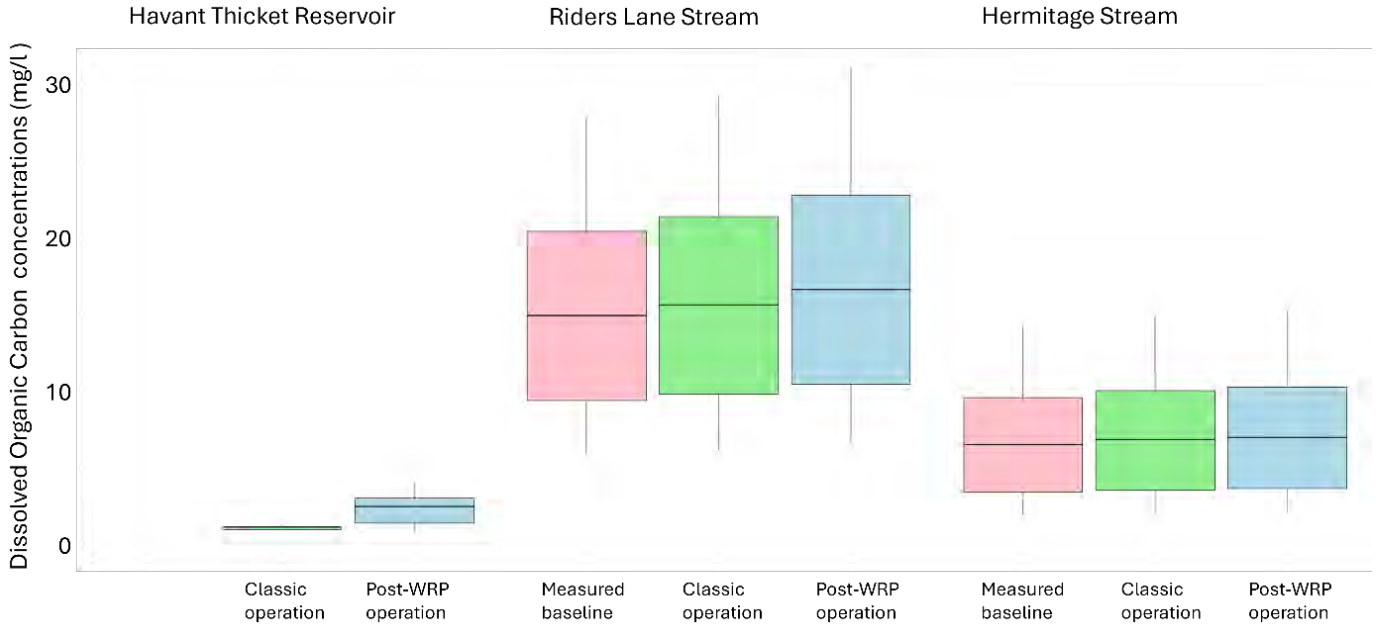


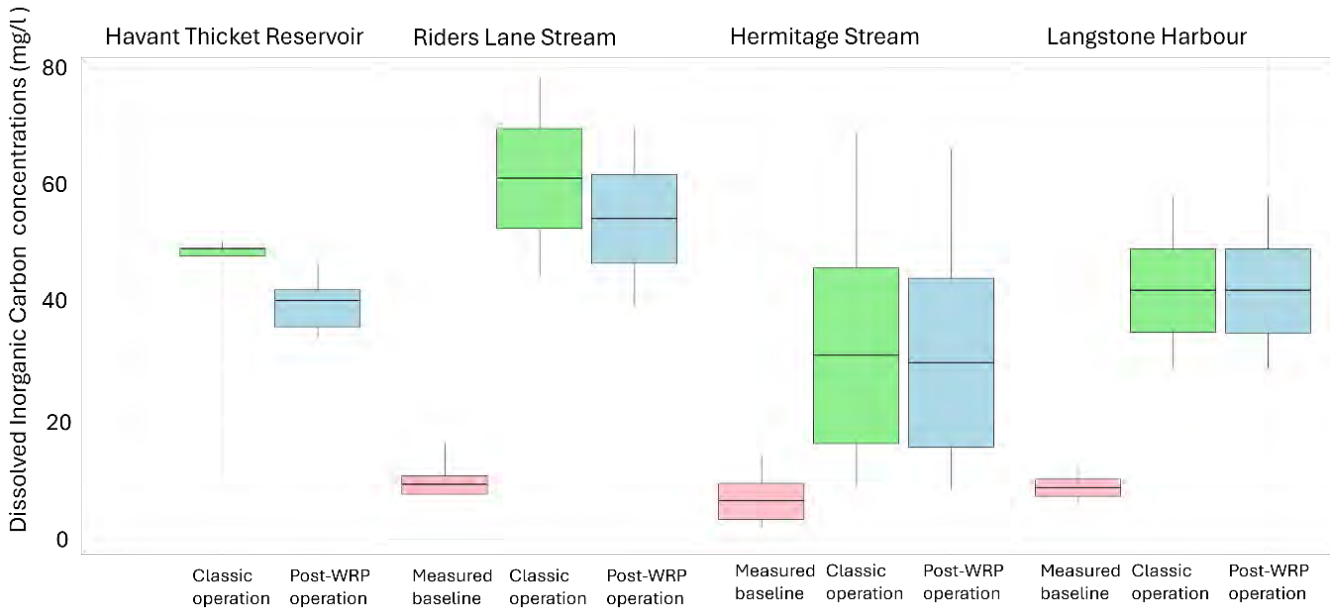
Carbon: Dissolved Organic Carbon and Dissolved Inorganic Carbon

3.2.31 In Havant Thicket Reservoir, DOC levels are predicted to increase from a median concentration of 1.1mg in the “classic” operation scenario to 2.4mg/l in the “post-WRP” operation scenario (Figure 3-6). Median concentrations of DOC are expected to increase from a baseline of 14.9mg/l to 15.6mg/l in Riders Lane Stream under the “classic” operation scenario, with slightly higher median concentrations in the “post-WRP” operation scenario of 16.6mg/l (Figure 3-6). Small increases in median DOC concentrations are predicted in the Hermitage Stream, from a baseline of 6.4mgl to 6.7mg/l under the “classic” scenario and 6.9mg/l under the “post-WRP” scenario.

3.2.32 The median concentration of DIC in Havant Thicket Reservoir is expected to decrease between the “classic” and “post-WRP” operation scenarios from 49mg/l to 40mg/l (Figure 3-6). The median concentration of DIC in Riders Lane Stream is expected to increase from the baseline of 9.2mg/l to 61.2mg/l under the “classic” operation scenario (Figure 3-6). The median DIC concentration in the “post-WRP” operation scenario in Riders Lane Stream is predicted to decrease the “classic” operation scenario to 54.0mg/l. In Hermitage Stream, mean DIC is expected to increase from 6.4mg/l to 31.1mg/l under the “classic operation”, and then decrease slightly to 29.9mg/l in the “post-WRP” operation scenario. In Langstone Harbour, median DIC concentrations increase from a baseline of 8.8mg/l to 42.2mg/l under both the “classic” and “post-WRP” operation scenarios (Figure 3-6).

Figure 3-6 Comparison of baseline data and modelled outputs for Dissolved Organic Carbon and Dissolved Inorganic Carbon





**Baseline data for DOC is not available for Langstone Harbour.*

Preliminary findings: degradation modelling

3.2.33 The preliminary results of the degradation modelling suggest that there are limited differences in the concentrations of each water quality parameter resulting from chemical and biological processes. Temperature variations can play an important role in chemical degradation and biological uptake, and as outlined earlier in this section, the degradation modelling has therefore considered both winter and summer temperatures.

3.2.34 The predicted changes in each parameter over winter and summer when compared to the changes predicted by the dispersion model are summarised in Table 3-1.

Table 3-1 Degradation model outputs - predicted concentration change in mg/l for DO, BOD, PO_4, NH_3 and NO_3 comparing "classic" and "post-WRP" operation scenarios

Parameter (mg/l)	Scenario	Concentration change between "classic" and "post-WRP" operation scenarios (mg/l)		
		Riders Lane Stream	Hermitage Stream	Langstone Harbour
Dissolved Oxygen (DO)	Winter	-0.023	-0.007	0.000
	Summer	0.102	0.012	0.000
	Dispersion	0.167	0.022	0.003
Biochemical Oxygen Demand (BOD)	Winter	3.007	0.395	0.035
	Summer	3.004	0.383	0.027
	Dispersion	3.010	0.406	0.048
Orthophosphate (PO_4)	Winter	0.012	0.002	0.001
	Summer	0.012	0.003	0.001
	Dispersion	0.012	0.002	0.000
Ammonia (NH_3)	Winter	0.018	0.003	0.002
	Summer	0.018	0.004	0.003
	Dispersion	0.018	0.002	0.000
Nitrate (NO_3)	Winter	-2.853	-0.391	-0.039
	Summer	-2.853	-0.387	-0.039
	Dispersion	-2.854	-0.385	-0.046

3.2.35 Further discussion on the potential environmental effects of the changes described in the remainder of this section is provided in sections 4, 5 and 6.

Dissolved Oxygen

3.2.36 In winter, the degradation modelling predicts that there would be a small decrease in DO concentration (0.023mg/l) between the "classic" and "post-WRP" scenarios in Riders Lane Stream (Table 3-1). This small decrease is likely to be attributable

to an increase in the temperature of water released from the reservoir under the "post-WRP" scenario (6.03°C to 6.17°C), increasing respiration processes in the watercourse downstream. This pattern is also shown in Hermitage Stream, albeit with a smaller decrease that reflects the input of water from tributaries. DO concentrations in Langstone Harbour are not predicted to change under the "post-WRP" operation scenario, when compared to the "classic" operation scenario.

3.2.37 In summer, there is a decrease in the temperature of the water released from the reservoir (20.05°C to 19.53°C), which leads to an increase in DO concentrations in Riders Lane Stream and Hermitage Stream. DO concentrations in Langstone Harbour in the summer are not predicted to change under the "post-WRP" operation scenario, when compared to the "classic" operation scenario.

3.2.38 The differences between the degradation and dispersion modelling results are very small (-0.023mg/l to 0.167mg/l in Riders Lane Stream) when compared to the changes from measured baseline predicted in the dispersion modelling (a circa 10mg/l increase under both the "classic" scenario and "post-WRP" scenario in Riders Lane Stream).

Biochemical Oxygen Demand

3.2.39 The results of the preliminary degradation modelling indicate an increase in BOD between the "classic" and "post-WRP" scenarios (Table 3-1), with no significant difference between winter and summer seasons. The change is greatest in Riders Lane Stream, and this change decreases markedly in Hermitage Stream and again in Langstone Harbour.

3.2.40 Comparing the change in concentrations in Table 3-1, it is apparent that the dispersion model results, which do not consider decay processes, provide a slightly more conservative estimate of BOD concentrations within Riders Lane, Hermitage Stream and Langstone Harbour. The differences between the degradation and dispersion modelling results (3.004mg/l to 3.010mg/l in Riders Lane Stream) are similar to the changes from measured baseline predicted in the dispersion modelling under the "classic" scenario (an increase of 2.4mg/l under the "classic" scenario in Riders Lane Stream), but much smaller that the changes predicted under the "post-WRP" scenario (6.2mg/l in Riders Lane Stream).

Orthophosphate

3.2.41 The results of the degradation modelling (Table 3-1) indicate that orthophosphate concentrations would increase between the "classic" and "post-WRP" scenarios. As per other parameters, this change is greatest in Riders Lane Stream and is considerably lower in both Hermitage Stream and Langstone Harbour.

3.2.42 The magnitude of difference is slightly larger in summer than in winter. This is likely to be associated with additional BOD decay in warmer water during the summer. However, this difference in concentration is predicted to be <0.01mg/l.

Ammonia

3.2.43 The results of the degradation modelling of ammonia (Table 3-1) indicate an increase in concentrations between the "classic" and "post-WRP" scenarios. The

magnitude of change is greatest in Riders Lane Stream and is considerably lower in both Hermitage Stream and Langstone Harbour.

3.2.44 During the summer season, the difference in ammonium concentrations between the “classic” and “post-WRP” scenarios is slightly larger than during the winter. This is likely to be attributable to additional BOD decay in warmer water during the summer. However, given that this difference in concentration is predicted to be <0.015mg/l, the seasonal difference is unlikely to be significant.

Nitrate

3.2.45 The results of the degradation modelling of nitrate (Table 3-1) indicate a reduction in concentrations between the “classic” and “post-WRP” scenarios, with no significant difference between winter and summer seasons. The predicted changes are greatest in Riders Lane Stream and are lower in both Hermitage Stream and Langstone Harbour.

3.3 Solent Eastney Long Sea Outfall

Initial screening assessment

3.3.1 Screening of the chemicals likely to be found in the release for both the existing scenario (i.e. Budds Farm WTW release, without the addition of WRP reject water) and the future scenario (i.e. Budds Farm WTW release, with the addition of WRP reject water at peak operation) has been undertaken in line with the Environment Agency’s guidance ‘Surface water pollution risk assessment for your environmental permit’ (Environment Agency, 2022). These screening tests check the potential risk from hazardous chemicals to the environment using Environmental Quality Standard (EQS) thresholds set out in the WFD Directions. If the screening tests identify a potential risk to the environment, then modelling is required.

3.3.2 There are three stages to screening:

- Step 1: Identify the pollutants released – this requires monitoring either of an existing discharge or equivalent discharge (for example a pilot plant).
- Step 2. Gather data on the pollutants – this requires monitoring of the environment into which the discharge would be made.
- Step 3: Carry out screening tests for coastal/estuarine waters.

3.3.3 These tests identified that the following seven parameters required modelling:

- Fluoranthene
- Hexabromocyclododecane (HBCDD)
- Lead and its compounds (dissolved)
- Perfluoro octane sulfonic acid and its salts (PFOS)
- Benzo(a)-pyrene (BaP)
- Terbutryn
- Zinc

Summary of ongoing assessment

3.3.4 The composition of the existing Budds Farm WTW wastewater release from the Eastney LSO is likely to change as a result of:

- A reduction in wastewater flow released via the Eastney LSO as a proportion would be diverted to the proposed WRP. The proportion of wastewater flows diverted to the proposed WRP depending on whether the WRP is operating at minimum, average or peak flow.
- The addition of reject water from the proposed water recycling process.

3.3.5 The reject water from the proposed WRP would be released into the existing Eastney Transfer Tunnel via a new connection, downstream of the existing release from Budds Farm WTW. No further physical changes are required to the Eastney LSO, connecting Pumping Station or Transfer Tunnel.

3.3.6 To assess this change at Eastney LSO, dispersion modelling has been undertaken which considers how reject water would disperse spatially in the marine environment. The modelling has been undertaken in two phases:

- The first phase considered the potential effects of the Project on currently consented parameters within the Budds Farm WTW Environmental Permit; iron, TSS, BOD, Chemical Oxygen Demand (COD) and TN. Salinity has also been considered as the removal of low salinity wastewater for water recycling could alter the salinity of reject water release in the future scenario. The results were reported as part of the PEI Report (PEI Report Appendix 19.6 Eastney Long Sea Outfall dispersion modelling, Volume II).
- The second stage, the preliminary results of which are reported in this Report, is required to meet the requirements of the Environment Agency's surface water risk assessment process. The assessment is underpinned by the screening assessment which screens whether chemical concentrations within the release are likely to be at levels with the potential to cause risks to aquatic flora or fauna in line with Environmental Quality Standards (EQS) set out in the WFD Directions. Each screening test progressively eliminates parameters as conditions are applied to narrow down the list so that only those considered to be a risk to EQS are included at the end of the screening assessment. These parameters are then carried forward for modelling.

3.3.7 To assess the potential changes associated with the screened in chemicals, modelling using a calibrated MIKE21 hydraulic model was undertaken for both neap and spring tides for the following scenarios:

- "Existing": this reflects wastewater dispersion as it occurs now (i.e. associated to the Budds Farm WTW release from Eastney LSO).
- "Future": this reflects wastewater dispersion in the future when the proposed WRP would operate at a peak operation of 60 Ml/d) (i.e. a combined release scenario).

3.3.8 These two scenarios reflect the maximum change which would only occur during a drought. At other times of the year flows through the proposed WRP are likely to be lower, thus bringing the effect of the "future" scenario release closer to the "existing" scenario release.

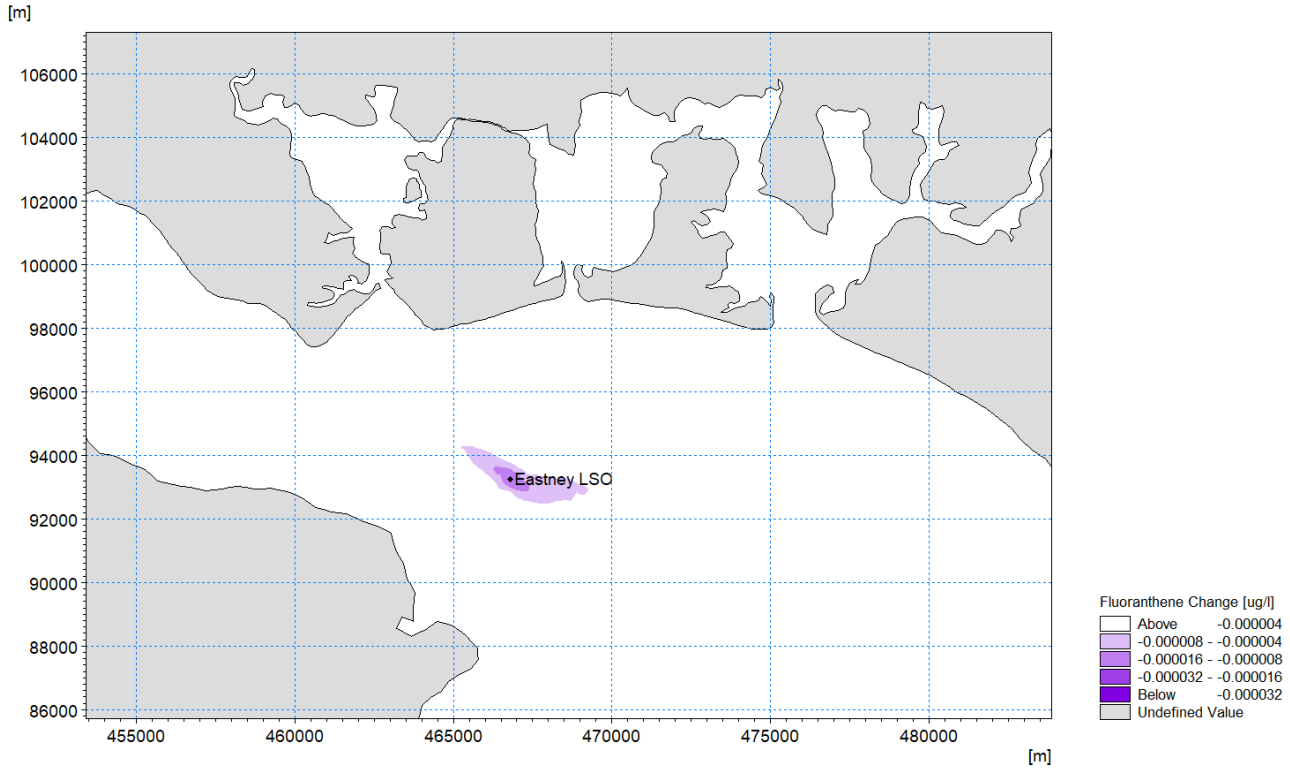
3.3.9 The surface water risk assessment screening assessment is due to be updated following further collation and analysis of marine water quality baseline sampling. This may change the parameters screened into the assessment. If this is the case, any changes would be assessed fully within the Environmental Statement and Environmental Permit application.

Preliminary findings

Fluoranthene

3.3.10 Figure 3-7 shows the predicted difference in fluoranthene concentration released from the Eastney LSO between the existing scenario and the future scenario. The results predict a decrease in fluoranthene concentration in the future scenario, when compared to the existing scenario (i.e. reflected as negative numbers in the legend). The predicted decrease in concentration is very small (0.000016µg/l), hence is considered to represent no change.

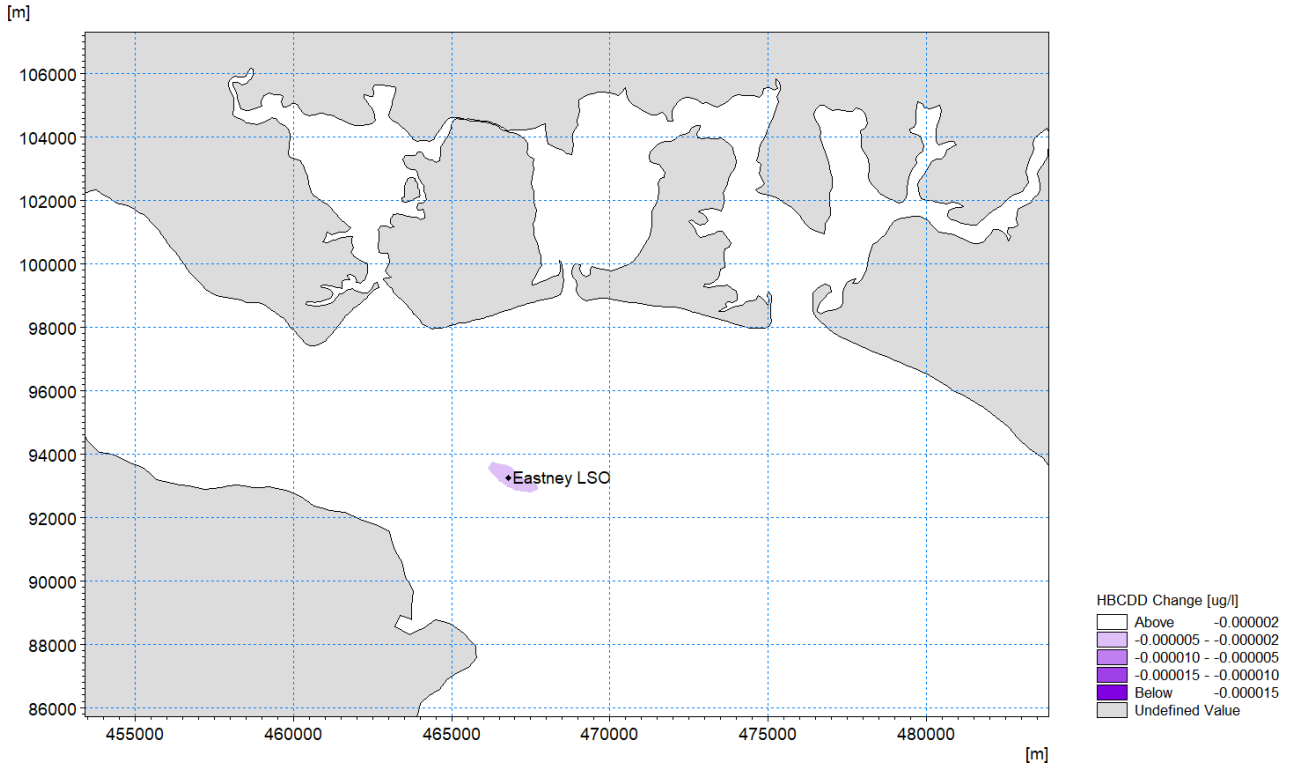
Figure 3-7 Change in fluoranthene concentration between the existing and future scenarios



Hexabromocyclododecane

3.3.11 Figure 3-8 shows the predicted difference in hexabromocyclododecane (HBCDD) concentration released from the Eastney LSO between the existing scenario and the future scenario. The results predict a slight decrease in HBCDD concentration in the future scenario, when compared to the existing scenario. The predicted decrease in concentration is very small (<0.000005µg/l), hence is considered to represent no change.

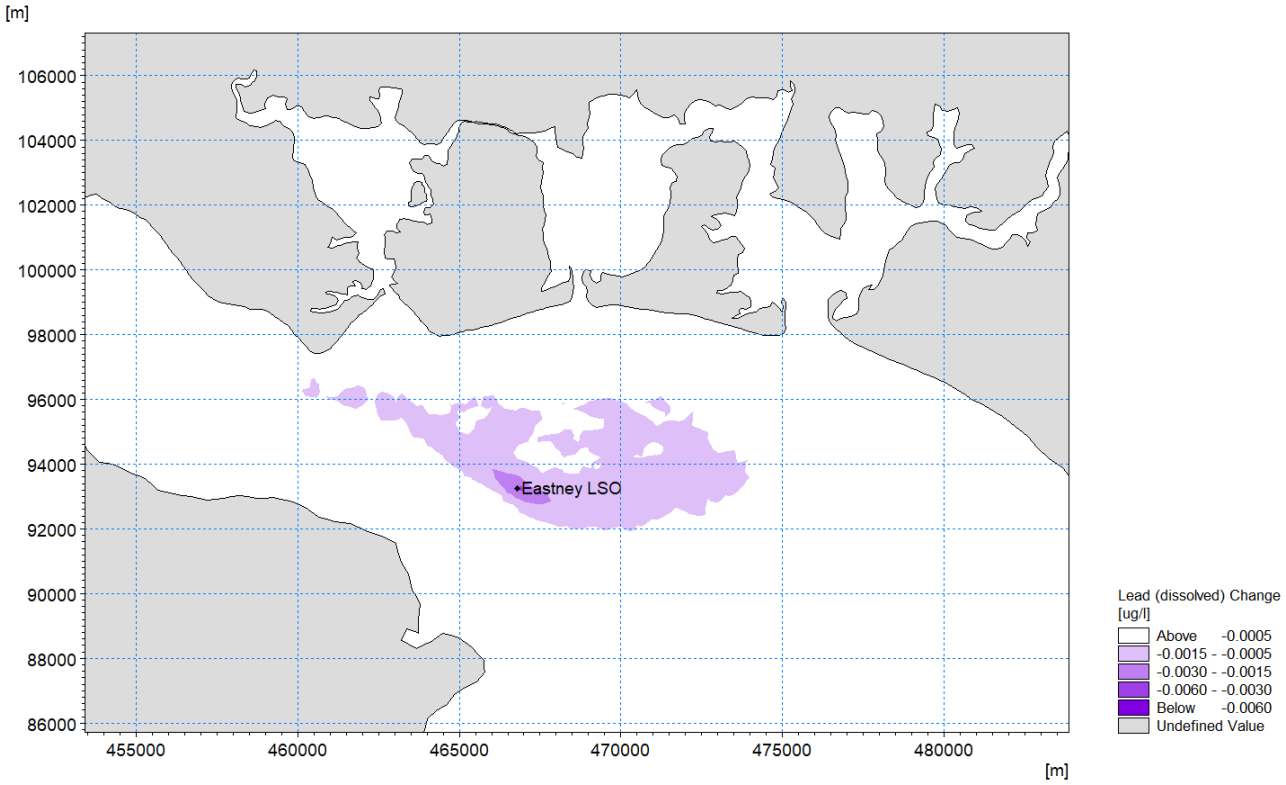
Figure 3-8 Change in Hexabromocyclododecane concentration between the existing and future scenarios



Lead

3.3.12 Figure 3-9 shows the predicted difference in lead concentrations released from the Eastney LSO between the existing scenario and the future scenario. The results predict a decrease in lead concentrations in the future scenario, when compared to the existing scenario. The predicted concentration reduction is very small and less than 0.006µg/l, hence is considered to represent no change.

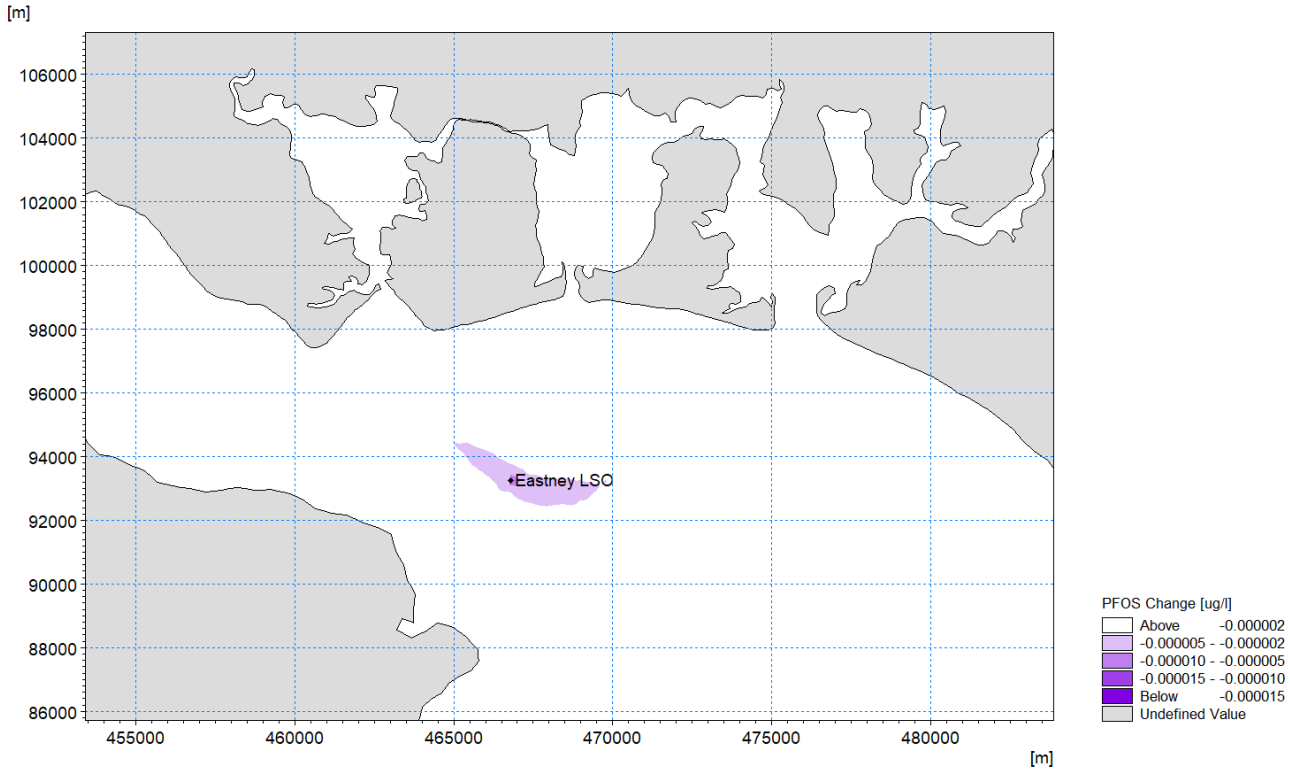
Figure 3-9 Change in Lead concentration between the existing and future scenarios



Perfluoro octane sulfonic acid and its salts

3.3.13 Figure 3-10 shows the predicted difference in perfluoro octane sulfonic acid and its salts (PFOS) concentrations released from the Eastney LSO between the existing scenario and the future scenario. The results predict a decrease in PFOS concentrations in the future scenario, when compared to the existing scenario. The predicted decrease in PFOS concentrations is very small, between -0.000002 and -0.000015µg/l, hence is considered to represent no change.

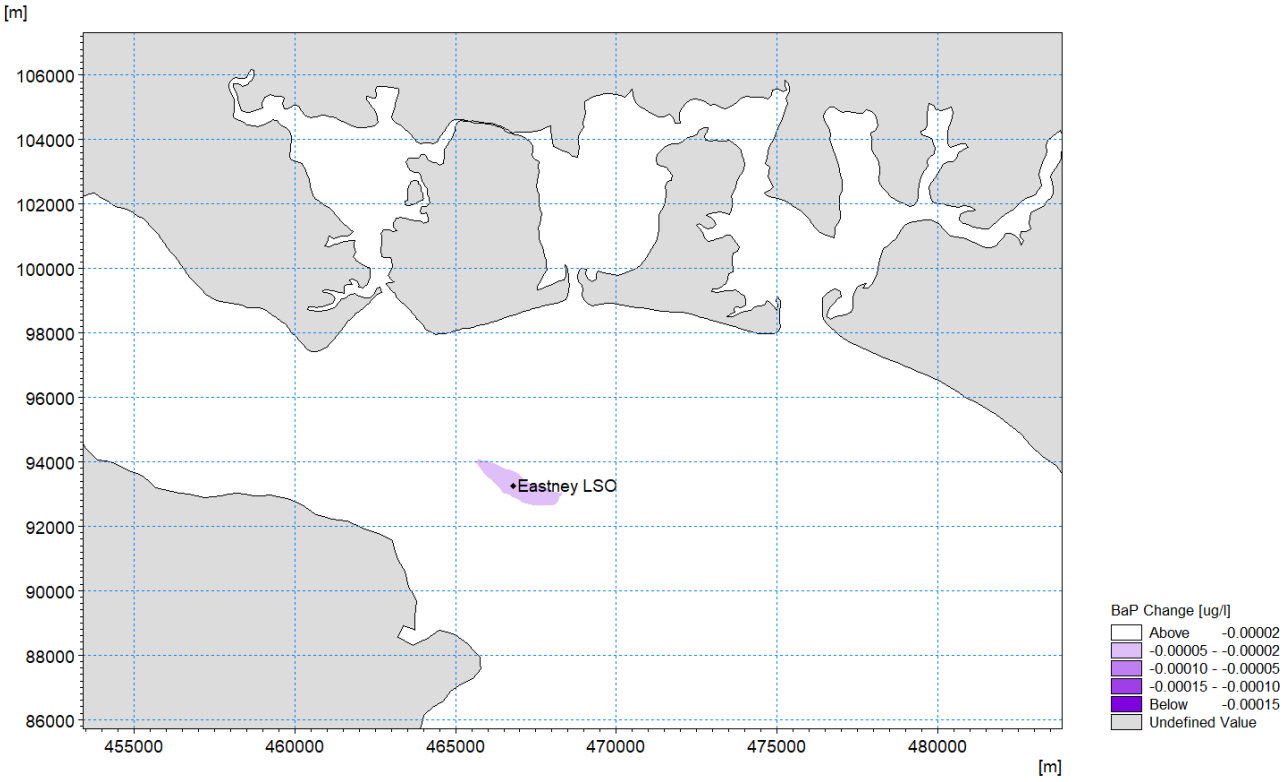
Figure 3-10 Change in Perfluoro octane sulfonic acid and its salts concentration between the existing and future scenarios



Benzo(a)-pyrene

3.3.14 Figure 3-11 shows the predicted difference in benzo(a)-pyrene (BaP) concentrations released from the Eastney LSO between the existing scenario and the future scenario. The results predict a slight decrease in BaP concentrations in the future scenario, when compared to the existing scenario. The concentration changes are very small, between -0.00002 and -0.0001µg/l, hence are considered to represent no change.

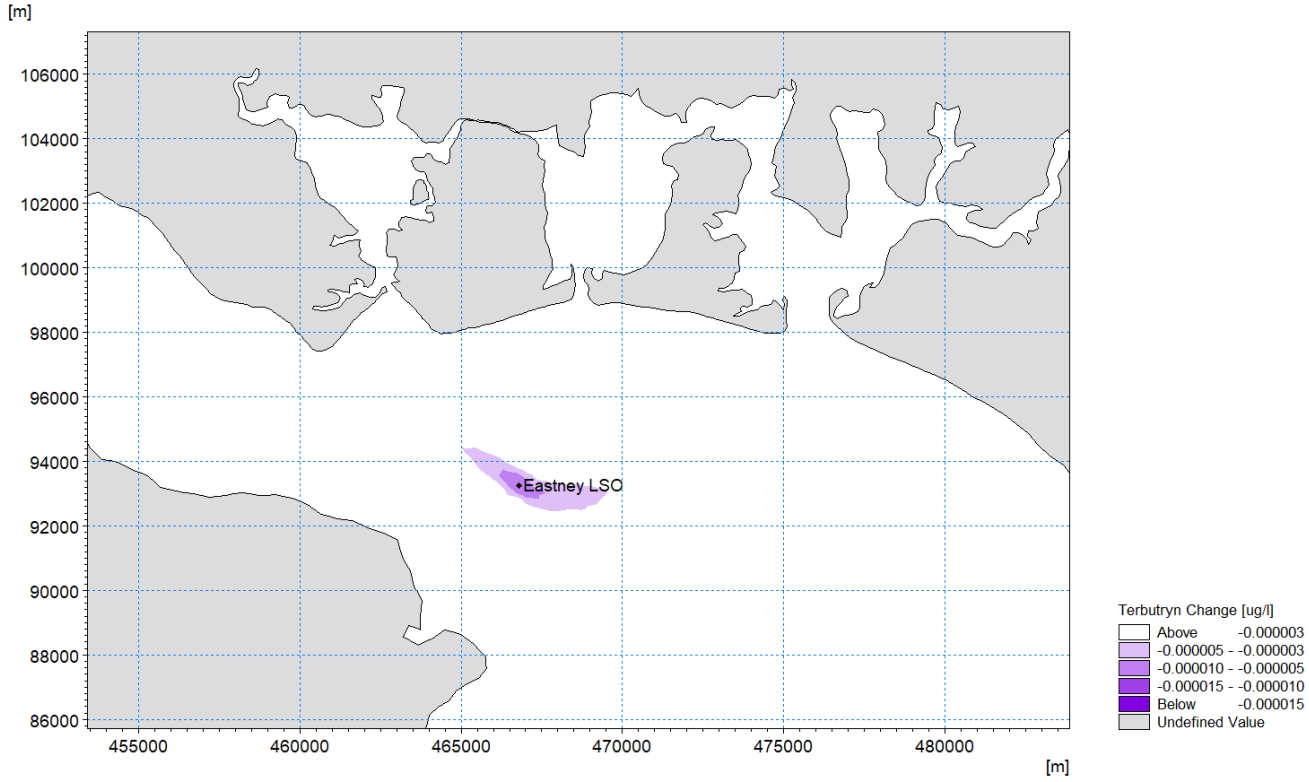
Figure 3-11 Change in Benzo(a)-pyrene concentration between the existing and future scenarios



Terbutryn

3.3.15 Figure 3-12 shows the predicted difference in terbutryn concentrations released from the Eastney LSO between the existing scenario and the future scenario. The results predict a decrease in terbutryn concentrations in the future scenario, when compared to the existing scenario. The predicted concentration changes are very small, between -0.000003 and -0.00001µg/l, hence are considered to represent no change.

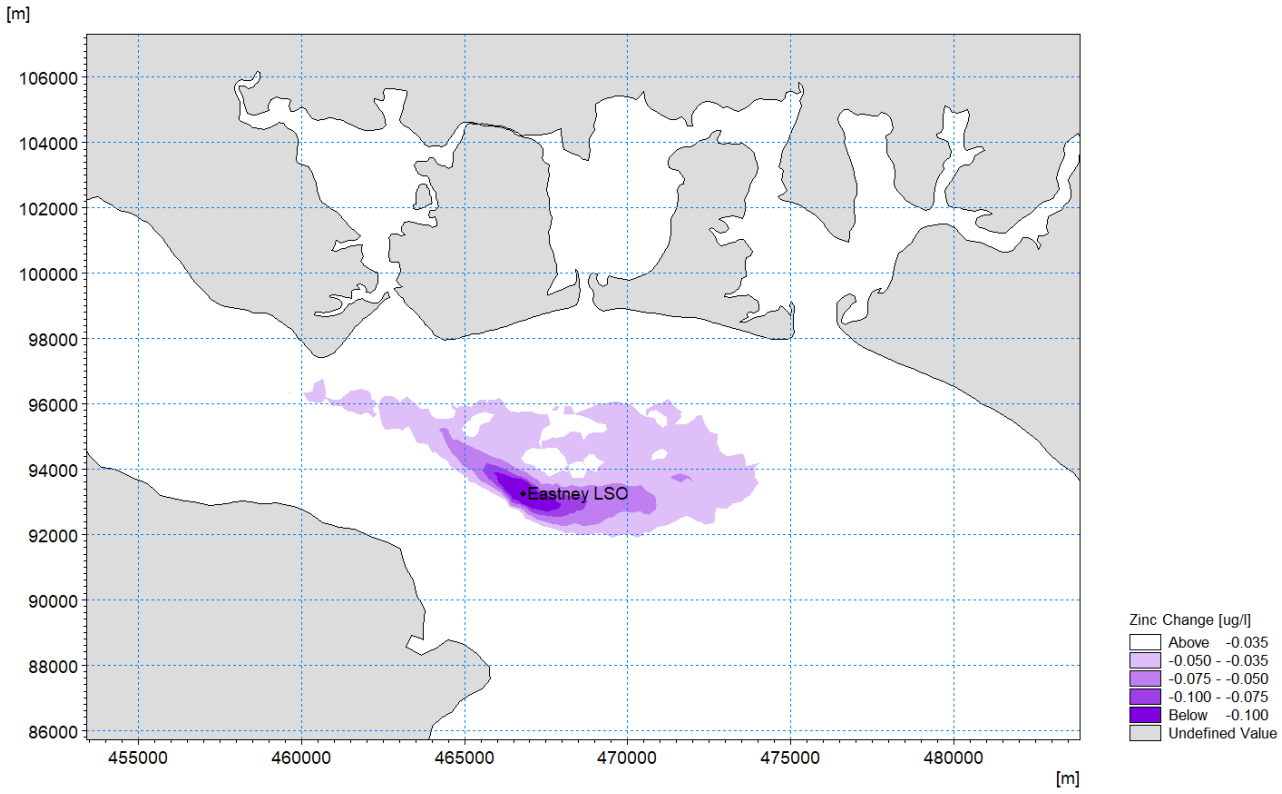
Figure 3-12 Change in terbutryn concentration between the existing and future scenarios



Zinc

3.3.16 Figure 3-13 shows the predicted difference in zinc concentrations released from the Eastney LSO between the existing scenario and future scenario. The results predict a decrease in zinc concentrations in the future scenario, when compared to the existing scenario The predicted concentration changes are very small, between -0.035 and -0.1µg/l, hence are considered to represent no change.

Figure 3-13 Change in zinc concentration between the existing and future scenarios



Summary

3.3.17 Given the very small changes for all seven parameters modelled, no significant impacts on water quality are predicted at this stage. Further discussion on the environmental significance of these small changes is provided in sections 4-6.

3.4 Proposed WRP Sustainable Drainage System outfall

Summary of ongoing assessment

3.4.1 An assessment is underway of potential water quality effects associated with releases from the proposed WRP SuDS. The emerging SuDS design includes a dedicated surface water collection system which would release to the lower reach of the Hermitage Stream via a new outfall downstream of Bedhampton Springs and the tidal limit of the watercourse. This reach of the Hermitage Stream, which flows along the eastern boundary of the proposed WRP into Langstone Harbour, is therefore tidally influenced. The proposed outfall would be located on the right (western) bank of Hermitage Stream upstream of the Harts Farm Way road bridge (as shown on Figure 3-14).

3.4.2 The SuDS design is still being developed in consultation with relevant regulators. However, it would include a range of control measures such as filter strips, swales and a detention basin, seeking to provide sufficient mitigation for reducing pollutant levels in the runoff. The SuDS design will include control measures suitable for the pollution hazard index. As such, no further consideration is therefore required, in terms of dispersion modelling, to assess the potential release of pollutants from the SuDS outfall.

3.4.3 Implementation of the SuDS outfall does however have the potential to reduce salinity within the Hermitage Stream. The SuDS will be designed to capture rainfall that already falls on the site, but the development at the WRP site would result in an increase in impermeable area and would concentrate surface water flows to a single point release. The proposed SuDS release would be at a lower salinity than that in the receiving brackish water in the Hermitage Stream given that it would largely be made up of rainfall.

3.4.4 To assess the potential changes associated with the release of surface water into the Hermitage Stream, modelling using a calibrated MIKE21 hydraulic model has been undertaken. The model simulated seven days of both the spring and neap tidal cycle, following the SuDS discharge in the first day of the simulation. The SuDS discharge timeseries was derived from modelled outputs of a two-year return period storm event. The 960-minute (16 hour) storm duration was adopted as a conservative approach, based on the highest volume of discharged water across the event.

Preliminary findings

3.4.5 Salinity model simulations demonstrate that the greatest change occurs in the main channel during the neap tide simulation, as natural variations in salinity are lower during this period due to the decreased tidal range (Figure 3-14). The lowest difference in minimum salinity during the neap simulation is -7PSU (Practical Salinity Unit) immediately upstream of the confluence with Brockhampton Stream.

3.4.6 During the spring tide simulation (Figure 3-15), the majority of the difference in minimum salinity occurs along the banks of the Hermitage Stream where the water level is shallow, this is down to -6PSU along the bank close to the outfall.

3.4.7 For both the neap and spring tide simulations the change in salinity due to the SuDS release is contained mostly downstream of the A27 road bridge, apart from small, localised areas >-1PSU where water depth may be shallow at some points of the simulation.

3.4.8 Overall, the change in salinity due to the SuDS release, compared with the natural fluctuations in ambient salinity levels throughout the tidal cycle, is small, as presented in Figure 3-14. This shows the maximum difference in salinity during the neap tide, in a conservative (worst case) scenario where a low river flow (Q95) is modelled alongside a high SuDS release event (two-year storm event).

3.4.9 The model simulations therefore show that the maximum difference in minimum salinity due to the SuDS outfall is typically very low (<0.1PSU), with greater differences confined to small areas of the tidal Hermitage Stream.

Figure 3-14 Difference in minimum salinity (PSU) neap tidal condition

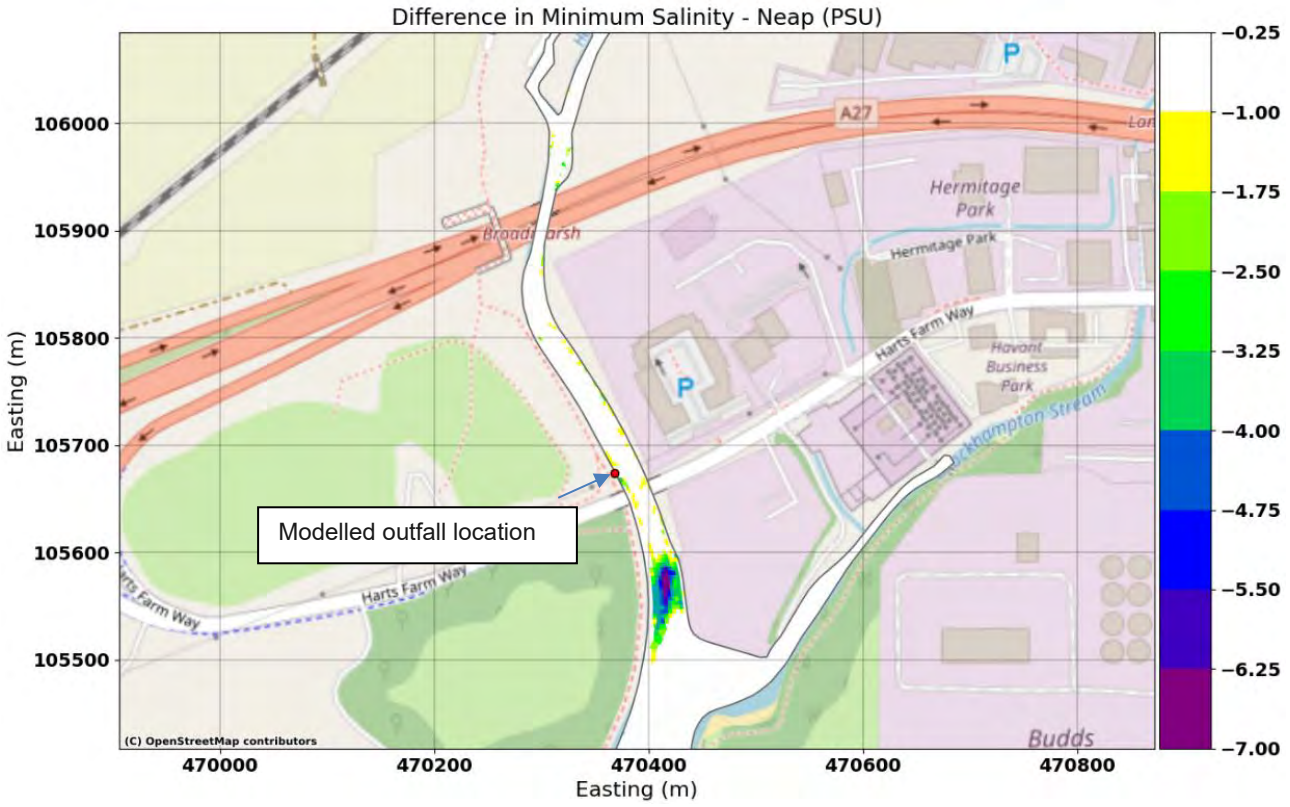
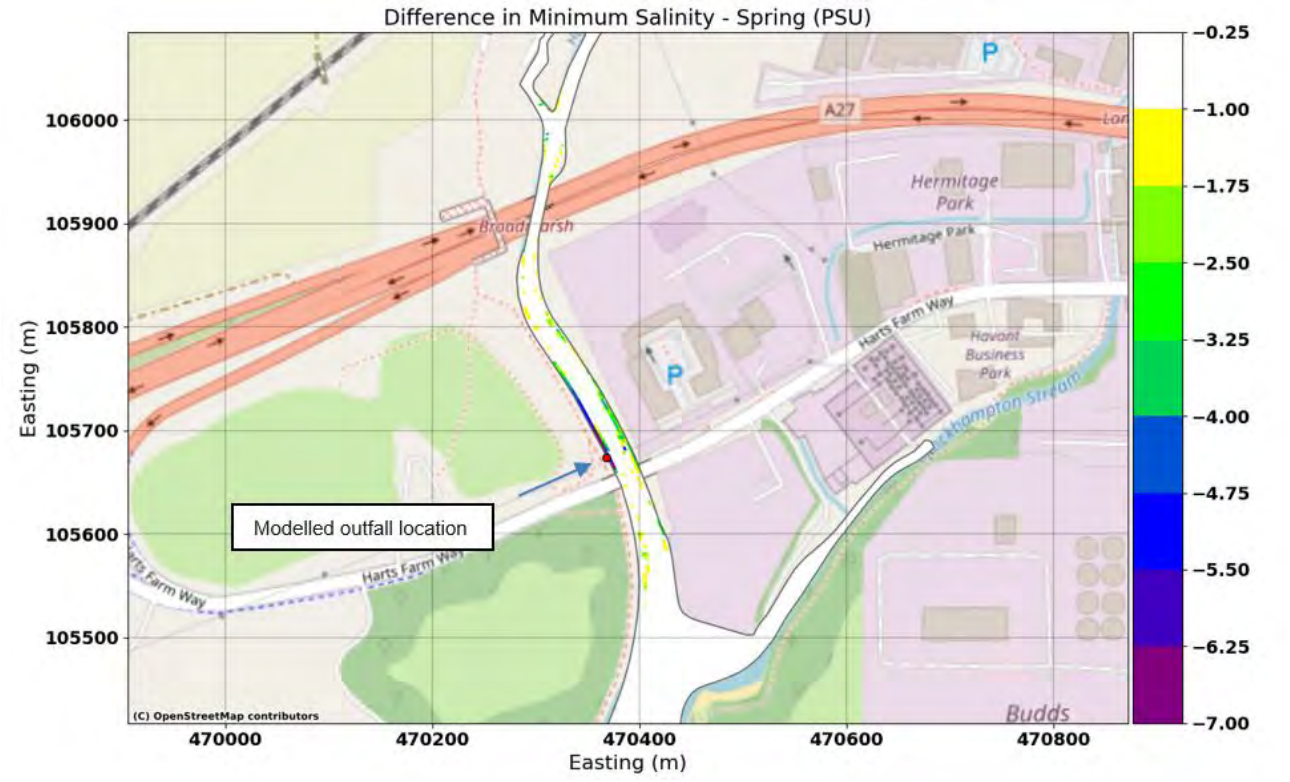


Figure 3-15 Difference in minimum salinity (PSU) spring tidal condition



4 Potential effects on the water environment

4.1 Introduction

4.1.1 Southern Water presented a preliminary assessment of likely significant effects from the construction, operation and decommissioning of the Project on the water environment in PEI Report Chapter 19: Water environment, Volume I, presented in the Summer 2024 Consultation.

4.1.2 The PEI Report included a qualitative, preliminary outline assessment of the potential effects of:

- Releases of recycled water from the proposed WRP into Havant Thicket Reservoir.
- Release of compensatory flows from the reservoir, once the proposed WRP is operational, into the Riders Lane Stream and subsequent downstream water bodies.
- Release of surface water runoff from the proposed WRP site into the lowermost tidal reach of Hermitage Stream and Langstone Harbour.
- Release of reject water from the proposed WRP into the Solent via the existing Eastney LSO.

4.1.3 Whilst the qualitative assessment presented in the PEI Report concluded that significant adverse effects resulting from these releases were unlikely, water quality modelling has now been undertaken to enable potential effects on water quality to be evaluated in more detail (see section 3 for further information on this modelling).

4.1.4 The remainder of this section provides an update on the likely implications of the four operational releases outlined above on water quality within Havant Thicket Reservoir, Riders Lane Stream, Hermitage Stream, Langstone Harbour and the Solent. This includes a preliminary comparison of the concentrations of the water quality parameters outlined in section 2 against the thresholds established in the WFD Directions.

4.1.5 The preliminary assessment presented in this Report will be further developed, and the results will be presented in the Environmental Statement and, WER Compliance Assessment and Habitats Regulations Assessment.

4.2 Preliminary consideration of potential environmental effects

Approach to assessment

4.2.1 In order to provide an initial indication of the potential implications of the changes in water quality that have been predicted by the modelling, the model outputs have been compared to the physico-chemical status thresholds set in the WFD Directions (Table 4-1 and Table 4-2) to help determine whether the level of change could result in any adverse impacts on ecosystem quality. The results of this process are presented as graphs in Figure 4-1 and Figure 4-2.

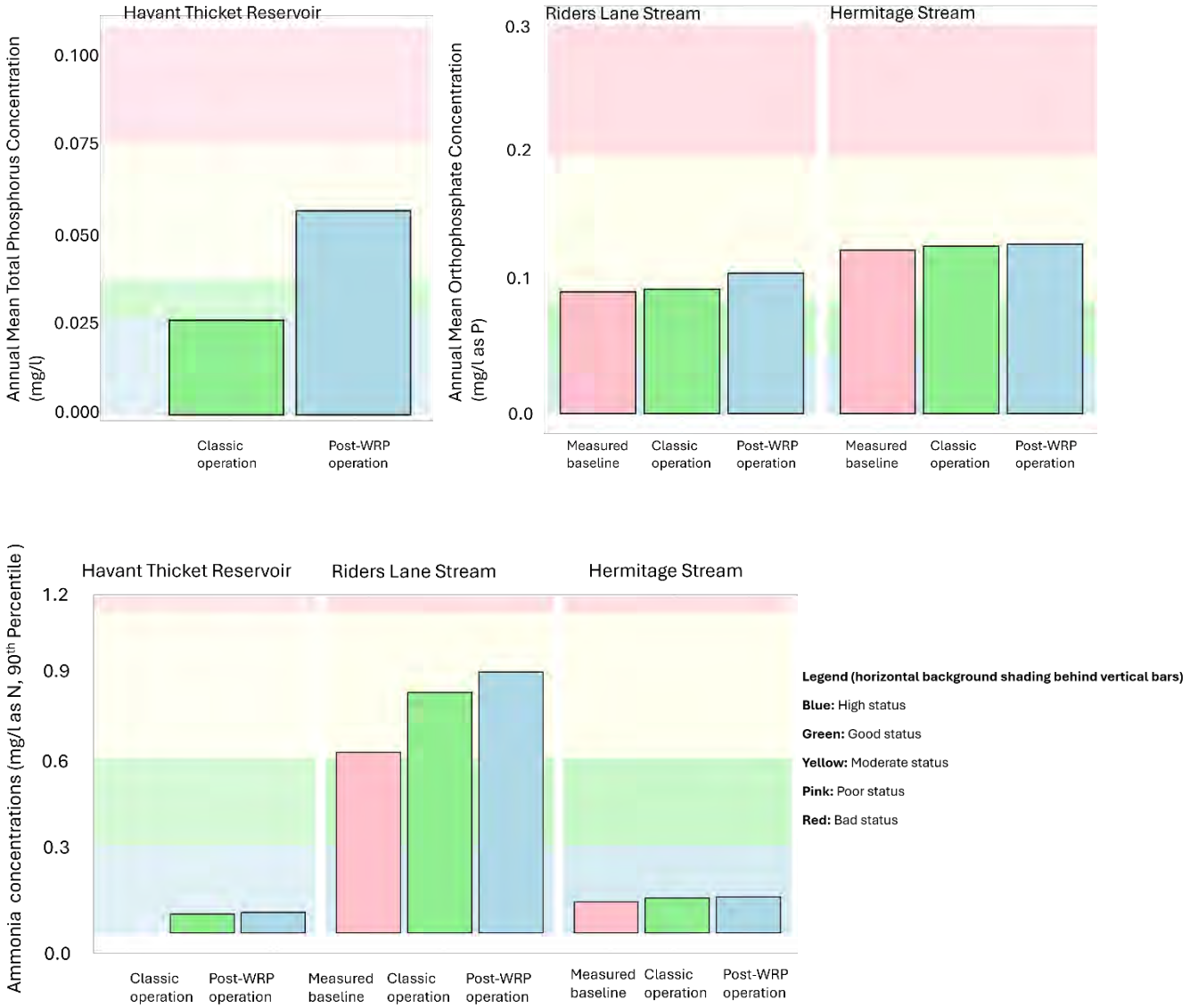
Table 4-1 Physico-chemical status thresholds from the WFD Directions 2015

Water body type	Parameter	High	Good	Moderate	Poor	Bad
Lake	Total Phosphorus (mg/l) Annual mean	<0.025	0.025 - 0.035	0.035 - 0.070	0.070 - 0.140	>0.140
	Total Ammonia (mg/l as N) 90th percentile	<0.3	0.3 - 0.6	6 - 1.1	1.1 - 2.5	>2.5
	Dissolved Oxygen (mg/l) Mean July-August	>8	6 - 8	4 - 6	1 - 4	<1
River	Orthophosphate (mg/l) Annual mean	<0.045	0.045 - 0.09	0.09 - 0.20	0.20 - 1.06	>1.06
	Ammonia (mg/l as N) 90th percentile	<0.3	0.3 - 0.6	0.6 - 1.1	1.1 - 2.5	>2.5
	Dissolved Oxygen (% saturation) 10th percentile	>70	60 - 70	54 - 60	45 – 54	<45
	BOD (mg/l) 90th percentile	<4	4 - 5	5 - 6.5	6.5 - 9	>9
Transitional and coastal	Dissolved Oxygen (mg/l) 5th percentile	>5.7	4.0 - 5.7	2.4 - 4.0	1.6 - 2.4	<1.6

Table 4-2 Comparison of modelled outputs against physico-chemical thresholds

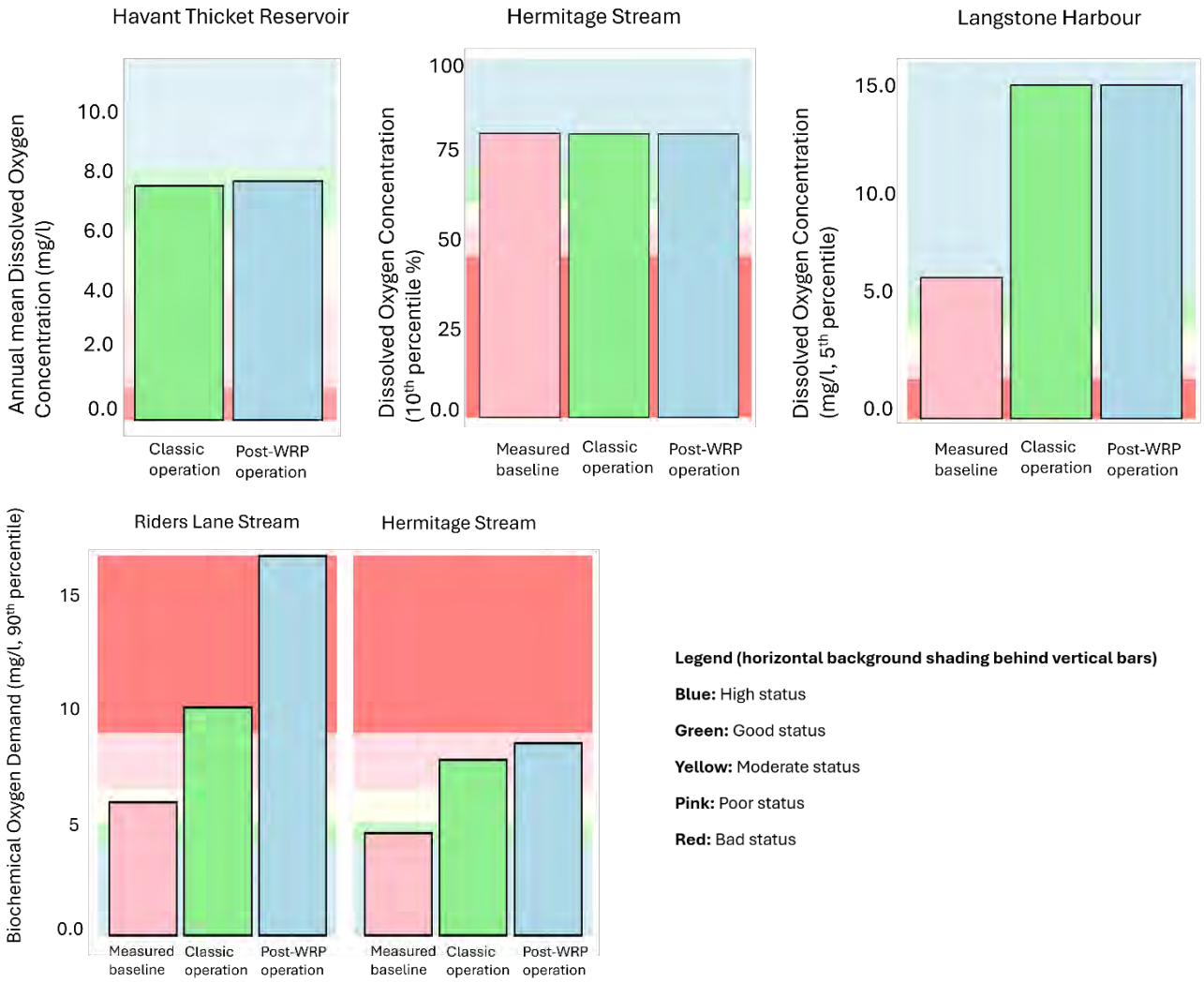
Parameter	Measured baseline	"Classic" operation	"Post-WRP" operation
Havant Thicket Reservoir			
Total Phosphorus (mg/l) Annual mean	-	0.024	0.052
Total Ammonia (mg/l as N) 90th percentile	-	0.065	0.070
Dissolved Oxygen (mg/l) Mean July-August	-	7.48	7.63
Riders Lane Stream			
Orthophosphate (mg/l) Annual mean	0.094	0.096	0.110
Ammonia (mg/l as N) 90th percentile	0.62	0.83	0.89
BOD (mg/l) 90th percentile	5.93	10.17	16.89
Hermitage Stream			
Orthophosphate (mg/l) Annual mean	0.12	0.13	0.13
Ammonia (mg/l as N) 90th percentile	0.10	0.12	0.12
Dissolved Oxygen (% saturation) 10th percentile	79	79	79
BOD (mg/l) 90th percentile	4.56	7.82	8.55
Langstone Harbour			
Dissolved Oxygen (mg/l) 5th percentile	6.42	15.2	15.2

Figure 4-1 Comparison of predicted water quality changes to status classification thresholds for Total Phosphorus, Orthophosphate and Ammonia



**Note that TP thresholds are only applicable to lakes, and PO_4 thresholds are only applicable to rivers. There are no TP, PO_4 or NH_3 thresholds for transitional or coastal waters.*

Figure 4-2 Comparison of predicted water quality changes to status classification thresholds for DO and BOD



**Note that there are no BOD thresholds for lakes, transitional or coastal waters. The baseline DO data for Riders Lane Stream is in mg/l, however the threshold for rivers is set for % saturation. Although conversion factors are available, these require accurate pressure and temperature measurements and have not been presented here.*

4.2.2 Although the preliminary interpretation of initial model results provides an indication of the potential impacts of the Project on the water environment, it does not provide a comprehensive assessment of the likely effects of construction-phase and operational impacts at this stage. This will be presented in the Environmental Statement and other supporting assessments as part of the DCO application.

Havant Thicket Reservoir

4.2.3 As Havant Thicket Reservoir is not yet operational, it is not possible to directly determine baseline water quality and as such any assessments of the potential changes in water quality in the reservoir are based on modelling. There is therefore an inherent degree of uncertainty associated with the modelled predictions of water quality in the reservoir and how it could potentially change as a result of the Project during operation.

4.2.4 These results indicate that, following an initial period of variation as the reservoir is filled with spring water, rainfall and surface runoff (from what are currently the headwaters of Riders Lane Stream), water quality would stabilise at the beginning of the "classic" operation phase. Water quality during this phase is likely to be good, although TP concentrations are predicted to increase very slightly during this period (from c.0.02mg/l to c.0.03mg/l) and then stabilise (Future Water, 2024; see section 5.2 for further discussion).

4.2.5 The addition of recycled water from the proposed WRP results in an increase in concentrations of phosphorus (from c.0.03mg/l to 0.06mg/l), which causes a corresponding increase in phytoplankton growth. Conversely, nitrogen concentrations decrease, but this does not result in a decrease in phytoplankton growth within the reservoir due to the concurrent increase in phosphorus.

4.2.6 The predicted change in phosphorus concentrations is sufficient to result in a change in water body status, from 'high' during the "classic" operation phase to 'moderate' during the post-WRP operation phase (Figure 4-1). This would result in a change of water body status under the WER. As such, additional measures would be required to ensure that the Project is compliant with the WER.

4.2.7 Southern Water is assessing several options for reducing the TP concentration in the recycled water released into Havant Thicket Reservoir. Potential methods for reducing TP concentrations include ferric dosing, enhanced biological phosphorus removal, higher rejection membranes, a second stage of reverse of osmosis at the WRP and ion exchange polishing. The selected treatment measure(s) will be set out within the DCO application and its associated Environmental Statement. Southern Water is working with the Environment Agency to determine how these measures are best introduced.

4.2.8 As discussed in section 3.1, the reservoir water quality modelling examined alternative scenarios in which the concentrations of phosphorus in the recycled water from the proposed WRP were reduced to represent different levels of treatment efficiency (Future Water, 2024). The results of these scenarios predict that WER compliance could be achieved within the reservoir (i.e. a change in status could be avoided) if TP concentrations in recycled water were to be reduced. As provision for further treatment measures to reduce TP concentrations in the recycled water will be included in the DCO, significant adverse effects to the water environment are therefore not anticipated.

4.2.9 The predicted changes in other parameters would not result in any changes in water body status within Havant Thicket Reservoir (Figure 4-1 and Figure 4-2). As described in section 3.1, the introduction of recycled water from the proposed WRP would result in a large decrease in concentrations of TN and nitrate in the reservoir and a smaller decrease in ammonia concentrations. This improved water quality is not, however, reflected in a change in water body status, because lake water quality for nitrogen compounds is only assessed on the basis of total ammonia under the WFD Directions and the other compounds are not considered.

4.2.10 BOD is not used to classify the status of lake water bodies and is not therefore discussed further in this section.

Riders Lane Stream and Hermitage Stream

Impacts of compensatory flows

4.2.11 A change in many parameters in Riders Lane Stream is predicted to occur during the Havant Thicket Reservoir "classic" operation scenario, before recycled water from the proposed WRP is introduced. Median alkalinity, pH, and concentrations of DO, ammonium and DOC would increase in Riders Lane Stream once the reservoir becomes operational. These parameters would each remain broadly similar or decrease slightly once recycled water from the proposed WRP is introduced to the reservoir. However, while median concentrations of orthophosphate and BOD are also predicted to increase over the baseline once the reservoir becomes operational, they are also predicted to increase further once recycled water from the proposed WRP is introduced. Median nitrate and DIC concentrations would also increase when the reservoir becomes operational, before decreasing once the spring water is diluted by recycled water from the WRP.

4.2.12 Concentrations of the water quality parameters in Hermitage Stream are predicted to be subject to a smaller change over the current baseline than those in Riders Lane Stream, reflecting the fact that the reservoir compensatory flows would represent a smaller proportion of the total flows in the larger watercourse. Once the reservoir is operational, the compensatory flows are predicted to result in an increase in median pH, alkalinity, DO, BOD, orthophosphate, ammonium, nitrate, DOC and DIC concentrations in Hermitage Stream. The introduction of recycled water from the proposed WRP into the reservoir is predicted to result in a decrease in median pH, alkalinity and nitrate (reflecting natural differences in water chemistry between the alkaline, nitrate-enriched groundwater and the more neutral recycled water with a lower nitrate content), and DIC. Median BOD and DOC would increase slightly more in Hermitage Stream, and all other water quality parameters would remain at very similar concentrations as during the "classic" operation phase.

4.2.13 The preliminary results of the water quality modelling therefore indicate that compensatory flows from the reservoir both before and after the introduction of recycled water are likely to result in greater changes in water quality in Riders Lane Stream than in Hermitage Stream.

4.2.14 The water quality changes described above for both the "classic" and "post-WRP" scenarios are compared to the status classification thresholds for physico-chemical quality elements set out in the WFD Directions in Figure 4-1 and Figure 4-2. The figures demonstrate that there would be slight changes for the majority of the water quality parameters, with slight increases in orthophosphate, ammonia and BOD.

4.2.15 The increases in orthophosphate in Riders Lane Stream and Hermitage Stream would not be sufficient to change the status class of the water body, which would remain at 'moderate' status. Similarly, ammonia concentrations are predicted to increase in both watercourses but would remain at 'high' status. Following the precedent established following the European Court of Justice ruling C-461/13 (2015) and set out in guidance published by the Environment Agency (2016), changes to water quality within a status class do not constitute deterioration in water quality and are therefore unlikely to result in adverse impacts on the aquatic

environment, unless the quality element is at 'bad' status. Because orthophosphate would remain at 'moderate' status and ammonia at 'high' status, this means that the predicted changes are compliant with the WER.

4.2.16 Although the predicted increases in orthophosphate and ammonia concentrations would not result in a change in river water body status class, the increases could potentially result in a slight change in water quality in Riders Lane Stream. However, this change is very small in Hermitage Stream and is therefore considered unlikely to result in significant adverse impacts at water body scale.

4.2.17 The dispersion modelling suggests that BOD would increase in Riders Lane Stream and Hermitage Stream following the commissioning of the reservoir, and would increase further following the introduction of recycled water from the proposed WRP. The increase in BOD in the "classic" operational phase would cause a change in the status of the quality element from 'moderate' to 'bad' in Riders Lane Stream and 'good' to 'poor' in Hermitage Stream (noting that these predictions are based on the results of the dispersion modelling and therefore represent the worst-case scenario (refer to section 3.2)). Further increases in BOD following introduction of recycled water from the proposed WRP would not result in any further changes in status.

4.2.18 It is important to note that although the WFD Directions set out thresholds for BOD in rivers, these thresholds are not used to classify water body status (Table 2 in Schedule 3, Part 1, Section 1 of the WFD Directions explicitly states that 'BOD must not be used in classifying the status of water bodies.') and as such the change would not constitute deterioration in water body status. BOD increases need to be considered in the context of changes to DO in order to determine the extent of environmental effects that are likely to occur; if an increase in BOD results in a decrease in DO, aquatic organisms could be adversely impacted (refer to section 5.2). In this case, however, the predicted increase in BOD in Riders Lane Stream and Hermitage Stream is not accompanied by a significant decrease in DO concentrations (which are predicted to remain at 'high' status following the construction of the reservoir and following the addition of recycled water from the proposed WRP). Significant adverse impacts are therefore considered to be unlikely.

4.2.19 Furthermore, the model outputs presented in this section do not represent the outputs of the alternative phosphorus removal scenarios considered in the reservoir modelling. These demonstrate that the reservoir could achieve 'good' ecological status following introduction of recycled water from the WRP if additional phosphorus removal were to be included (Future Water, 2024; refer to section 3.1). Phosphorus compounds play an important role in controlling phytoplankton growth because they are an essential component in the formation of plant cells. This means that a reduction in phosphorus in the reservoir is likely to result in a reduction in the growth of phytoplankton. BOD represents the amount of DO consumed by bacteria while they decompose organic matter. When phytoplankton growth is high, BOD is typically also high as there is increased availability of organic matter (i.e. dead phytoplankton cells) for bacterial decomposition. Therefore, a reduction in phosphorus concentrations and phytoplankton growth should lead to a decrease in BOD, both in the reservoir and in compensatory flows to Riders Lane Stream and Hermitage Stream (refer to Table 2-1 and section 5.2

for further information). This will be considered in more detail in the Environmental Statement and supporting assessments.

Impacts of WRP SuDS outfall release

4.2.20 The modelled change in salinity due to the proposed WRP SuDS outfall release, when compared with the natural fluctuations in ambient salinity levels throughout the tidal cycle, is considered small. Significant water quality effects from the proposed WRP SuDS outfall are therefore not anticipated.

Langstone Harbour

Impacts of compensatory flows

4.2.21 The water quality modelling of the chemical parameters described in section 3.2 indicate that there are only very limited changes in water quality in Langstone Harbour from the modelled Havant Thicket Reservoir "classic" operation and "post-WRP" operation scenarios. Significant water quality effects from the compensatory flows are therefore not anticipated in Langstone Harbour.

Impacts of Eastney LSO and SuDS releases

4.2.22 As shown in section 3.3, modelled changes in water quality around the Eastney LSO do not extend into Langstone Harbour therefore no impacts to this water body have been identified.

4.2.23 Similarly, the releases from the WRP SuDS described in section 3.4 would result in highly localised changes in salinity in the lower tidal reach of the Hermitage Stream, and would not therefore affect Langstone Harbour. Significant water quality effects from the proposed WRP SuDS outfall are therefore not anticipated in Langstone Harbour.

Solent

Impacts of compensatory flows and SuDS release

4.2.24 Modelling associated with the compensatory flows to Riders Lane Stream and the SuDs release from the proposed WRP did not show any effect on the Solent as the plume extents were restricted to the north of Langstone Harbour. Significant water quality effects from these operational releases are therefore not anticipated in the Solent.

Impacts of Eastney LSO release

4.2.25 The preliminary surface water risk assessment, described in section 3.3, screened in seven parameters (fluoranthene, HBCDD, lead, PFOS, BaP, terbutryn and zinc) for further assessment. Modelling was therefore undertaken to determine the potential changes between the existing scenario and the future scenario on these parameters and illustrate the predicted changes between the two scenarios within the Solent. Further work requires the addition of baseline concentrations from ongoing marine water quality sampling to the modelled output, and a comparison of the results with the physico-chemical thresholds for the water body defined in

the WFD Directions. However, given the very small changes in concentrations between the existing and future scenarios, significant water quality effects in the Solent are not anticipated.

5 Potential effects on freshwater biodiversity

5.1 Introduction

5.1.1 Southern Water presented an assessment of preliminary likely significant effects from the construction, operation and decommissioning of the Project on freshwater biodiversity in PEI Report Chapter 8: Terrestrial and freshwater biodiversity, Volume I, presented in the Summer 2024 Consultation and included reference to potential water quality changes due to the release of recycled water from the proposed WRP into Havant Thicket Reservoir. It was acknowledged in the PEI Report chapter that impacts would be assessed following completion of reservoir and downstream water quality modelling.

5.1.2 As a precautionary approach, the PEI Report Chapter 8: Terrestrial and freshwater biodiversity identified the potential for adverse effects on bird assemblages (which underpin a number of statutory nature conservation designations) in relation to potential releases from the Eastney LSO and associated water quality changes.

5.1.3 Since the Summer 2024 Consultation, the water quality modelling and assessment work undertaken has enabled further understanding of the potential effects of the Project on freshwater biodiversity. This modelling is detailed in section 3 and in summary has included:

- Modelling of Havant Thicket Reservoir water quality to assess the potential impacts of releasing recycled water into the reservoir.
- Water quality modelling of water bodies downstream of Havant Thicket Reservoir which will require the release of compensatory flows from Havant Thicket Reservoir to Riders Lane Stream and Hermitage Stream.
- Proposed WRP SuDS outfall modelling which assesses the potential water quality effects of the release of surface runoff from the proposed WRP SuDS via a new outfall into the Hermitage Stream.

5.1.4 The additional modelling work is considered in terms of freshwater biodiversity (specifically freshwater ecology) in the following section. The preliminary assessment presented in this report will be further developed, and the results will be presented in the Environmental Statement, WER Compliance Assessment and Habitats Regulation Assessment.

5.2 Preliminary consideration of potential environmental effects

5.2.1 The implications of the preliminary reservoir modelling (section 3.1), the compensatory flows modelling (section 3.2), and proposed WRP SuDS outfall modelling (section 3.4) on freshwater biodiversity are considered in the remainder of this section.

5.2.2 This preliminary interpretation of initial model results does not provide an assessment of the likely magnitude and significance of any impacts at this stage; this will be presented in the Environmental Statement and other supporting assessments (e.g. the HRA and WER Compliance Assessment).

5.2.3 Consideration of potential environmental effects associated with the proposed WRP reject water release from the Eastney LSO are provided in section 6. As the preliminary modelling does not predict water quality changes from this release in the Solent, no adverse effects on the national and internationally designated sites listed in section 2.4 are anticipated, including effects on the bird assemblages unpinning these designations.

Havant Thicket Reservoir

5.2.4 An assessment of ecological impacts on Havant Thicket Reservoir is currently underway, the key preliminary findings of which are presented here. The main objectives of the Havant Thicket Reservoir ecological impact assessment are:

- To determine whether a switch from the “classic” operation scenario (i.e. water levels predominantly maintained by surplus spring water) to the “post-WRP” operation scenario (i.e. levels maintained with the input of recycled water, in addition to spring water) would have an effect on the biodiversity potential of Havant Thicket Reservoir.
- To evaluate the sensitivity of the reservoir’s ecological condition during the “post-WRP” operation scenario to operational changes (i.e. use of a bubbler system).

5.2.5 The biodiversity of a standing water body is influenced by numerous environmental factors, including water quality variables, climatic conditions, habitat quality and hydrological processes. Although there is a great deal of variation in the relative importance of these factors both spatially (e.g. between water bodies) and temporally (e.g. seasonally and inter-annually), the scientific consensus is that nutrient availability, specifically the availability of phosphorus, is the major determining factor in many lake and reservoir ecosystems. Phosphorus is important as it is often the key controlling factor on phytoplankton growth in lakes and reservoirs. It is therefore considered appropriate that the assessment of reservoir ecological condition is primarily focussed on modelled in-reservoir nutrient concentrations.

5.2.6 Aquatic ecosystems can be classified by their degree of nutrient enrichment, also referred to as ‘trophic status’. One of the most widely used trophic status classification systems for lakes and reservoirs was developed by the Organisation for Economic Co-operation and Development (OECD). The OECD system assigns trophic status based on annual mean concentrations of TP and chlorophyll-a (a proxy for phytoplankton growth) in surface waters (OECD, 1982). Table 5-1 details how concentrations of these water quality parameters translate into trophic status and provides a description of the ecosystem conditions typically associated with each status class.

Table 5-1 Trophic status, TP and chlorophyll-a thresholds according to the Organisation for Economic Development classification system

Trophic status	TP (mg/l)	Chlorophyll-a (µg/l)	Typical ecological characteristics
Oligotrophic	<0.01	<2.5	Low level of primary productivity due to nutrient deficiency. Water is usually clear due to limited growth of phytoplankton. Typically inhabited by aquatic species that require cold, well-oxygenated water.
Mesotrophic	0.01 – 0.035	2.5 - 8	Intermediate level of primary productivity. Water is usually relatively clear and nutrient levels are sufficient to support the growth of submerged aquatic plants. Biodiversity is generally higher than in eutrophic waterbodies and the community comprises species of fish and invertebrates that require clear, well-oxygenated water and have a low tolerance for poor water quality.
Eutrophic	0.035 – 0.100	8 - 25	High level of primary productivity supported by relatively high nutrient levels. High phytoplankton growth increases water turbidity and consequently reduces light penetration through the water column, which in turn inhibits the growth of submerged macrophytes. Low oxygen concentrations develop at depth during periods of peak microbial decomposition. Biodiversity is generally low compared to mesotrophic waterbodies and the community comprises species of fish and invertebrates that are more tolerant of turbid, low-oxygen conditions.
Hypereutrophic	>0.100	>25	Extremely high level of primary productivity. Little transparency due to excessive phytoplankton growth. No submerged macrophytes and recession of marginal aquatic plant beds. Prolonged periods of anoxia or hypoxia in bottom waters. Insufficient oxygen to support fish of any species.

Source: OECD, 1982

5.2.7 Modelled TP and chlorophyll-a concentrations have been used to determine the trophic status of Havant Thicket Reservoir according to the OECD defined boundaries for annual mean concentrations. Additional modelled water quality parameters have been reviewed to provide further context to the assessment.

5.2.8 For both parameters, in the absence of further mitigation, the “post-WRP” annual mean concentrations are within the OECD eutrophic range (TP annual mean = 0.057mg/l; chlorophyll-a annual mean = 11.60µg/l). A description of typical ecological conditions in eutrophic lakes and reservoirs is provided in Table 5-1.

5.2.9 Time-series graphs of monthly mean TP concentration (Figure 5-1) and chlorophyll-a concentration (Figure 5-2) illustrate the change in these water quality parameters concurrent with the introduction of recycled water.

5.2.10 TP concentration increases from *c*. 0.03mg/l to *c*. 0.06mg/l in the two years following the introduction of recycled water to the reservoir. It then remains relatively stable and shows little seasonal variability throughout the “post-WRP” scenario, whereas chlorophyll-a concentration is more variable. As is commonly observed in lakes and reservoirs, the chlorophyll-a concentration is low during the winter when phytoplankton growth is limited by environmental factors other than nutrient availability (e.g. light and temperature) and higher in summer when environmental conditions allow phytoplankton to utilise available nutrients.

Figure 5-1 Time-series of surface water monthly mean TP concentration, with and without bubble plume destratification system

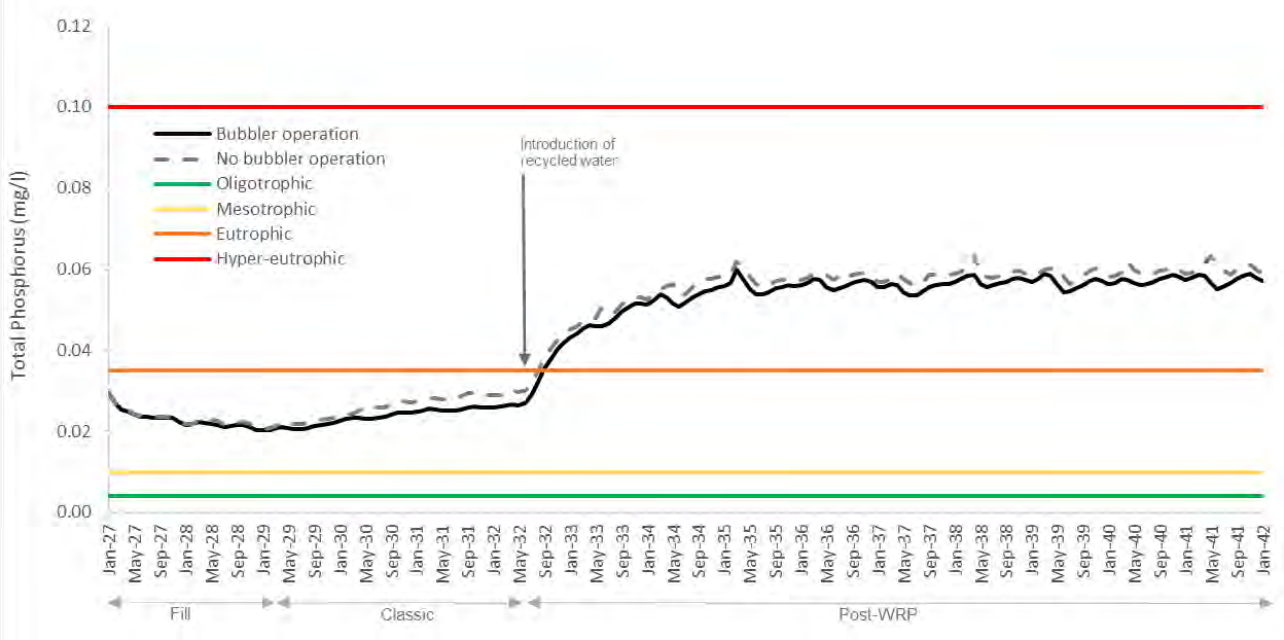
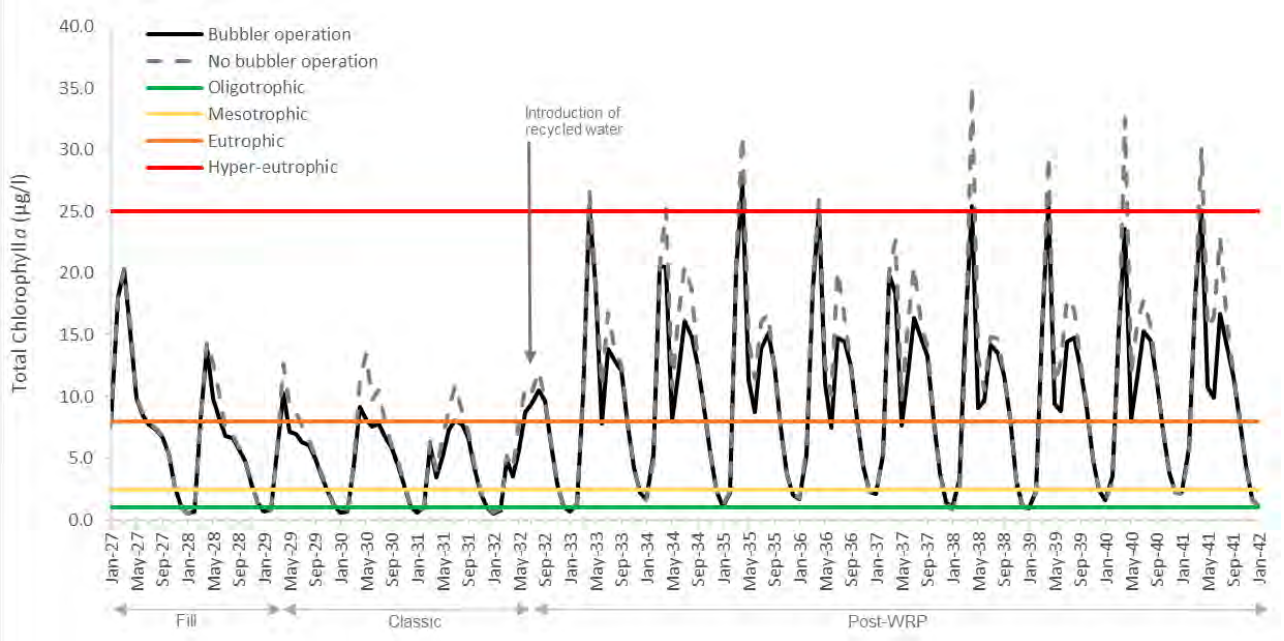


Figure 5-2 Time-series of surface water monthly mean chlorophyll-a concentration, with and without bubbler plume destratification system



5.2.11 It is proposed that a bubbler system is operational in the reservoir between April and August (i.e. during the typical seasonal stratification period) to prevent the development of bottom water anoxia (oxygen depletion) and maintain vertical homogenous water quality conditions year-round. Bottom water anoxia can develop in a eutrophic reservoir when dead phytoplankton cells and other organic matter reach the sediment surface, this increases the rate of microbial decomposition and consequently reduces DO concentrations (i.e. increased BOD). Stratification (thermal layering) of the water column during warmer periods

exacerbates this issue as the bottom water is not replenished by mixing with DO-rich surface water.

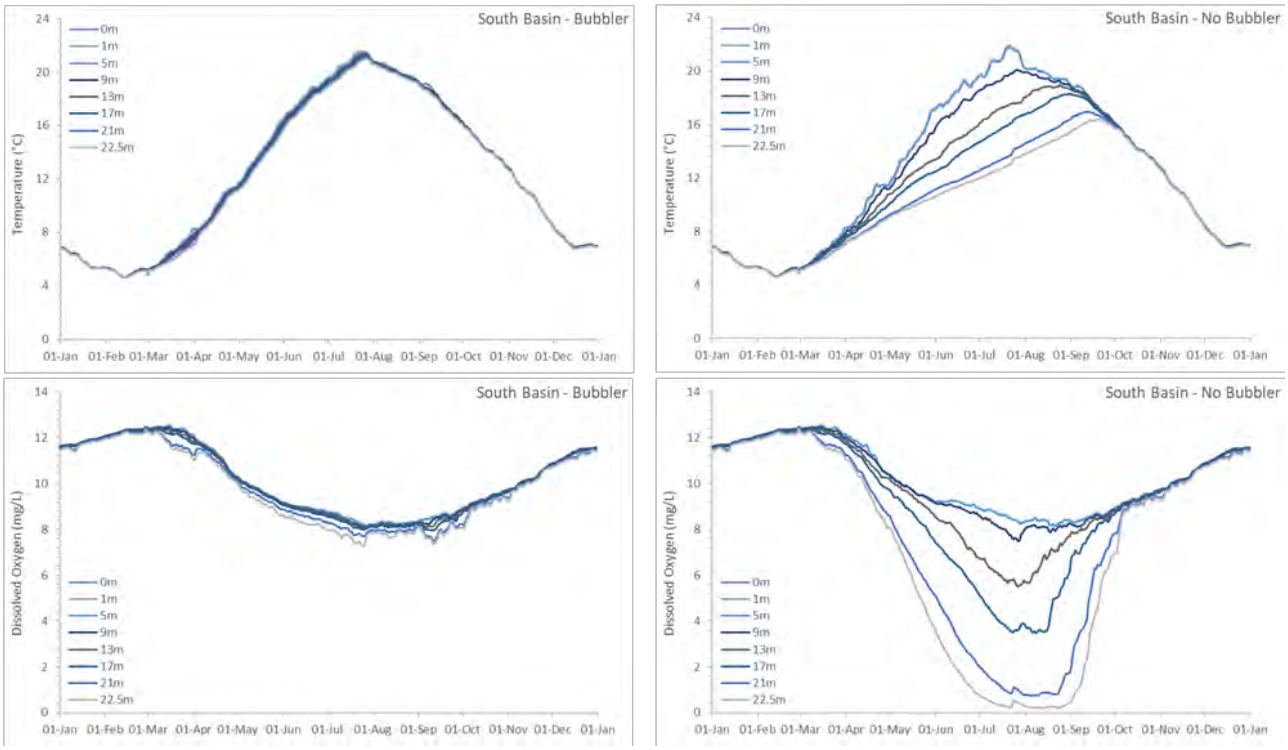
5.2.12 As Figure 5-1 and Figure 5-2 show, operation of the bubbler is predicted to have a moderately beneficial impact on surface water TP and chlorophyll-a concentrations in open water areas. Summer peak concentrations of chlorophyll-a are reduced during bubbler operation; however, the annual mean concentration of both parameters is still within the OECD eutrophic range (TP annual mean = 0.055mg/l; chlorophyll-a annual mean = 10.27 µg/l). Although these results indicate that the bubbler system would not result in a change in reservoir OECD trophic status, the bubbler is predicted to effectively mix the water column, preventing thermal stratification and the development of bottom water anoxia, as shown in Figure 5-3.

5.2.13 Maintenance of a well-mixed water column by the bubbler may yield the following ecological benefits for the reservoir:

- Cyanobacteria (a group of phytoplankton, also known as blue-green algae) are physiologically suited to calm, un-mixed waters. An effective bubbler largely eliminates their competitive advantage over other phytoplankton groups. A shift away from cyanobacteria dominance reduces the risk posed to human and animal health by the release of cyanotoxins.
- The development of anoxia has the potential to impact the distribution and health of fish and other aquatic organisms. A lack of oxygen in bottom waters can lead to their exclusion from the affected area. Maintenance of high bottom water oxygen levels by the bubbler system would avoid this.

5.2.14 The potential impact of the bubbler system on water column mixing and phytoplankton growth in marginal areas of the reservoir is unknown as the modelling exercise focussed on open water areas.

Figure 5-3 Temperature and DO water column depth profiles with and without nighttime bubbler system operation, average daily temperature and DO concentration, post-WRP phase (2033 - 2041)



5.2.15 To conclude, the preliminary results of the Havant Thicket Reservoir biodiversity assessment indicate that the reservoir may shift to a eutrophic state following the introduction of recycled water. Under such conditions, it is considered unlikely that an ecosystem comprising a diverse range of aquatic species would develop. It is more likely that the reservoir would lack submerged macrophyte growth and that bottom-feeding species, that are relatively tolerant of poor water quality (e.g. carp) would dominate the fish community. Operation of the bubbler system may reduce some of the undesirable consequences of eutrophication, e.g. cyanobacterial dominance of the phytoplankton community and the development of bottom water anoxia. However, a reduction in TP input would be required to improve the biodiversity potential of the reservoir.

5.2.16 The reservoir water quality modelling exercise includes scenarios where the TP concentration of recycled water input is reduced. This is predicted to improve the ecological potential of the reservoir closer to that predicted for the "classic" operational scenario under 'mesotrophic' conditions. As provision for further measures to reduce TP concentrations in the recycled water will be included in the DCO, significant adverse effects to freshwater biodiversity in the reservoir are not anticipated. Southern Water is working with the Environment Agency to determine how these measures are best introduced.

Riders Lane Stream, Hermitage Stream (freshwater reach)

Impacts of compensatory flows

5.2.17 The compensatory flows modelling has considered water quality effects at sample points on Riders Lane Stream (downstream of the reservoir and upstream of the culvert at Middle Park Way Road), and for Hermitage Stream above the tidal limit at the location of the Environment Agency water quality monitoring site, as shown in Figure 3-1.

5.2.18 The preliminary results indicate that compensatory flows from the reservoir after the introduction of recycled water are likely to result in greater changes in water quality in Riders Lane Stream than in Hermitage Stream, with median concentrations of orthophosphate and BOD predicted to increase. Median nitrate, alkalinity, pH and DIC concentrations would increase in Riders Lane Stream in the "classic" operation scenario, before decreasing once the spring water is diluted by recycled water in the "post-WRP" scenario. Predictions for BOD, DO concentration and orthophosphate concentration in Riders Lane Stream are considered to be the most important in terms of considering potential effects on freshwater biodiversity.

Orthophosphate

5.2.19 There is a slight increase in orthophosphate in Riders Lane Stream, from a median concentration of 0.167mg/l in the "classic" scenario to 0.187mg/l in the "post-WRP" scenario. An increase in orthophosphate would be expected to result in an increase in biological activity in Riders Lane Stream, thus there is potential for the photosynthetic activity of macrophytes and diatoms to increase, leading to an increase in BOD and reduced DO. However, in-stream vegetation is largely absent from Riders Lane Stream, with low macrophyte diversity present due to the lack of permanent aquatic habitats, constrained by intermittent flows. Therefore, the slight

increase in orthophosphate is not likely to be significant in terms of its influence on BOD and DO (see below). In the Hermitage Stream, median orthophosphate concentrations are predicted to remain similar between the two operational scenarios.

BOD and DO

5.2.20 BOD is predicted to increase significantly, attributed to the increase in phytoplankton growth in Havant Thicket Reservoir following the introduction of recycled water in the "post-WRP" scenario. Whilst BOD is a useful indicator of the amount of oxygen consumed by biological processes, it needs to be considered in the context of potential effects on DO, which is the critical indicator of oxygen available to aquatic species, particularly for fish and macroinvertebrate communities which are sensitive to this water quality parameter. DO levels are predicted to increase significantly from measured baseline in both watercourses under both the "classic" and "post-WRP" operational scenarios.

5.2.21 For fish, the requirement for DO differs between species and their various life stages however generally DO concentrations of above 8mg/L are considered to support healthy growth (Bulbul et al., 2022), with adverse effects on fish health when DO concentrations drop below 5-6mg/L (Dong *et al.*, 2011). The modelling has predicted that measured baseline DO concentrations in the downstream watercourses is relatively low for fish (predicted to be 7.4mg/l in Riders Lane Stream and 6.5mg/l in Hermitage Stream). Therefore, both the "classic" and "post-WRP" operation scenarios are expected to result in a beneficial increase to the available DO in both the watercourses. However, some literature does suggest that DO concentrations as low as 2mg/l are satisfactory to moderately tolerant freshwater species (EIFAC, 1973), so the measured baseline DO concentrations may not necessarily be limiting fish populations. The fish species currently present in the downstream watercourses, namely bullhead and European eel do not require high levels of DO.

5.2.22 In Hermitage Stream, the predicted DO concentrations in the measured baseline, the "classic" and the "post-WRP" operational scenarios all fall well above any minimum requirements for DO for fish. However, significant populations of fish species are not currently present in this watercourse due to the presence of significant barriers to fish passage and lack of optimal habitat.

5.2.23 The macroinvertebrate communities present in the Riders Lane Stream and Hermitage Stream are also predicted to benefit from increased DO concentrations associated to the "classic" and "post-WRP" scenarios, with current communities showing a lack of diversity and tolerance of low DO. This is indicated by recorded Lotic-invertebrate Index for Flow Evaluation (LIFE) scores (Extence *et al.* (1999)), a scoring system used to determine to types of macroinvertebrate species present in different river flow systems.

5.2.24 Portsmouth Water's planned restoration works (required as part of the Havant Thicket Reservoir planning permission and WER Compliance Assessment) aim to improve the ecological condition of the Hermitage Stream catchment, with a more consistent flow expected (associated to compensatory flows), habitat restoration and barriers to fish passage improved. These improvements are expected to support greater diversity in terms of macrophyte, macroinvertebrate and fish

species. Southern Water will continue to collaborate with Portsmouth Water to consider the impact these works may have on the future ecological condition of the catchment. This will be presented within the Environmental Statement.

Impacts of SuDS outfall release

5.2.25 From the proposed WRP SuDS modelling results, any indicated change in water quality is in proximity to the new outfall which is within the tidal reach of the Hermitage Stream. Consideration of potential environmental effects as a result of the WRP SuDS outfall are discussed in the marine biodiversity assessment for the Hermitage Stream (tidal reach) in section 6.2.

5.2.26 To conclude, the extent of water quality changes predicted in Riders Lane Stream and Hermitage Stream (freshwater reach) during the “post-WRP” operation scenario are very small for most water quality parameters and considered unlikely to result in significant adverse effects on freshwater biodiversity.

6 Potential effects on marine biodiversity

6.1 Introduction

6.1.1 Southern Water presented the assessment of likely significant effects from the construction, operation and decommissioning of the Project on marine biodiversity aspects in the PEI Report Chapter 9: Marine Biodiversity, Volume I, presented in the Summer 2024 Consultation. Potential effects on marine biodiversity due to changes in the proposed WRP reject water released from Eastney LSO were identified during the operation phase of the Project. Following the precautionary principle, there remained the potential for significant adverse effects on marine biodiversity in the PEI Report as the marine dispersion modelling and outputs were still being developed.

6.1.2 Since the Summer 2024 Consultation, the Solent dispersion modelling undertaken (section 3.3) has provided further information on the predicted changes in chemical composition in the Eastney LSO release to inform the extent of water quality influence. The result of a benthic ecology survey around the Eastney LSO is also now available to inform the baseline benthic habitats and communities in the area.

6.1.3 The compensatory flows water quality modelling (section 3.2) provided information on the predicted changes in water quality and chemical parameters due to the compensatory flow at the tidal limit of Hermitage Stream and northern end of Langstone Harbour that inform any effects on the intertidal communities in those areas.

6.1.4 The proposed WRP SuDS modelling undertaken (section 3.4) has predicted changes in water quality parameters to inform the potential effects of the SuDS release on the tidal section of the Hermitage Stream. A field survey was undertaken in September 2024 to understand the existing condition of habitats around the proposed outfall location.

6.1.5 This section of the Report summarises the updated baseline condition particularly in the study area relevant to the water quality modelling assessment since the Summer 2024 Consultation and preliminary consideration of potential effects of water quality changes on marine biodiversity.

6.2 Preliminary consideration of potential environmental effects

Approach to assessment

6.2.1 Potential implications of these water quality technical assessments mentioned in sections 3.2, 3.3 and 3.4 on marine biodiversity (including intertidal communities) are considered. Marine habitats and species that occur in the study areas are briefly reviewed with discussion of their sensitivity to the predicted water quality changes. Preliminary findings of this review are summarised below.

Hermitage Stream (tidal reach)

6.2.2 As set out in section 3.2, the extent of the water quality changes in the Hermitage Stream (tidal reach) resulting from the “post-WRP” operation scenario, when compared to the “classic” operation scenario, are predicted to be extremely small.

6.2.3 From the preliminary findings of the proposed WRP SuDS modelling, there would be a decrease in salinity down to -6PSU predicted along the bank of Hermitage Stream in proximity to the new outfall during spring tide and down to -7PSU predicted at the downstream channel during neap tide. The differences are confined to localised areas of the tidal Hermitage Stream and the overall change in salinity due to the SuDS release compared with the natural fluctuations in ambient salinity levels is small (refer to section 3.4). The habitats and species identified along the bank were artificial hard structures, littoral mud and estuary wrack, all of which are common in variable salinity. European eel recorded in the tidal Hermitage Stream is a euryhaline species adapted to salinity changes. Therefore, they are not sensitive to salinity decrease due to the SuDS release.

6.2.4 The potential effects of both the compensatory flows and proposed WRP SuDS release on water quality within the tidal reach of the Hermitage Stream are predicted to be very small. As such, significant effects to the biodiversity of the Hermitage Stream (tidal reach), are not anticipated.

Langstone Harbour

6.2.5 As set out in section 3.2, the preliminary compensatory flow modelling has predicted that within Langstone Harbour changes in water quality parameters are very small, when comparing the “classic” operation scenario with the “post-WRP” operation scenario. As such these changes are considered unlikely to influence the habitat and species in the harbour.

6.2.6 The proposed WRP SuDS modelling predicted that there would be no change in salinity in Langstone Harbour due to additional SuDS release.

6.2.7 There were no sensitive seagrass beds observed along the northern part of Langstone Harbour whilst the one migratory fish species recorded (European eel) is not likely to be sensitive to the small changes in water quality due to the compensatory flows. As such, significant effects to the biodiversity of Langstone Harbour are not anticipated.

Solent (Eastney Long Sea Outfall)

6.2.8 Based upon the preliminary Eastney LSO dispersion modelling, small decreases are predicted in the concentrations of the screened in chemical compounds releasing into the marine waters via the Eastney LSO.

6.2.9 Further work requires the addition of baseline concentrations from marine water quality sampling to the modelled output. However, given the very small changes in concentrations, it is unlikely that effects to marine statutory designated sites, marine habitats and species between the existing and future scenarios would be observed. No significant effects on marine biodiversity are therefore anticipated, however this will be fully assessed within the Environmental Statement and Habitats Regulations Assessment.

7 Summary and next steps

7.1.1 Abstraction licence reductions, climate change and population growth mean Southern Water is facing a shortfall of 200 million litres of water a day in Hampshire during a drought. As a result, the company is developing new sources of supply to make up this shortfall and maintain public supplies while protecting the county's chalk stream rivers. Southern Water is proposing to submit an application for a Development Consent Order (DCO) for the Hampshire Water Transfer and Water Recycling Project (the 'Project') under the Planning Act 2008. The Project sets out to create a new drought-resilient source of water that protects and enhances the environment, comprising a combination of both water transfer and water recycling technology that during drought conditions would play a major role in making up any shortfall in water supply across the Hampshire supply area. The Project would be operational throughout the year however peak operation would only occur during drought conditions.

7.1.2 The Project would use advanced treatment process to turn treated wastewater into recycled water at a proposed Water Recycling Plant (WRP), to be located south of Havant in the vicinity of Budds Farm Wastewater Treatment Works (WTW). A portion of the treated wastewater from Budds Farm WTW would be redirected for advanced treatment within the proposed WRP. This would produce recycled water for transfer to Havant Thicket Reservoir, where it would supplement the spring water that will be stored in the reservoir in accordance with Portsmouth Water's existing planning permission. The reject stream from this new treatment process would then be transferred back to the WTW by pipeline and released into the existing Eastney Transfer Tunnel downstream of the treated wastewater channel where it is to be blended with the unused treated wastewater from Budds Farm WTW and released to the Solent via the existing Long Sea Outfall (LSO) at Eastney. The proposed WRP site would also include an on-site surface water Sustainable Drainage System (SuDS) which includes a new outfall releasing to the tidal reach of the Hermitage Stream which flows into Langstone Harbour.

7.1.3 Under Portsmouth Water's existing planning permission, Havant Thicket Reservoir will release 'compensatory flows' to Riders Lane Stream, a Main River which flows south from the reservoir for 700m before joining the Hermitage Stream. The Hermitage Stream continues to flow south through Bedhampton and into Langstone Harbour. The purpose of these compensatory flows is to maintain and improve flows within these watercourses that would otherwise be reduced once the reservoir is operational. The addition of recycled water into the reservoir from the Project would not alter the compensatory flow volumes which has been agreed with the Environment Agency as part of the reservoir impoundment licence.

7.1.4 In parallel with the DCO application, Southern Water is seeking to apply for a new Environmental Permit from the Environment Agency for the release of recycled water into Havant Thicket Reservoir and the release of reject water from the proposed WRP into the Solent via the Eastney LSO.

7.1.5 Southern Water consulted on the Project in Summer 2022 and, more recently, in Summer 2024. During this Summer 2024 Consultation, the company actively sought feedback from consultees and stakeholders on its proposals.

7.1.6 Preliminary impacts and initial proposals for mitigation were set out in a Preliminary Environmental Information (PEI) Report published as part of the Summer 2024 Consultation.

7.1.7 Since the Summer 2024 Consultation, water quality modelling and assessment work undertaken by Southern Water and Portsmouth Water has enabled further understanding of the potential effects of the Project on the water environment, including consideration of how water quality changes may impact supported freshwater and marine flora and fauna.

7.1.8 This Report provides a summary of the predicted water quality effects of the Project based on current design information. This Spring 2025 Consultation provides an opportunity for consultees to provide feedback on the latest information summarised in this Report prior to this being developed further. Following feedback from the consultation process, the modelling and assessments will be refined, finalised and fully reported in the DCO application, alongside details of proposed monitoring and mitigation.

7.1.9 This Report has summarised the following four modelling and assessment workstreams:

- Water quality modelling within Havant Thicket Reservoir.
- Water quality modelling of water bodies downstream of Havant Thicket Reservoir receiving compensatory flows (Riders Lane Stream and Hermitage Stream).
- Dispersion modelling of reject water from the proposed WRP via the Eastney LSO in the Solent.
- Proposed WRP SuDS salinity modelling in the Hermitage Stream.

7.1.10 This Report summarises the outputs of this preliminary modelling in terms of the following topics (the full assessment of water quality modelling will be provided within these equivalent chapters of the Environmental Statement):

- Water environment. This section of the Report included a preliminary assessment of the Project in terms of the Water Environment (England and Wales) Regulations 2017 (WER).
- Freshwater biodiversity.
- Marine biodiversity.

7.1.11 The conclusions of the Report are summarised in the table below.

Water environment	Freshwater biodiversity	Marine biodiversity
Havant Thicket Reservoir water quality modelling		
Havant Thicket Reservoir The modelling predicts that following an initial period of variation as Havant Thicket Reservoir is filled with spring water, rainfall and flows from the Riders Lane Stream headwaters, water quality would stabilise prior to the implementation of the Project. The phase prior to the implementation of the Project is referred to as the "classic" operation scenario (i.e. as consented under Portsmouth Water's existing planning permission). The model predicts that following the addition of recycled water into the reservoir (referred to as the "post-WRP" scenario), concentrations of Total Phosphorus (TP), Biochemical Oxygen Demand (BOD) and carbon compounds would increase, resulting in an increase in phytoplankton growth. Concentrations of other water quality parameters would remain broadly similar, however nitrogen concentrations would reduce markedly, associated to lower concentrations present in the recycled water. This decrease is not predicted to prevent the increase in phytoplankton growth. The predicted change in phosphorus concentrations is sufficient to result in a change in water body status, from 'high' during the "classic" operation phase to 'moderate' during the post-WRP operation phase under the WER. This is predicted to result in a change in the status of the water body. As such, additional measures would be required to ensure that the Project is compliant with the WER. Provision for measures to reduce the TP concentration in the recycled water will therefore be included within the Project's DCO application. Southern Water is working with the Environment Agency to determine how these measures are best introduced.	*Havant Thicket Reservoir* The increase in TP and phytoplankton growth is predicted to change the trophic status of the reservoir to 'eutrophic' (i.e. meaning higher in nutrients). In these conditions, it is considered unlikely that an ecosystem comprising a diverse range of aquatic species would be supported. It is more likely that the reservoir would lack submerged plant growth and that bottom-feeding species (e.g. carp) would dominate the fish community. Operation of the bubbler system may reduce some of the undesirable consequences of eutrophication, including the dominance of cyanobacteria in the phytoplankton community and the development of a layer of water with low Dissolved Oxygen (DO) at the bottom of the reservoir. The modelling predicts that a reduction in the recycled water TP concentration would reduce the likelihood of the reservoir becoming eutrophic. This is predicted to improve the ecological potential of the reservoir closer to that predicted for the "classic" operational scenario under 'mesotrophic' conditions (i.e. with moderate nutrient levels and supporting a diverse range of aquatic species). As provision for measures to reduce TP in the recycled water will be included in the DCO, significant adverse effects on freshwater biodiversity in the reservoir are not anticipated.	N/A (this modelling includes parameters for the reservoir outflows which have been used as the inputs for the compensatory flows modelling).

Water environment	Freshwater biodiversity	Marine biodiversity
Confirming the Environmental Permit requirements is essential to informing these measures and ensuring the Project meets regulatory requirements while delivering best value for customers.		
Compensatory flows water quality modelling (Riders Lane Stream, Hermitage Stream, Langstone Harbour)		
Riders Lane Stream A change in a number of water quality parameters in Riders Lane Stream is predicted to occur during the "classic" operation scenario, prior to the "post-WRP" operation scenario. Alkalinity, pH, DO, BOD, ammonium, nitrate, orthophosphate and carbon compounds are predicted to increase. Although some of these parameters would remain broadly similar in the "post-WRP" operation scenario, pH, alkalinity and nitrate are predicted to decrease, reflecting the smaller proportion of groundwater in the reservoir following the introduction of recycled water. Concentrations of orthophosphate and BOD are both predicted to increase further during the "post-WRP" operation scenario. In terms of the WER, the Riders Lane Stream forms part of the Hermitage Stream water body and is therefore described at water body level in the following section of this table. *Hermitage Stream* Changes in water quality from measured baseline are predicted to be much smaller than those in Riders Lane Stream in both the "classic" and "post-WRP" scenarios. In the "classic" operation scenario, the compensatory flows are predicted to result in increases from measured baseline in pH, alkalinity, DO, BOD, orthophosphate, ammonium, nitrate and Dissolved Inorganic Carbon (DIC).	*Riders Lane Stream, Hermitage Stream (freshwater reach)* The extent of water quality changes predicted in Riders Lane Stream and Hermitage Stream during the "post-WRP" operation scenario are very small for most water quality parameters and considered unlikely to result in significant adverse effects on freshwater biodiversity. Whilst BOD and orthophosphate concentrations are predicted to increase from measured baseline in the "classic" scenario, with further increases predicted in the "post-WRP" scenario, significant adverse impacts to macrophytes, macroinvertebrates and fish are not anticipated. The increase in DO, predicted in both the "classic" and "post-WRP" scenarios is considered to be beneficial for freshwater biodiversity, including macroinvertebrates fish species present (bullhead and European eel). The current ecological community present in the Hermitage catchment is 'poor', with significant barriers to fish movement present, irregular low flow conditions and limited in-stream vegetation. The potential for the future ecological baseline of the Hermitage Stream catchment to improve as a result of Portsmouth Water's planned restoration works will be considered in the Environmental Statement.	*Hermitage Stream (tidal reach) and Langstone Harbour* The extent of the water quality changes in the Hermitage Stream (tidal reach) and Langstone Harbour resulting from the "post-WRP" operation scenario, when compared to the "classic" operation scenario, are predicted to be extremely small and considered unlikely to result in significant effects on marine biodiversity. *Solent* Modelled water quality changes resulting from the "post-WRP" operation scenario, when compared to the "classic" operation scenario, are not predicted to extend into the Solent. Significant effects on marine biodiversity are therefore not anticipated.

Water environment	Freshwater biodiversity	Marine biodiversity
Although many of these parameters would remain broadly similar in the “post-WRP” operation scenario, pH, alkalinity and nitrate would decrease, reflecting the smaller proportion of groundwater in the reservoir. Concentrations of orthophosphate and BOD are both predicted to increase further during the “post-WRP” operation scenario, although these increases are predicted to be small. Thresholds set out in the WFD Directions 2015 can be used as an indicator of the environmental significance of changes to water quality parameters. Changes that are insufficient to result in a change in water body ‘status’ (a term used to categorise water body condition under the WER) are unlikely to result in significant environmental effects, whilst changes in status could potentially be indicative of adverse effects. The predicted changes in most water quality parameters within Hermitage Stream are not sufficient to cross any of the status thresholds established under the WFD Directions. However, the increase in BOD in the “classic” operational phase is predicted to cause a change in the status of the quality element from 'moderate' to 'bad' in Riders Lane Stream and 'good' to 'poor' in Hermitage Stream. Further increases in BOD following introduction of recycled water from the proposed WRP would not result in any further changes in status in either watercourse. Although the WFD Directions sets out thresholds for BOD in rivers, these thresholds are not used to classify water body status. Furthermore, the predicted increase in BOD in Hermitage Stream is not accompanied by a decrease in DO concentrations, which are predicted to remain at ‘high’ status in the “classic” and “post-WRP” scenarios. This means that significant adverse effects on the aquatic ecosystem are unlikely, however this will be fully reported in with a WER		

Water environment	Freshwater biodiversity	Marine biodiversity
Compliance Assessment which will support the DCO application. *Langstone Harbour* When compared to measured baseline, the modelling predicts that water quality in Langstone Harbour would be subject to very small changes as a result of the compensatory flows, both in the "classic" and "post WRP" operation scenarios, however they would be confined to the northern part of the harbour, adjacent to the mouth of Hermitage Stream. *Solent* Modelled water quality changes resulting from the "post-WRP" operation scenario, when compared to the "classic" operation scenario, are not predicted to extend into the Solent, no water quality effects are therefore anticipated.		
Eastney LSO dispersion modelling (Solent, Langstone Harbour and Hermitage Stream)		
Solent The preliminary surface water pollution risk assessment of the release of reject water from the Eastney LSO, required to inform Southern Water's proposed application for an Environmental Permit from the Environment Agency (outside of the DCO process), identified seven parameters potentially at risk of failing their respective Environmental Quality Standard (EQS). These EQS parameters were therefore modelled. When comparing the "existing" scenario (i.e. without the proposed WRP in place) and "future" scenario (i.e. with the WRP reject water added to the existing release from Budds Farm WTW), modelled changes of the seven EQS parameters in the Solent are very small and not expected to result in significant adverse effects on water quality.	*Hermitage Stream (freshwater reach)* The predicted small water quality changes of the seven EQS parameters resulting from the "future" scenario, when compared with the "existing" scenario are limited to the Solent and would not impact the biodiversity of the Hermitage Stream (freshwater reach).	*Langstone Harbour / Hermitage Stream (tidal reach)* As described in the "Water environment" column of this table, modelled water quality changes of the seven EQS parameters resulting from the "future" scenario, when compared with the "existing" scenario are not predicted to extend into Langstone Harbour or the tidally influenced Hermitage Stream. Significant effects to marine biodiversity are therefore not anticipated. *Solent* When comparing the "existing" scenario (i.e. without the proposed WRP in place) and "future" scenario (i.e. with the WRP reject

Water environment	Freshwater biodiversity	Marine biodiversity
Langstone Harbour/Hermitage Stream (tidal section) Modelled water quality changes of the seven EQS parameters resulting from the "future" scenario, when compared with the "existing" scenario are not predicted to extend into Langstone Harbour or the tidally influenced Hermitage Stream. Water quality effects are therefore not anticipated.		water added to the existing release from Budds Farm WTW), modelled changes of the seven EQS parameters in the Solent are very small. These changes are not expected to result in significant adverse effects to marine biodiversity.
Proposed WRP SuDS salinity modelling (Hermitage Stream and Langstone Harbour)		
Hermitage Stream (tidal reach) and Langstone Harbour The proposed WRP surface water SuDS would include a range of control measures such as filter strips, swales and a detention basin, to provide sufficient mitigation for reducing any pollutants entering the surface water runoff. As such, no further modelling of pollutants from the SuDS outfall is required. Modelling has however been completed to assess the potential impacts of a change in salinity in the Hermitage Stream and Langstone Harbour. The change in salinity due to the SuDS outfall release, when compared with the natural fluctuations in ambient salinity levels throughout the tidal cycle, is predicted to be extremely small. Significant adverse effects to water quality are therefore not anticipated from releases from the proposed WRP SuDS outfall. *Solent* Modelled changes in salinity associated to the proposed WRP SuDS outfall do not extend into the Solent, therefore no water quality effects to this water body are anticipated.	*Hermitage Stream (freshwater reach)* Modelled changes in salinity as a result of the SuDS outfall are not predicted to extend upstream into the freshwater reach of the Hermitage Stream, therefore no effects on freshwater biodiversity are anticipated.	*Hermitage Stream (tidal reach) and Langstone Harbour* The change in salinity due to the SuDS outfall release, compared with the natural fluctuations in ambient salinity levels throughout the tidal cycle, is predicted to be extremely small. Effects on marine biodiversity receptors in the tidal reach of the Hermitage Stream and Langstone Harbour are therefore not anticipated. *Solent* Modelled changes in salinity associated to the proposed WRP SuDS outfall are not predicted to extend into the Solent, therefore no effects on marine biodiversity in the Solent are anticipated.

7.1.12 This Report has identified a number of next steps in relation to each modelling workstream, these are summarised below.

Havant Thicket Reservoir water quality modelling

Review model to ensure it reflects final design information

7.1.13 As the design of Havant Thicket Reservoir progresses, further water quality modelling will be undertaken to take account of changes in the design and operation of the reservoir. We will reflect this ongoing modelling work, where possible, in the Development Consent Order application.

Review of measures to reduce TP in recycled water

7.1.14 Southern Water is assessing several measures for reducing the TP concentration in the recycled water. These measures include ferric dosing, enhanced biological phosphorus removal, higher rejection membranes, a second stage of reverse of osmosis at the WRP and Ion exchange polishing. The selected treatment measure(s) will be set out within the DCO application and Environmental Statement. Southern Water is working with the Environment Agency to determine how these measures are best introduced.

Compensatory flows water quality modelling

Water quality monitoring within Riders Lane Stream and Hermitage Stream

7.1.15 To supplement the water quality monitoring undertaken by Portsmouth Water and the Environment Agency on the Riders Lane Stream and the Hermitage Stream, Southern Water is collecting additional monthly water quality monitoring data. This commenced in November 2024 and will continue through to the submission of the DCO application. The potential for further ongoing monitoring beyond this point will be discussed and agreed with the Environment Agency. The data collected prior to DCO submission will be used to support the assessment of water quality effects in the Environmental Statement and WER Compliance Assessment.

Eastney LSO dispersion modelling

Update of surface water risk assessment to include marine water quality sampling

7.1.16 The surface water pollution risk assessment screening assessment will be updated following collation and analysis of further marine water quality baseline sampling. This may change the parameters screened into the modelling assessment of releases from Eastney LSO in the Solent. If this is the case, any changes would be assessed fully within the Environmental Statement and Environmental Permit application.

Proposed WRP SuDS salinity modelling (Hermitage Stream)

Finalisation of emerging WRP SuDS design and agreement of control measures with regulators

7.1.17 The modelling presented in section 3.4 of this Report of the proposed WRP surface water SuDS outfall is based on an emerging SuDS design and associated pollution control measures which have yet to be finalised. The modelling outputs will be reviewed following finalisation of the outline SuDS design to ensure they remain valid.

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Southern Water (2024) Hampshire Water Transfer & Water Recycling Project: Preliminary Environmental Information Report.


WATER
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from
Southern
Water®

G.3 Information Document

Hampshire Water Transfer and Water Recycling Project

Consultation Information

Spring 2025 Consultation

from Southern Water

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Project overview

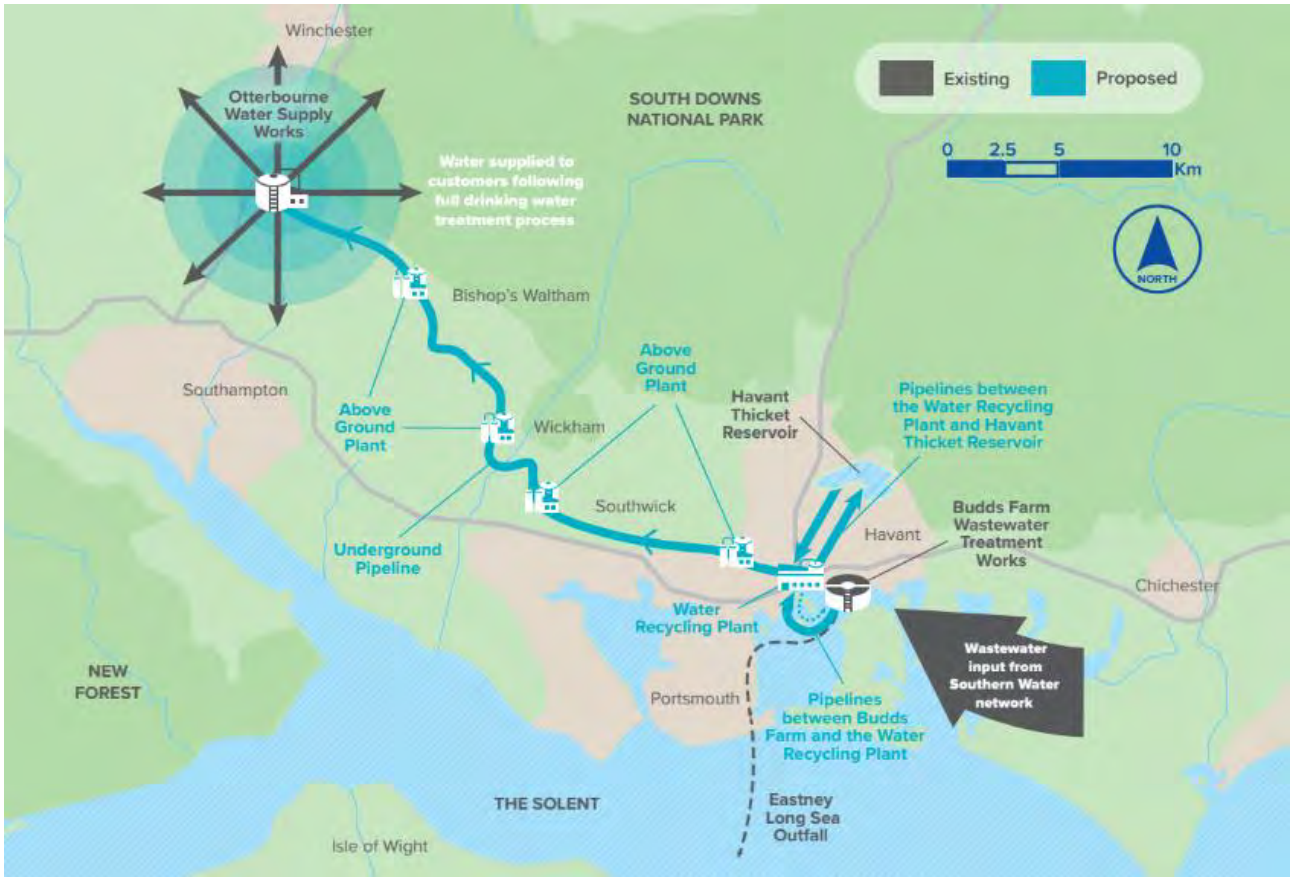
The Hampshire Water Transfer and Water Recycling Project (the 'Project') is primarily a drought resilience scheme – it would ensure we can maintain essential water supplies to our customers, especially during drought.

Climate change, population growth and increasing environmental restrictions, which severely limit the amount of water we can take from Hampshire's rivers, mean we face a significant water supply shortfall in Hampshire.

We already have a shortfall of 166 million litres of water a day and this figure is only set to rise. The Project would provide a new sustainable source of water, delivering up to 90 million litres of water a day into our Hampshire supply network.

The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via underground pipelines to the Havant Thicket Reservoir, where it would mix with spring water. Water from the reservoir would then be pumped along another new pipeline to our Otterbourne Water Supply Works, where it would be treated to strict drinking water standards before being sent into supply as drinking water.

The Project includes the construction of permanent, new infrastructure including a water recycling plant, installation of new pipelines and above ground plant, such as break pressure tanks and intermediate pumping stations. Some temporary facilities, such as construction compounds, would also be required.



Our Spring 2025 Consultation

Our Spring 2025 Consultation will run from **5 March to 4 April 2025**. We are seeking your views on updated environmental water quality information and proposed Project design refinements.

Knowing what matters to you, matters to us. Your feedback is important to us and will further help inform the preparation of our Development Consent Order application. Our consultation is open from **5 March 2025** and closes on **4 April 2025**. You can respond using the channels below. Please note that feedback received late, after **11.59pm on 4 April 2025**, may not be considered.

- Feedback form at **www.HampshireWTWRP.co.uk**. Paper copies are available upon request.
- Email **FeedbackHWTWRP@southernwater.co.uk**
- Write to us with no stamp required **FREEPOST HAMPSHIRE WTWRP CONSULTATION**

Overview

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs of the modelling and assessment of effects would be fully reported in the Environmental Statement with our Development Consent Order application. This modelling has since progressed, so we are taking the opportunity to share this information now, alongside a number of Project design refinements. Specifically, our Spring 2025 Consultation focuses on:

- Predicted water quality impacts on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Details of this can be found in our Environmental Water Quality Report.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation and on-going project development and stakeholder engagement, details of which can be found on our website and in the Consultation Information document.

A summary of the content of the consultation is provided below, with more technical information on our water quality information being found in the Environmental Water Quality Report on the new Spring 2025 Consultation page on our website here: **www.HampshireWTWRP.co.uk/consultation/html**.

Environmental water quality

Feedback to our Summer 2024 Consultation highlighted concerns about the impact of the Project on water quality in the environment, especially within Havant Thicket Reservoir and the Solent. The concerns mostly related to the water recycling process and the quality of the purified recycled water. In response to this, we are sharing as part of this consultation our Environmental Water Quality Report which provides updated information on our latest water quality modelling and assessment work. We want to let you know what this work is telling us and what we are doing about it.

In summary, the report predicts that there would be some limited changes to water quality in Riders Lane Stream and Hermitage Stream (both downstream from Havant Thicket Reservoir) but that these changes are unlikely to result in any adverse impacts on biodiversity. Changes in water quality in Langstone Harbour (fed by Riders Lane and Hermitage Streams) would be very small and again are not expected to have any impact on biodiversity. The report also confirms that reject water from the water recycling process, which will be released into the Solent, is unlikely to affect water quality or the biodiversity of the Solent.

Within Havant Thicket Reservoir, the report predicts that the level of phosphorous in the purified recycled water could encourage algal growth, which could potentially limit biodiversity in the reservoir. Our Development Consent Order application will therefore include measures for reducing phosphorous as part of the water recycling treatment process. The Environment Agency, our environmental regulator, will stipulate an

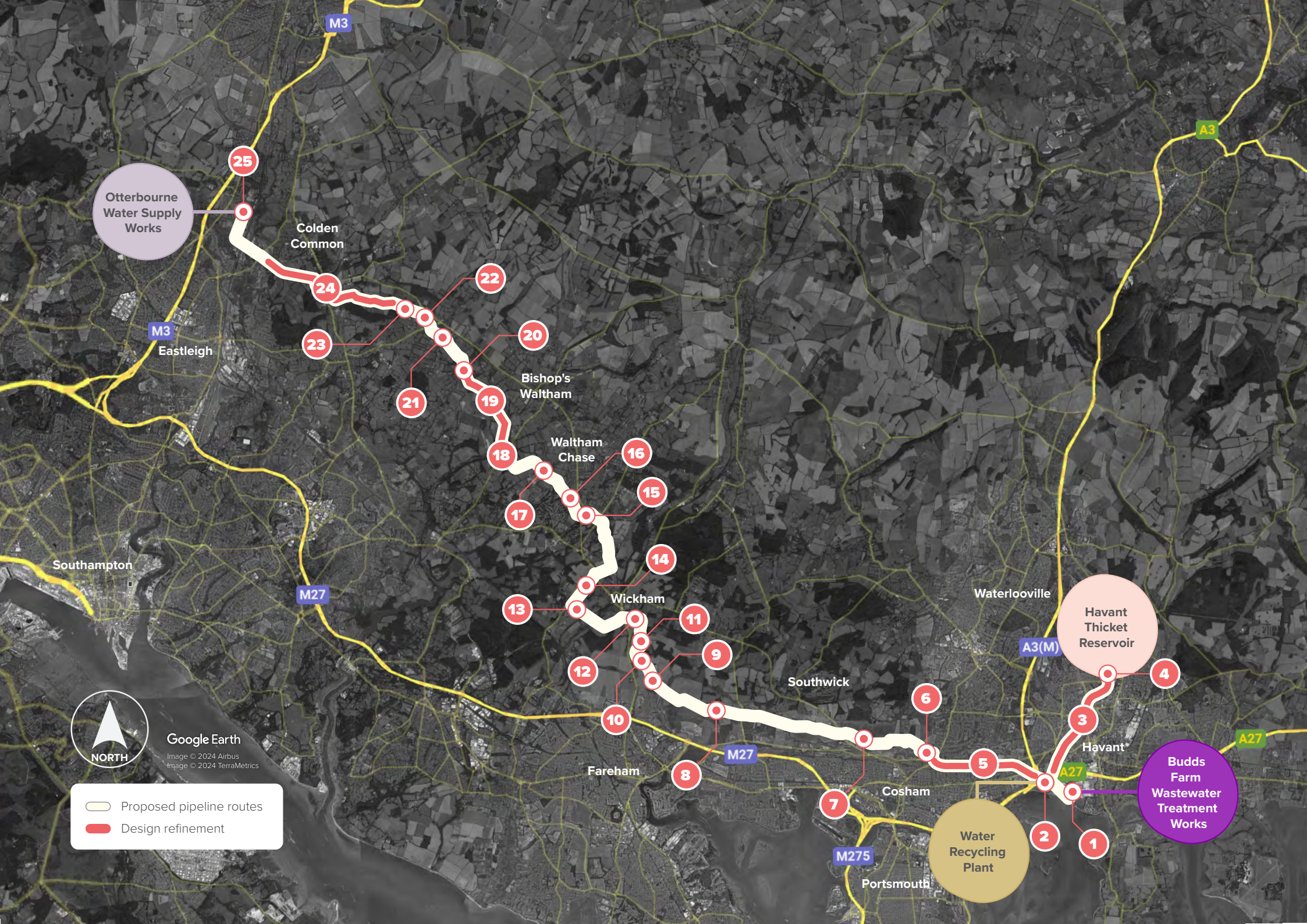
Environmental Permit that sets the water quality requirements of the purified recycled water that can go into the reservoir including for phosphorous. We are working with the Environment Agency to determine how these measures are best introduced. Details of this, together with any further modelling and assessment work, will be set out in full in our Development Consent Order application later this year.

Design refinements

We are proposing 25 Project design refinements. Many of the changes we are proposing to make are localised and the Project as a whole has not fundamentally changed.

Each design refinement has an information sheet which details the proposed change, explains why we're proposing the change, and how the change may affect the environment and the local community. We have produced plans showing the Summer 2024 Consultation design alongside the proposed design refinement.

Below is our design refinements overview map. Each number labels the location of an individual design refinement, numbering 1 to 25. The information sheets provide further detail on each of these design refinements. They should be read alongside the Introductory Information sheet which provides some background information about the design refinements.


M3
A3
Otterbourne Water Supply Works
25
Colden Common
24
22
23
20
M3
Eastleigh
21
19
Bishop's Waltham
18
Waltham Chase
16
15
17
Southampton
M27
14
Wickham
13
11
Waterlooville
Havant Thicket Reservoir
A3(M)
4
12
9
Southwick
6
3
10
Havant
A27
Budds Farm Wastewater Treatment Works
M27
Fareham
8
5
A27
7
Cosham
2
1
Water Recycling Plant
M275
Portsmouth
NORTH
Google Earth
Image © 2024 Airbus
Image © 2024 TerraMetrics
Proposed pipeline routes
Design refinement

Introductory Information

Why are we proposing changes to the design of the Project?

Following our Summer 2024 Consultation, we have continued to refine the project in response to ongoing design development and having regard to stakeholder feedback. Design development has also been informed by ongoing technical and environmental surveys, further understanding of the construction, engineering and operational requirements of the Project, as well as its interface with other projects, such as those being progressed by Portsmouth Water. Stakeholder feedback, both from our Summer 2024 Consultation and ongoing engagement with local authorities, landowners and environmental bodies, has also helped refine our proposals.

How did we identify and select the proposed changes?

In considering any potential design refinements, we have carefully looked at the possible options available and reviewed these against relevant engineering, construction, environmental and planning criteria to identify any potential implications. These criteria were broadly the same as those used to help develop the Project up to the Summer 2024 Consultation (see page 29 of the 2024 Scheme Development Summary published as part of our Summer 20224 Consultation).

Whilst we have tried to accommodate design suggestions as far as possible, in some instances, we have not been able to take forward suggested design changes, for example, because the impacts of the change would have been too great, difficult to mitigate or not feasible in construction or engineering terms.

What are the ‘draft Order Limits’?

The maximum extent of land the Project would be delivered within is referred to as the Order Limits. This includes the route of the pipeline and location of above ground plant, access routes and any temporary working areas required to construct the Project. It also includes any areas required to operate the Project. The Order Limits are in ‘draft’ stage while we continue to refine the design of the Project.

What are the ‘draft Limits of Deviation’?

Limits of Deviation show the maximum limits within which the pipelines and the above ground plant would be located. We have also shown development zones for the water recycling plant, which represent the areas within which certain parts of the water recycling plant would be developed. The Limits of Deviation are in ‘draft’ stage while we continue to refine the design of the Project.

Considering the effects of the changes

We have considered the effects of each design change on those living nearby, the local community and the environment. We have undertaken initial assessments to consider what the effects may be compared to those presented at our Summer 2024 Consultation, and have reported this in the summary each design refinement. We have also identified any potential mitigation that could be implemented to reduce these effects.

Our Environmental Statement, which will form part of our Development Consent Order application, will set out a full assessment of the effects of the Project.

New environmental mitigation and enhancement areas

As part of the development of our environmental assessment work, we have identified the need for additional areas of land to provide environmental mitigation and enhancements. Areas for environmental mitigation would be used to offset some of the potential impacts of the Project on certain habitats or to trees and woodland. We have tried to locate these as close as possible to where potential impacts are likely to occur. In some locations,

we are proposing to extend the draft Order Limits to ensure a suitable area of land is available for the environmental mitigation.

New areas of land for environmental enhancements are proposed to help the Project provide a benefit to the environment, and could include improvements to existing habitats or biodiversity net gain opportunities. Adding these enhancements to the Project ensures we are aligning with national planning policy. We have been working with Hampshire County Council's Biodiversity Information Centre, which collects and manages information about habitats and species all across Hampshire, to identify these opportunities. In some locations, we are proposing enhancements to go hand in hand with environmental mitigation – for example, where we are planting trees to replace those lost, we could plant more trees to provide additional benefit.

As we continue to refine our proposals through engagement with local authorities, landowners and environmental bodies, and taking on board feedback from this consultation, some of these areas may change slightly or new areas may be identified. Full details of all of our proposed environmental mitigation and enhancement proposals will be set out in our Development Consent Order application later this year.

Design Refinement 1 – Budds Farm Wastewater Treatment Works

Where is the proposed change?

This design refinement relates to a pumping station that is now required at Budds Farm Wastewater Treatment Works to transfer treated wastewater to the water recycling plant. Budds Farm Wastewater Treatment Works is located within Havant Borough Council's administrative area. At the Summer 2024 Consultation we had not confirmed whether a pumping station would be required at Budds Farm Wastewater Treatment Works due to the ongoing engineering design of the water recycling plant and the pipelines. At the time it was considered that treated wastewater could be transferred to the water recycling plant by gravity.

The design presented at the Summer 2024 Consultation can be seen in **Figure 1**.

What is changing and why?

Further design development has confirmed that we are now likely to require a pumping station at Budds Farm Wastewater Treatment Works to pump the treated wastewater to the water recycling plant.

An area for the proposed pumping station has therefore been identified on the western side of Budds Farm Wastewater Treatment Works, shown in **Figure 2**. The pumping station would have a maximum length of 12 metres, width of 7 metres, and height of 3.3 metres. The area identified for the pumping station (Limits of Deviation) in **Figure 2** is much larger than these maximum dimensions, in order to provide flexibility for where this might eventually be located in this area, pending the detailed design of the pumping station, the connecting pipelines, and other separate works planned in this area of Budds Farm Wastewater Treatment Works.

We have also identified two additional construction compounds at Budds Farm Wastewater Treatment Works, these would support construction of the pumping station and the pipeline to the water recycling plant.

The proposed design refinement can be seen in **Figure 2**.

How might the change affect you or the environment?

Whilst the pumping station would be within the boundaries of the existing operational Wastewater Treatment Works, the pumping station would be in close proximity to Langstone Harbour. This is designated as a Special Area of Conservation, a Special Protection Area, and a Ramsar site to ensure environmental protection and safeguard protected species. The Limits of Deviation we have identified for the pumping station would also be adjacent to a Solent Waders and Brent Geese Strategy site. Works to construct the pumping station will be controlled by the Outline Construction Environmental Management Plan that forms part of our Development Consent Order. This plan will ensure that potential pollution and disturbance is minimised, therefore reducing the potential for effects on this site. Vegetation removal will also be reduced as far as reasonably practicable.

Although the pumping station is relatively small in comparison to the wider Wastewater Treatment Works and will be seen against the backdrop of the Wastewater Treatment Works, it may be visible from Solent Way and other nearby footpaths. Any potential effects will be reduced by minimising loss of vegetation, retaining the existing embankment, levels and vegetation along the south-western boundary of the site, and by positioning the building away from the existing embankment and close to existing structures of the Wastewater Treatment Works.

Figure 1 Budds Farm Wastewater Treatment Works – Summer 2024 Consultation design

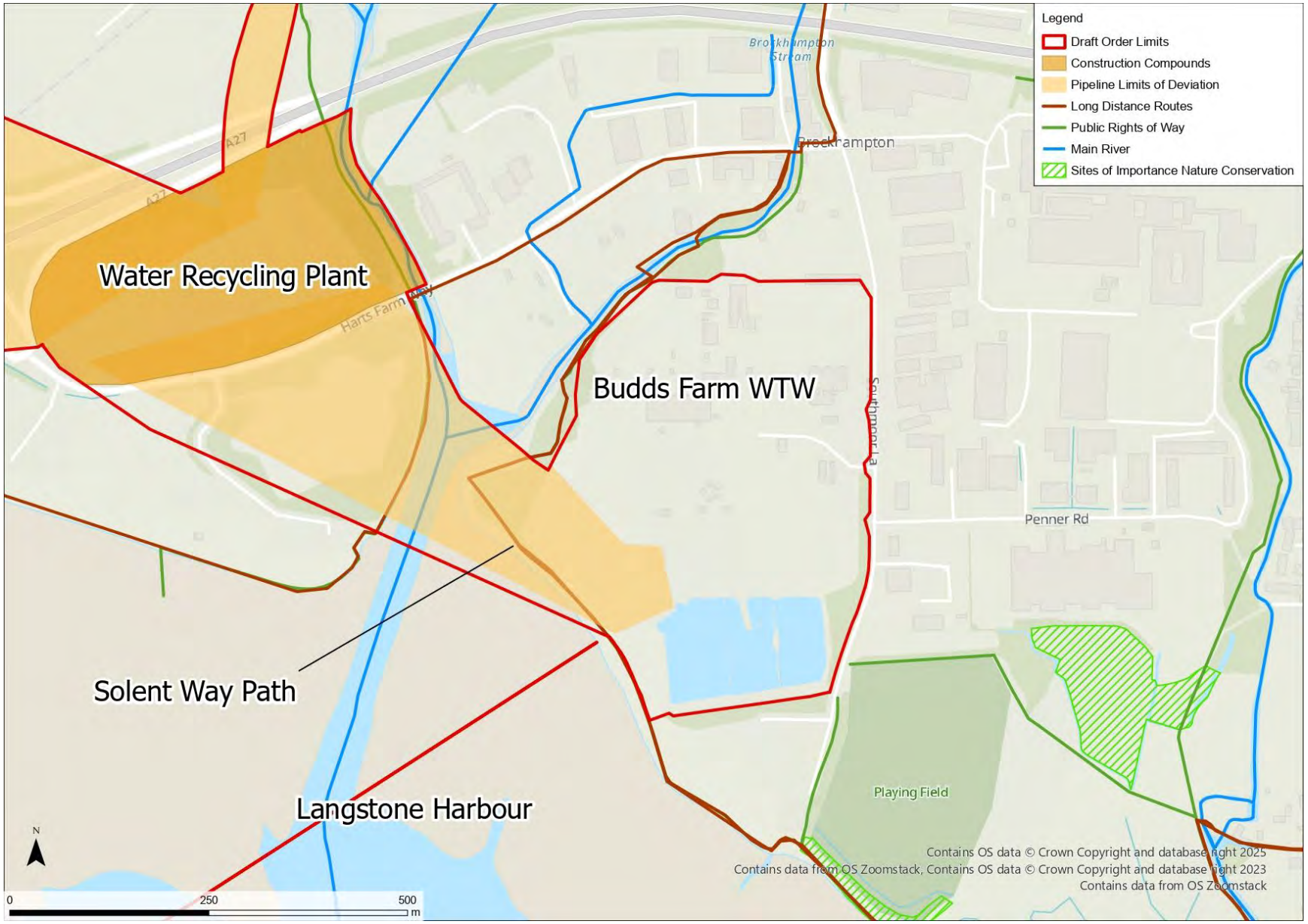
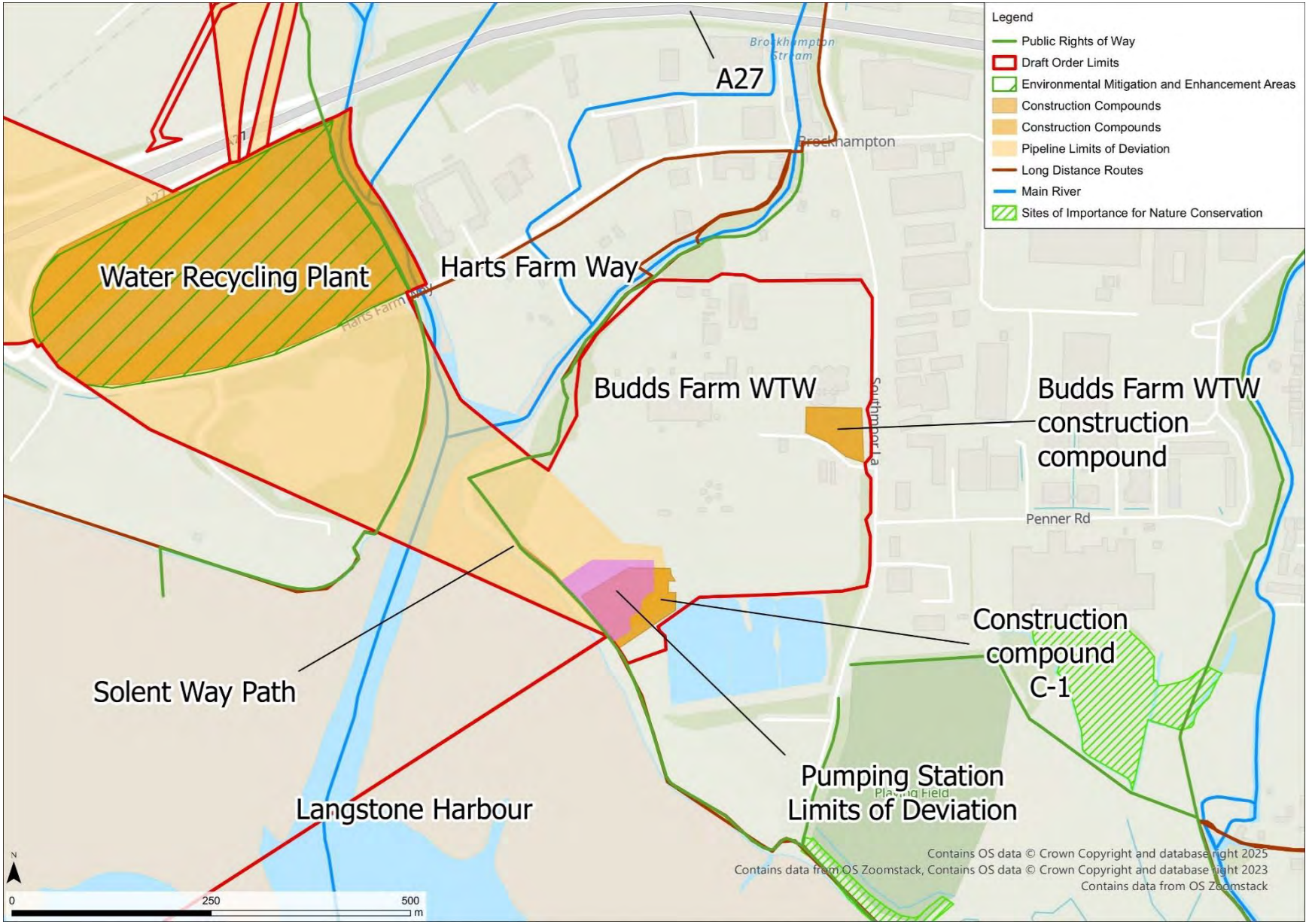


Figure 2 Budds Farm Wastewater Treatment Works – Design Refinement



Design Refinement 2 – Water Recycling Plant

Where is the proposed change?

The water recycling plant site is proposed to be located to the north of Broadmarsh Coastal Park, between the A27 to the north and Harts Farm Way to the south, and is within Havant Borough Council's administrative area.

What and why is it changing?

As set out in the Summer 2024 Consultation, we are considering the potential of having a green roof (a roof covered with vegetation) on the main process building at the water recycling plant site, in order to provide on-site habitat enhancement.

To accommodate this, the proposed maximum height of the main process building may need to increase from 13m, which was the proposed maximum height of the water recycling plant at the Summer 2024 Consultation, to 14.5m due to the engineering requirements associated with a green roof.

Our Environmental Water Quality Report, published as part of this consultation, highlights the potential requirement for additional phosphorous treatment to manage water quality within Havant Thicket Reservoir. Our current expectation is that this can be accommodated within the parameters of the water recycling plant without requiring any further changes to the building's maximum dimensions or external appearance.

An environmental mitigation and enhancement area has been added to the water recycling plant site so we can deliver environmental enhancements across the site, including landscaping to screen views of the water recycling plant.

There are no figures for this design refinement.

How might the change affect you or the environment?

The increase to the maximum height of the water recycling plant to accommodate a new green roof will inevitably result in the building becoming slightly more prominent in the landscape. Whilst the final assessment of the effects of this will be reported in the Environmental Statement accompanying the Development Consent Order application, it is not anticipated at this stage that there would a material change to the ecology, landscape or heritage effects previously reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation.

Increasing the maximum height of the water recycling plant would allow us to implement a green roof and provide enhancements on site which would provide environmental benefits.

Design Refinement 3 – Pipeline Sections A and B

Where is the proposed change?

Sections A and B are located within Havant Borough Council's administrative area and comprise the two pipelines that would transfer purified recycled water and source water between the water recycling plant and the Havant Thicket Reservoir. Section A covers the area around Staunton Country Park and Section B covers the area south of Staunton Country Park to the water recycling plant.

There are two options for the pipelines in Section A and B:

- **Preferred option** – Two pipelines would be installed between the water recycling plant and Bedhampton Springs. At Bedhampton Springs, our pipelines would connect into pipelines that are being proposed by Portsmouth Water between Bedhampton Springs and Havant Thicket Reservoir and which are being consented separately.
- **Backup option** – In the event that Portsmouth Water's pipelines between Bedhampton Springs and the Havant Thicket Reservoir are not granted planning permission, we are currently progressing with a backup option. For this option, there would be two continuous pipelines between the water recycling plant and Havant Thicket Reservoir located within a single tunnel that would be constructed at a depth of over 20 metres below ground level through Havant.

The design presented at the Summer 2024 Consultation is shown in **Figures 3, 4 and 5**.

What is changing and why?

We are proposing the following design refinements to the preferred option and backup option within Section A and B, which are highlighted in **Figures 6, 7 and 8**.

Preferred option design refinement

- At Staunton Country Park and Havant Rugby Football Club, we have made minor changes to the draft Order Limits to ensure that Portsmouth Water's pipelines between Bedhampton Springs and Havant Thicket Reservoir are fully included within the Order Limits. This ensures that the use of these pipelines as part of this project can be authorised by our Development Consent Order.
- Through ongoing discussions with Portsmouth Water on the construction of the pipeline within the Bedhampton Springs site, the draft Order Limits have been extended at Bedhampton Springs to include an existing access road and an additional construction compound. We have also extended the draft Order Limits slightly at the north side of the site to ensure there is enough space to construct the pipelines parallel to the railway. We may need to locate the pipeline here as we have identified veteran trees to the south of the site.
- A new temporary construction access from an existing access point on the A27 slip road has been added to support access to construction compound B1-1 located west of Mill Lane. This access has been added as some of the abnormal and heavy construction vehicles may not be able to pass over the Mill Lane railway bridge. This access would only be used by a low number of these construction vehicles.
- We have also identified two areas where we may need to undertake temporary highway works to the draft Order Limits to facilitate some of the larger construction vehicles we require. One of these is at the Bedhampton Road and Brookside Road junction, where we may need to make modifications to the junction geometry and the traffic islands. The other location is at the West Street and Meyrick Road junction, where we may need to implement a temporary parking restriction to ensure vehicles can use the junction safely. Following the completion of construction works we will reinstate these junctions to their current condition in line with Hampshire County Council's requirements. These junctions will be kept open whilst works are undertaken.

Backup option design refinement

- Through ongoing engagement with Hampshire County Council and further investigation of the construction vehicle access requirements, the two access points to construction compound B2-1 from

Middle Park Way, shown at the Summer 2024 Consultation, have now been amended to one single access point better suited for construction access.

- At the Summer 2024 Consultation, engagement with Havant Rugby Football Club identified that the access to construction compound B2-2, which would be used for the intermediate tunnel shaft, would impact a floodlit grass rugby pitch. This tunnel shaft location would also have been in close proximity to St Thomas More's Catholic Primary School and Pre-school. In consultation with both the Rugby Football Club and Hampshire County Council, a new location for the construction compound is now proposed with access from Hook's Farm Way to the north.
- An environmental mitigation and enhancement area for grassland and woodland reinstatement has been identified around the pipeline construction works within Staunton Country Park to help mitigate for any habitats lost.
- The draft Order Limits for the tunnelled sections of the pipeline have been reduced to remove potential settlement areas given that we are not proposing construction works in these areas. We will of course continue to engage with all residents and stakeholders in the proximity of any tunnelling works during the construction phase.

How might the change affect you or the environment?

Preferred option design refinements

- **Mill Lane Construction Compound Access** – The additional access route to the construction compound west of Mill Lane from the A27 would only be used by a very low number of construction vehicles, such as abnormal loads or those which could be too heavy to use the existing bridge over the railway. Subject to further engagement with National Highways, we could temporarily use traffic management on the slip road to facilitate these vehicle movements. Using this access will reduce the number of abnormal load/heavy construction vehicles using Mill Lane.
- **Bedhampton Springs** – The amendments at Bedhampton Springs are not anticipated to have any environmental effects compared to those in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation, as the new works would be contained within the existing operational site. The refinements help to ensure environmental effects are reduced, for example by avoiding veteran trees.

Backup option design refinements

- **Intermediate Tunnel Shaft at Havant Rugby Football Club** – The amended location of the intermediate tunnel shaft and construction compound is marginally closer to residential properties along Hooks Farm Way and Hooks Lane. This could increase the levels of noise experienced temporarily by these properties. The construction compound would be further away from St Thomas More's Catholic Primary School and Pre-School, and Bidbury Junior and Infant Schools, which would experience reduced levels of construction noise. Compared to the Summer 2024 Consultation design, the tunnel shaft and access will be closer together, which would mean that the two key noise sources will be in the same area. This could increase the total level of noise experienced at the residential properties on Hooks Farm Way and Hooks Lane. To mitigate any additional noise impacts, we will implement measures set out in the Outline Construction Environmental Management Plan which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these effects.
- **Staunton Country Park** – The refinement to the construction compound access within Staunton Country Park would move construction works away from residential properties along Middle Park Way, Bitterne Close and Bondfields Crescent. The change also means that less vegetation would be removed to facilitate access, and protected species would be avoided.

Figure 3 Pipeline Sections A and B – Summer 2024 Consultation design

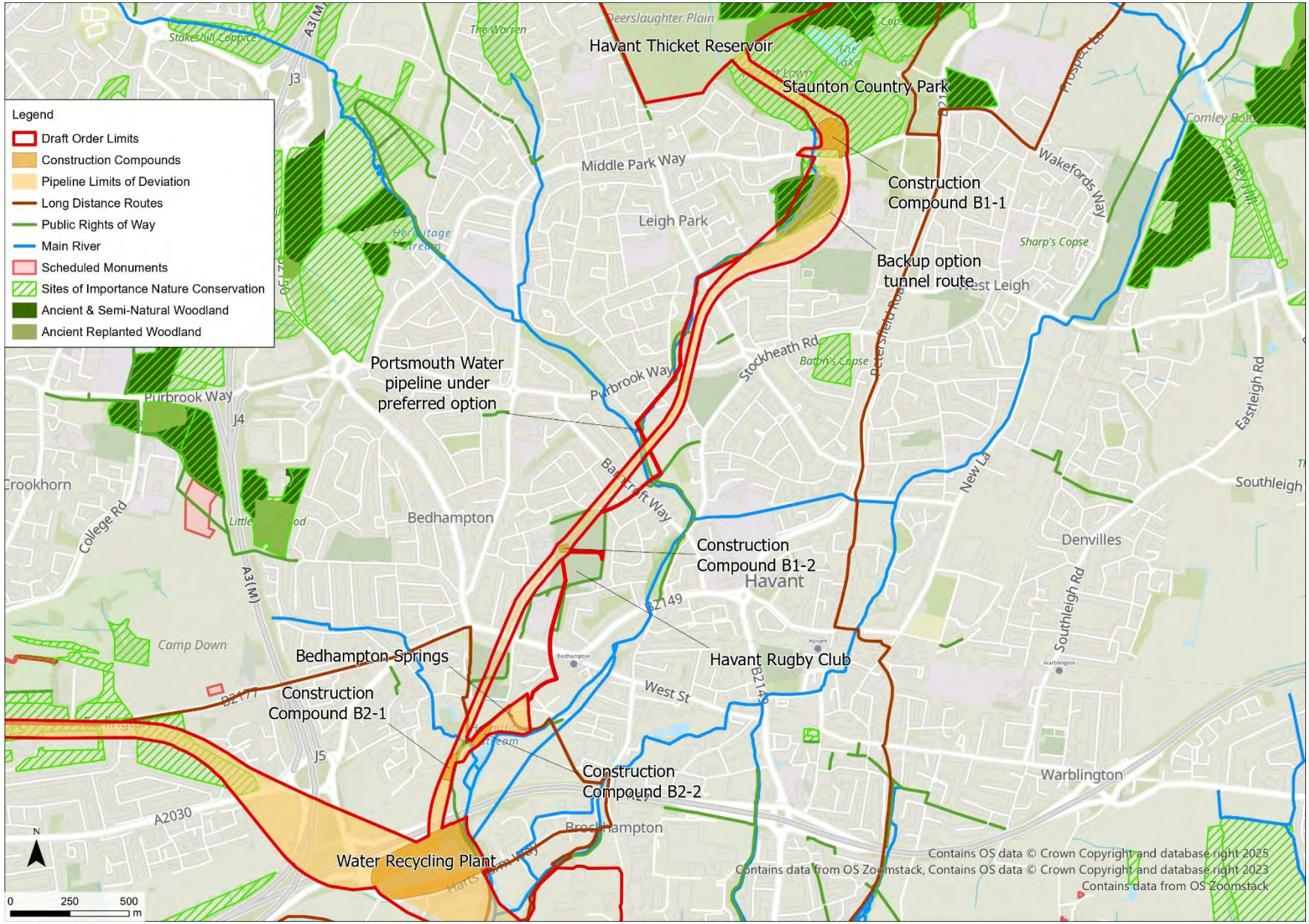


Figure 4 Bedhampton Springs – Summer 2024 Consultation design

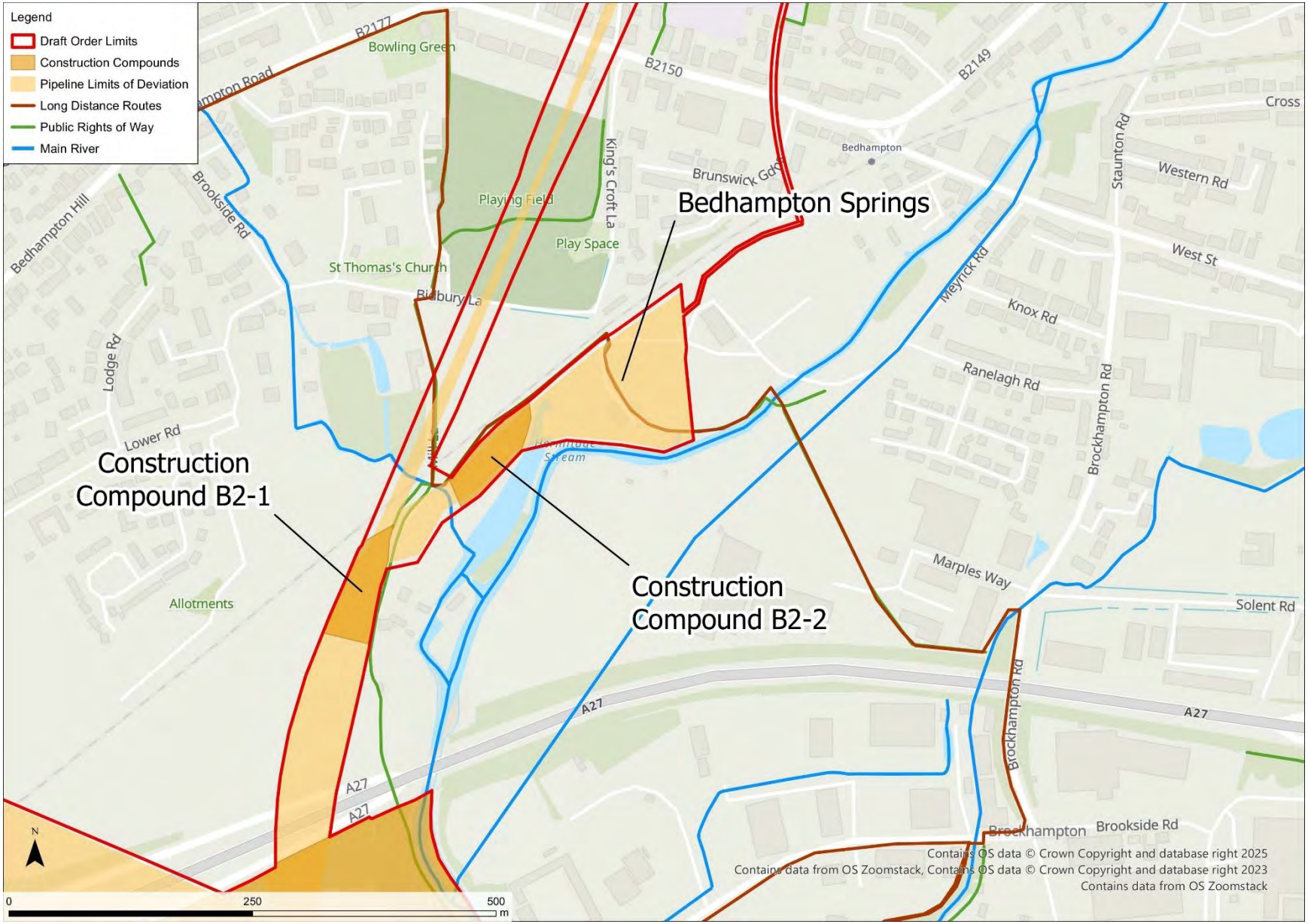


Figure 5 Intermediate tunnel shaft area – Summer 2024 Consultation design

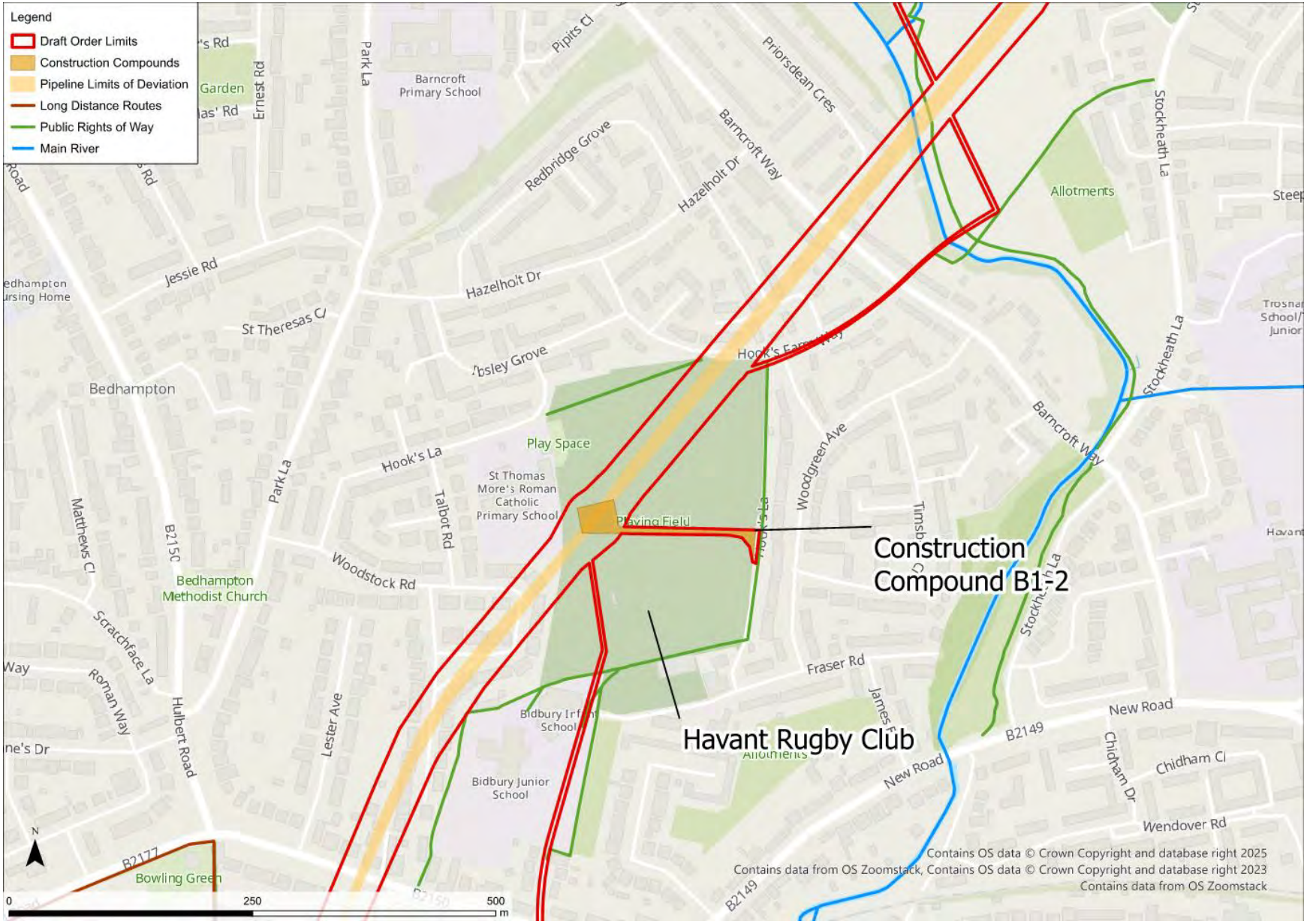


Figure 6 Pipeline Sections A and B – Design Refinement

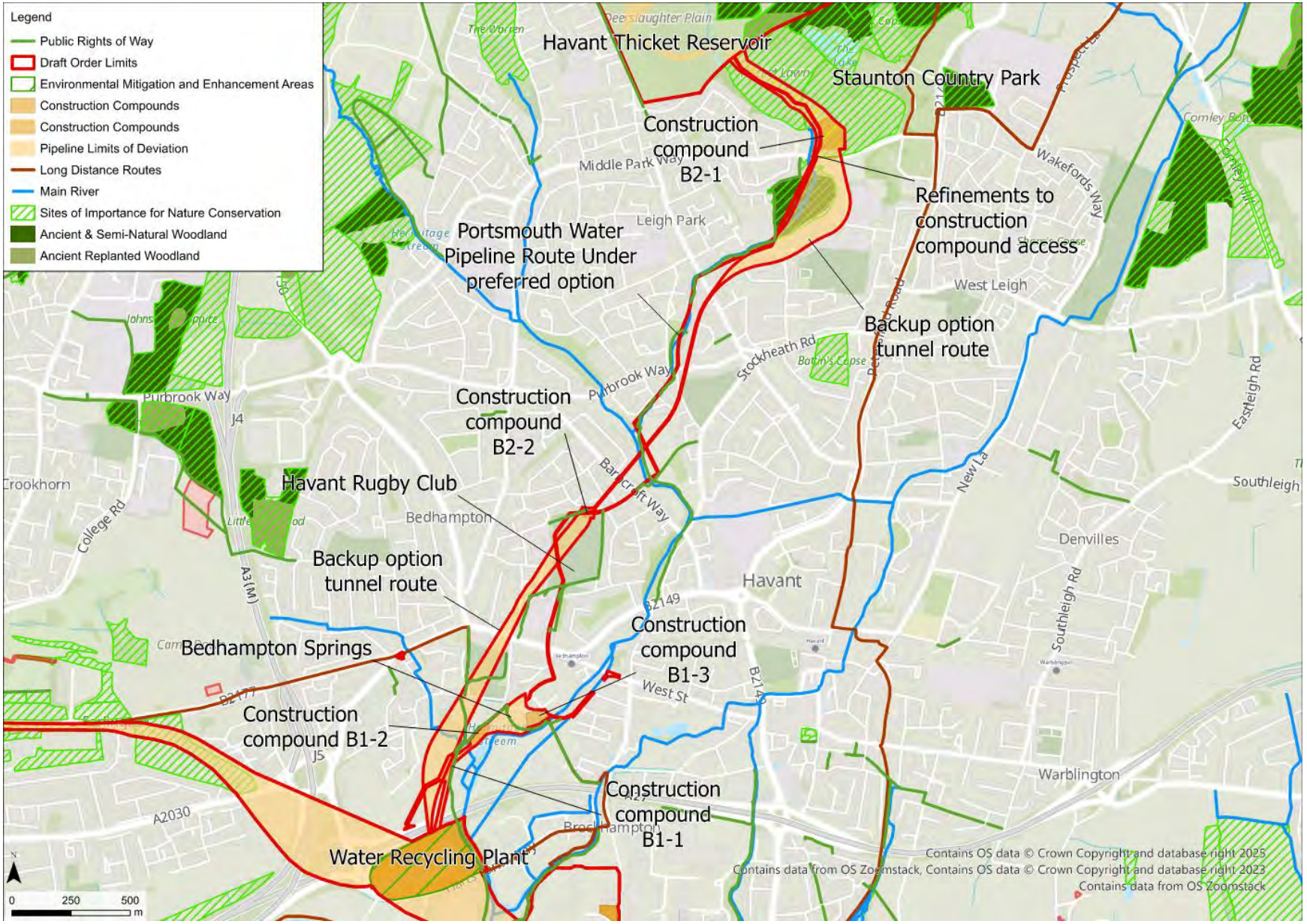


Figure 7 Bedhampton Springs – Design Refinement

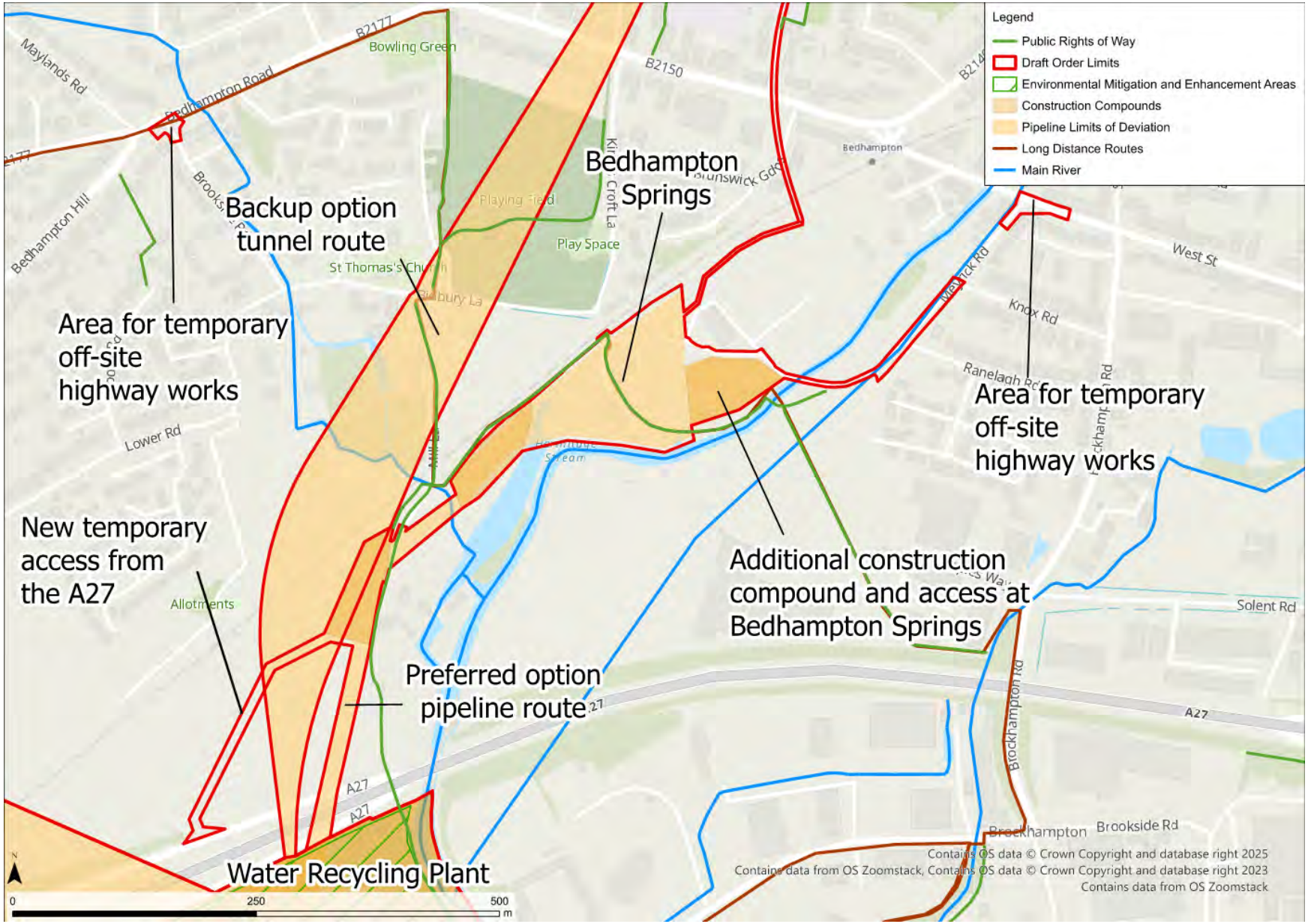
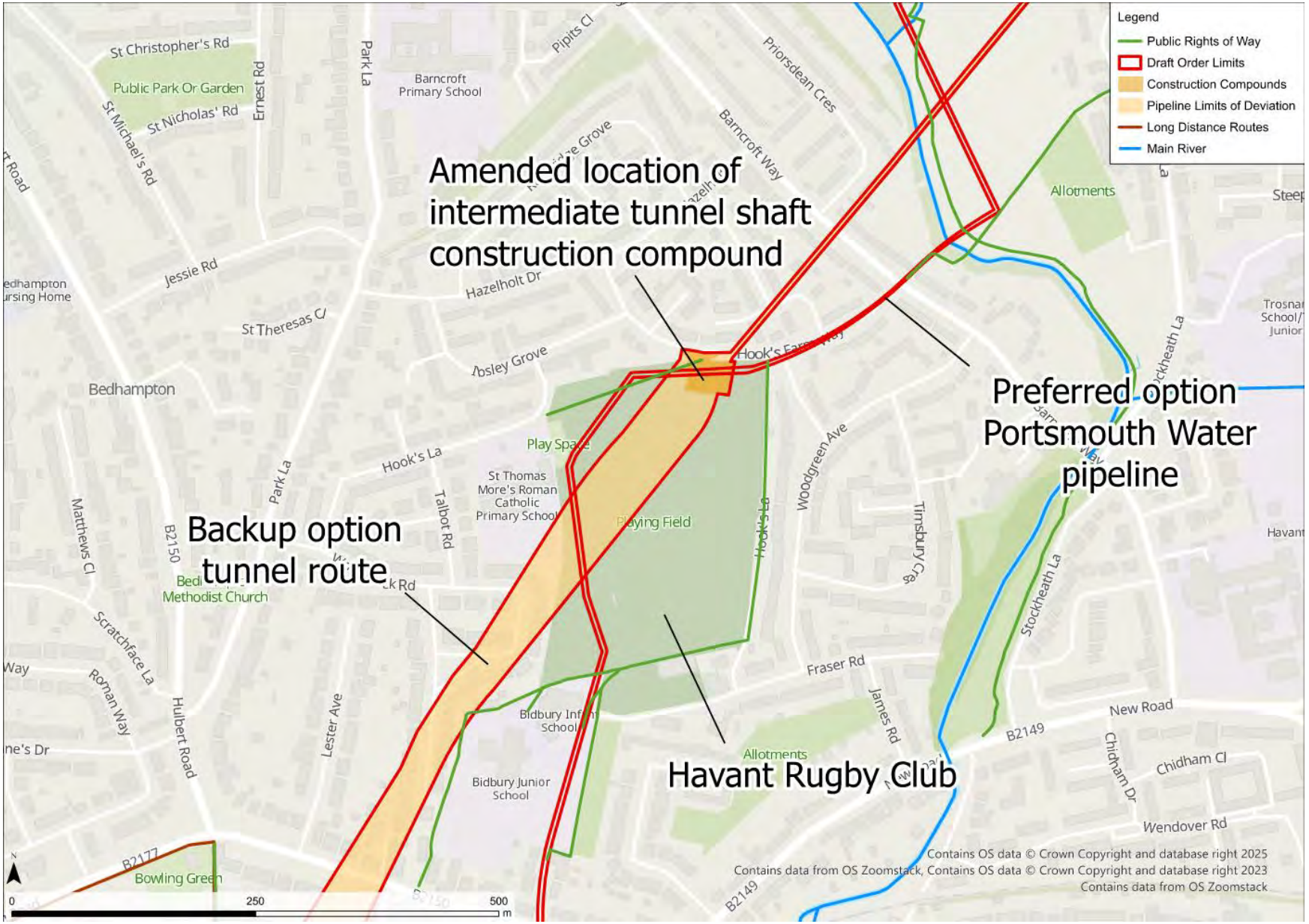


Figure 8 Intermediate tunnel shaft area – Design Refinement



Design Refinement 4 – Havant Thicket Reservoir

Where is the proposed change?

This design refinement relates to the interface between the Project and the Havant Thicket Reservoir. The Project proposes the use of Havant Thicket Reservoir, which is currently being constructed by Portsmouth Water, for the storage of recycled water. There are currently two options under consideration for the pipelines between the water recycling plant site and Havant Thicket Reservoir within Sections A and B. Both options would comprise two pipelines that would facilitate the transfer of purified recycled water and source water between the water recycling plant and the Havant Thicket Reservoir.

The preferred option involves us constructing a connection between the water recycling plant and Bedhampton Springs, and using the pipelines that Portsmouth Water are seeking planning permission for between Bedhampton Springs and Havant Thicket Reservoir. If this preferred option does not secure planning permission, our backup option is to construct continuous pipelines between the Water Recycling Plant site and Havant Thicket Reservoir.

Under the backup option, we would additionally need to seek consent as part of our Development Consent Order to construct the inlet pipeline that connects into Havant Thicket Reservoir.

The design we presented at the Summer 2024 Consultation at Havant Thicket Reservoir is shown in **Figure 9**. This shows the draft Limits of Deviation for the pipeline ending at the boundary of the Havant Thicket Reservoir site.

What is changing and why?

Since the Summer 2024 Consultation, we have been working closely with Portsmouth Water to identify where our pipelines would need to connect into Havant Thicket Reservoir as part of the backup option. We have now developed a connection point and route to this location from Staunton Country Park.

As a result, we have extended the draft Limits of Deviation from the boundary of the reservoir site to the discharge point within the reservoir. The draft Order Limits in this location remain the same as they already encompassed the whole reservoir site.

The proposed design refinement is shown in **Figure 10**.

How might the change affect you or the environment?

No new or different effects are anticipated compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation, as the construction of this pipeline will take place within the Havant Thicket Reservoir site, which is currently under construction.

Figure 9 Havant Thicket Reservoir – Summer 2024 Consultation design

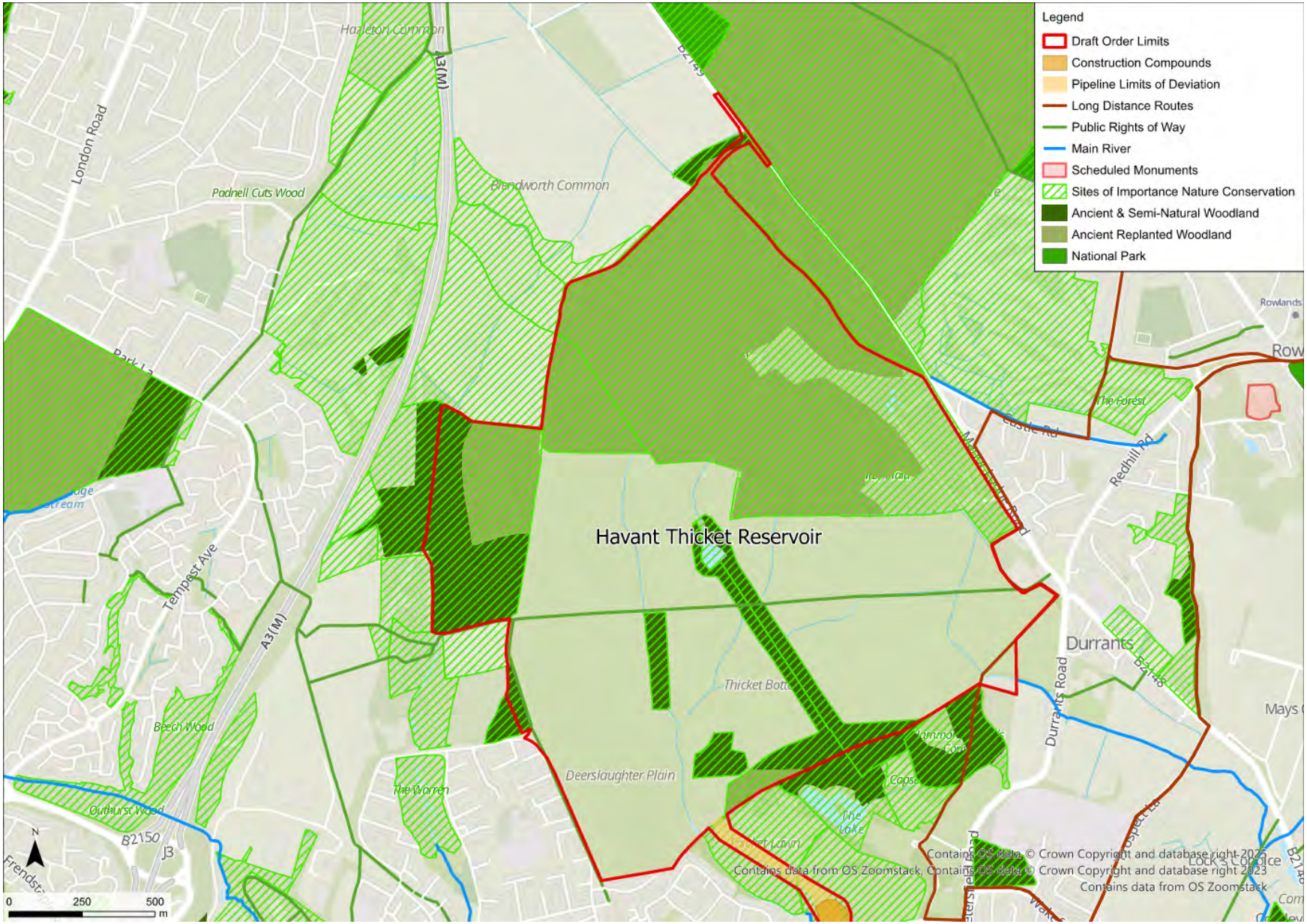
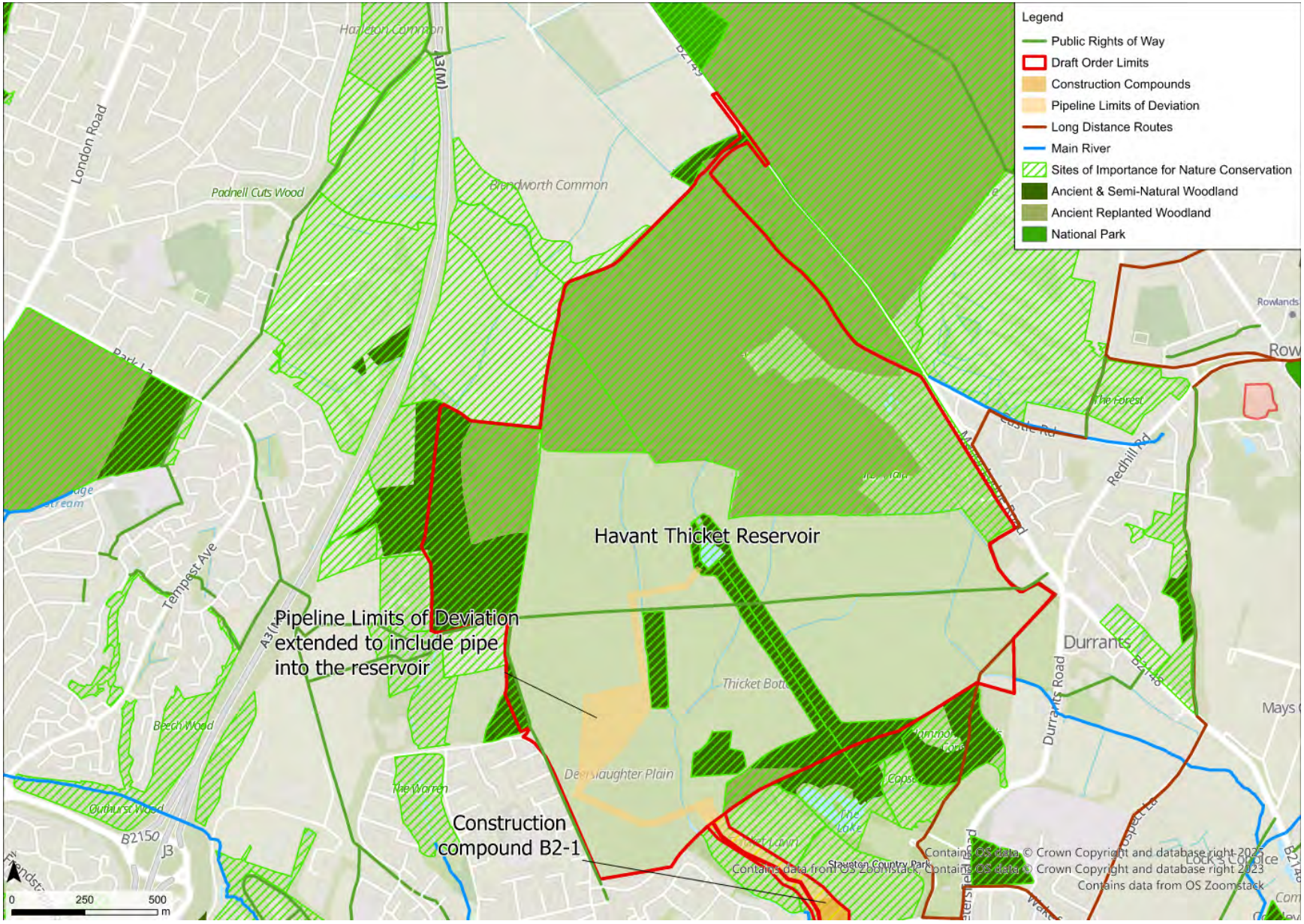


Figure 10 Havant Thicket Reservoir – Design Refinement



Design Refinement 5 – Pipeline Section D

Where is the proposed change?

Section D of the proposed pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works is located between the proposed Water Recycling Plant site and Portsdown Hill, southwest of Widley. Section D extends across the administrative areas of Havant Borough Council and Portsmouth City Council. Section D would be entirely constructed as an underground tunnel, with the only above ground works taking place at the intermediate tunnel shaft construction compound. Section D would pass to the north of Farlington and Drayton, following part of the alignment of Portsdown Hill Road (B2177).

The design presented at the Summer 2024 Consultation is shown in **Figure 11**.

What is changing and why?

Ongoing design development since the Summer 2024 Consultation has led to some changes to the tunnelling route.

At the east of Section D, the draft Order Limits have been reduced and towards the west of Section D, the draft Order Limits have been widened slightly. These changes have been made to ensure that there is sufficient space to accommodate different angles of curvature for the tunnel boring machine. We have retained flexibility to allow for efficiencies to be identified during the detailed design of the tunnel.

Located centrally to Section D is a construction compound for an intermediate tunnel shaft that may be required during construction. The construction compound is situated to the south of Portsdown Hill Road (B2177) and west of Gillman Road. The construction compound isn't proposed to change but the draft Order Limits in the vicinity of the compound have reduced slightly. We have also reduced the draft Order Limits in other areas of Section D. These reductions have been made to remove tunnel settlement areas, which are do not need to be included within the draft Order Limits. Although these areas have been removed, we will continue to engage with all residents and stakeholders in the proximity of tunnelling works to communicate any potential impacts.

The proposed design refinement can be seen in **Figure 12**.

How might the change affect you or the environment?

The proposed design refinements to the tunnel are not considered to result in any new or different environmental effects compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. This is because there would be no change to the construction works undertaken at surface level. As the tunnel will be at least 40 metres deep and up to 80 metres deep in this location, it is expected that the tunnelling works would not be noticeable, however we will undertake further assessments as part of our Development Consent Order application to confirm this.

Figure 11 Pipeline Section D – Summer 2024 Consultation design

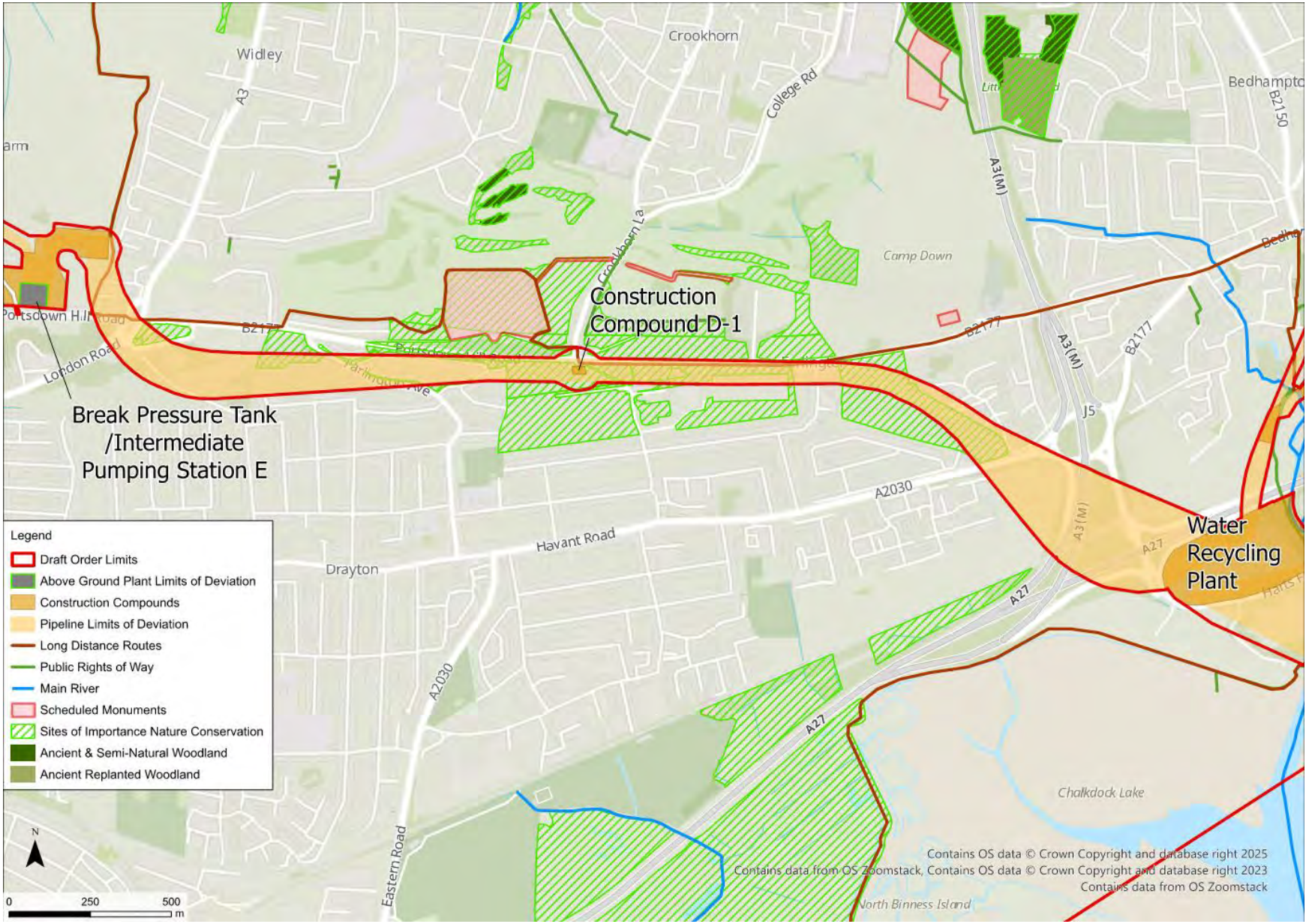
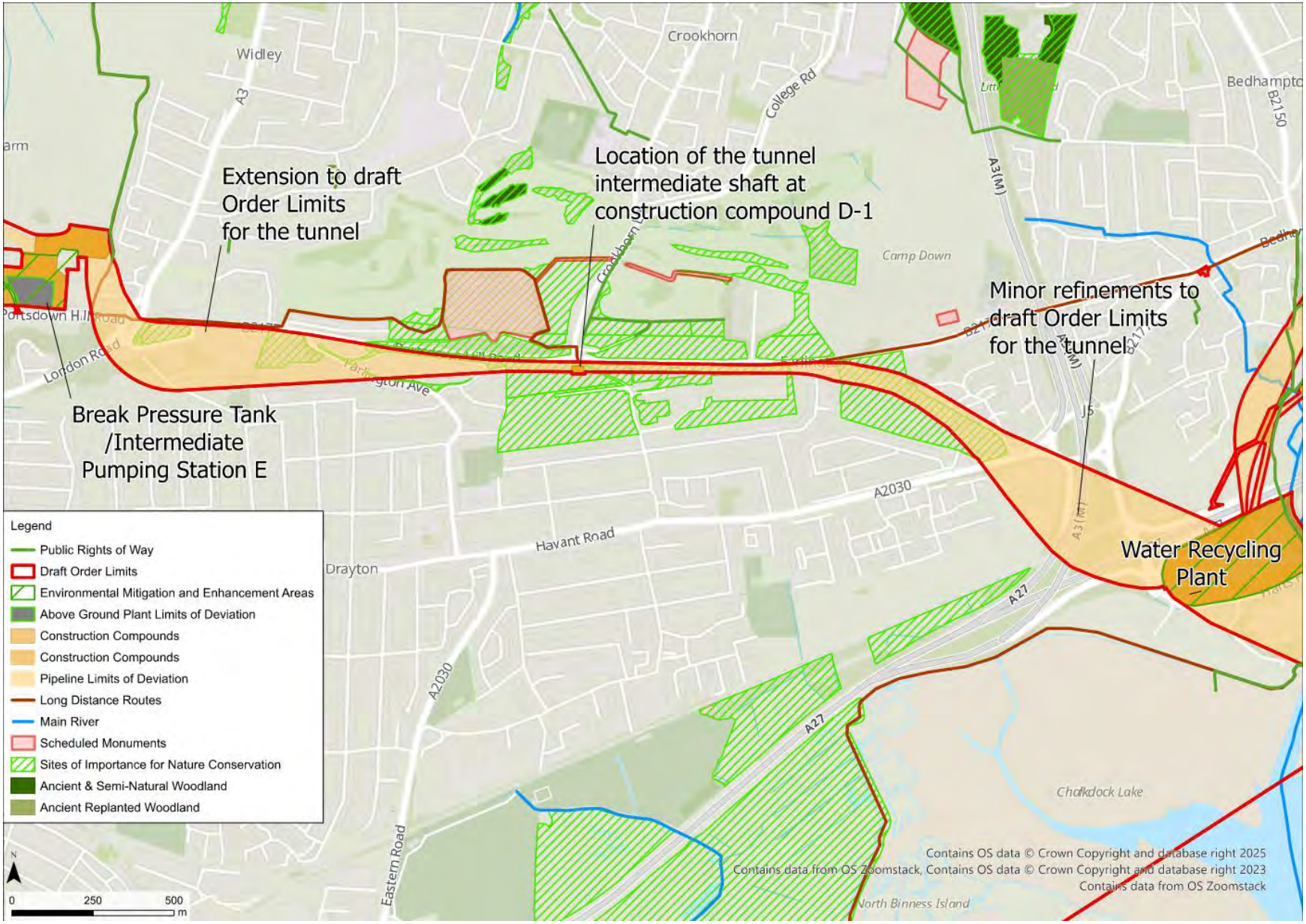


Figure 12 Pipeline Section D – Design Refinement



Design Refinement 6 – Break Pressure Tank and Intermediate Pumping Station E

Where is the proposed change?

The proposed site for Break Pressure Tank and Intermediate Pumping Station E is located within the vicinity of Portsdown Hill, to the north of Portsdown Hill Road (B2177) and west of Widley. It extends across the boundaries of Winchester City Council and Portsmouth City Council's administrative areas and is situated within Section E of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

We require a break pressure tank at this location to manage water pressure at this high point along the pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works and a pumping station to pump water to Intermediate Pumping Station F. Following approval of our Development Consent Order application, detailed design will be undertaken which will confirm the exact topography of the pipeline route, and therefore hydraulics. This could confirm that the intermediate pumping station element may not be required.

The design for Break Pressure Tank and Intermediate Pumping Station E, presented at the Summer 2024 Consultation, is shown in **Figure 13**.

What is changing and why?

Following the Summer 2024 Consultation, protected species were identified in a number of locations in the vicinity of Break Pressure Tank and Intermediate Pumping Station E. Changes are now proposed to the draft Order Limits and draft Limits of Deviation to reduce impacts on these species. However, we are aware that these protected species are active in this area and may have moved prior to construction works. Therefore we have added areas for mitigation, and in addition to the pipeline route presented at the Summer 2024 Consultation, an alternative pipeline route option to the west of the site is proposed, which provides further flexibility to ensure that any impacts to protected species can be avoided or reduced during the construction phase. Final protected species surveys will be undertaken prior to construction to inform whether the northern or the western pipeline route option is constructed.

Security requirements set out by the Department for Environment, Food and Rural Affairs have also identified the need for additional fencing around the plant. To accommodate this, it is proposed that the footprint for Break Pressure Tank and Intermediate Pumping Station E is increased, and therefore the draft Limits of Deviation would also increase. The shape of the draft Limits of Deviation are also proposed to be amended to ensure there is sufficient flexibility to avoid potential conflicts with a new pipeline that Portsmouth Water is also installing in this location.

Since the Summer 2024 Consultation, we have continued to develop our landscaping and planting proposals to help integrate Break Pressure Tank and Intermediate Pumping Station E into the existing landscape to reduce visual impacts. We proposed cutting the site into the hillside at the Summer 2024 Consultation to reduce its height above ground level, and we are proposing to cut the site deeper to mitigate the increase to the footprint of the site. The illustrative design for the site will be included in the Development Consent Order application. Also, we are now proposing chalk grass habitat enhancement in the field to the west and some interspersed planting to help blend the new landscaping and promote habitat connectivity. The full extent of these environmental mitigation and enhancement areas are shown to the east and west of New Down Lane.

The proposed design refinement can be seen in **Figure 14**.

How might the change affect you or the environment?

Our initial assessments indicate that the increase in the footprint and draft Limits of Deviation for the site and additional fencing requirements would not result in any additional landscape or visual effects compared to the effects reported in our Preliminary Environmental Information Report presented at the Summer 2024

Consultation. The site would be screened by new planting and landscaping to integrate it into the existing landscape. The pumping station would also be partially embedded into the ground to reduce its height above the existing ground level.

The design refinements seek to avoid impacts on protected species, including by allowing some flexibility in the location of the pipeline. As explained above, only one pipeline option would be constructed depending on final protected species surveys at the time. Any vegetation lost along field boundaries from either option would be reinstated after construction.

The addition of the environmental mitigation and enhancement area to the west of New Down Lane provides an opportunity to bring forward chalk grassland enhancements as part of our Project, which will support the mitigation for the Break Pressure Tank and Intermediate Pumping Station E and promote habitat connectivity.

Figure 13 Break Pressure Tank and Intermediate Pumping Station E – Summer 2024 Consultation design

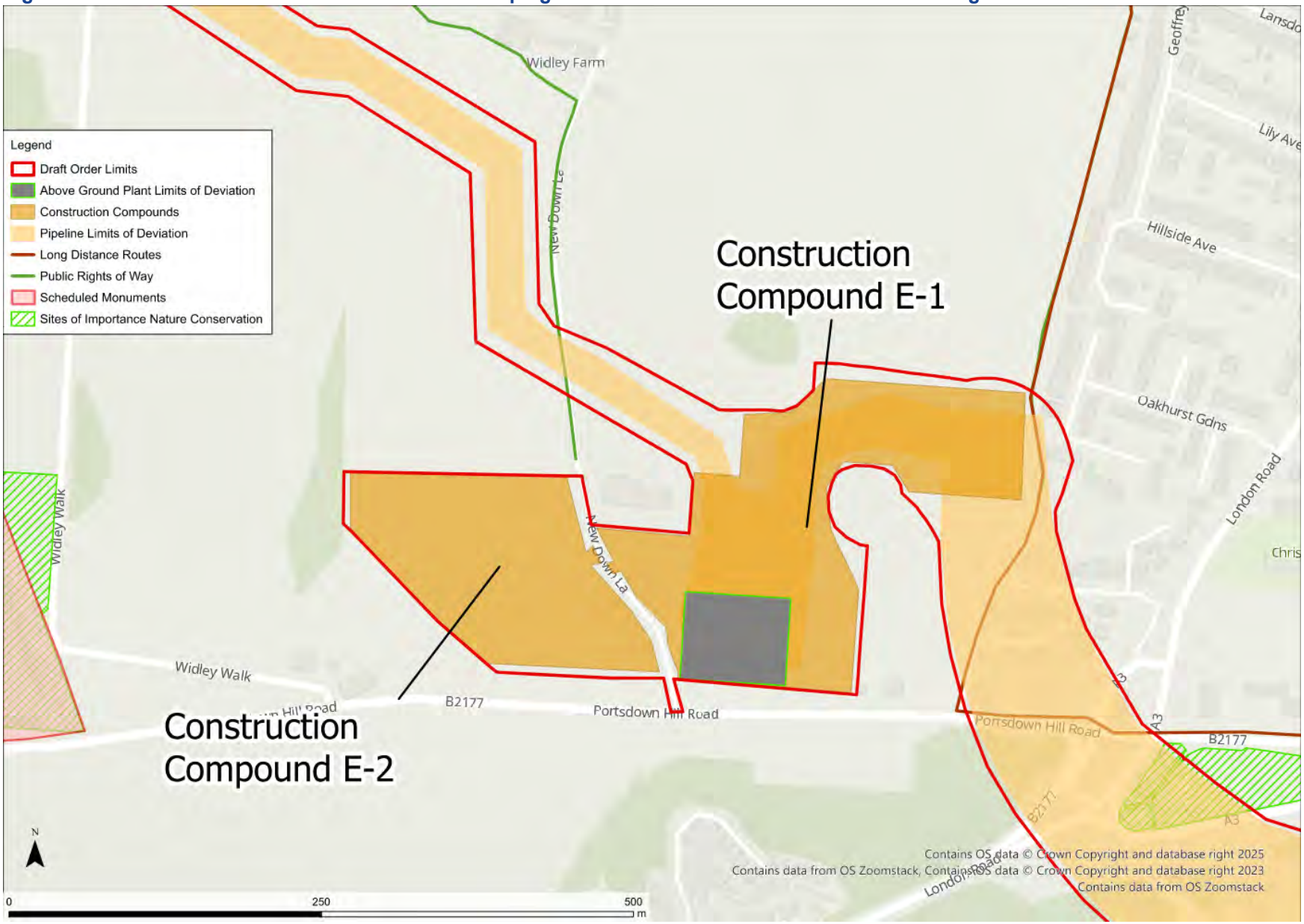
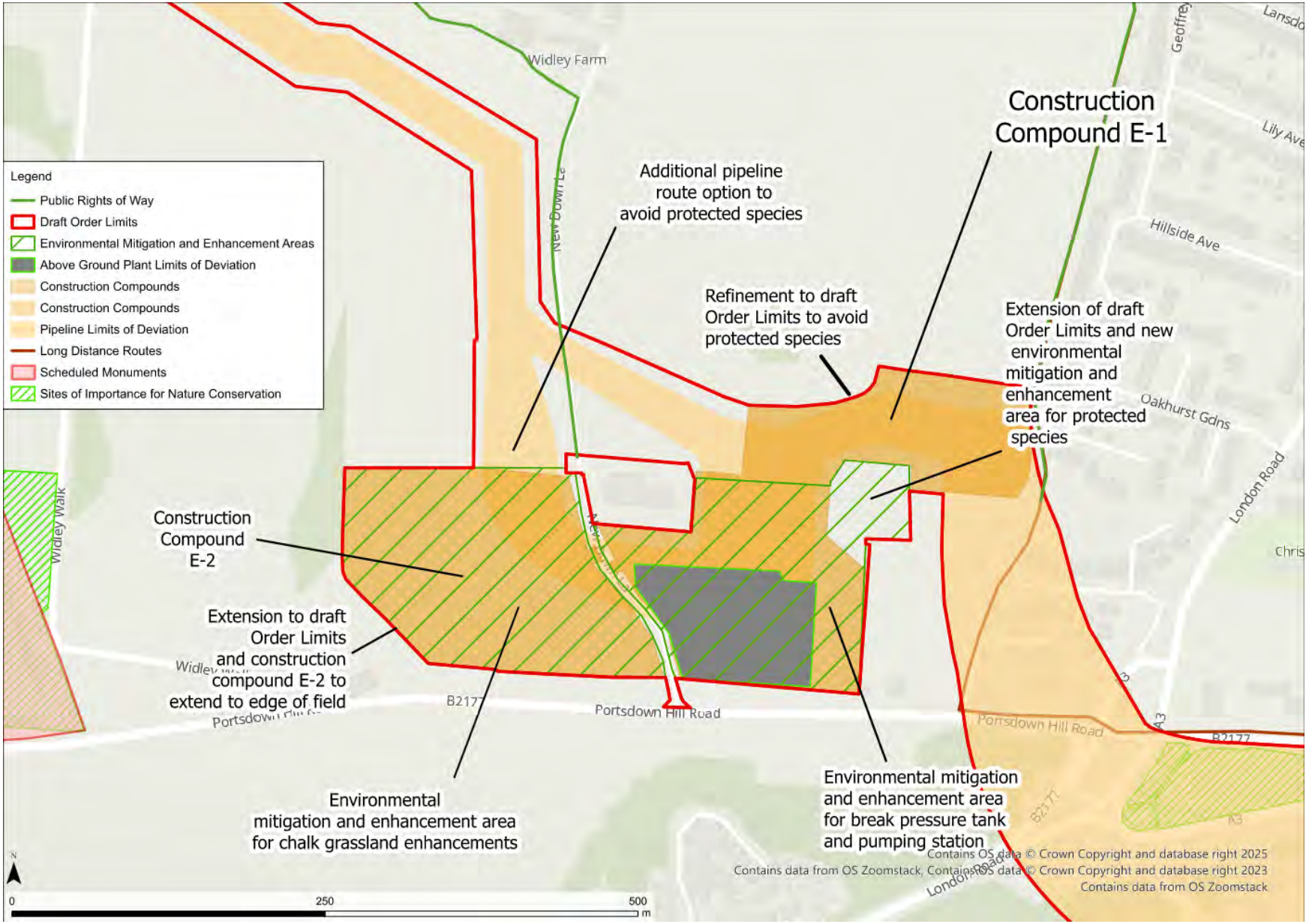


Figure 14 Break Pressure Tank and Intermediate Pumping Station E – Design Refinement



Design Refinement 7 – Pigeon House Farm

Where is the proposed change?

The design refinement is located east of Southwick Road (B2177) and the Portsdown Technology Park, and to the west of Pigeon House Lane, within Winchester City Council's administrative area. It is situated within Section E of the pipeline between the Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 15**.

What is changing and why?

At the Summer 2024 Consultation, the draft Order Limits at this location included some flexibility in width to account for a World War II aircraft crash site in the fields to the south of Pigeon House Farm. Since the Summer 2024 Consultation, the location of the aircraft crash site has been confirmed through engagement with the Ministry of Defence, Historic England and local planning authorities.

We have therefore refined the design to remove the area of flexibility in width that was previously included so that the aircraft crash site can be avoided and a buffer from the construction works provided. The pipeline route and associated construction works would therefore be located at the northern end of the field, just south of Pigeon House Farm.

The refined design can be seen in **Figure 16**.

How might the change affect you or the environment?

This change reduces the extent of the Project to the south of Pigeon House Farm in order to avoid the aircraft crash site. As the land required for the development is being reduced, the environmental impacts from this change are considered to be negligible compared to our Preliminary Environmental Information Report presented at the Summer 2024 Consultation.

Figure 15 Pigeon House Farm – Summer 2024 Consultation design

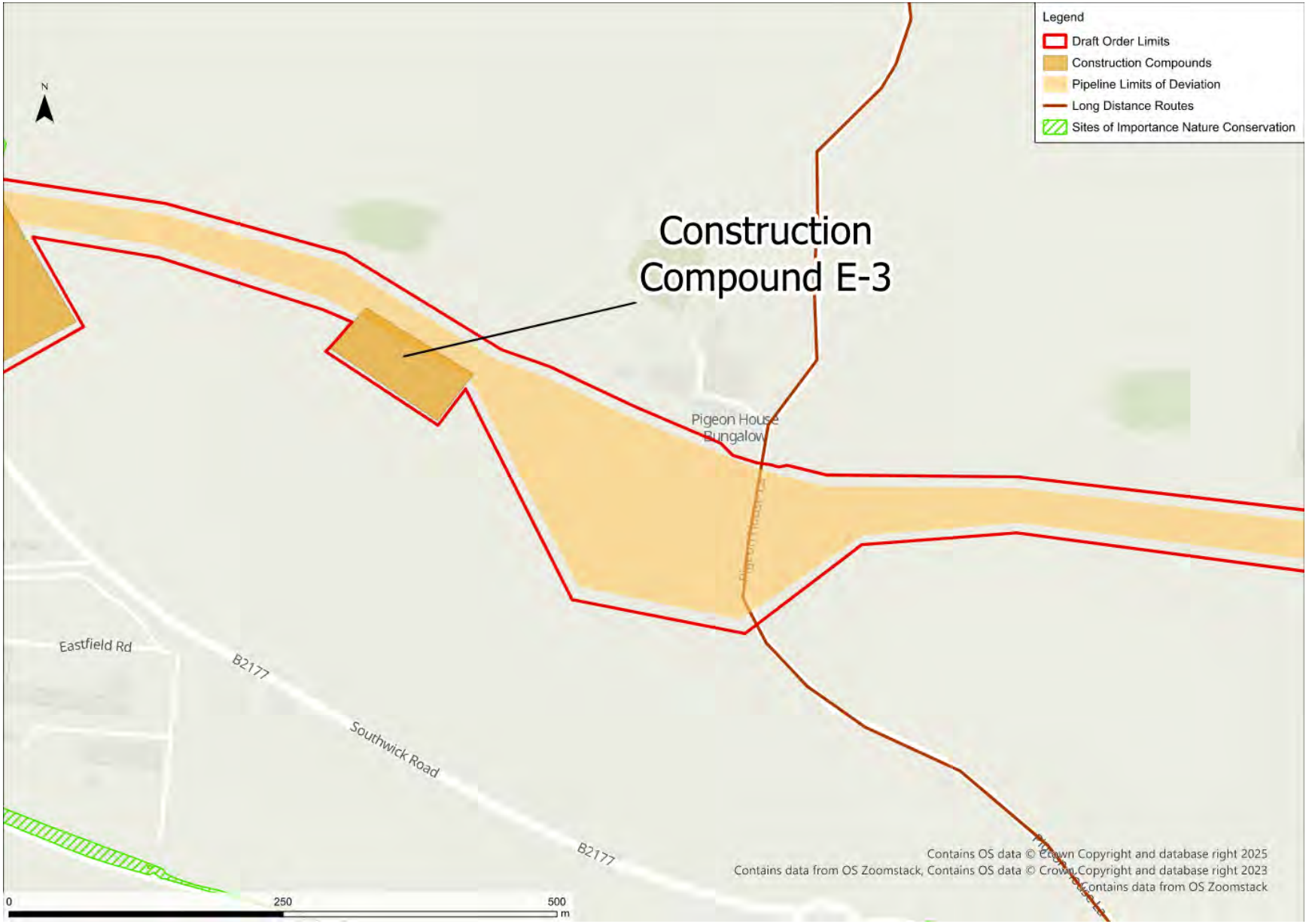


Figure 16 Pigeon House Farm – Design Refinement

Design Refinement 8 – Construction Compound E-6b

Where is the proposed change?

Construction Compound E-6b is located off Boarhunt Road, south west of Southwick within Winchester City Council's administrative area. At the Summer 2024 Consultation, we presented two construction compound options, E-6a is to the east of Boarhunt Road and E-6b is to the west of Boarhunt Road.

The design for Construction Compound E-6b presented at the Summer 2024 Consultation is shown in **Figure 17**.

What is changing and why?

The draft Order Limits and the construction compound boundary at the western side of Construction Compound E-6b have been reduced to avoid an area of trees and scrub to the west of the construction compound and to provide a buffer between it and the draft Order Limits. To allow for this reduction and ensure there is sufficient space for construction, we have included a small area of additional land to the north east.

No changes to Construction Compound E-6a are proposed. To retain flexibility, both construction compound options are still included in the Project. However, only one of the construction compound options would be used during the construction phase.

The proposed design refinement is shown in **Figure 18**.

How might the change affect you or the environment?

The change is proposed to reduce environmental effects by avoiding an area of vegetation. The minor extension of the construction compound is not expected to result in any additional environmental effects compared to those reported in our Preliminary Environment Information Report presented at the Summer 2024 Consultation. This is because it has been extended into agricultural land with limited ecological sensitivities and the appearance of the construction compound would remain unchanged.

Figure 17 Construction Compound E-6b – Summer 2024 Consultation design

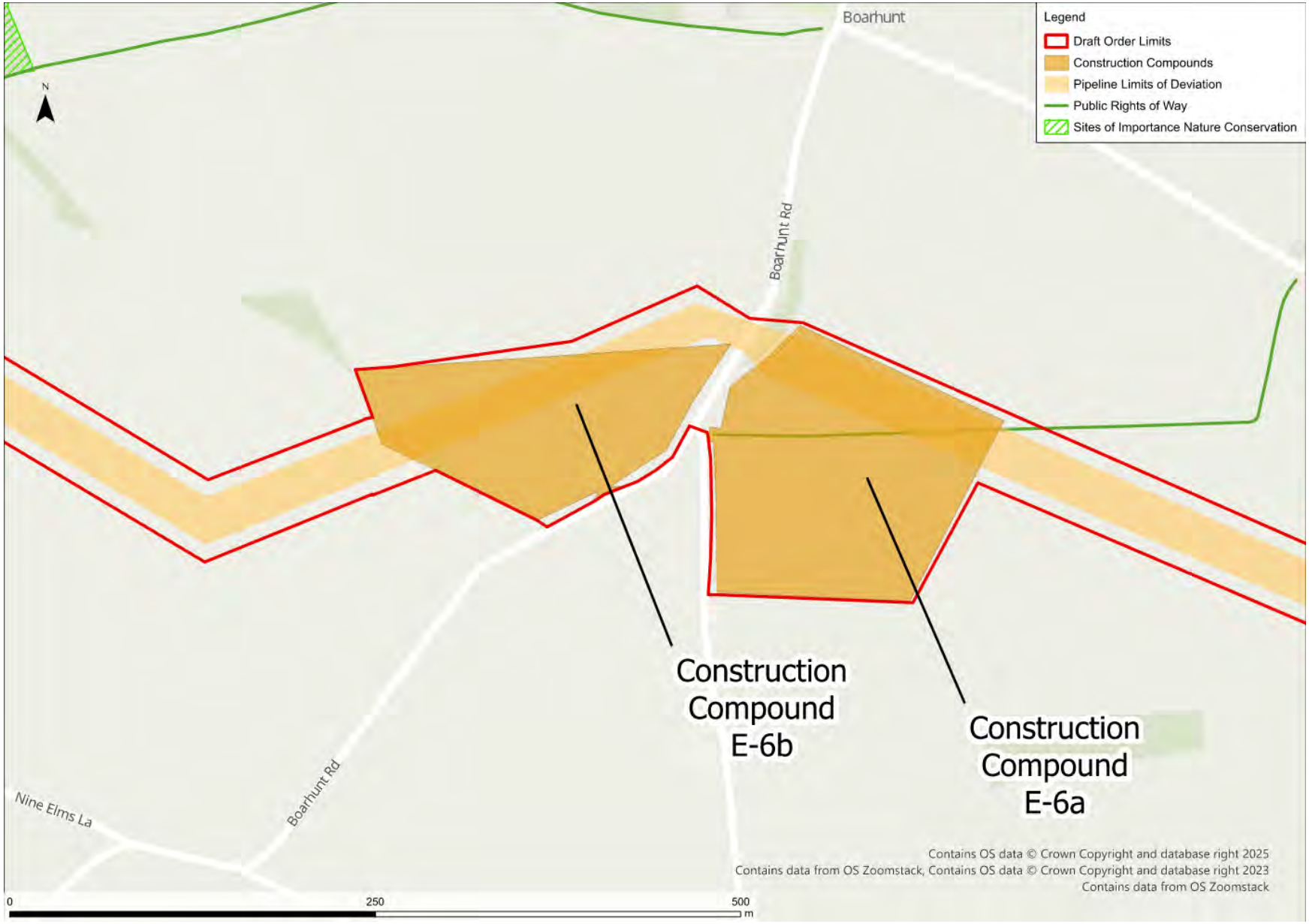
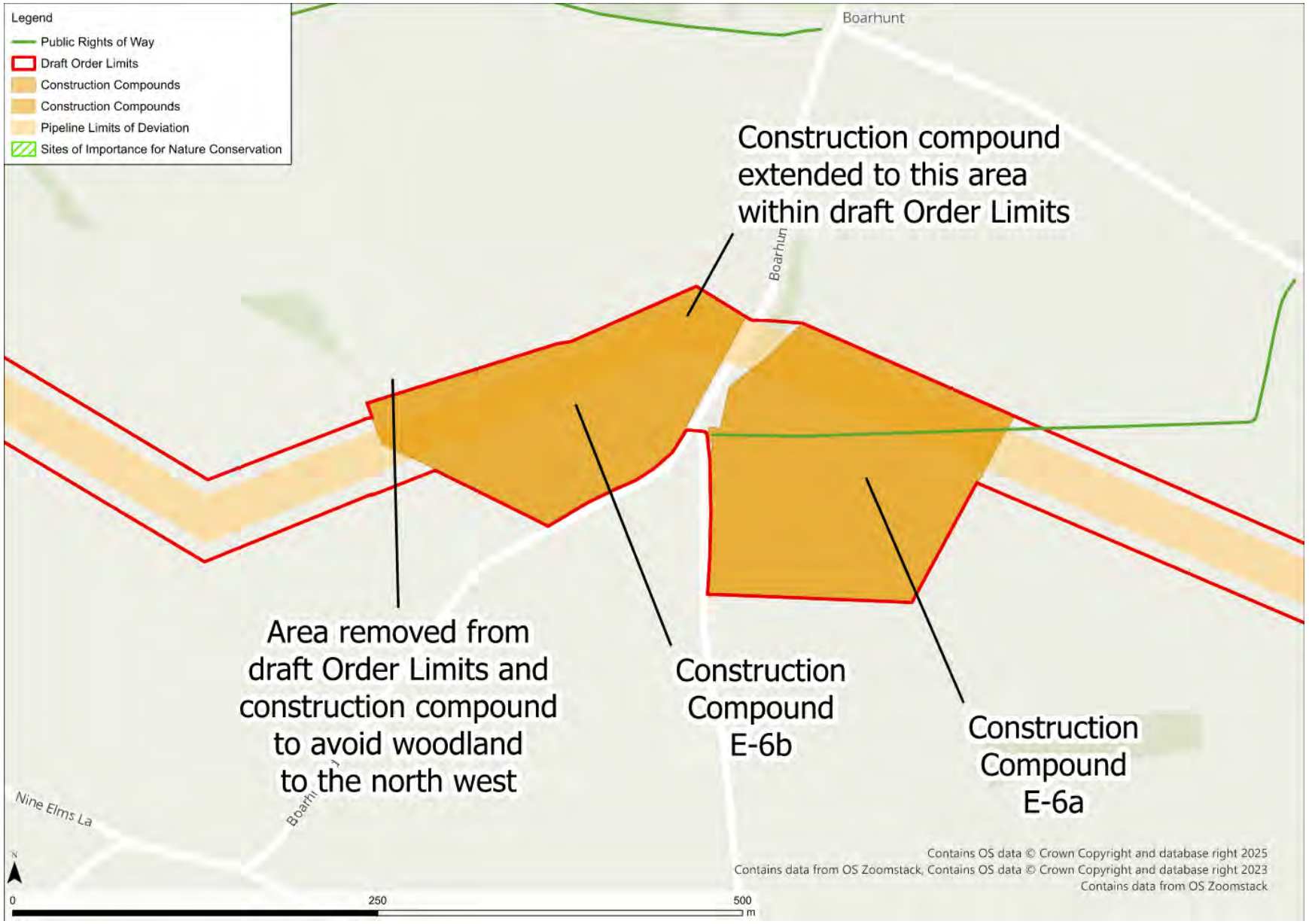


Figure 18 Construction compound E-6b – Design Refinement



Design Refinement 9 – Intermediate Pumping Station F

Where is the proposed change?

Intermediate Pumping Station F is proposed to be located to the east of Wickham Road (A32), south west of Crockerhill, within Fareham Borough Council's administrative area. Intermediate Pumping Station F is situated within Section F of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

This Intermediate Pumping Station is required to repressurise the pipeline after it has passed through the River Wallington valley, and support the flow of water as the topography rises and falls towards Wickham and through the River Meon valley. The site is adjacent to the Welborne Garden Village development which is delivering 6,000 homes, schools and other community facilities to the west and east of Wickham Road (A32).

The design for Intermediate Pumping Station F presented at the Summer 2024 Consultation is shown in **Figure 19**.

What is changing and why?

Security requirements set out by the Department for Environment, Food and Rural Affairs have also identified the need for additional fencing around the plant. To accommodate this, it is proposed that the footprint for Intermediate Pumping Station F is increased, and therefore the draft Limits of Deviation would also need to increase.

The increased draft Limits of Deviation for Intermediate Pumping Station F now overlap with a Public Right of Way (Fareham 103), so the draft Order Limits have therefore been amended to ensure this Public Right of Way can be diverted around the site and retained during the construction and operational phases of the Project.

Since the Summer 2024 Consultation, we have continued to develop our landscaping and planting proposals to help integrate Intermediate Pumping Station F into the landscape and reduce visual impacts, and refined the landscaping and planting proposals to account for the increase in proposed footprint and draft Limits of Deviation of the pumping station site. An environmental mitigation and enhancement area has been added which shows the area that this would be undertaken within alongside the pumping station site.

The proposed design refinement can be seen in **Figure 20**. This figure also shows refinements to the east of Forest Lane. A description of these refinements is set out in the information sheet for design refinement 10.

How might the change affect you or the environment?

Our initial assessments indicate that the increase in the footprint and draft Limits of Deviation for the site and additional fencing requirements would not result in any additional landscape or visual effects compared to those reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. The site would be screened by new planting and landscaping, to integrate it into the existing landscape. The additional proposed mitigation and enhancement area to the west of the site would help screen the pumping station from views from the new Welbourne Garden Village development.

The Fareham 103 Public Right of Way will need to be diverted temporarily prior to the construction phase and will then be diverted permanently to route the footpath around the pumping station site. This will have a negligible impact on the length of the footpath and those using it during the operation or construction.

Figure 19 Intermediate Pumping Station F – Summer 2024 Consultation design

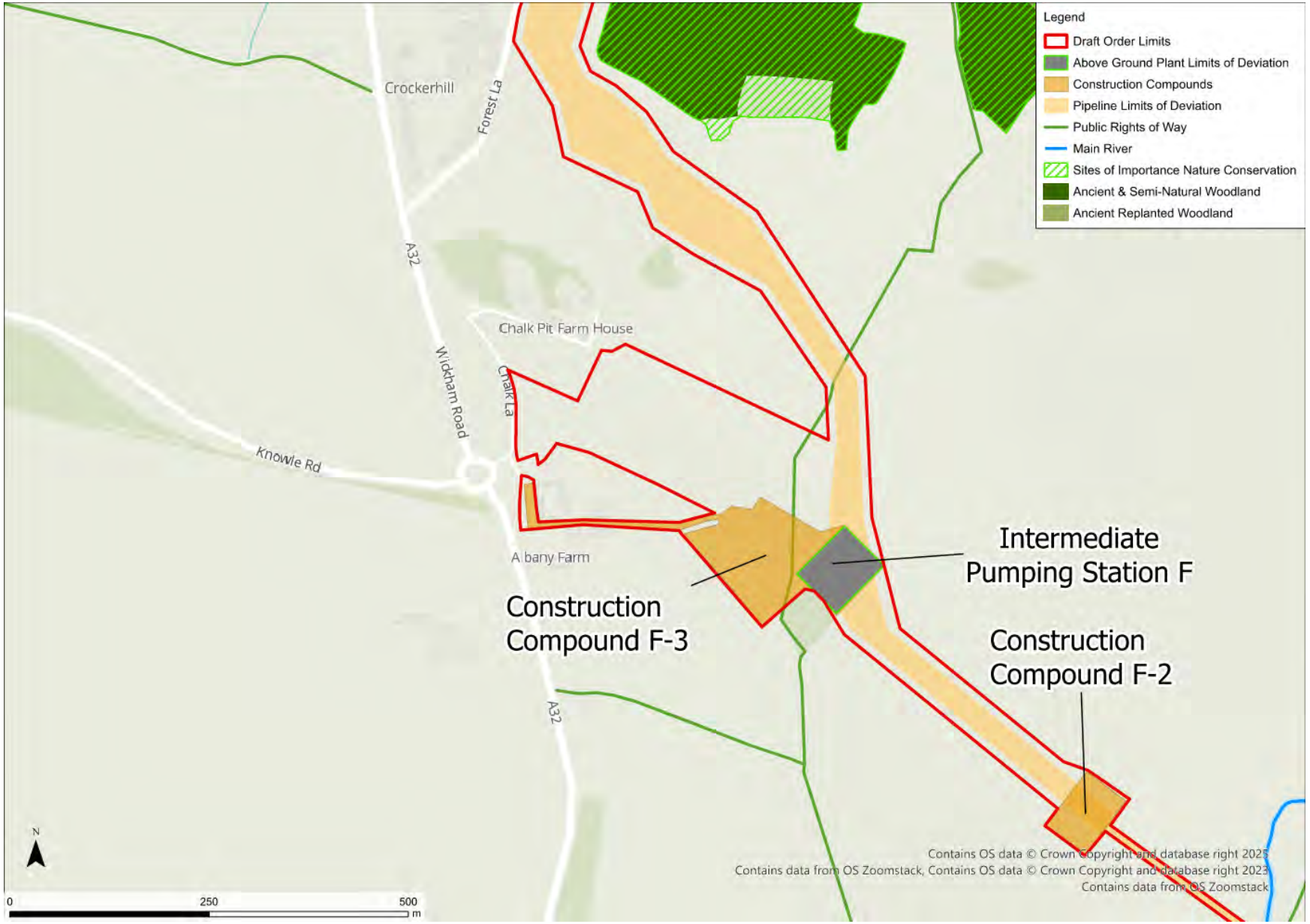
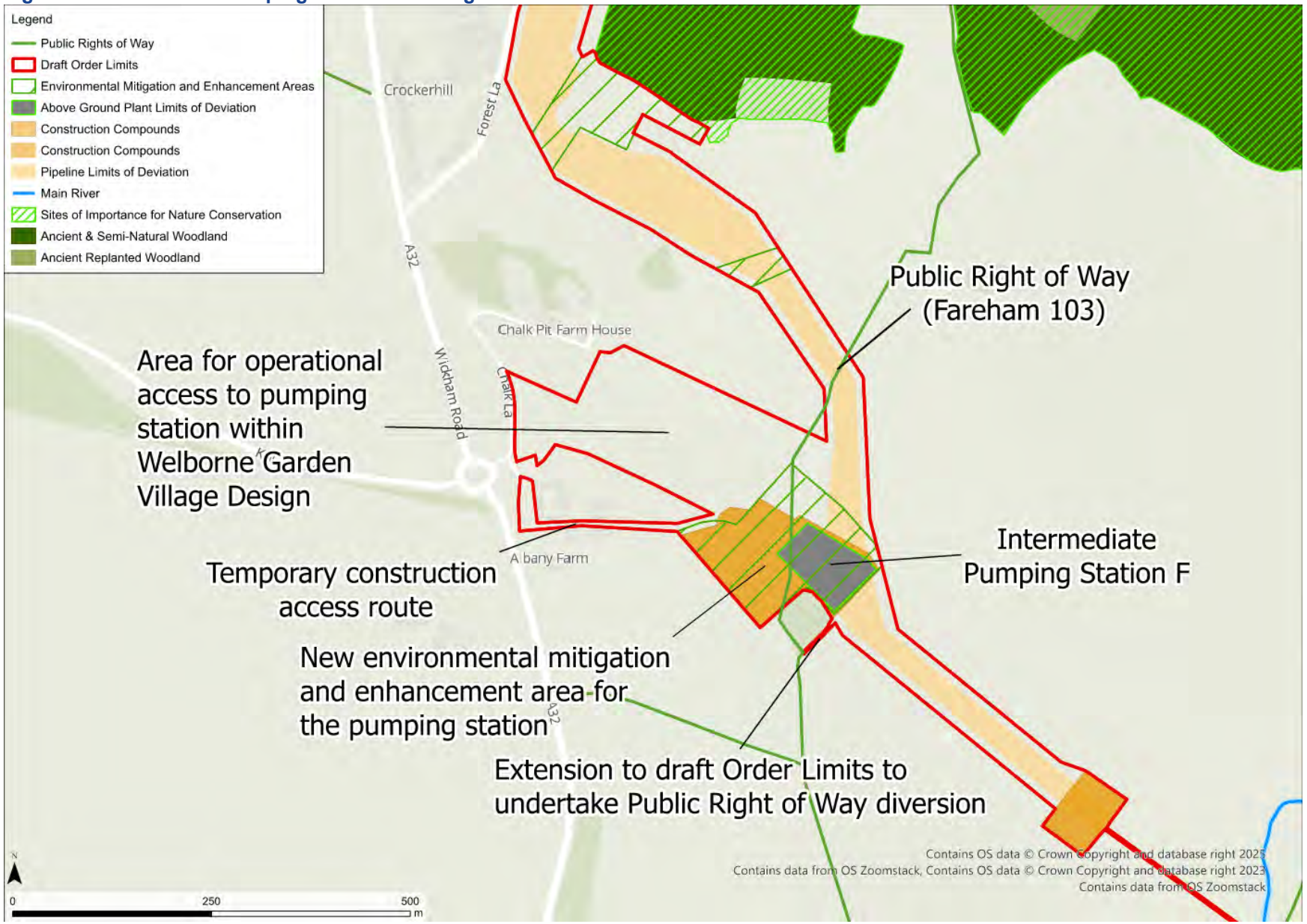


Figure 20 Intermediate Pumping Station F – Design Refinement



Design Refinement 10 – Forest Lane

Where is the proposed change?

The design refinement is located east of Forest Lane, Crockerhill, and the A32, which is north of Junction 27 of the M27, within Fareham Borough Council's administrative area. It is situated within Section F of the pipeline between the Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 21**.

What is changing and why?

Following the Summer 2024 Consultation, further survey work identified protected species within this area and that the pipeline was in close proximity to a veteran tree.

Alternative pipeline routes in the local area were considered to address this but, environmental and technical constraints limited the options available. These constraints included nearby ancient woodland and the utilities that are proposed by the Welborne Garden Village development.

We are therefore proposing an amendment to the draft Order Limits to reduce impacts of the pipeline on protected species and ensure construction works avoid the root protection area of the veteran tree. The draft Order Limits have also been increased to incorporate an environmental mitigation and enhancement area to provide for ecological mitigation and associated buffer zones from the pipeline. This is required to mitigate potential impacts on protected species, as we have been unable to completely realign the pipeline to avoid these habitats. We have also identified an opportunity to provide woodland enhancements on the edge of the ancient woodland to the north. Another environmental mitigation and enhancement area has been added further to the south east, to mitigate tree loss and provide additional tree planting in this location. **Figure 22** shows the refined design.

How might the change affect you or the environment?

The design change would move construction working areas slightly closer to residential properties to the south west on Forest Lane, leading to a potential minor increase in noise and vibration from temporary construction works compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. Temporary noise screening could be used to effectively mitigate any increase in noise. We will also implement mitigation measures set out in our Outline Construction Environmental Management Plan, which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these effects.

Figure 21 Forest Lane – Summer 2024 Consultation design

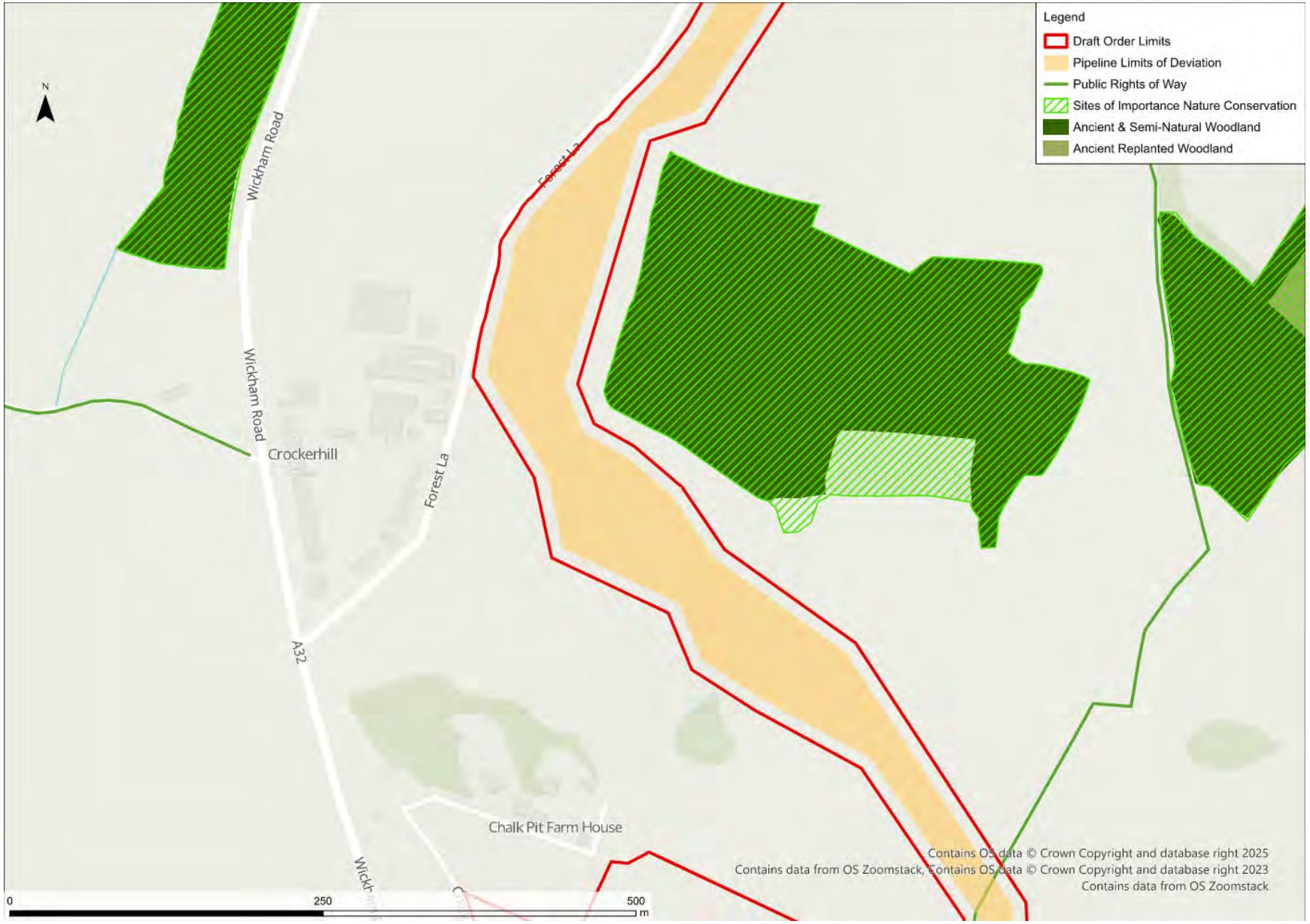
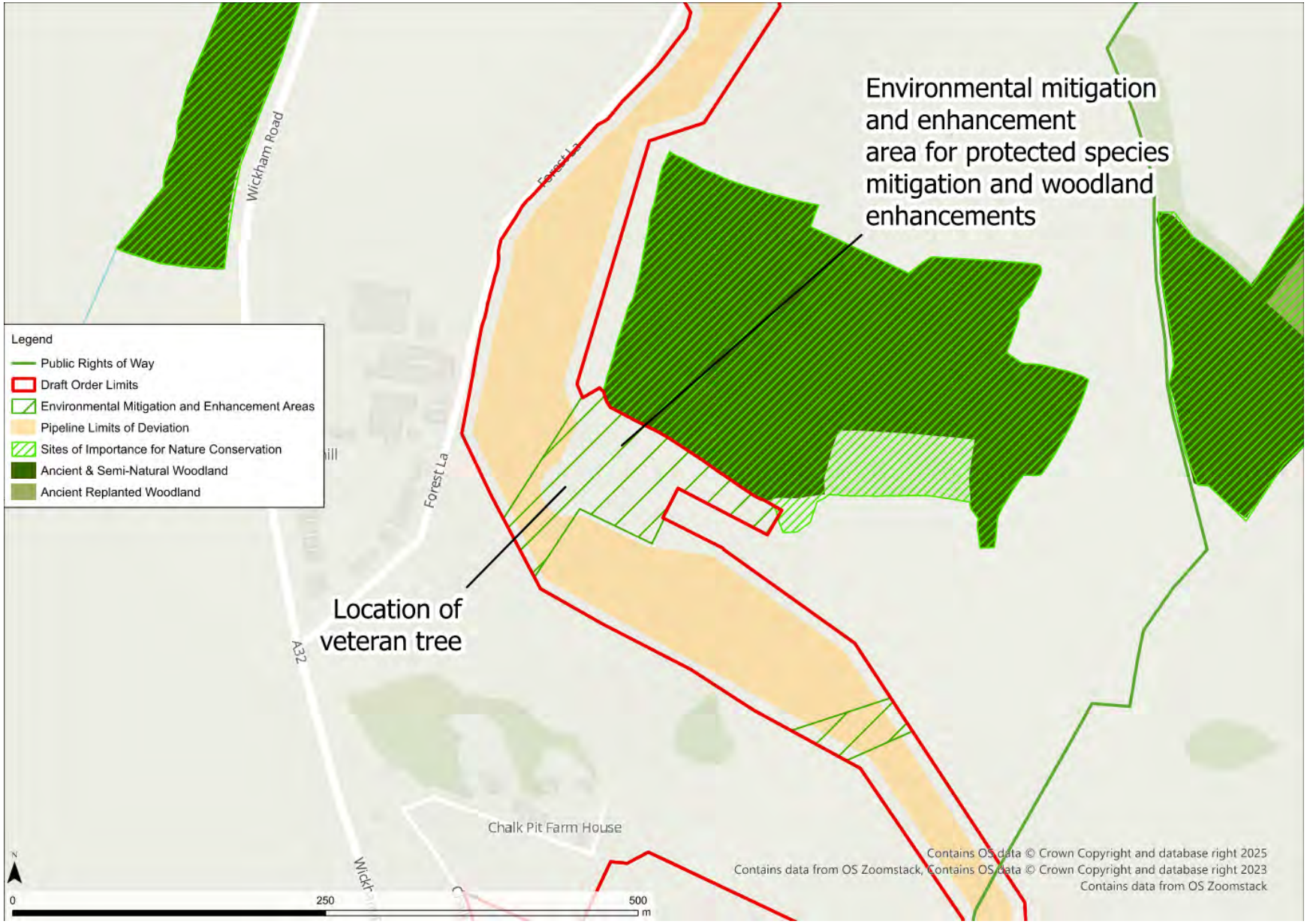


Figure 22 Forest Lane – Design Refinement



Design Refinement 11 – West of Crockerhill Farm

Where is the proposed change?

This design refinement is located west of Crockerhill Farm, to the south of Wickham, within Fareham Borough Council's administrative area. The design refinement is situated within Section F of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 23**.

What is changing and why?

Since the Summer 2024 Consultation, ongoing environmental surveys identified protected species west of Crockerhill Farm. We are proposing to move the pipeline route and draft Order Limits to the west to ensure the protected species can be avoided without other major impacts arising.

The design refinement can be seen in **Figure 24**.

How might the change affect you or the environment?

The design refinement would result in the construction works avoiding impacts to nearby protected species. The amended design would also move construction works further from residential properties and therefore there would be a minor reduction in air quality, noise, and vibration effects at these properties compared to the effects set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation.

Figure 23 West of Crockerhill Farm – Summer 2024 Consultation design

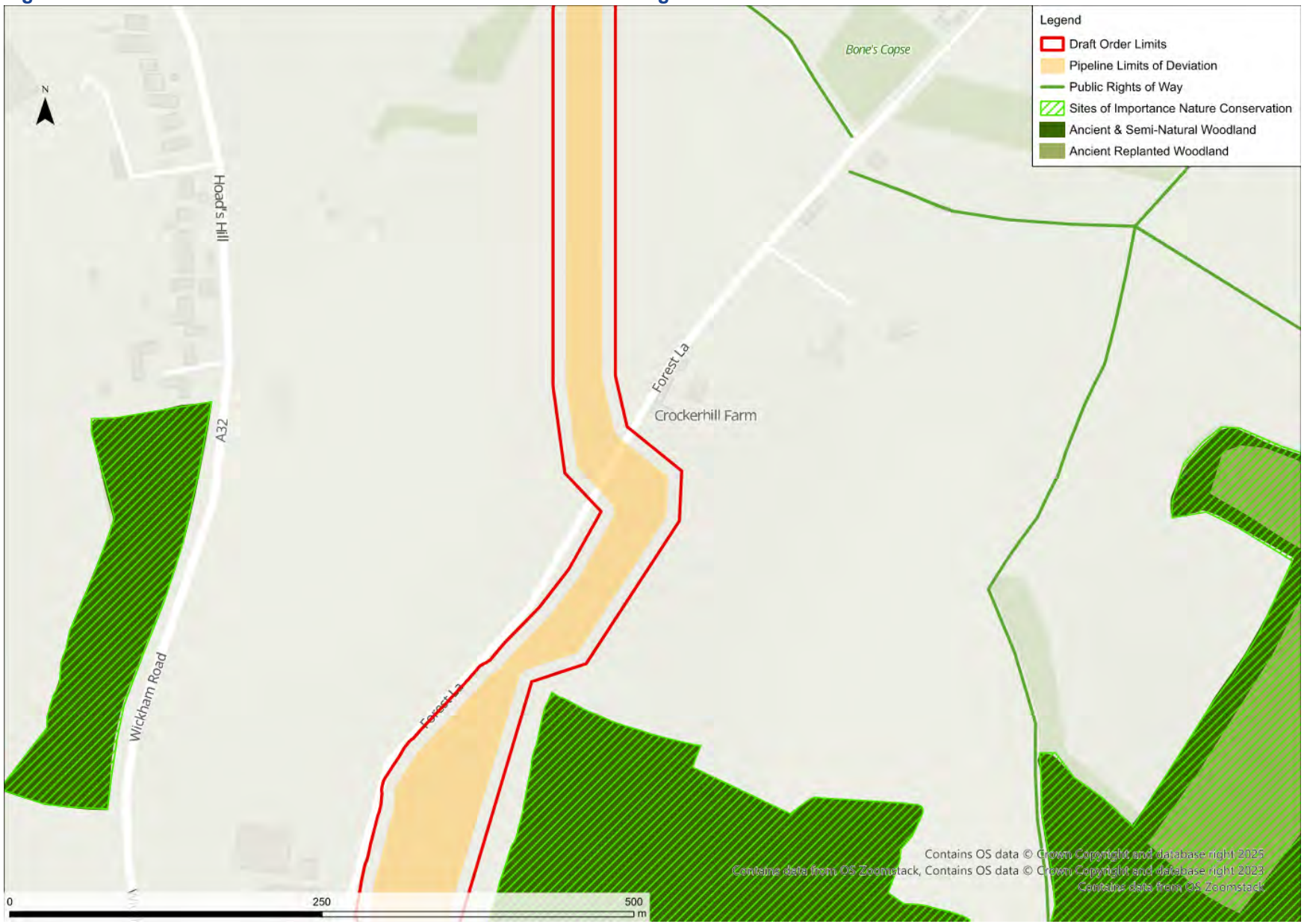


Figure 24 West of Crockerhill Farm – Design Refinement

Design Refinement 12 – Hoad's Hill and Castle Farm Lane

Where is the proposed change?

Hoad's Hill (A32) and Castle Farm Lane are located to the south east of Wickham, within Winchester City Council's administrative area. Hoad's Hill and Castle Farm Lane are both located within Section G of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 25**.

What is changing and why?

Adjacent to the construction compound located east of Hoad's Hill, the draft Order Limits have been reduced to remove an area of land that was previously included to provide flexibility east of construction compound G-1. This is no longer required as we have a better understanding of the space we require for the construction compound. Minor refinements to the draft Order Limits are also proposed at Hoad's Hill to ensure sufficient space can be provided for temporary construction access, and land previously included for visibility splays has been removed following further consideration of the access design and requirements.

Ongoing environmental surveys also identified two veteran trees within the vicinity of Hoad's Hill and Castle Farm Lane. Veteran trees are old and mature trees that are protected due to their high level of ecological importance. The design presented at the Summer 2024 Consultation would have resulted in construction works taking place within the root protection zone for these trees, which should be avoided. The draft Order Limits have therefore been realigned in two areas to move the pipeline and construction works away from the root protection areas to avoid harm to these trees.

The refined design can be seen in **Figure 26**.

How might the change affect you or the environment?

There is potential for the design amendments to result in a minor increase in vegetation loss at Hoad's Hill compared to what was set out in our Summer 2024 Consultation, to ensure that construction vehicles can access working areas safely. The amendment to avoid the veteran tree east of Hoad's Hill has also moved the pipeline closer to other trees and vegetation, some of which may need to be removed, however, the veteran trees would no longer be impacted by the construction works. Overall, it is considered that the environmental changes are positive, as they avoid the most sensitive and important trees and environmental features. Vegetation removal to facilitate construction in this area will be reinstated once works are completed.

Figure 25 Hoad's Hill and Castle Farm Lane – Summer 2024 Consultation design

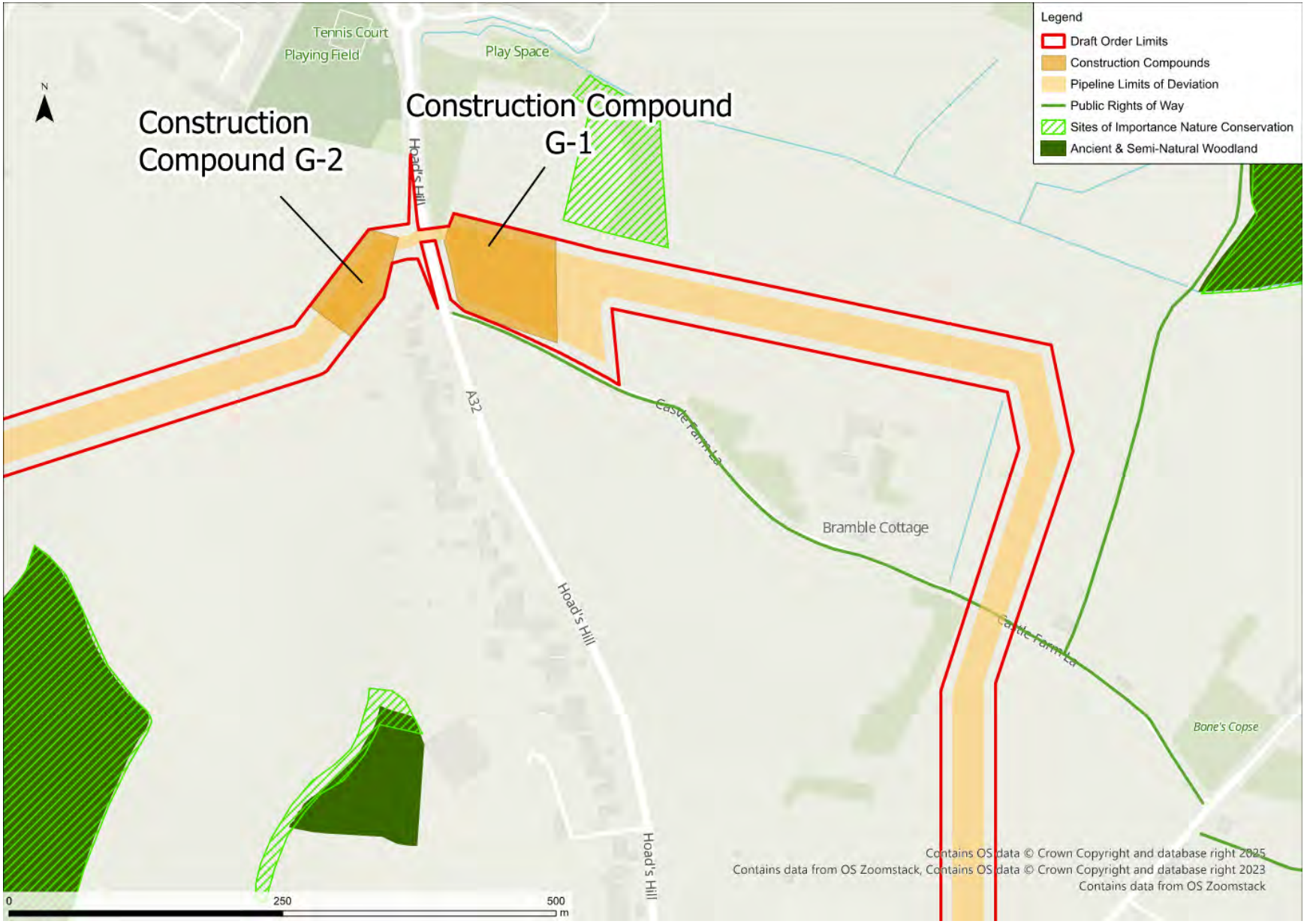
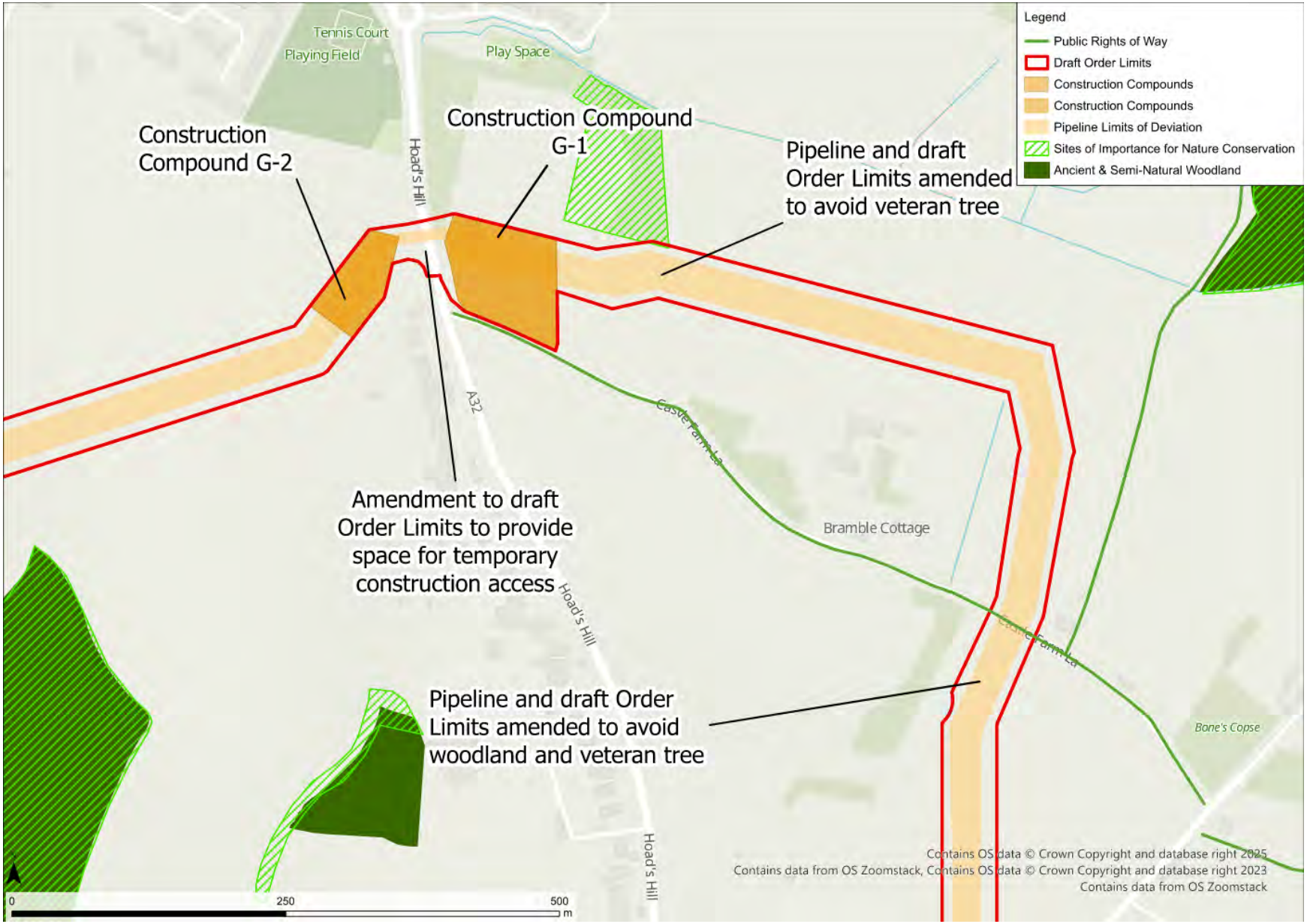


Figure 26 Hoad's Hill and Castle Farm Lane – Design Refinement



Design Refinement 13 – Wickham Park Golf Club and River Meon

Where is the proposed change?

Wickham Park Golf Club is situated east of Titchfield Lane to the south west of Wickham. The River Meon is just south of Wickham Park Golf Club. Wickham Park Golf Club and the River Meon are both located within Section G of the proposed pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works. Section G is located within Winchester City Council's administrative area.

The design presented at the Summer 2024 Consultation is shown in **Figure 27**.

What is changing and why?

The following design refinements are proposed:

- Following the Summer 2024 Consultation, engagement with Wickham Park Golf Club has continued. In response to this, the draft Order Limits have been reduced, excluding much of the southern part of the golf course, as it intended that the pipeline will be located in the north east of the golf course and to the east of the clubhouse. An access track to the east of the clubhouse has also been included in the draft Order Limits and draft Limits of Deviation, as this area may be used to construct and install the pipeline. The draft Order Limits have also been extended to include the full extent of another golf club access track up to the boundary of Titchfield Lane, which is proposed to be used as a temporary construction access.
- Through ongoing design development, a second option for the trenchless crossing of the River Meon has been identified to the east of the trenchless crossing presented at the Summer 2024 Consultation. The new eastern trenchless crossing would utilise the same construction compounds shown at the Summer 2024 Consultation. The northern end of the eastern trenchless crossing option terminates in Wickham Wastewater Treatment Works which is a Southern Water asset. The draft Order Limits now include this new option. Including both crossing options within the draft Order Limits provides flexibility to find the least impactful route across the golf course. Only one crossing option would of course be constructed.

The refined design can be seen in **Figure 28**.

How might the change affect you or the environment?

The changes at the golf club do not introduce any new environmental effects as the extent of the draft Order Limits have been reduced to narrow the pipeline route across the golf course. The draft Order Limits have been extended to include an existing access track to the east of the club house for construction of the pipeline. This is assumed to have minor impacts due to the removal of some vegetation which would be mitigated through measures in the Outline Construction Environmental Management Plan which will form part of our Development Consent Order application. The extension of the draft Order Limits up to Titchfield Lane would also not have any new environmental impacts, as we had previously considered that construction vehicles would use this access point from Titchfield Lane.

The addition of the alternative trenchless crossing location does not introduce any additional environmental effects as no new surface level works have been introduced, and no below ground impacts have been identified.

Figure 27 Wickham Park Golf Club and the River Meon – Summer 2024 Consultation design

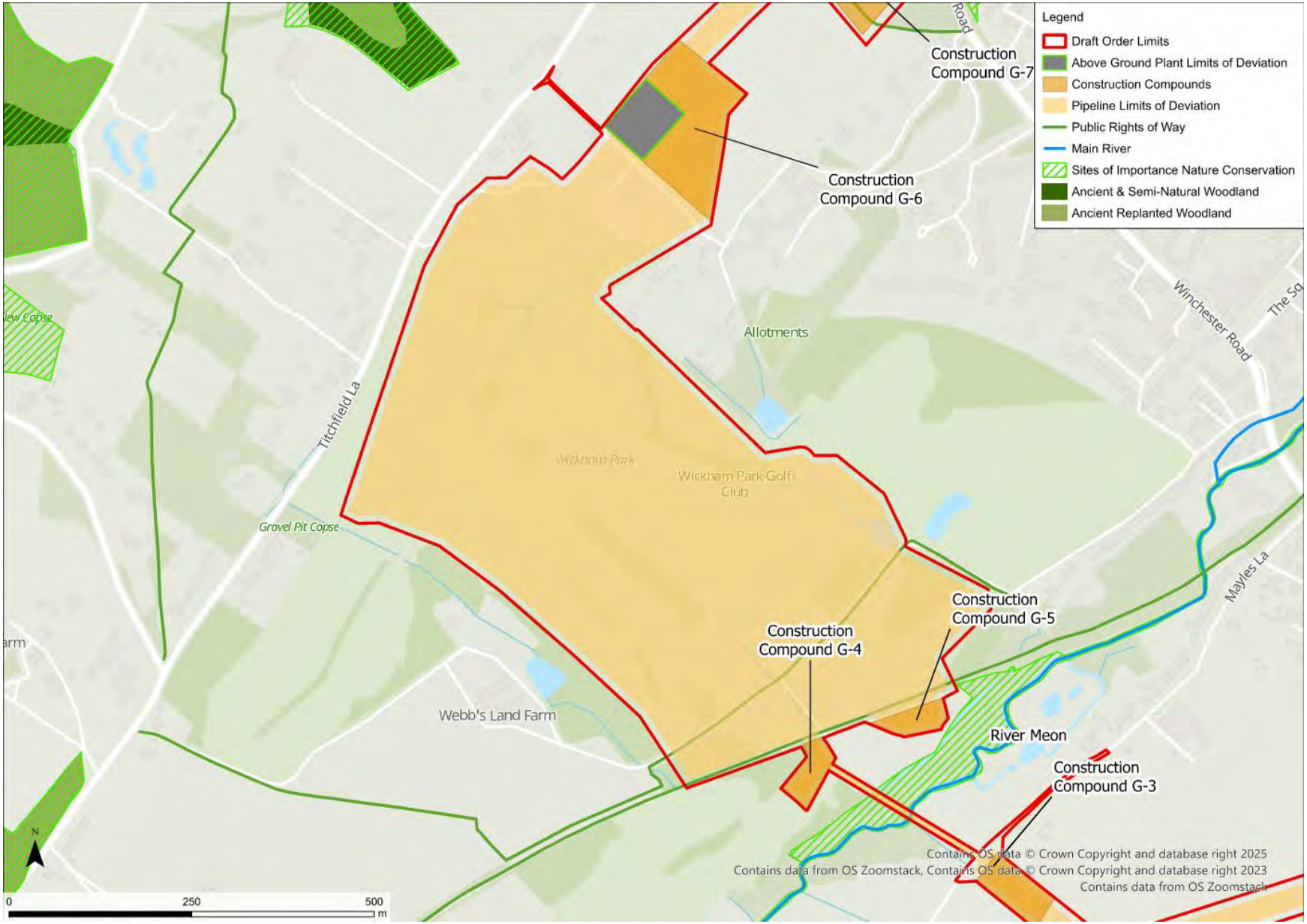
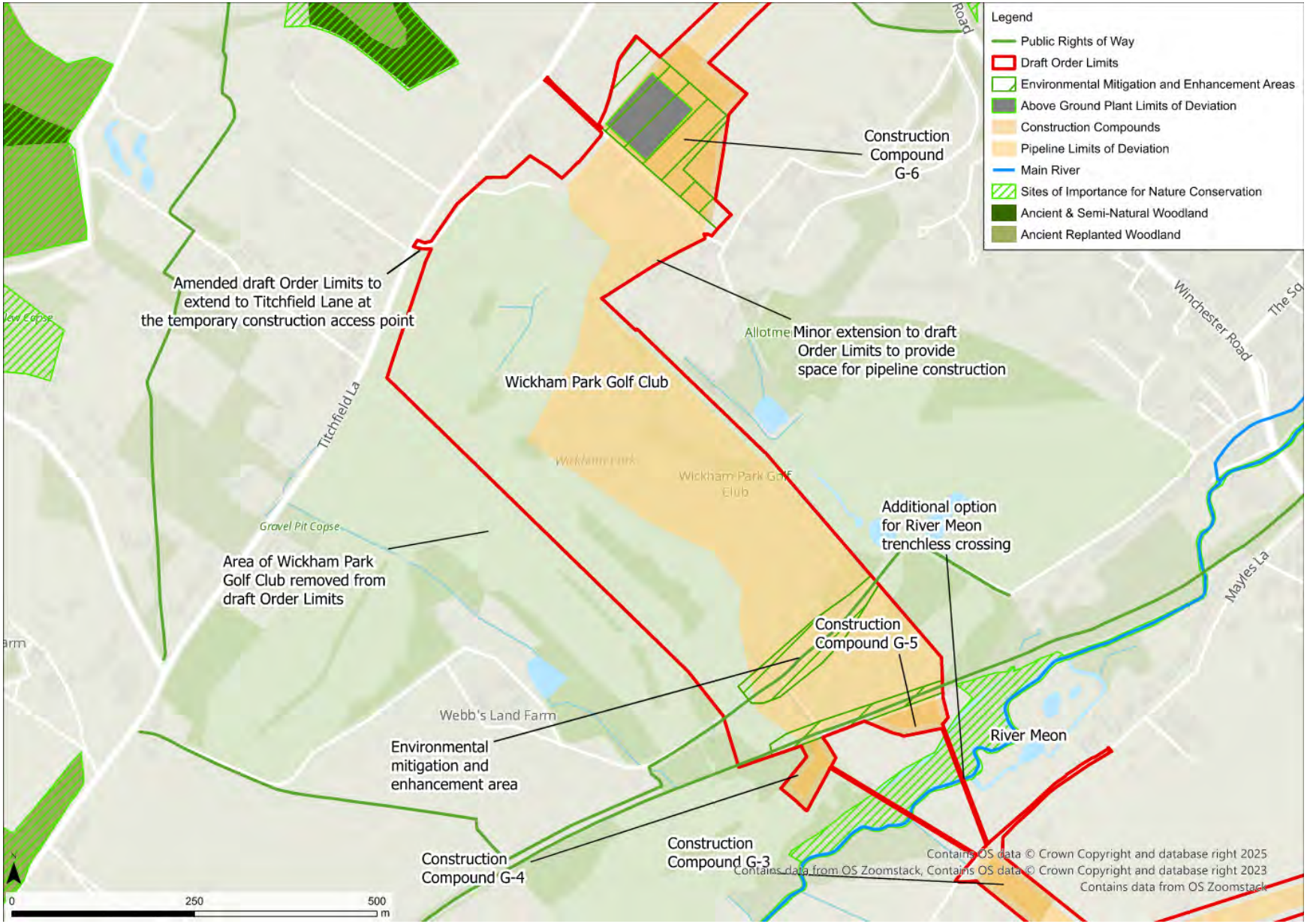


Figure 28 Wickham Park Golf Club and the River Meon – Design Refinement



Design Refinement 14 – Intermediate Pumping Station G

Where is the proposed change?

Intermediate Pumping Station G is proposed to the southeast of Titchfield Lane, north of Wickham Park Golf Club which is to the west of Wickham, within Winchester City Council's administrative area. It is situated within Section G of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

Intermediate Pumping Station G is required to pump water along the pipeline after it has descended and risen through the River Meon valley.

The design for Intermediate Pumping Station G presented at the Summer 2024 Consultation is shown **in Figure 29**.

What is changing and why?

Feedback from the Summer 2024 Consultation highlighted objections to using the existing access track from Titchfield Lane next to Park Place Farm Nursery for construction vehicles. Having now looked at this access in more detail, and having regard to that feedback, we agree that it would be unsuitable for large construction vehicles. A new temporary construction access point from Titchfield Lane has therefore been identified further to the north. This access was identified as the only suitable alternative access to Intermediate Pumping Station G from Titchfield Lane - an access from Winchester Road at the north of the field would not be suitable due to the topography and potential traffic impacts. This temporary access would only be used during the construction phase. During the operational phase, Intermediate Pumping Station G would continue to be accessed (as originally proposed) via the existing access track next to Park Place Farm Nursery. Both accesses are now shown within the draft Order Limits.

Security requirements set out by the Department for Environment, Food and Rural Affairs have also identified the need for additional fencing around the plant. To accommodate this, it is proposed that the footprint for Intermediate Pumping Station F is increased, and therefore the draft Limits of Deviation would also increase.

Other minor design refinements proposed in the vicinity of Intermediate Pumping Station G are as follows:

- To the east and west of Winchester Road (A334) (north east of Intermediate Pumping Station G), the southern extent of the draft Order Limits has been reduced following consolidation of construction compounds G-7 and G-8, and moving them closer to the pipeline route. At the Summer 2024 Consultation we had kept the draft Order Limits wide to and the construction compounds were separate to account for ongoing access investigations. With greater certainty now about our approach to construction and access to the site, we have been able to reduce the draft Order Limits.
- The draft Order Limits at construction compound H-1 to the east of Winchester Road have been set back to provide a sufficient buffer from the woodland and trees next to Winchester Road, to ensure construction works are not adversely impacting tree roots without introducing any other major impacts.
- Since the Summer 2024 Consultation, we have continued to develop our landscaping and planting proposals to help integrate Intermediate Pumping Station G into the landscape and reduce visual impacts. An environmental mitigation and enhancement area has been included around the pumping station site to provide for landscaping and planting in this area.

The proposed design refinement can be seen in **Figure 30**.

How might the change affect you or the environment?

Our initial assessments indicate that the increase in the footprint and draft Limits of Deviation for the site and additional fencing requirements would not result in any additional landscape or visual effects compared to those reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. The site would be screened by new planting and landscaping to integrate it into the existing landscape and reduce effects on nearby residential properties.

The change to the construction access would require additional vegetation removal within an area that is protected by a Tree Preservation Order. We will undertake further investigations and assessments to identify the most suitable alignment for the construction access that reduces the loss of mature and high value trees and vegetation.

Moving the construction access further north along Titchfield Lane would also reduce the volume of construction vehicles passing residential properties along Titchfield Lane, as the vehicles will be coming from Winchester Road at the northern end of Titchfield Lane. This could reduce traffic, air quality, noise and vibration effects upon these residential properties during construction.

Figure 29 Intermediate Pumping Station G – Summer 2024 Consultation design

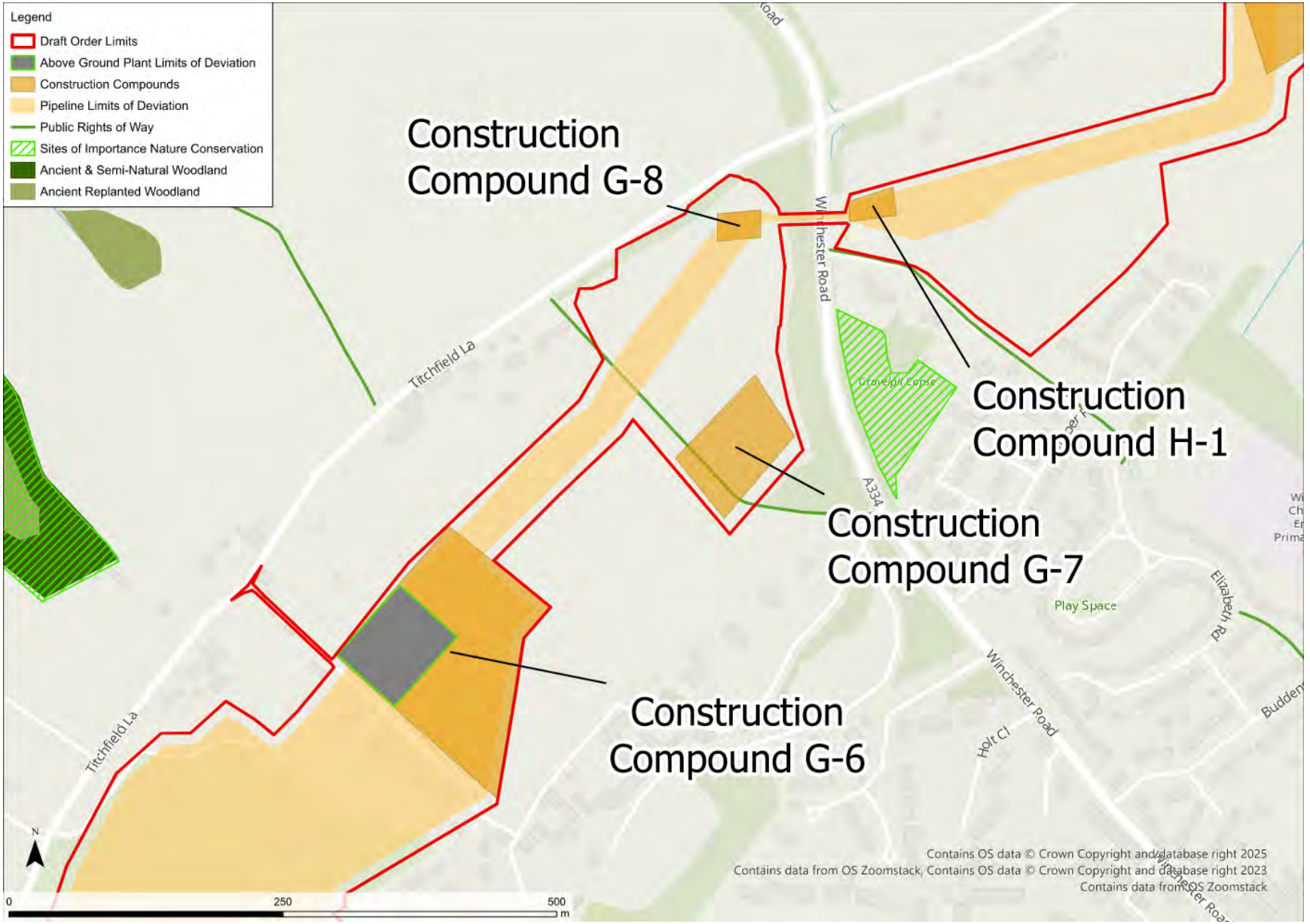
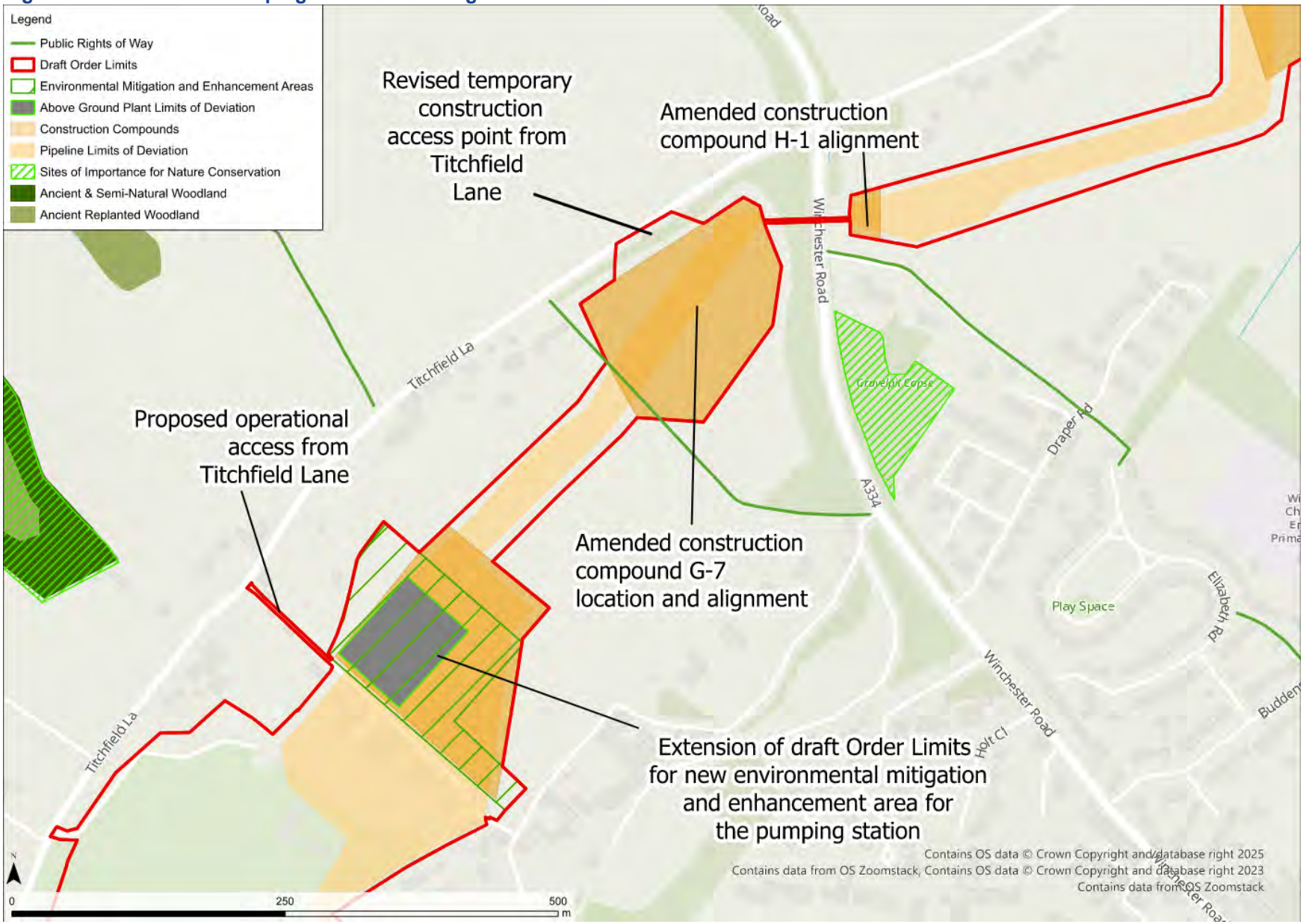


Figure 30 Intermediate Pumping Station G – Design Refinement



Design Refinement 15 – East of Winchester Road and south of Black Horse Lane

Where is the proposed change?

This design refinement is located within Winchester City Council's administrative area, to the north of Shedfield and south west of Shirell Heath. The design refinement is within Section H of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 31**.

What is changing and why?

At the Summer 2024 Consultation, we received feedback from a landowner which identified land of particular personal value to them to the east of Winchester Road. In reviewing relevant technical, engineering and environmental considerations, we have been able to amend the draft Order Limits and construction compound to move these to the north and avoid this area of land without any major impacts arising. The pipeline route and trenchless crossing of Winchester Road remain the same as the Summer 2024 Consultation design.

The refined design can be seen in **Figure 32**.

How might the change affect you or the environment?

The design change would move construction working areas slightly closer to residential properties to the north on Winchester Road, potentially leading to a minor increase in noise and vibration impacts compared to those reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. Temporary noise screening along the north and west boundary could be used to reduce any increases in noise. We will also implement mitigation measures set out in our Outline Construction Environmental Management Plan including limits on working hours and working practices to reduce these effects.

Figure 31 East of Winchester Road and south of Black Horse Lane – Summer 2024 Consultation design

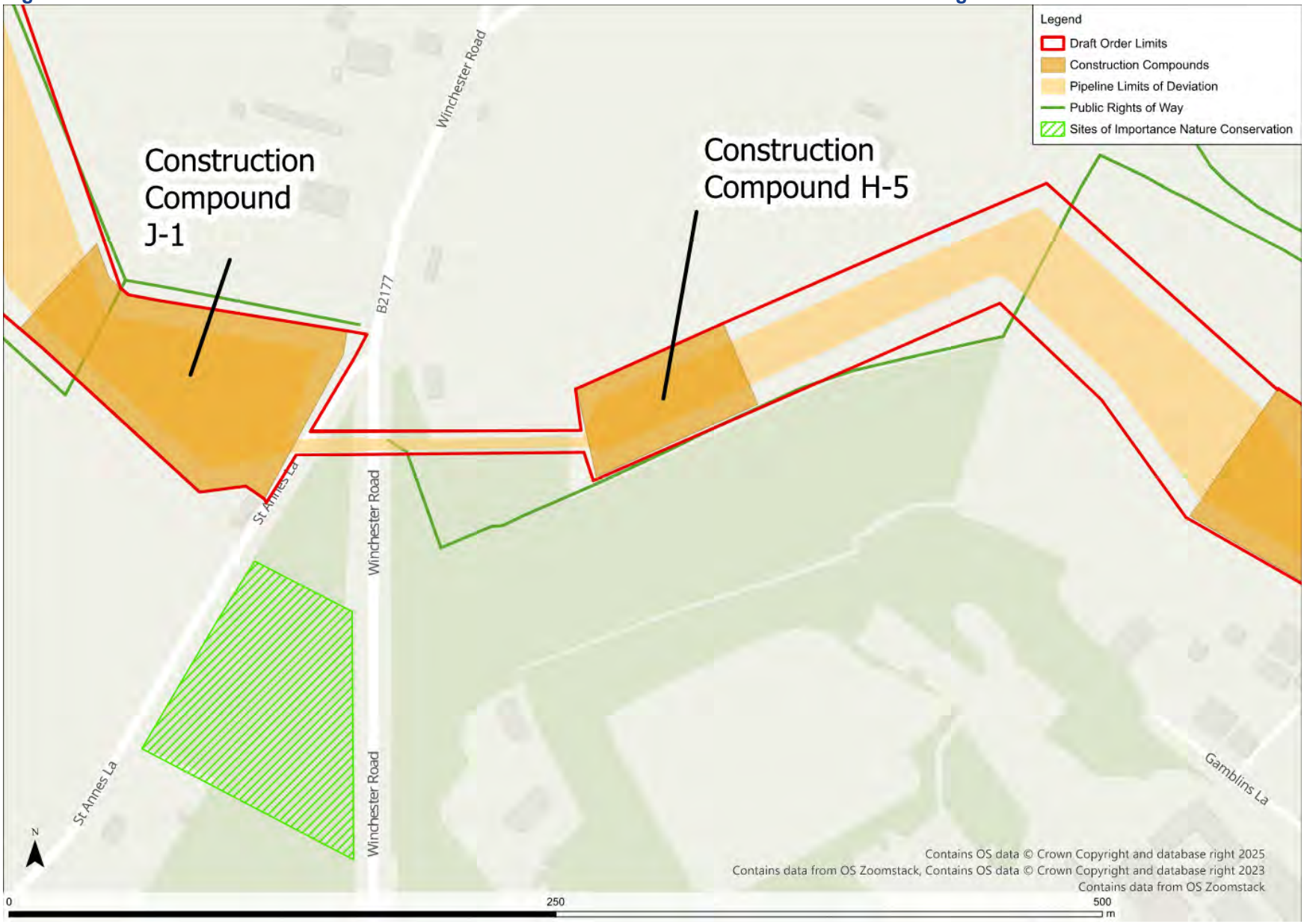
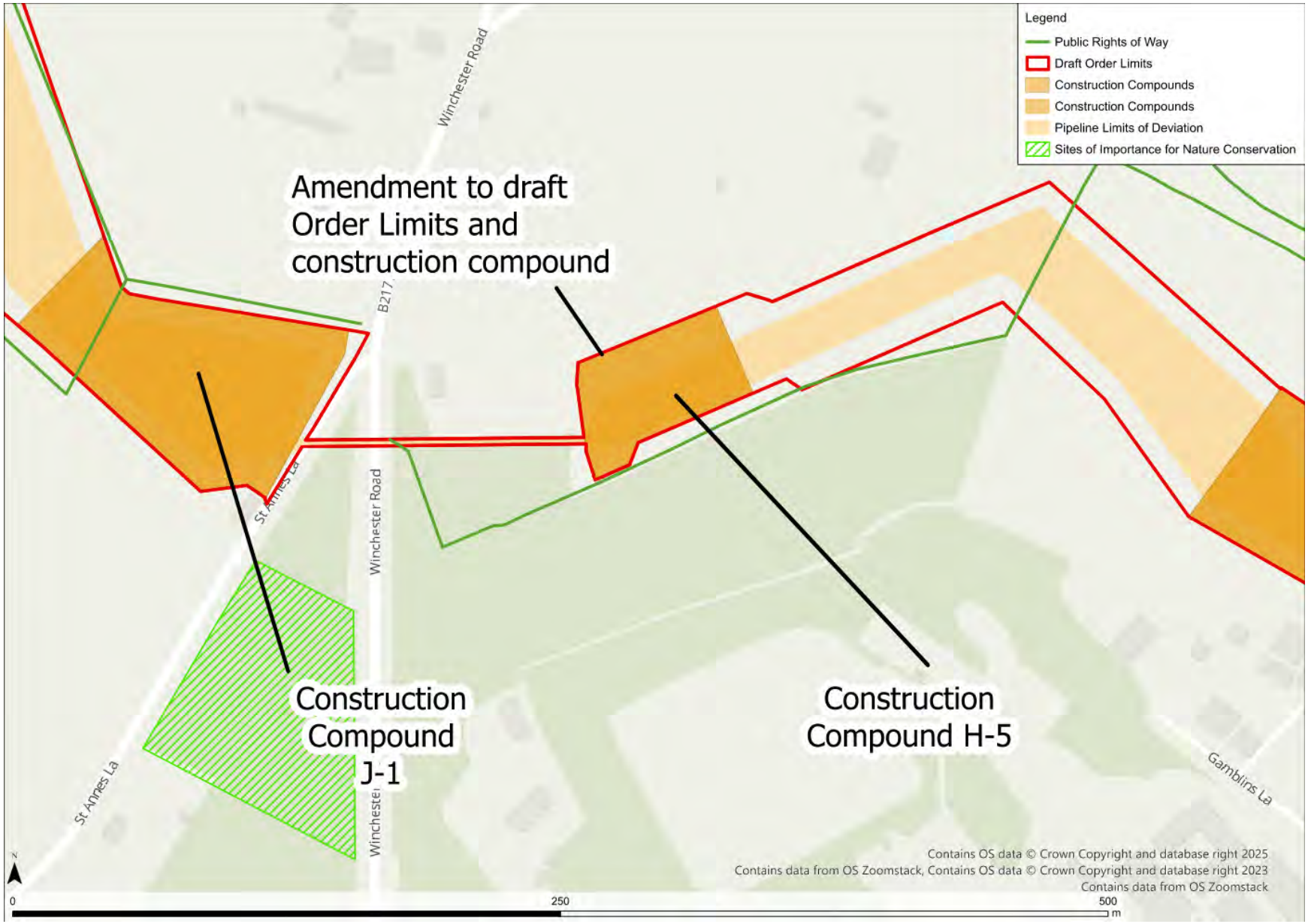


Figure 32 East of Winchester Road and south of Black Horse Lane – Design Refinement



Design Refinement 16 – Little Bull Lane

Where is the proposed change?

Little Bull Lane is located to the west of Winchester Road (B2177) and east of the Meon Valley Golf Club, which is south of Waltham Chase and located within Winchester City Council's administrative area. Little Bull Lane is located within Section J of the pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 33**.

What is changing and why?

Following the Summer 2024 Consultation, two areas for environmental mitigation have been identified within the vicinity of Little Bull Lane. We are proposing to create additional woodland at the edges of existing woodland adjacent or within the draft Order Limits presented at the Summer 2024 Consultation. Whilst we have sought to avoid woodland as far as reasonably practicable along the pipeline route, some trees will be lost. The draft Order Limits have therefore been extended and environmental mitigation and enhancement areas have been included. The woodland creation proposed at these areas would mitigate for areas of woodland loss across the Project and also allow us to incorporate environmental enhancements into the Project.

The refined design can be seen in **Figure 34**.

How might the change affect you or the environment?

The design refinements at Little Bull Lane are proposed to mitigate vegetation removal that is required to facilitate construction of the pipeline. Planting of new trees and woodland in these areas would not have any additional impacts compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation.

Figure 33 Little Bull Lane – Summer 2024 Consultation design

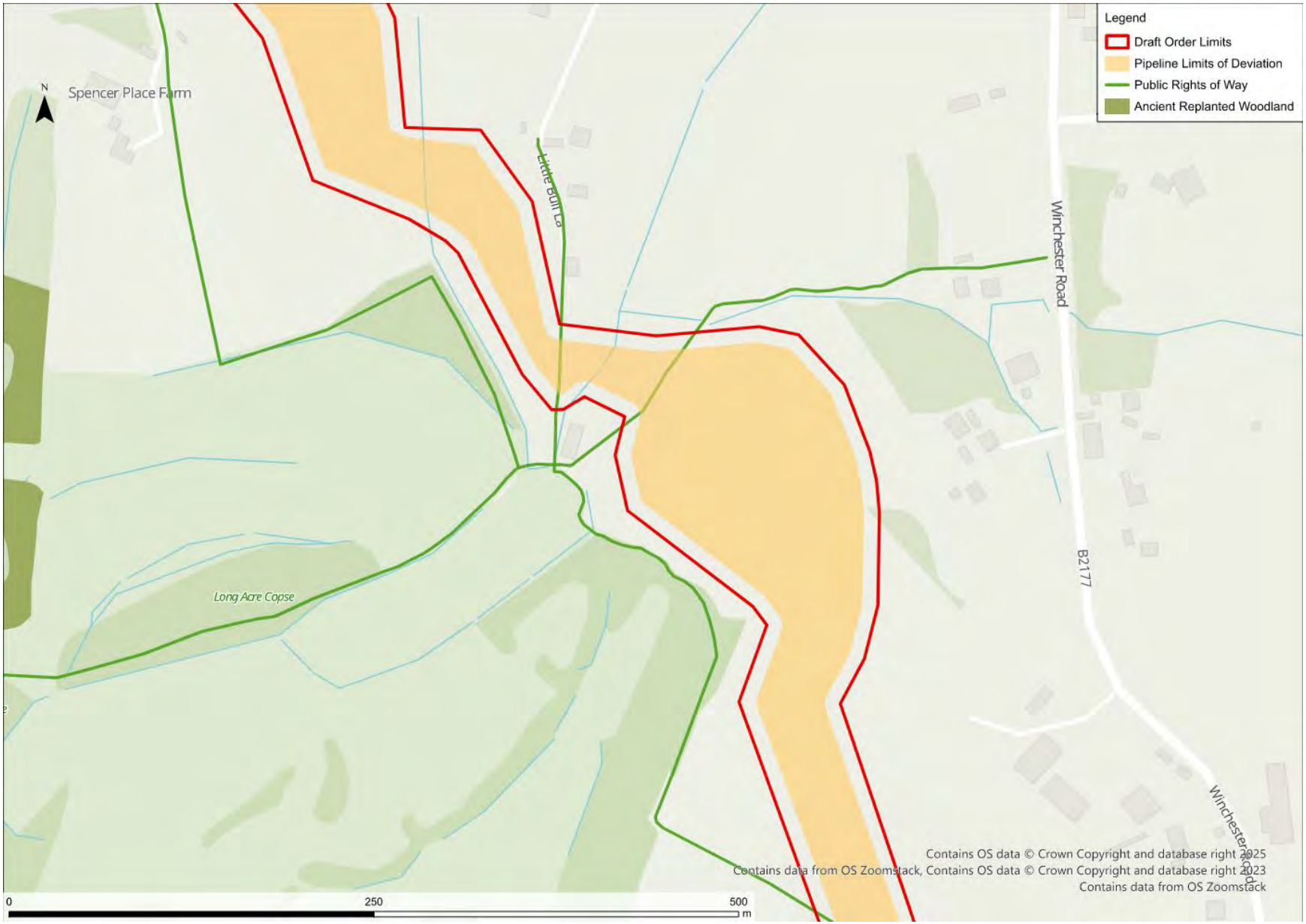
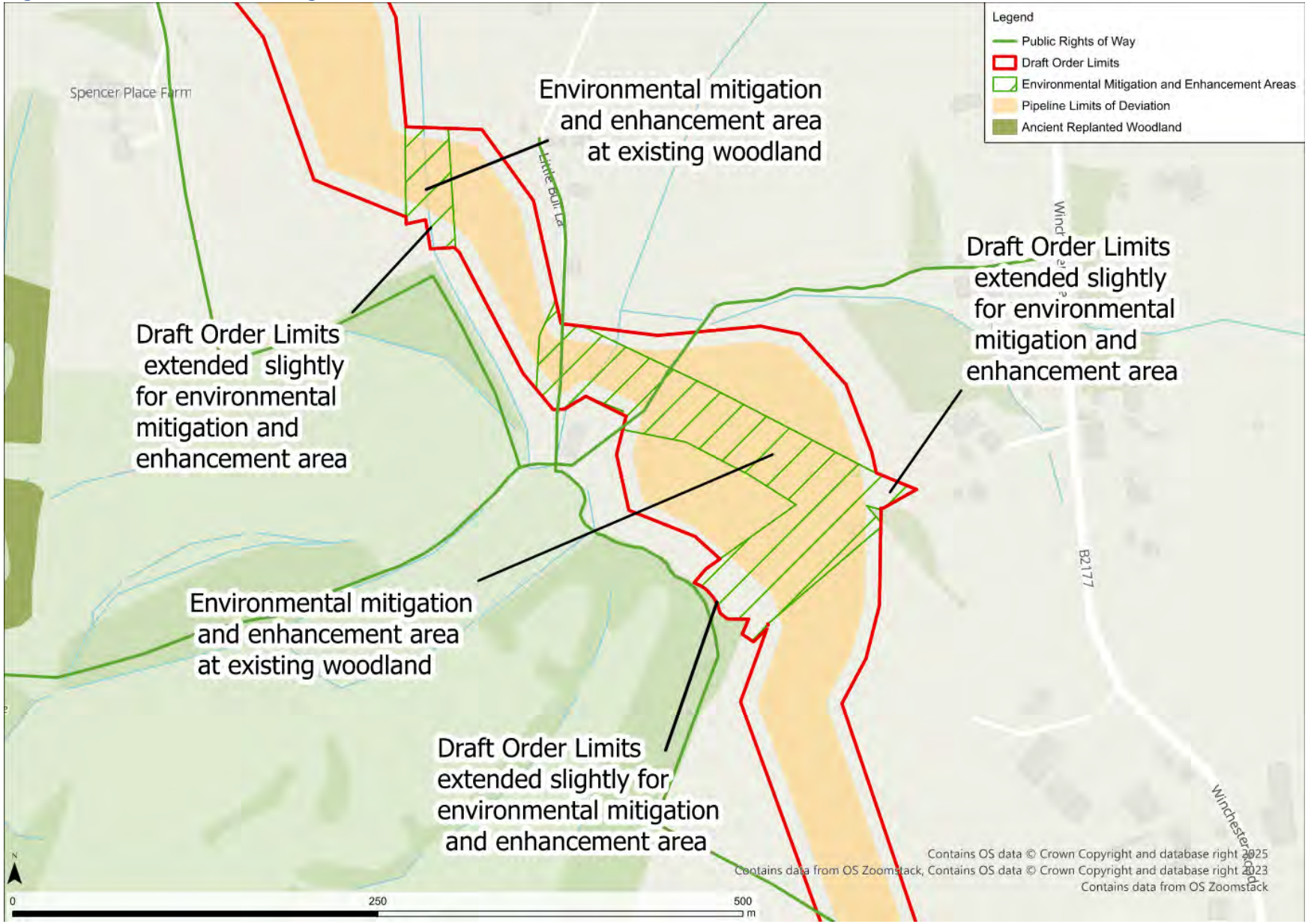


Figure 34 Little Bull Lane – Design Refinement



Design Refinement 17 – Sandy Lane and Woodmans Farm

Where is the proposed change?

The design refinement is located west of Waltham Chase within Winchester City Council's administrative area. It is situated within Section J of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 35**.

What is changing and why?

Feedback from our Summer 2024 Consultation identified that the pipeline route would have an impact on existing equine businesses and agricultural land in the area. When developing the design of the Project, we have aimed to reduce impacts on existing businesses. Therefore, it is proposed to amend the pipeline and draft Order Limits to align with field boundaries as far as reasonably practicable as there was flexibility in this area to achieve this without introducing any other major impacts.

Consideration was given to moving the pipeline further to the north than to the south, however, this area was constrained by existing residential and commercial properties.

We have also identified environmental mitigation and enhancement areas around Sandy Lane to accommodate mitigation for protected species that we identified following the Summer 2024 Consultation as part of our ongoing survey work. North of Curdridge Lane, we have also added an environmental mitigation and enhancement area as there are opportunities for woodland creation and tree planting alongside existing woodland in this area. This has been added to ensure the Project aligns with national planning policy.

The design refinement can be seen in **Figure 36**.

How might the change affect you or the environment?

The proposed design refinement is closer to the Park Lug embankment and landscape feature to the north of Woodmans Farm. If vegetation is removed in this area during the construction phase, there is potential for adverse landscape, ecology and historic environment impacts. As a result, we have ensured that the design avoids the loss of any vegetation, except where woodland is being crossed further to the west. We have also added areas for environmental mitigation and enhancement, to bolster the existing vegetation along the Park Lug.

The design refinement at Sandy Lane has the potential to adversely impact protected species in this area, however we have included space for mitigation if these species are identified prior to the start of construction works.

The design refinement also brings the draft Order Limits closer to residential properties on Sandy Lane, which may lead to greater noise and vibration impacts compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. We will implement mitigation measures set out in our Outline Construction Environmental Management Plan, which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these impacts.

Figure 35 Sandy Lane and Woodmans Farm – Summer 2024 Consultation design

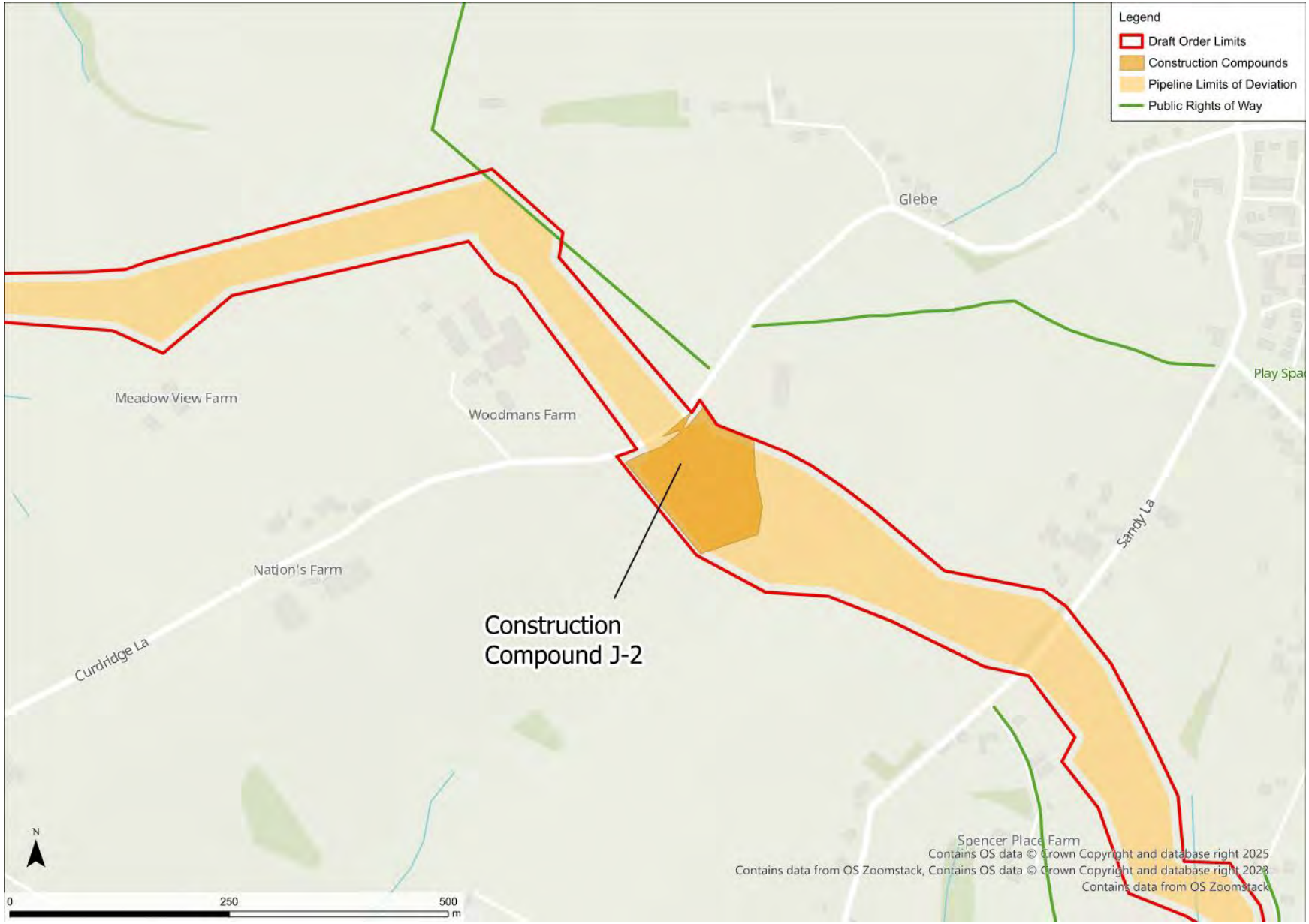
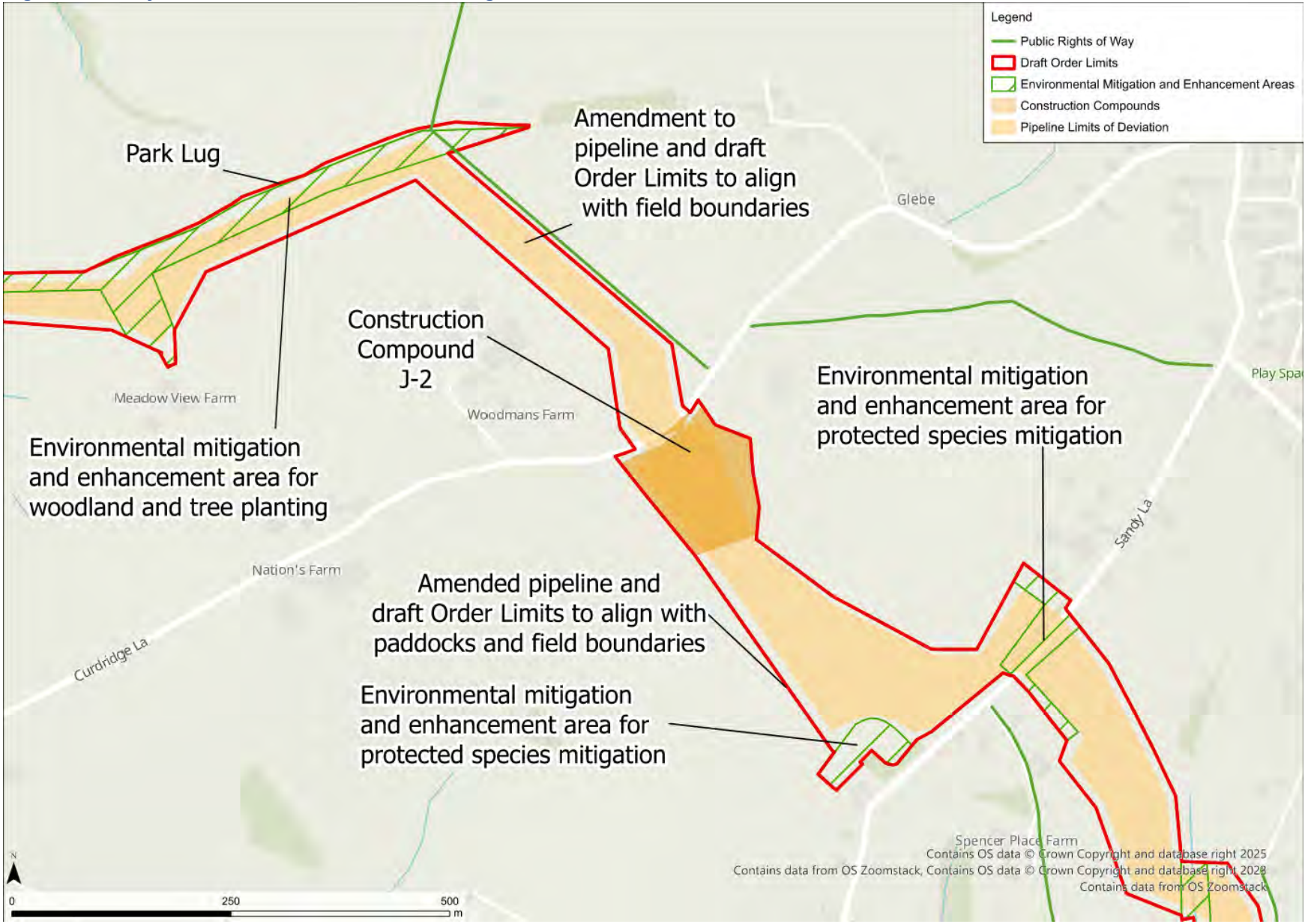


Figure 36 Sandy Lane and Woodmans Farm – Design Refinement



Design Refinement 18 – The River Hamble and Ford Farm

Where is the proposed change?

The River Hamble and Ford Farm are both located to the north west of Botley Road, south west of Bishop's Waltham and within Winchester City Council's administrative area. This area is situated within Section K of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 37**.

What is changing and why?

We have realigned the location of the trenchless crossing of the River Hamble[1] to a location further to the north. This change is proposed for the following reasons:

- Following the Summer 2024 Consultation, ongoing environmental surveys identified two veteran trees close to the pipeline route and northern construction compound K-1, which would be used for trenchless construction under the River Hamble. If we were to keep the trenchless crossing at this location, there would be restricted space for the construction compound and pipeline route when the root protection areas for the veteran trees are considered.
- Our ongoing survey work also identified a number of trees of high quality and value (Category A) at the access point to construction compound J-3 to the south of the River Hamble and Botley Road.
- The previous design also intersected a soft fruit farm at Ford Farm, including an area of the farm which has received planning permission for the development of additional polytunnels. When developing the design of the Project we have aimed to reduce adverse impacts to existing businesses.

The revised location of the trenchless crossing ensures we can reduce vegetation loss and impact to veteran trees in this area and avoids the pipeline route conflicting with the proposed new polytunnels at Ford Farm. The location for this trenchless crossing and associated pipeline route was selected as it had the least technical constraints and environmental impact compared to other options.

Areas for environmental mitigation and enhancement have also been identified, specifically for wet grassland and habitat connectivity improvements along the pipeline route in this area. The areas to the north side of the River Hamble are considered as most suitable for ecology enhancements.

This proposed design refinement can be seen in **Figure 38** overleaf. **Figure 38** shows a new environmental mitigation and enhancement area at the Park Lug. This is described in the information sheet for design refinement 17.

How might the change affect you or the environment?

As part of this proposed design refinement, the draft Order Limits and pipeline have been moved closer to the River Hamble, however we would ensure that construction works remain 30 metres from the watercourse so potential effects are reduced.

The new location of construction compound J-3 will intersect with a Roman road between Wickham and Winchester. We will undertake investigations prior to the commencement of construction to identify any potential impacts on buried archaeology and necessary mitigation.

In some locations, the construction works would be slightly closer to residential properties on Botley Road, however the amendments are not expected to result in any noticeable new air quality or noise and vibration effects compared to those set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. We will implement mitigation measures set out in our Outline Construction

[1]A typographical error in this sentence has been corrected, for details please see the 'Consultation Information typographical errors' sheet here https://hampshirewtwrp.co.uk/typographicalerrors.pdf.

Environmental Management Plan which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these effects.

The design refinement will move the construction works closer to a public right of way along the River Hamble (Bishop's Waltham 502). There is potential for increased visibility of construction works from the public right of way, however the implementation of mitigation would reduce this impact and which could include reducing vegetation loss and using visual screening.

The addition of environmental mitigation and enhancement areas also allows the delivery of habitat improvements in this area which will support local ecology.

Figure 37 River Hamble and Ford Farm – Summer 2024 Consultation design

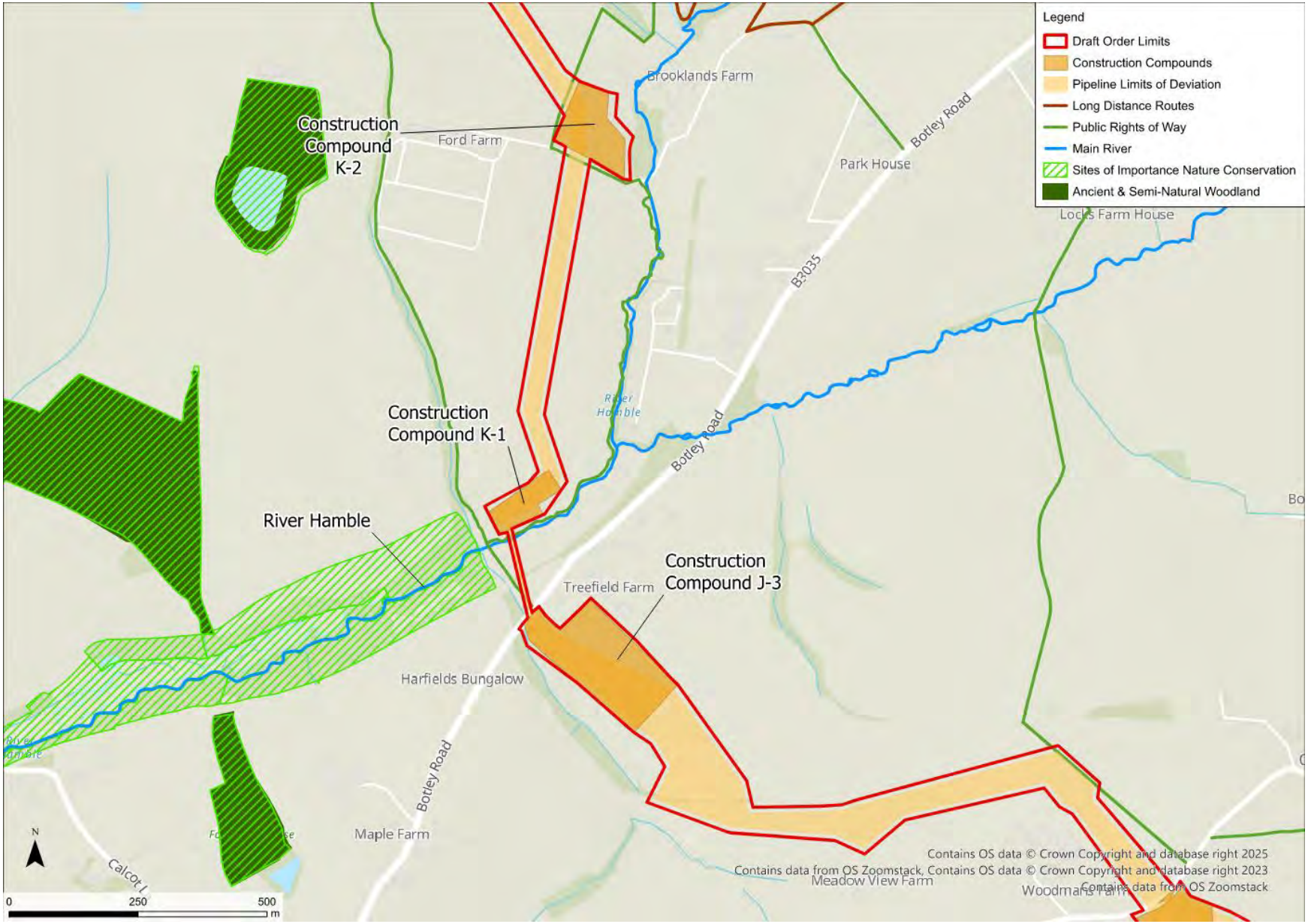
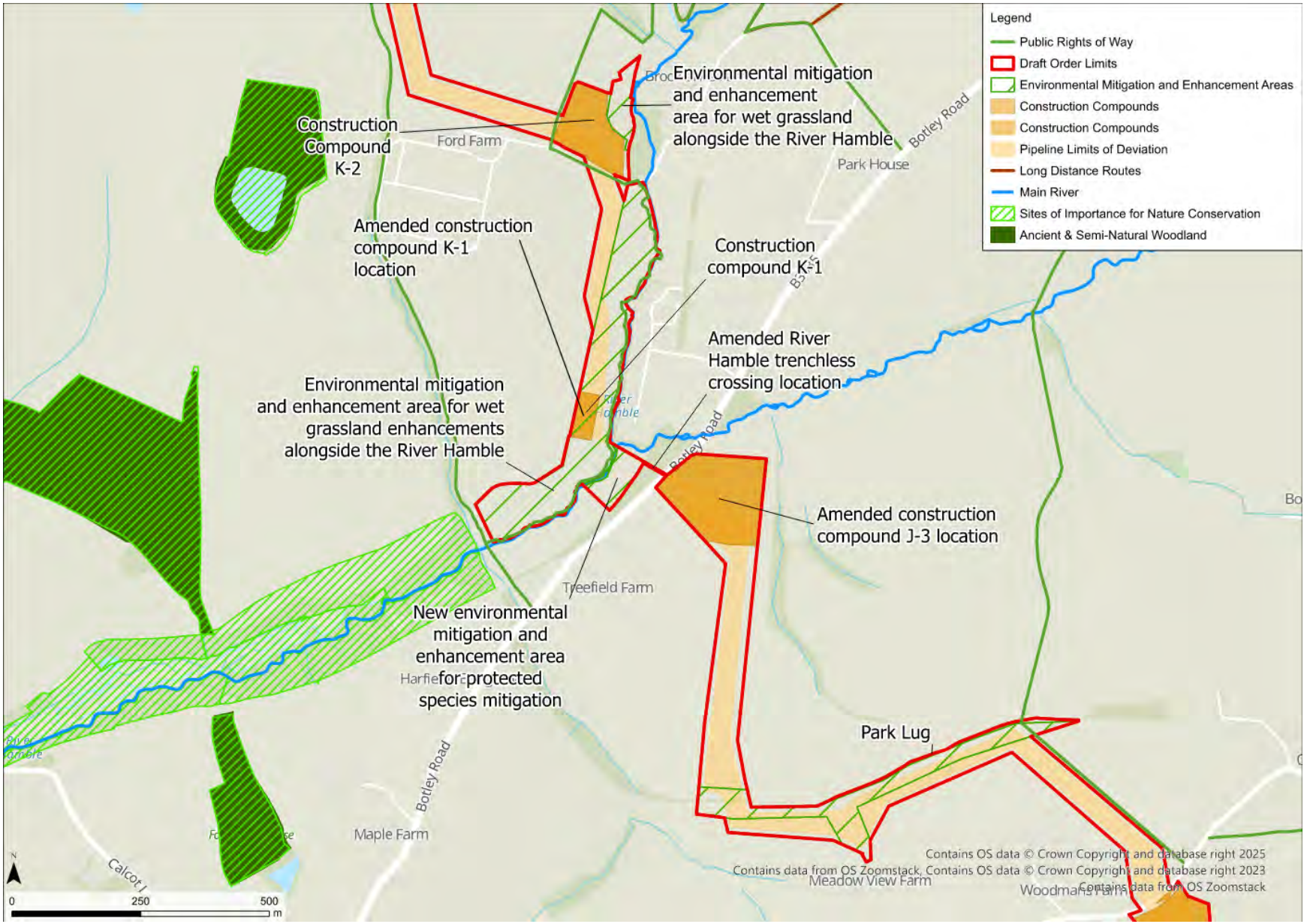


Figure 38 River Hamble and Ford Farm – Design Refinement



Design Refinement 19 – Tangier Farm

Where is the proposed change?

This design change is located to the south of Winters Hill Road, west of Newtown and within Winchester City Council's administrative area. It is situated within Section K of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design we presented at the Summer 2024 Consultation is shown in **Figure 39**.

What is changing and why?

Feedback from our Summer 2024 Consultation identified that the pipeline route would have an impact on existing equine businesses and agricultural land in this area, as the pipeline route and construction works were located across the centre of multiple fields. When developing the design of the Project, we have aimed to reduce impacts on existing businesses.

We considered whether the pipeline route and construction works could be realigned to the edge of fields as far as reasonably practicable so effects on agricultural and equestrian uses could be minimised. We identified that the route could be moved to the south west without having any major impacts on the construction and operation of the pipeline, or the environment. We considered other options to amend the pipeline route in this area, but these would either constrain the construction and operability of the pipeline, or introduce new environmental impacts.

This design refinement can be seen in **Figure 40**.

How might the change affect you or the environment?

The design refinement is closer to trees and woodland associated with the Park Lug, which is an historic embankment and landscape feature, however, construction works will not result in the loss of vegetation along the Park Lug, and root protection areas for high value and mature trees will be avoided. This will avoid any additional impacts to this feature or the landscape character.

The design refinement will move the construction works closer to a Public Right of Way (Bishop's Waltham 44) that runs along the Park Lug. There is potential for an increase in temporary visual and noise effects on the users of this footpath compared to effects reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. Mitigation measures will however be implemented during the construction phase to reduce any effects.

Figure 39 Tangier Farm – Summer 2024 Consultation design

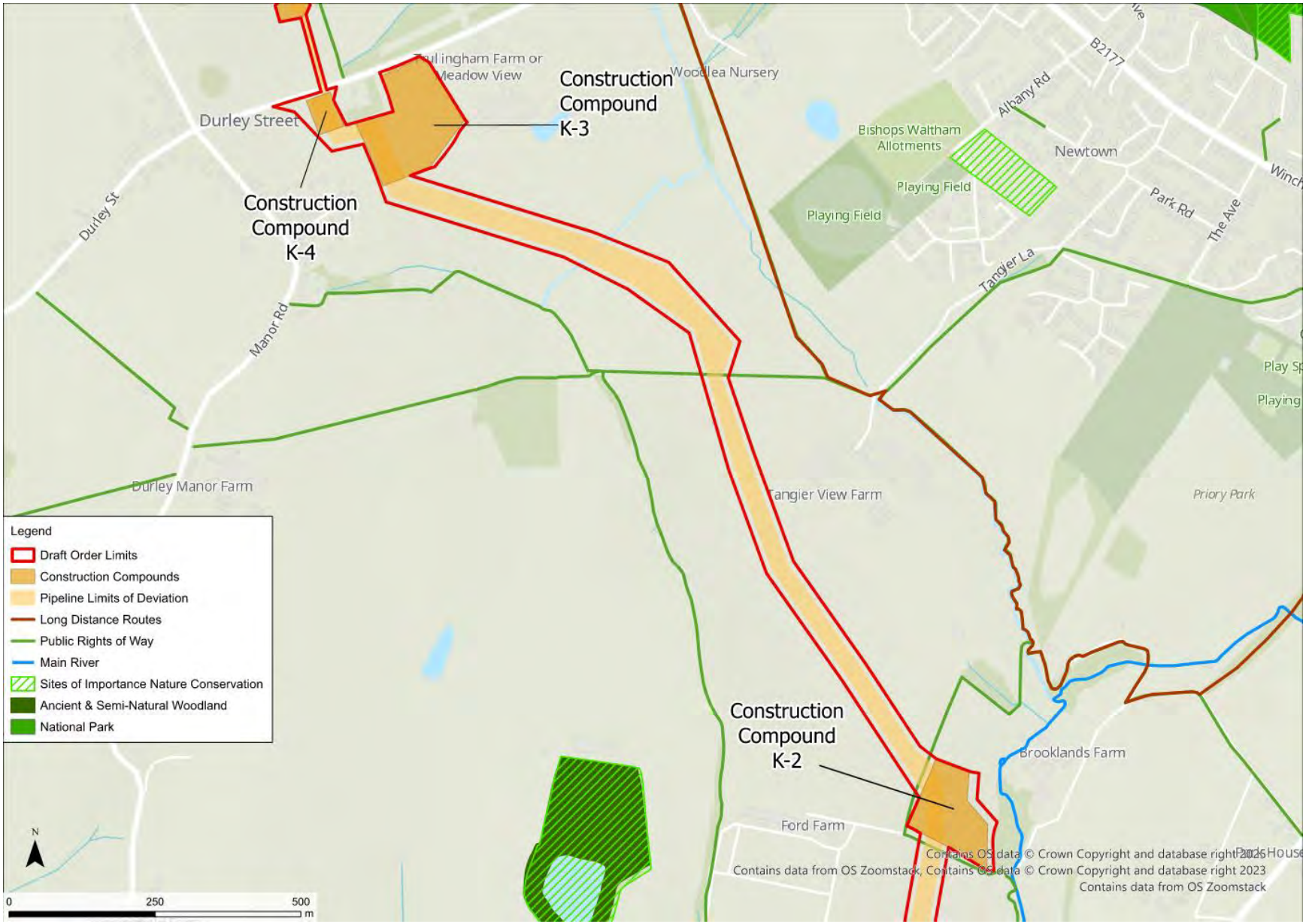
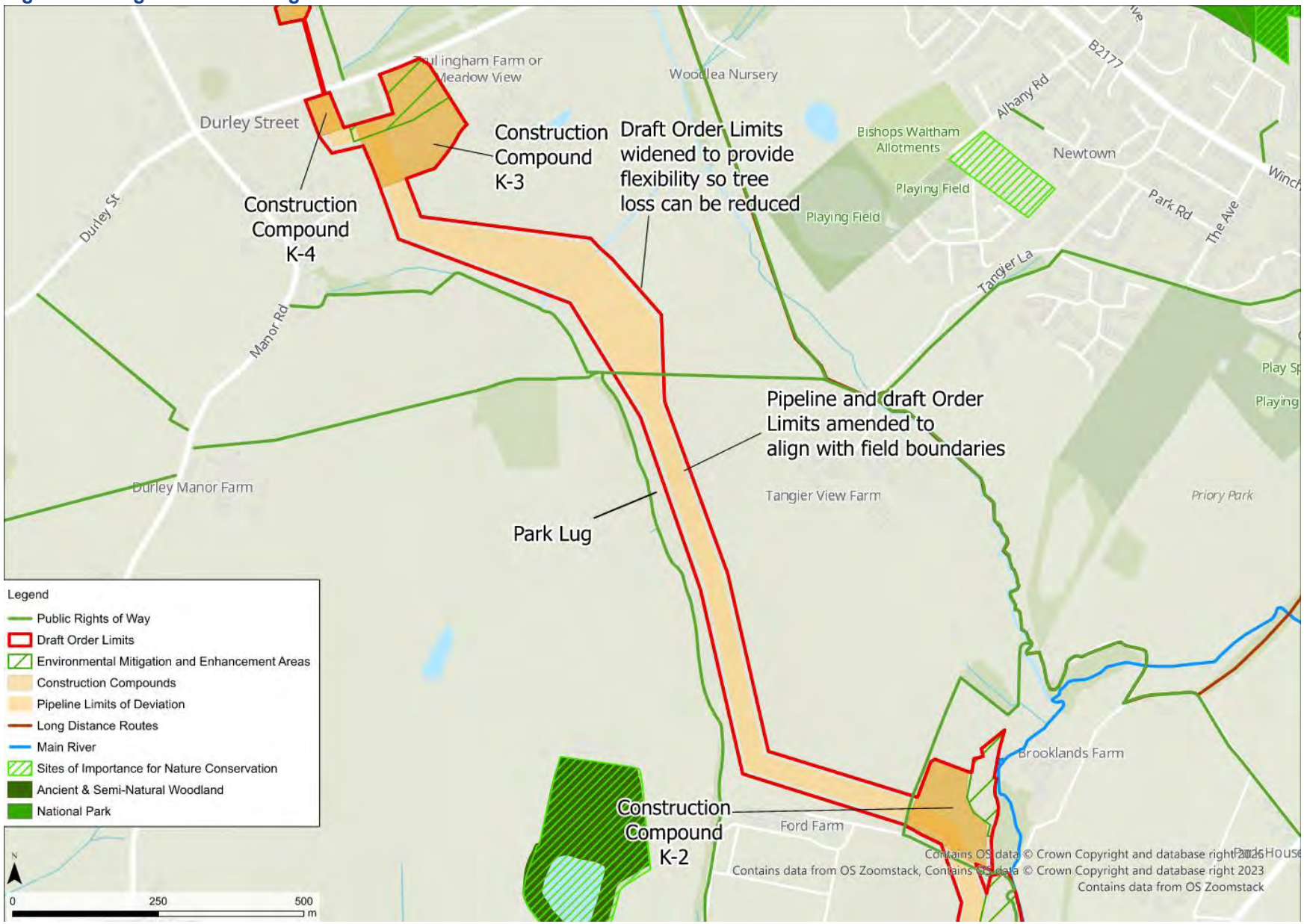


Figure 40 Tangier Farm – Design Refinement



Design Refinement 20 – Break Pressure Tank K

Where is the proposed change?

Break Pressure Tank K is proposed to be located north of Durley Street and Wintershill within parkland adjacent to Winters Hill Hall, falling within Winchester City Council's administrative area. It is situated within Section K of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works. Break Pressure Tank K is required to manage pressure in the pipeline after it has been pumped from Intermediate Pumping Station G and control the flow of water as it travels towards Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 41**.

What is changing and why?

The design refinements proposed at Break Pressure Tank K are as follows:

- During and following the Summer 2024 Consultation, engagement with local residents and Hampshire County Council identified that Scivier's Lane would be unsuitable for construction vehicles, and therefore the proposed construction and permanent access to Break Pressure Tank K would need to be amended. An alternative temporary access road has therefore been identified from Winchester Road (B2177) to the north of Break Pressure Tank K. We have retained the Scivier's Lane access in the draft Order Limits, as this may still be required for operational access.
- Through further engagement with landowners, we also identified an alternative permanent operational access route to Break Pressure Tank K, which would use an existing access off Winters Hill to the south east. The draft Order Limits have therefore been amended to include this access route. This would be an alternative to the previously proposed operational access from Scivier's Lane. We are investigating whether the existing access from Winters Hill is suitable for our operational access requirements before confirming our choice of access route, however we would only use one of the proposed operational accesses identified.
- Security requirements set out by the Department for Environment, Food and Rural Affairs have also identified the need for additional fencing around the plant. To accommodate this, it is proposed that the footprint for Break Pressure Tank K is increased, and therefore the draft Limits of Deviation would also increase.
- To help integrate Break Pressure Tank K into the landscape and reduce visual impacts, environmental mitigation and enhancement areas have been added, which show where landscaping and planting is proposed. These areas also provide for enhancements to existing woodlands to mitigate tree and woodland removal during the construction phase. The pipeline route to the south of Break Pressure Tank K within Winters Hill Park has been amended slightly to avoid a veteran tree (which is protected) and its associated root protection area.

The proposed design refinement can be seen in **Figure 42**.

How might the change affect you or the environment?

Our initial assessments indicate that the increase in the footprint and draft Limits of Deviation of the break pressure tank site and additional fencing requirements would not result in any additional landscape or visual effects compared to the effects reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. The site would be screened by new planting and landscaping to integrate it into the existing landscape.

The new construction access from Winchester Road would result in vegetation removal, which would be more visible from Winchester Road and the South Downs National Park. The new construction access is also within a non-designated historic parkland. Whilst this is impact to the historic character of the area is considered to be minimal, further assessment will be required. We have designed this access to minimise the loss of mature vegetation but where vegetation loss is needed, this will be reinstated following the completion of construction works.

The changes in the construction access would mean that construction vehicles would no longer be routed along Scivier's Lane and instead would continue along Winchester Road. We have considered the potential impacts of increased vehicle movements along Winchester Road but do not anticipate that this will have a material impact on existing traffic conditions, however some traffic management may be temporarily required in this location.

Figure 41 Break Pressure Tank K – Summer 2024 Consultation design

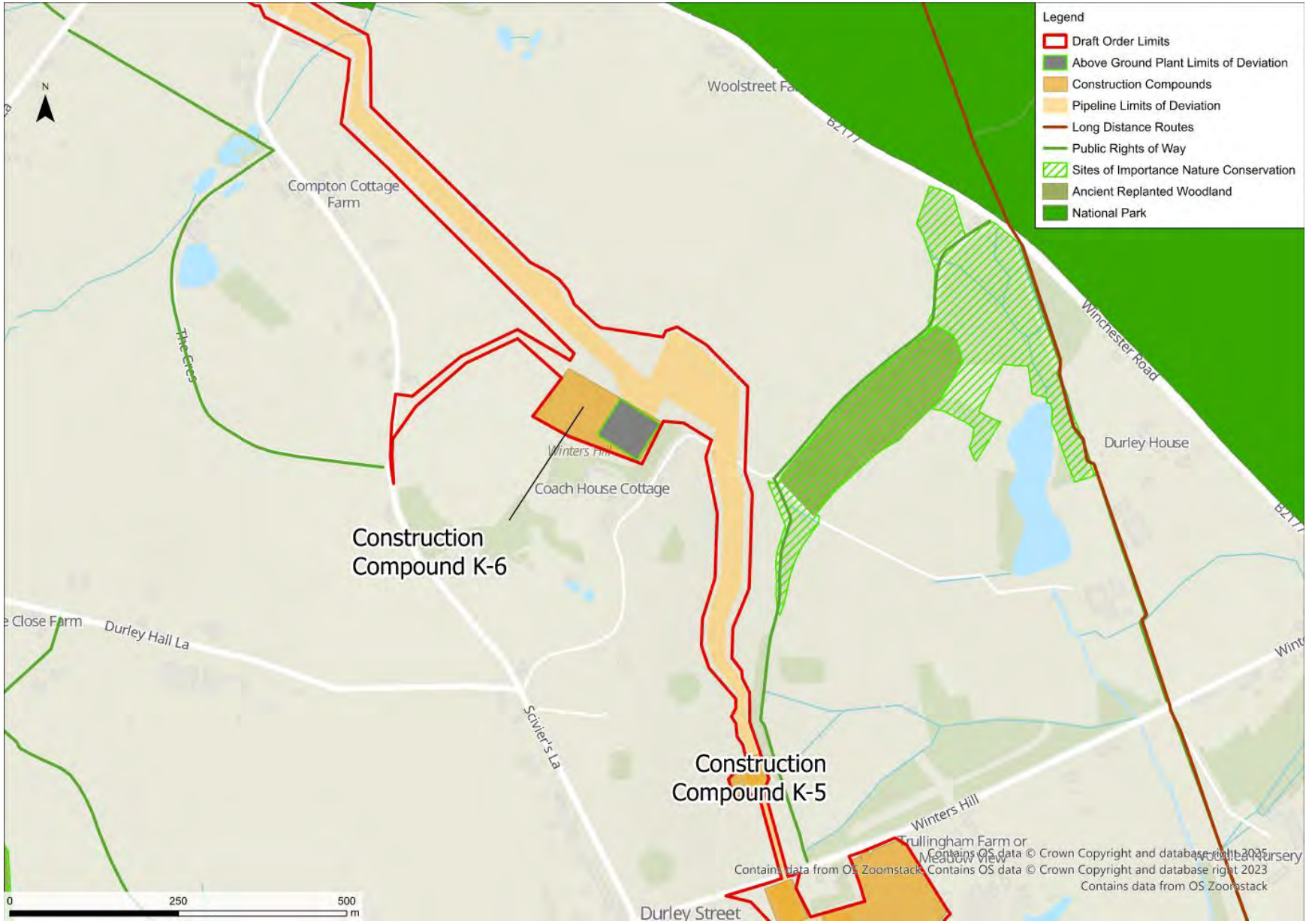
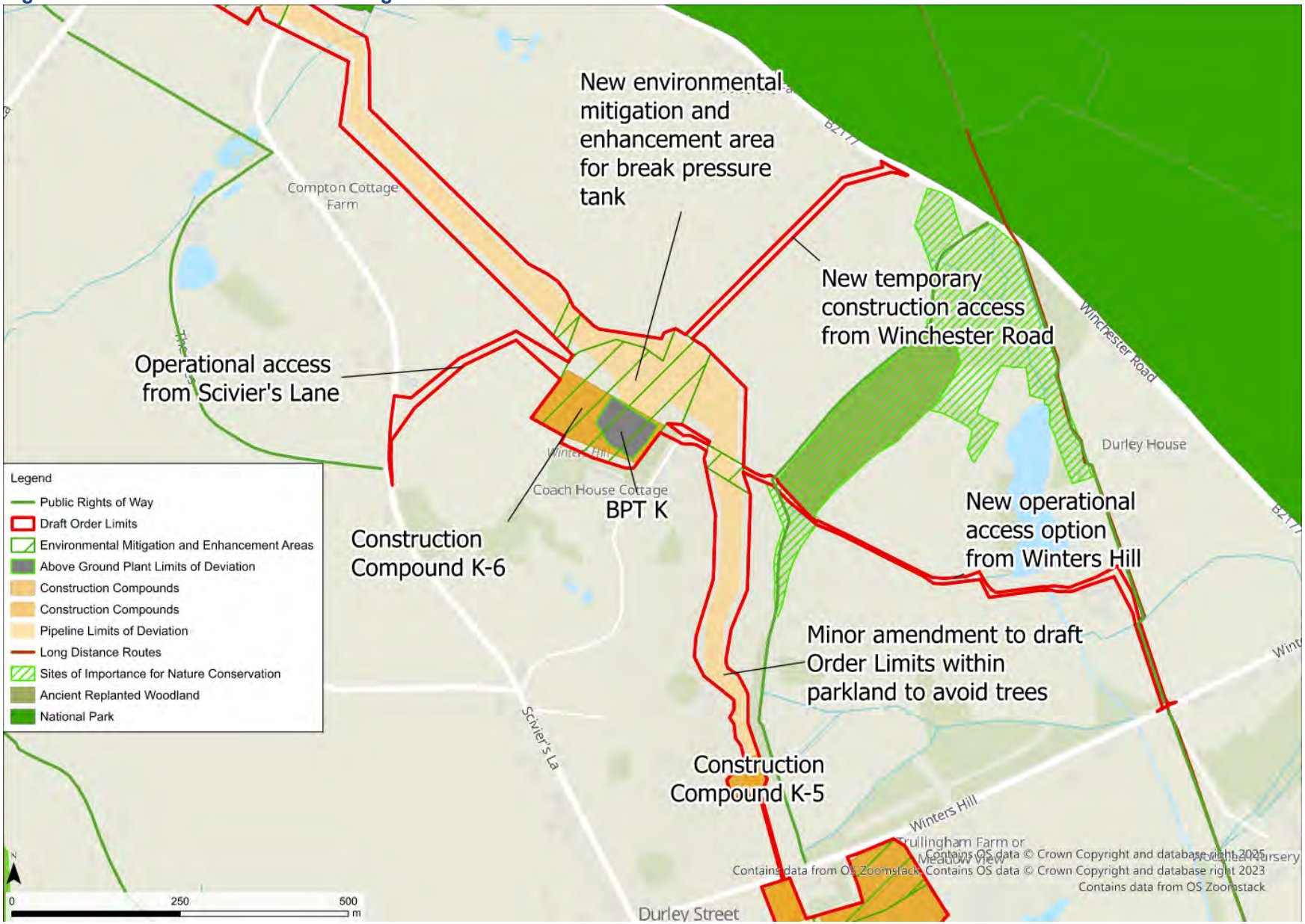


Figure 42 Break Pressure Tank K – Design Refinement



Design Refinement 21 – Alma Lane and Scivier's Lane

Where is the proposed change?

This design refinement is located between Alma Lane and Scivier's Lane, near Lower Upham in Winchester City Council's administrative area. It is situated within Section K of the pipeline between Otterbourne Water Supply Works and Havant Thicket Reservoir.

The design presented at the Summer 2024 Consultation is shown in **Figure 43**.

What is changing and why?

Feedback from our Summer 2024 Consultation, coupled with our own design development, identified that the pipeline route and draft Order Limits in this location would intersect multiple areas of vegetation and cut across the corner of various fields. Due to limited environmental and technical constraints in this area, we are proposing to amend the pipeline route and draft Order Limits to reduce vegetation loss and align the pipeline route with existing land parcel boundaries as far as reasonably practicable.

We are also proposing to extend the draft Order Limits in between Alma Lane and Scivier's Lane to include an environmental mitigation and enhancement area where we are proposing heathland enhancements, in line with opportunities identified by Hampshire County Council's Biodiversity Information Centre. Including this area in the Project will ensure we are supporting nature recovery in Hampshire and are compliant with national planning policy.

The proposed design refinement can be seen in **Figure 44**.

How might the change affect you or the environment?

The design refinement is proposed to align with field boundaries and reduce loss of vegetation (including hedgerows and trees) in this area. The addition of the environmental mitigation and enhancement area also allows us to pursue opportunities to deliver biodiversity and ecology benefits.

Although the refinement would allow us to reduce hedgerow loss, the pipeline route and associated construction working areas would be slightly closer to the nearest residential properties north of the draft Order Limits on Alma Lane. This could slightly increase air quality, noise and visual effects on these properties from temporary construction works, compared to the effects we reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. We will implement mitigation measures set out in our Outline Construction Environmental Management Plan which will form part of our Development Consent Order application, including limits on working hours and working practices to reduce these effects.

Figure 43 Alma Lane and Scivier's Lane – Summer 2024 Consultation design

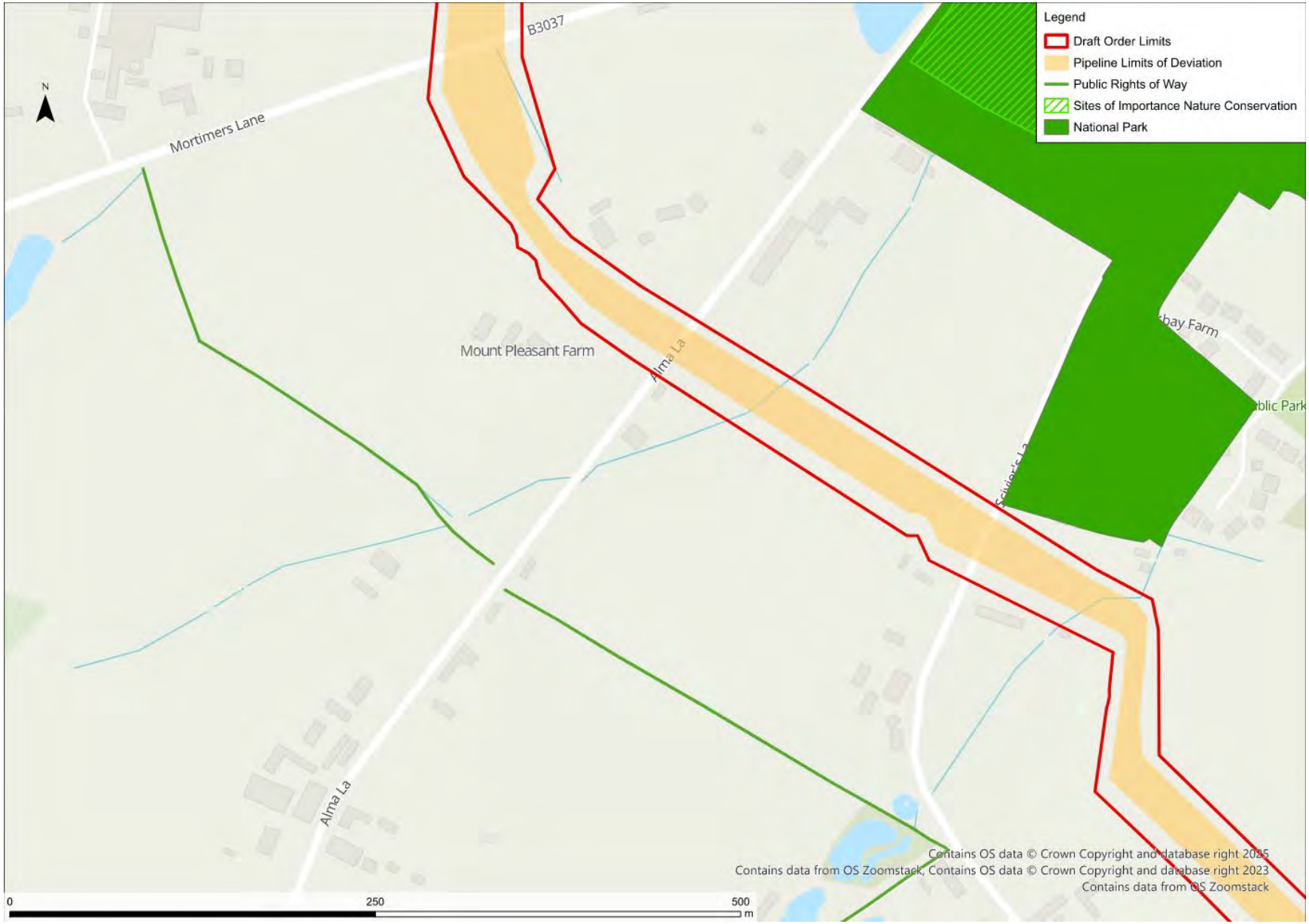
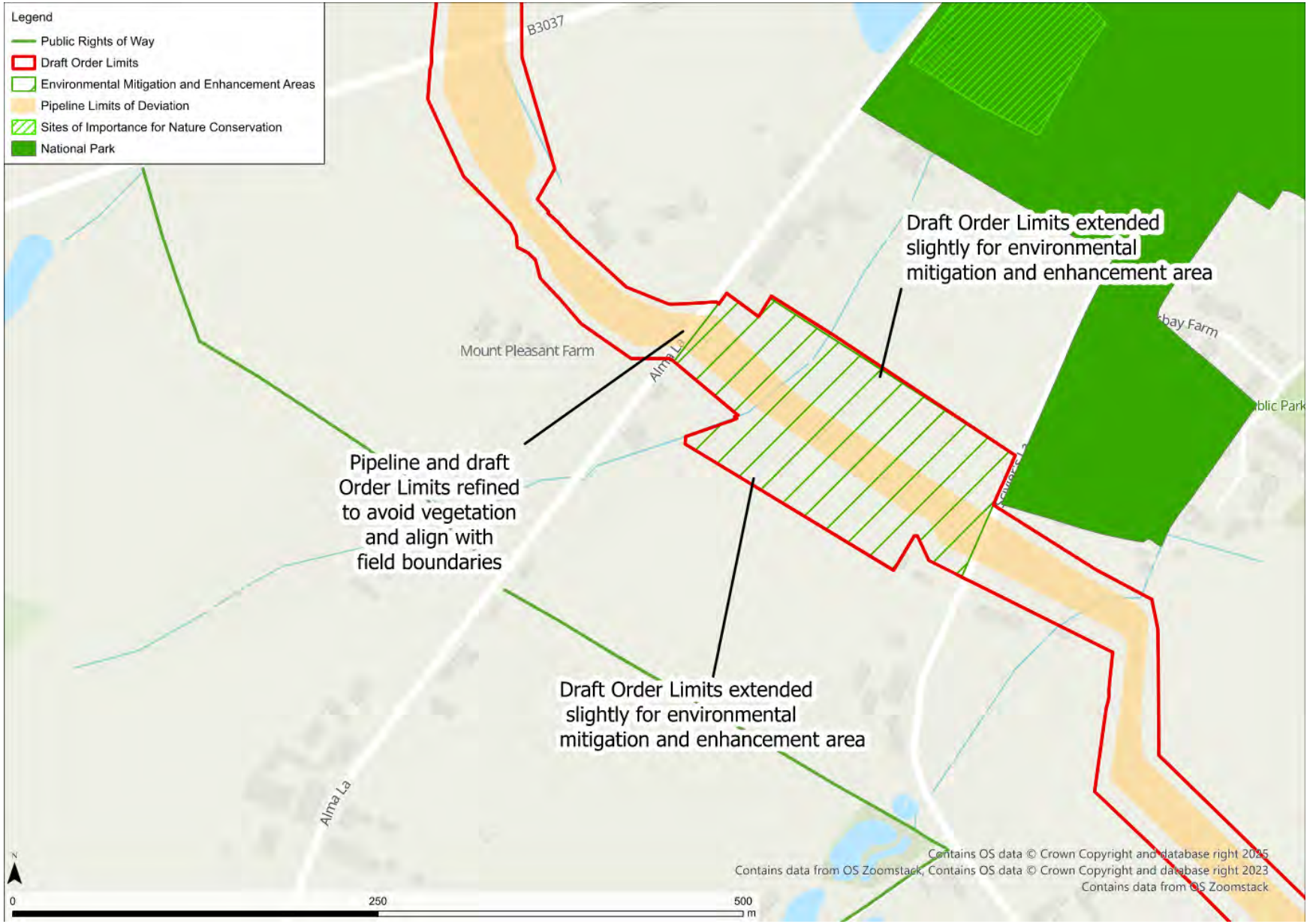


Figure 44 Alma Lane and Scivier's Lane – Design Refinement



Design Refinement 22 – Construction Compound L-1

Where is the proposed change?

Construction compound L-1 is located to the north of Mortimers Lane (B3037) and to the west of Winchester Road (B2177) within Eastleigh Borough Council's[2] administrative area, and within Section L of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works. The construction compound will be accessed by Winchester Road (B2177).

The design for construction compound L-1 presented at the Summer 2024 Consultation is shown in **Figure 45**.

What is changing and why?

Feedback from our Summer 2024 Consultation identified that construction compound L-1 intersected land used as grazing paddocks, potentially impacting the operations of Ashbourne Stables. Our aim is to reduce adverse impacts to existing businesses when designing the Project and have therefore identified the potential to amend the compound to avoid these grazing paddocks. This was achieved by removing the southern section of the compound and extending it further to the north, as there were no major technical or environmental constraints associated with making this change. The draft Order Limits now avoid impacting this land used by Ashbourne Stables.

The construction compound has also been amended to exclude a veteran tree from the draft Order Limits which was identified following the Summer 2024 Consultation.

The refined design can be seen in **Figure 46**.

How might the change affect you or the environment?

The realignment of the construction compound may result in a minor increase in visual impacts compared to those reported in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation, as it would be slightly closer to residential properties on Stroudwood Lane and the South Downs National Park. Impacts to high value and mature trees would be avoided, however, and existing buffers reducing landscape and visual effects would be retained. Implementation of best practice mitigation measures during construction would help reduce visual effects.

Whilst this compound avoids grazing paddocks associated with an existing business, the refinement moves the construction compound further into the field directly south of Winchester Road. This land will be impacted further temporarily as the compound now extends over most of this field.

[2] A typographical error in this sentence has been corrected, for details please see the 'Consultation Information typographical errors' sheet https://hampshirewtwrp.co.uk/typographicalerrors.pdf.

Figure 45 Construction Compound L-1 – Summer 2024 Consultation design

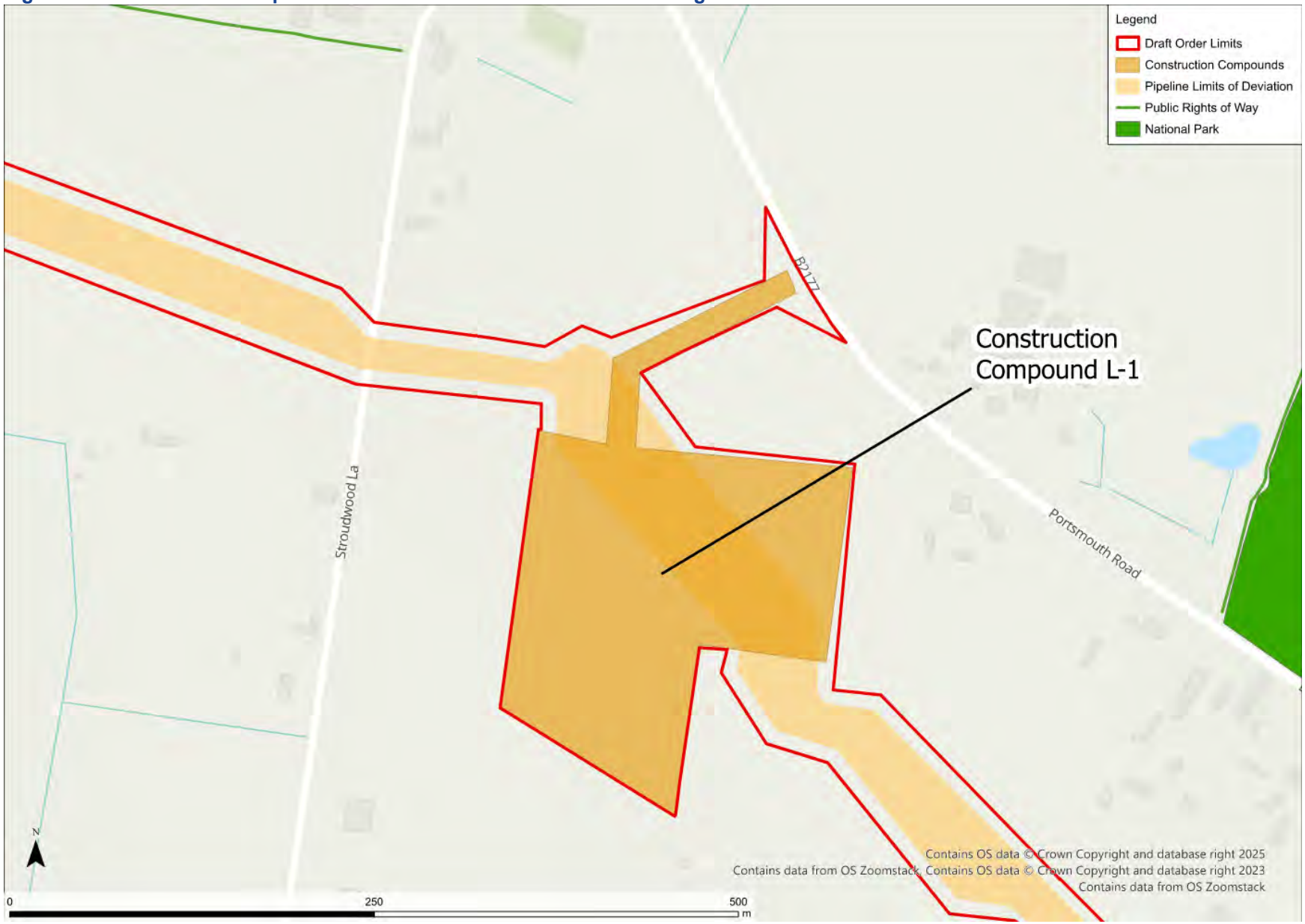


Figure 46 Construction Compound L-1 – Design Refinement

Design Refinement 23 – West of Stroudwood Lane

Where is the proposed change?

This design refinement is located north west of Lower Upham village, south of Portsmouth Road (B2177), west of Stroudwood Lane and south of Winchester Road, within Winchester City Council's[3] administrative area. It is situated within Section L of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design presented at the Summer 2024 Consultation is shown in **Figure 47**.

What is changing and why?

Following the Summer 2024 Consultation, environmental surveys identified areas of potential ancient woodland and high value and mature trees to the west of Stroudwood Lane and south of Thistle Ridge Farm. Therefore, we are proposing to move the pipeline route and draft Order Limits slightly further south, so that the pipeline route and construction works are a greater distance from the trees without other major impacts arising.

The refined design can be seen in **Figure 48**.

How might the change affect you or the environment?

The design change would move the construction works away from trees and woodland, therefore potential effects would be reduced when compared to those reported in the Preliminary Environmental Information Report presented at the Summer 2024 Consultation. No other new impacts have been identified.

[3] A typographical error in this sentence has been corrected, for details please see the 'Consultation Information typographical errors' sheet https://hampshirewtwrp.co.uk/typographicalerrors.pdf.

Figure 47 West of Stroudwood Lane – Summer 2024 Consultation design

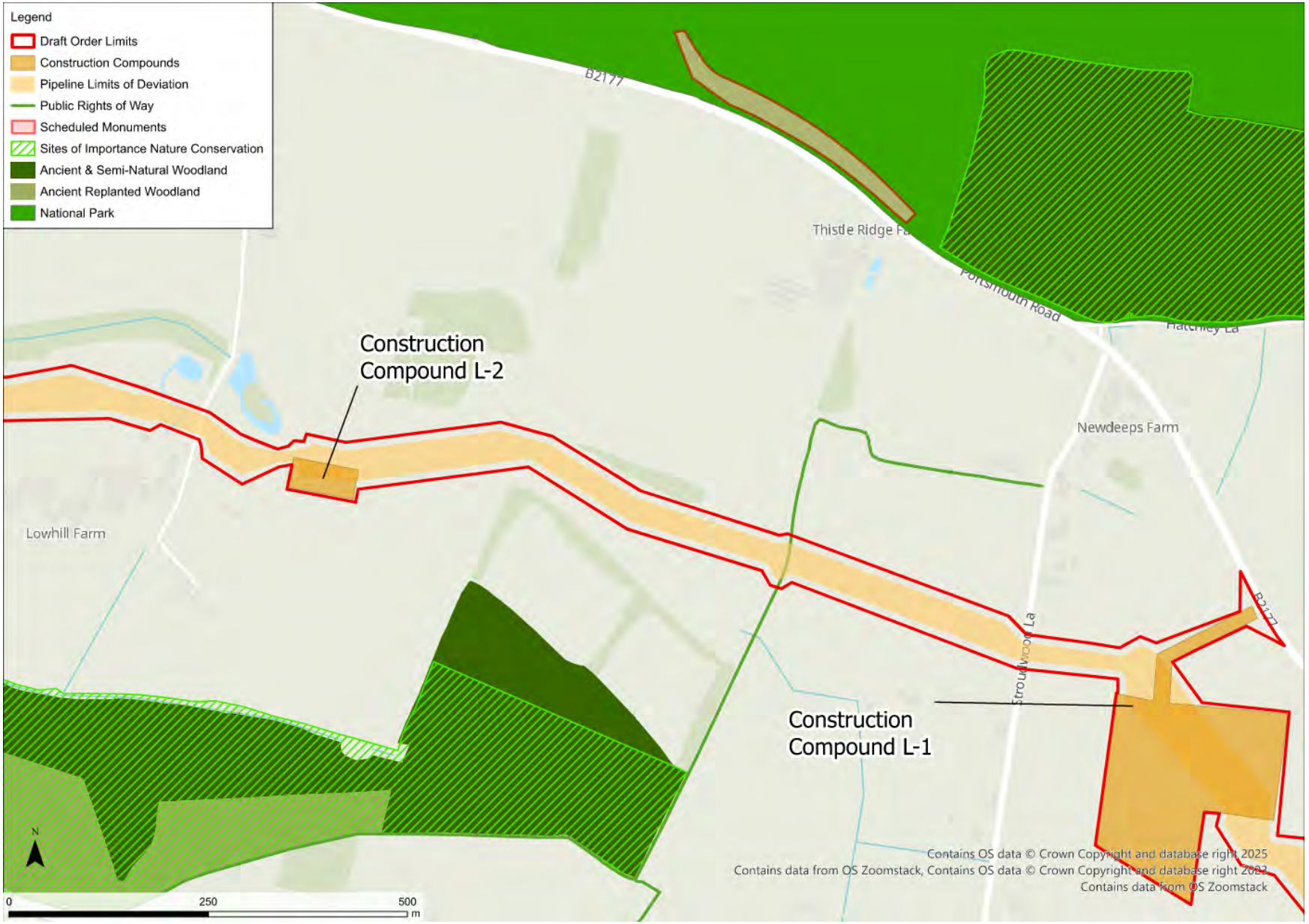


Figure 48 West of Stroudwood Lane – Design Refinement

Design Refinement 24 – Pipeline Section L

Where is the proposed change?

Section L of the proposed pipeline route between Havant Thicket Reservoir and Otterbourne Water Supply Works comprises the section from Mortimers Lane (B3037) near Lower Upham to Highbridge Road (B3335), west of Brambridge. Section L extends across the administrative areas of Winchester City Council and into Eastleigh Borough Council.

The design for Section L presented at the Summer 2024 Consultation is shown in **Figure 49**.

What is changing and why?

The design refinements within Section L are proposed as follows:

- **South of Colden Common and west of Fisher's Pond** – Consultation feedback from Hampshire County Council and ongoing engagement on construction accesses has concluded that Bishopstoke Lane would not be suitable for construction vehicles. A suitable alternative temporary construction access has therefore been identified from Church Lane to the south of Colden Common. Church Lane is the next closest road to this section of the pipeline and is considered suitable for construction traffic. The pipeline route has also been amended in this area to take account of landowner feedback and align the construction works with field boundaries, thereby avoiding construction works across the centre of fields. We reviewed the technical and environmental implications of this change and did not identify any constraints in realigning the pipeline. In addition, we are proposing wet grassland habitat enhancements to improve ecological conditions on the south side of the Bow Lake watercourse to ensure we can deliver environmental improvements in line with requirements in national planning policy. The environmental mitigation area on **Figure 50** will deliver these enhancements.
- **Fisher's Pond** – Ongoing environmental surveys identified two veteran trees to the south of Fisher's Pond in close proximity to the pipeline route presented at the Summer 2024 Consultation. We have amended the route of the pipeline so that construction works can avoid these veteran trees and ensure that suitable root protection areas can be implemented. An area for proposed grassland/meadow habitat enhancement has also been identified in this location and included in the draft Order Limits. This would provide benefit to the existing Fielders Farm Meadows Site of Importance for Nature Conservation and land to the south of this.
- **South of Portsmouth Road (B2177)** – Feedback from our Summer 2024 Consultation identified that the pipeline route intersected land used as a garden at a property near Lowhill Farm to the south of Portsmouth Road (B2177). One of the key design principles of the Project is to avoid impacts on residents as far as reasonably practicable and we have therefore moved the pipeline route and construction compounds in this area further north. This route was selected as it was the least constrained by environmental or technical factors. For part of this route, we would use short trenchless construction to cross a dense strip of woodland and watercourse. If this was crossed using open cut construction there would be potential for large environmental impacts.
- **East of Fisher's Pond** – To the east of Fisher's Pond, and north of Chestnut Gully Wood, the locations of the pipeline route and construction compounds have been refined to avoid veteran trees, reduce vegetation loss and reduce impacts on a Site of Importance for Nature Conservation following further surveys of these areas. Areas for environmental mitigation and enhancement have also been identified within the draft Order Limits in these area for new tree and woodland planting.
- **North of Wardle Road** – The draft Order Limits have been extended in this location to include an area of woodland where environmental mitigation and enhancement could be undertaken, in line with enhancement opportunities identified by the Hampshire County Council's Biodiversity Information Centre. Including this area in the Project will ensure we are supporting nature recovery in Hampshire and are compliant with national planning policy.

The proposed design refinement can be seen in **Figure 50**.

How might the change affect you or the environment?

South of Colden Common and west of Fisher's Pond – The new temporary construction access from Church Lane may lead to some additional vegetation loss. Whilst construction traffic would no longer use Bishopstoke Lane, the new access would be in closer proximity to some residential properties along Church Lane which could result in an increase of noise, vibration and visual impacts to these properties compared to those that were set out in our Preliminary Environmental Information Report presented at the Summer 2024 Consultation. These effects would be reduced as far as reasonably practicable through our Outline Construction Environmental Management Plan, which will form part of our Development Consent Order application, and will control working hours and practices. The amended pipeline route in this area is also marginally closer to flood zones adjacent to Bow Lake. However, any potential environmental impacts can be mitigated through best practice construction methods.

South of Portsmouth Road (B2177) – The amended pipeline route is marginally closer to the South Downs National Park and construction works may become more visible from the national park and Portsmouth Road during construction. This refinement also brings the Project closer to the Marwell Manor Scheduled Monument and listed buildings, therefore there is potential for increased historic environment impacts as a result of changes to the historic landscape and character. Existing vegetation between the amended pipeline route and Marwell Manor would provide screening to reduce this impact and vegetation loss would be avoided wherever practicable to limits impacts on the landscape. Further investigation and assessment of the potential landscape and historic environment impacts will also be undertaken to better define any impacts and mitigation required.

No other effects were identified for the other design changes detailed above.

Figure 49 Pipeline Section L – Summer 2024 Consultation design

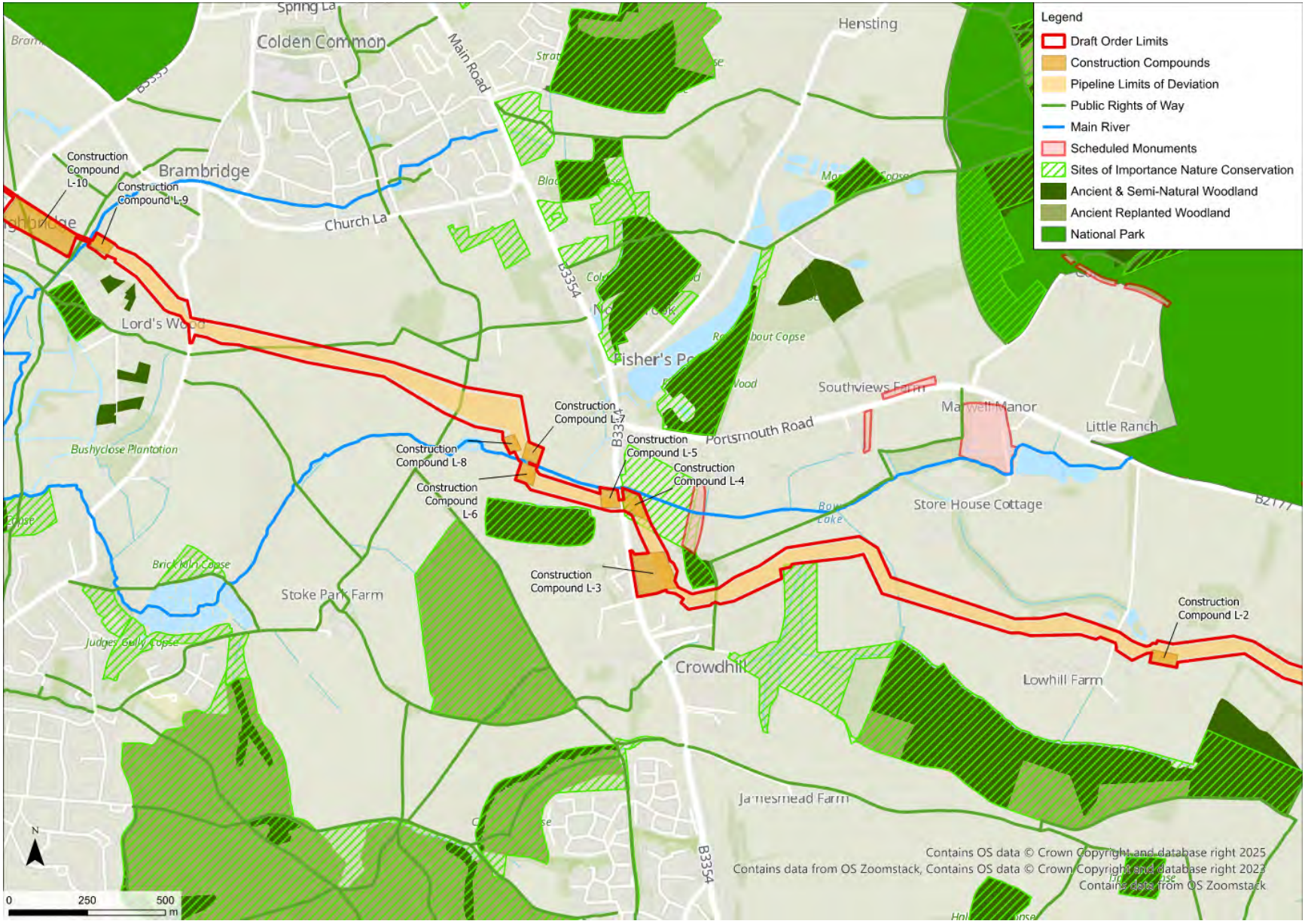
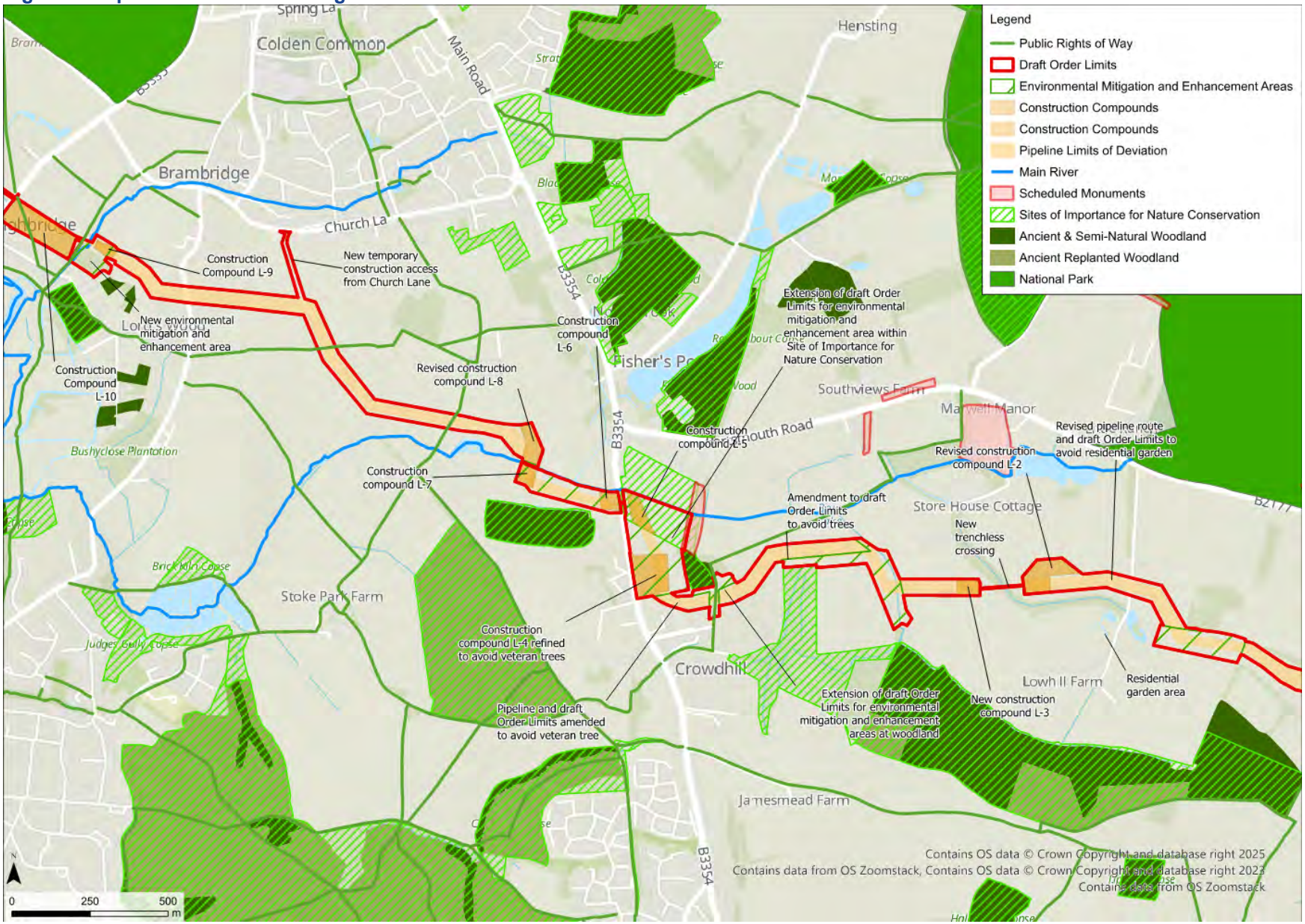


Figure 50 Pipeline Section L – Design Refinement



Design Refinement 25 – Otterbourne Water Supply Works

Where is the proposed change?

The design refinement is located at the Project's interface with Otterbourne Water Supply Works, between Shawford and Otterbourne, within Winchester City Council's administrative area. It is situated within Section M of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.

The design we presented at the Summer 2024 Consultation is shown in **Figure 51**.

What is changing and why?

We are proposing the following refinements at Otterbourne Water Supply Works:

- The draft Order Limits have been extended to the north, to include options for temporary construction access to the Water Supply Works. This ensures we have the correct rights to undertake any temporary access works to facilitate construction vehicle access. We have included options to ensure that access can be provided alongside any changes and upgrades to Otterbourne Water Supply Works that are separate to our Project.
- Two areas for environmental mitigation and enhancement have been included in the draft Order Limits to the south of Otterbourne Water Supply Works. One of these areas will provide wet grassland enhancements around an existing watercourse, and the other will provide woodland and scrub enhancements and mitigation for any losses associated with the temporary access. These areas have been added to ensure we align with national planning policy.
- North of Kiln Lane, the draft Order Limits have been extended to enable us to temporarily divert a Public Right of Way that is being crossed by the pipeline. This would ensure that access along this footpath (as diverted) can be retained during construction works.
- The draft Order Limits have also been reduced just south of Oakwood Park Recreational Ground, as ongoing design development identified that this area is no longer required for the Project to connect into Otterbourne Water Supply Works. This area was included in the draft Order Limits at the Summer 2024 Consultation as there was uncertainty around where the Project would connect into the water supply works.
- An area has been added to the draft Order Limits to cover the junction between Kiln Lane and Otterbourne Lane, so we can undertake temporary highway works if needed, to ensure the largest construction vehicles can pass through this junction. These works could involve the realignment of existing kerbs or the removal of traffic islands. Following the completion of construction works we will reinstate these junctions to their current condition in line with Hampshire County Council's requirements. These junctions will be kept open whilst works are undertaken.

The proposed design refinement can be seen in **Figure 52**.

How might the change affect you or the environment?

No changes to the pipeline route and construction compounds are proposed in this area. To facilitate temporary construction access to the pipeline south of Otterbourne Water Supply Works we may need to remove some additional vegetation within the draft Order Limits. Any environmental impacts arising from this vegetation removal will be mitigated through replacement planting.

The routing of construction vehicles along Sparrowgrove and Waterworks Road from Otterbourne Road are also not anticipated to result in any noticeable traffic, air quality, and noise and vibration effects.

The extension of the draft Order Limits to accommodate the environmental mitigation and enhancement areas allows us to mitigate the environmental impacts of the Project deliver environmental improvements that improve the value of existing habitats.

Figure 51 Otterbourne Water Supply Works – Summer 2024 Consultation design

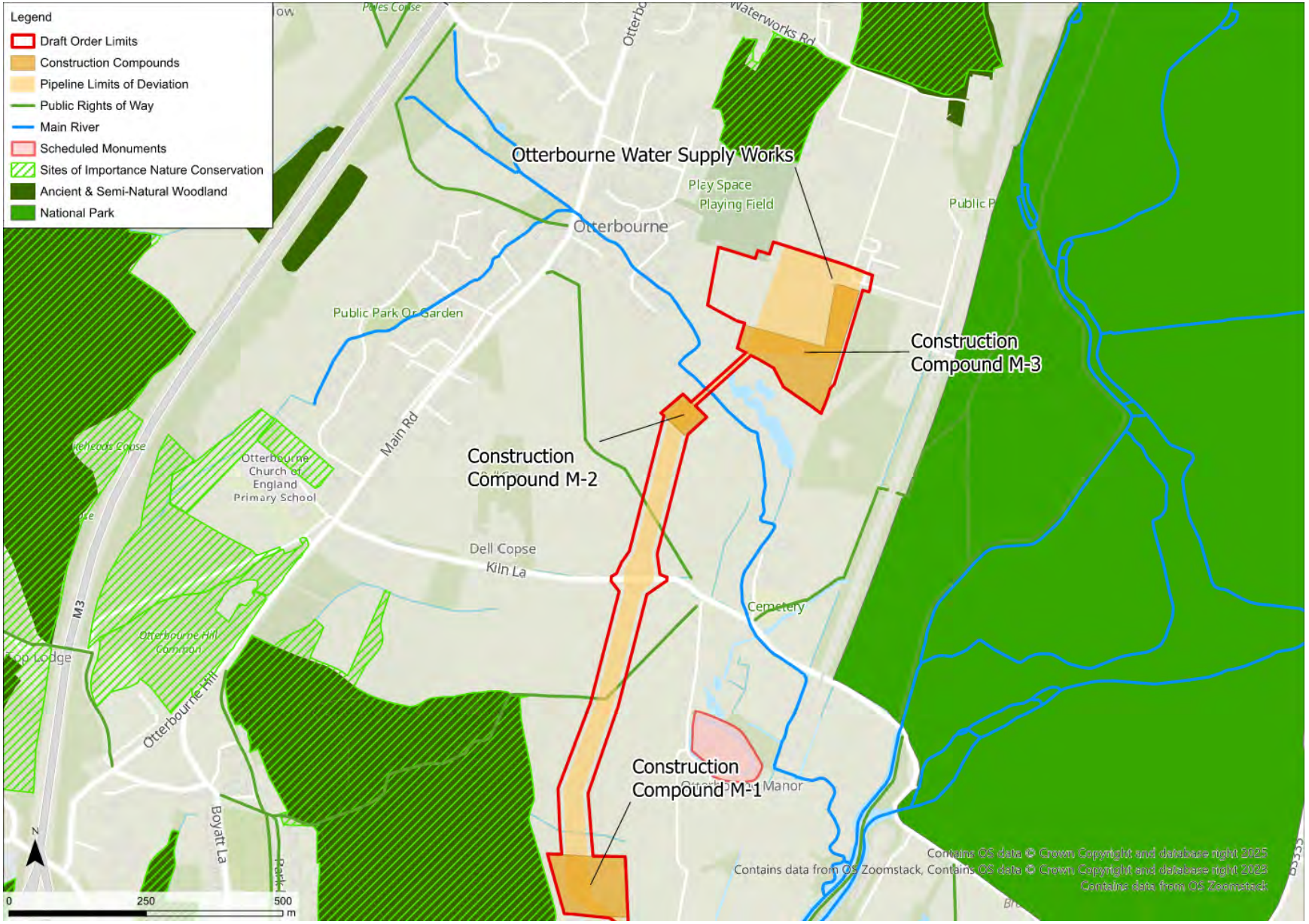
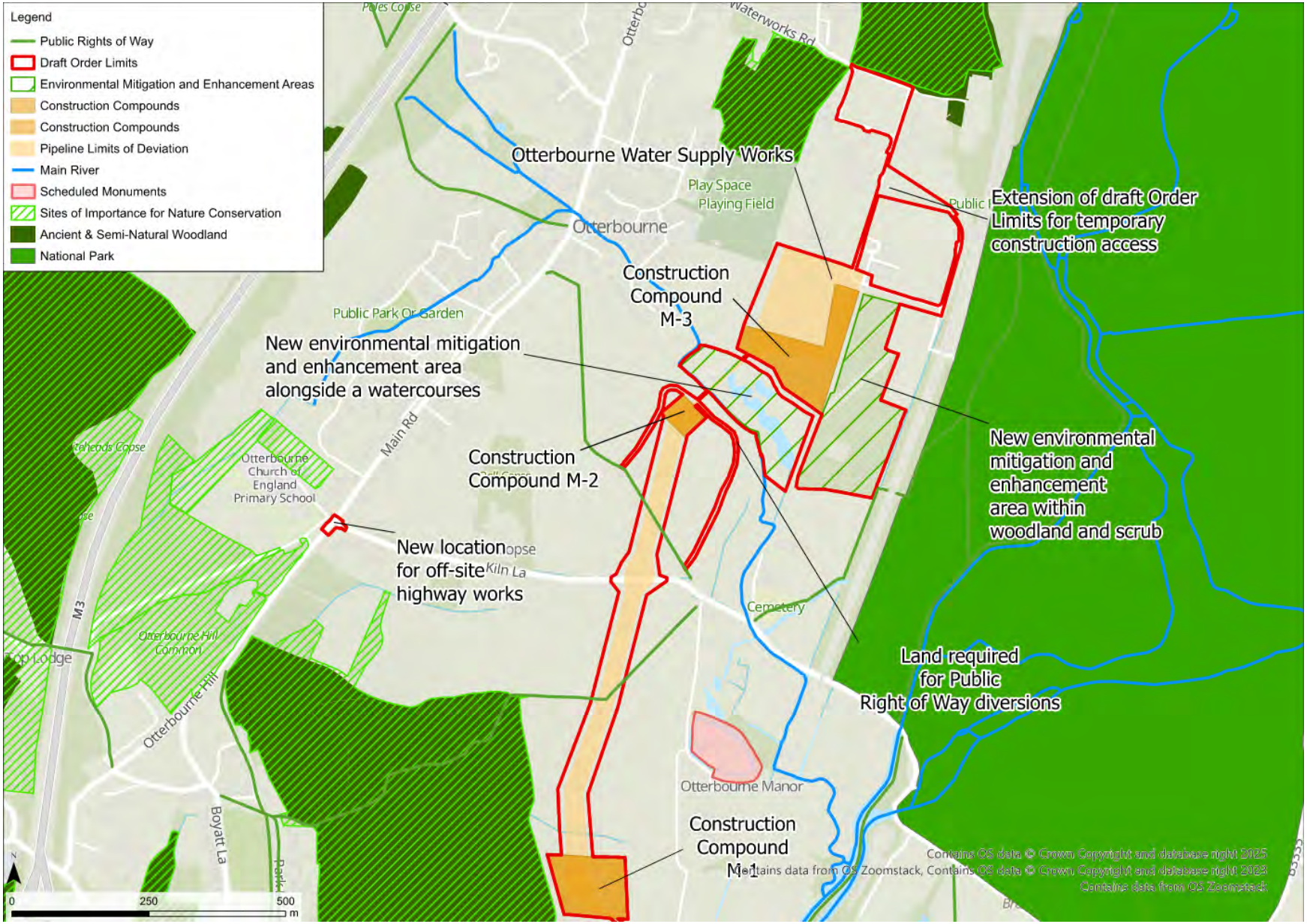


Figure 52 Otterbourne Water Supply Works – Design Refinement



Frequently Asked Questions (FAQs)

Project FAQs

You can find all the relevant Project FAQs here **www.HampshireWTWRP.co.uk/2024FAQs.pdf**. The following section addresses new questions, specifically for the Spring 2025 Consultation.

Spring 2025 Consultation FAQs

When does the consultation take place?

The four-week consultation runs from 5 March 2025 to 4 April 2025.

What are you consulting on?

As part of our Spring 2025 Consultation, we want to know what stakeholders think about our updated water quality information and proposed project design refinements. More specifically:

- Predicted water quality impacts on Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent.
- Proposed design refinements to the Project, details of which can be found on our website and in the Consultation Information document.

Are you holding in-person events and are there deposit locations for consultation documents?

As this consultation is supplementary to our Summer 2024 Consultation, we will not be holding in-person events this time around. We think this is proportionate to the scale and nature of what we are consulting on.

For this consultation, we are taking a digital first method. All the consultation documents are available on our website. If you require hard copies of consultation documents, these can be printed from the website, or you can contact us and we can send these to you free of charge. If you have any questions on the consultation and the information provided, please get in contact.

How can I find out more about the Project?

You can find out more information by visiting our dedicated Project website at **www.HampshireWTWRP.co.uk**.

Here you can view all our consultation documents from both the Summer 2024 Consultation and the Spring 2025 Consultation. At Summer 2024 Consultation, we used an interactive map to show how the Project might affect you and your area. For this Spring 2025 Consultation, we have created a new map, which also allows you to view our proposed Project design refinements. General information about the Project and the Summer 2024 Consultation can be found in the Summer 2024 Consultation Brochure.

Information about the Spring 2025 Consultation has been collated in our Consultation Information document, which includes all of our Project specific design refinements and a summary of our updated water quality information. This can be found in the document library on our website. However, more detailed findings on our environmental water quality information are provided in our Environmental Water Quality report, which can also be found on our website.

How can I respond to the Spring 2025 Consultation?

We want to hear your views about our updated water quality information and our proposed design refinements. The easiest way to respond is to complete our online feedback form which can be found at

www.HampshireWTWRP.co.uk and paper copies are available upon request. You can also email **FeedbackHWTWRP@southernwater.co.uk** to submit formal feedback.

You can also write or send paper copies of the feedback form to FREEPOST HAMPSHIRE WTWRP CONSULTATION. You don't need a stamp, just ensure you copy the freepost address correctly. Please use capital letters as above and make your handwriting as clear as possible.

What if I have any general questions?

For general questions, please contact **HampshireWTWRP@southernwater.co.uk**.

You can also call our freephone number on 0800 254 5138.

What happens after the consultation closes on 4 April 2025 and how will you use my feedback?

After the consultation closes, we will gather and analyse the feedback received. We will carefully consider all issues raised when finalising the proposed application. As part of the Development Consent Order application we will submit a Consultation Report, detailing how we have engaged and consulted on the Project. This will include a summary of feedback from both the Summer 2024 Consultation and Spring 2025 Consultation and how this has been considered in the development of the Project.


WATER
for LIFE®
from
Southern
Water®

G.4 Feedback form

Hampshire Water Transfer and Water Recycling Project

Feedback Form Spring 2025 Consultation

from Southern Water

Following on from our Summer 2024 Consultation, and to reflect our ongoing work, we are seeking your views on updated water quality information and proposed design refinements for the Hampshire Water Transfer and Water Recycling Project (the Project). Knowing what matters to you, matters to us. Your feedback is important to us and will further help inform the preparation of our Development Consent Order (DCO) application.

1. Environmental Water Quality

Since the Summer 2024 Consultation, the environmental water quality modelling and assessment work undertaken has enabled further understanding of the potential effects of the Project on the water environment. Our Spring 2025 Consultation provides an opportunity to seek feedback on this latest information. The Environmental Water Quality Report can be found in the document library on our website. The environmental water quality modelling and assessments will be refined, finalised and fully reported in the DCO application, alongside details of proposed monitoring and mitigation.

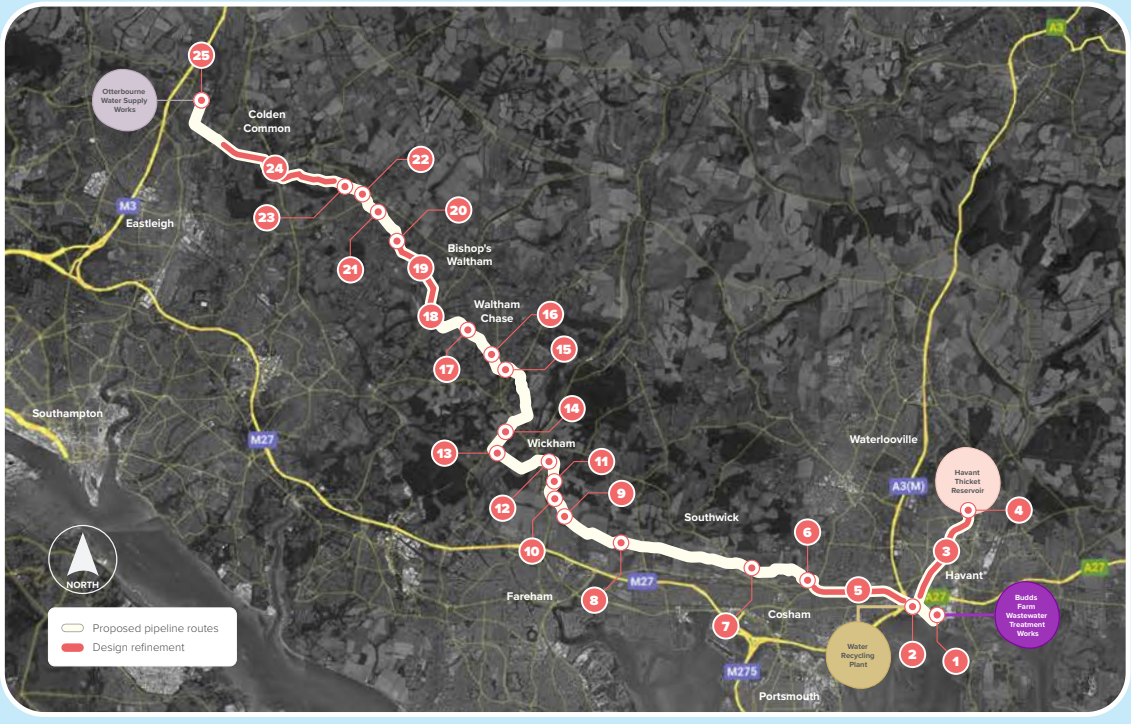
Question 1a: Do you have any comments on our updated environmental water quality information? Please tell us the reasoning behind your answer.

2. Design Refinements

At our Summer 2024 Consultation we consulted on a number of Project proposals, including the proposed water recycling plant, pipeline routes, above ground plant and the preliminary environmental impacts and mitigation proposals relating to them. Following the feedback received in the summer, we have made several refinements to the design of the Project which are labelled on the map below. Each individual refinement can be viewed in more detail on our website and our interactive map, or in the Consultation Information document in the document library.

Question 2a: Please write which labelled design refinement(s) on the map below is of interest to you.

This could be because you live nearby, work in the area, visit often or have a general interest in the area. You may write more than one.



Question 2b: Please tell us what you think about the proposed design refinement(s) and the reasoning behind your answer. In your answer, please make it clear which design refinement you are commenting on so we can accurately consider your feedback. If you need more space, please write the remainder of your response on a blank sheet of paper and insert in the envelope along with the feedback form when you return it to us.

3. Anything Else

Question 3a: Is there anything else that you would like to share with us about the Project as part of your response to this consultation?

4. Our Consultation

Question 4a: Please tell us your thoughts about our Spring 2025 Consultation.

	Very effective	Effective	Average	Poor	Very poor	Not applicable
a) Was the information presented clearly?						
b) Was the website easy to navigate?						
c) Was the consultation promoted well and to the right people?						

Question 4b: How did you hear about our consultation? Select all that apply.

- ☐ I received a letter
- ☐ I received a postcard
- ☐ I saw an advert or notice in the newspaper
- ☐ I saw information on social media, not just on Southern Water channels (Facebook, Instagram etc)
- ☐ Information provided by my local authority
- ☐ Word of mouth
- ☐ Visited the dedicated consultation website www.HampshireWTWRP.co.uk
- ☐ Other (Please state where):

5. About You

We will only use these details in accordance with our Data Privacy Statement, as set out later in this form, including to contact you and update you on the proposals.

Tell us a little bit about you...

First Name:

Last Name:

Address:

*Postcode:

Email Address:

Phone number:

*Sharing your postcode with us will help us to understand where in the community concerns and issues are being raised. We will only use your postcode data anonymously for the purpose of further understanding your feedback.

Are you happy to be contacted? ☐ Yes ☐ No

Who are you responding as?

- [ ] Local resident
- [ ] Local representative (e.g. parish councillor)
- [ ] Potentially affected landowner or occupier – please provide your Party ID. Please note that by providing your Party ID your response will be considered as Landowner feedback.
- [ ] Local business owner or supplier/contractor
- [ ] Regular visitor
- [ ] Local interest group member (please specify in the text box below)
- [ ] Statutory organisation (please specify in the text box below)
- [ ] Other (please specify in the text box below)

The following questions are to determine the demographic of those responding to our consultation. You do not have to answer them if you do not wish to.

Which gender do you identify as?

- [ ] Female
- [ ] Male
- [ ] Prefer not to say
- [ ] Other: Please state if you wish

What is your age?

- [ ] 16 to 24 years old
- [ ] 25 to 34 years old
- [ ] 35 to 44 years old
- [ ] 45 to 54 years old
- [ ] 55 to 64 years old
- [ ] 65 to 74 years old
- [ ] 75 years old or over
- [ ] Prefer not to say

DATA PRIVACY STATEMENT

Southern Water is collecting your personal data to help shape and inform the Project. Your data will be used to contact you in the future in relation to developments about this project, this may include land, survey and consultations of this or a similar nature. However, you may be contacted by Southern Water as an existing customer where you have already given Southern Water permission to do so.

The answers to the questions on this feedback form are voluntary, as is any information you provide about yourself. By responding to this consultation, you consent to Southern Water using the information you've provided for the above purposes. You have the right to withdraw your consent at any time. To do this, please contact HampshireWTWRP@southernwater.co.uk or call 0800 254 5138.

For more information about how Southern Water uses personal data generally, who it shares it with, and what your rights in relation to personal data are, please see Southern Water's Privacy Notice on its website at https://www.southernwater.co.uk/our-customers/privacy.

Your comments will be analysed by Southern Water Services Limited and any of its appointed agents. Copies may be made available in due course to the Secretary of State, the Planning Inspectorate (PINS) and other relevant statutory authorities so that your responses can be considered as part of the development of the Hampshire Water Transfer and Water Recycling Project. Your personal details will not be placed on public record and will be held securely by Southern Water Services Limited and its appointed agents in accordance with the data protection law and will be used solely in connection with the consenting and regulatory processes, and statistical and analytical purposes on an aggregated basis, or in accordance with any legal requirements or process, will not be passed to third parties. The PINS privacy statement, which advises how data will be used and held by PINS, is available to view here: https://www.gov.uk/government/publications/planning-inspectorate-privacy-notices/customer-privacy-notice.

G.5 Approach to Consultation Document

Hampshire Water Transfer and Water Recycling Project

Approach to Consultation

Spring 2025 Consultation

Contents

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2. Spring 2025 Consultation 1

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2.2. How we will consult 2

2.3. When we will consult 4

2.4. How the community can provide comments 4

2.5. How we will respond to consultation feedback 4

3. Contact us 5

1. Introduction

Following the Summer 2024 Consultation on our proposals for the Hampshire Water Transfer and Water Recycling Project (the Project) and in accordance with the principles set out in the Statement of Community Consultation (SoCC), we, Southern Water, will be carrying out a supplementary consultation, called the Spring 2025 Consultation, to provide additional information on the potential impacts of the Project on water quality within Havant Thicket Reservoir, connected downstream water bodies and the Solent, as well as various design refinements some of which are to take account of feedback received. The SoCC states "*if we deem a significant change is made to the Project as a whole, or new statutory consultees are affected, we will consider further targeted and proportionate consultation beyond what is specified in this document, to help inform the final design of the Project. If further consultation is carried out, we will provide appropriate notification to relevant stakeholders who may be affected by the change(s) in question*". The Spring 2025 Consultation is to be undertaken on a statutory basis, proposed for March 2025.

Specifically, the Spring 2025 Consultation will focus on:

- Water quality impacts on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour) and the Solent. We will be sharing for comment updated information in relation to ongoing water quality modelling and assessment work prior to this being finalised and fully reported in our Development Consent Order application
- 25 design refinements. These are changes to the Project that take into account feedback from the Summer 2024 Consultation, on-going engagement, further investigations, surveys and assessments, and design development. The Project as a whole has not fundamentally changed. However, we have decided to consult the public on all of the design refinements that have been developed given these have all been worked up in parallel. We have had regard to the Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects (April 2024) guidance.

This **Approach to Consultation** describes how we intend to carry out the consultation on these aspects of the Project and sets out:

- When the consultation will be held.
- The information that will be included in the consultation.
- Who will be consulted.
- The approach and tools that will be used to reach consultees and gather their views.

2. Spring 2025 Consultation

At the Summer 2024 Consultation, we received many comments, particularly from the wider community, about water quality. The Summer 2024 Consultation brochure stated: *'Water quality modelling is currently being undertaken in collaboration with Portsmouth Water, the results of which will be used to inform the assessment of the potential for impacts of operational discharges from the proposed WRP into Havant Thicket Reservoir. Any required mitigation will be detailed in the Water Environment chapter in the Environmental Statement.'* The Spring 2025 Consultation will provide an update on the water quality modelling and assessments being carried out prior to these being finalised and fully reporting in the Environmental Statement as part of our Development Consent Order application.

Furthermore, following the Summer 2024 Consultation and the analysis of feedback, we have been making a number of design refinements to the Project and the Spring 2025 Consultation will provide further details on some of these changes. Feedback received on these areas as part of the Spring 2025 Consultation will provide the Project team with further understanding of any relevant matters relating to water quality and design refinements. Responses to consultation will then be used to inform ongoing development and assessment of the Project as it progresses along the consenting timetable.

2.1. Who we will consult

We have developed the Spring 2025 Consultation zones to engage with the local communities who may be affected by the Project. The Spring 2025 Consultation zones are:

- Zone A – Draft Order Limits (dOL)
- Zone B – Generally 250m from the dOLs[1]
- Zone C – 5km from dOLs
- Zone D – Hampshire and the wider area (with an emphasis on the south and coastal region)[2]

In accordance with the SoCC, we will also consult with Statutory Consultees under the Planning Act 2008 and relevant legislation[3] and other relevant stakeholder groups.

2.2. How we will consult

The Spring 2025 Consultation will be a "digital first" consultation meaning that the consultation information will be available to view online. Additionally, we will use the following range of approaches and media to increase awareness of the consultation, in line with the approaches provided in the SoCC:

Method	Detail	Consultation Zone
Letters	Letters will be sent to landowners, tenants and businesses within the draft Order Limits, with information about the Project, the consultation, how to find out more and how to provide feedback.	Consultation Zone A
Site Notices	Notices will be posted on or near land within the draft Order Limits that is identified as unknown owner.	Consultation Zone A
Postcards	Postcards will be sent to all properties with postcodes broadly within a 250m buffer of the dOLs with information about the Project, the consultation, how to find out more and how to provide feedback.	Consultation Zones A and B
Posters	Posters will be distributed both digitally to some for their own issuing and physically where this cannot happen. These posters will contain details of the consultation, and to find out more and how to provide feedback. We will distribute these to the external border of consultation Zone C which covers a 5km radius of the pipeline. We will aim to distribute over 100 posters to places like community hotspots, points of interest for hard to reach or seldom-heard groups and green spaces in order to achieve good consultation promotion.	Consultation Zones A, B and C

[1] Zone B has been selected by an informed assessment of the communities which we consider may be particularly affected by the design refinements. The extent of Zone B is generally 250m from the dOLs, however, we have taken a proportionally wider zone where we consider design refinements may particularly affect local communities over a slightly wider area.
[2] Zone D has been selected to capture a wide audience potentially interested in our updated water quality information.
[3] The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended), https://www.legislation.gov.uk/uksi/2009/2264/made

Method	Detail	Consultation Zone
Adverts	Advertisements in the Hampshire Chronicle, Southern Daily Echo, and The News (Portsmouth), to notify of the consultation and provide details of how to find out more and provide feedback.	Consultation Zones A, B, C and D
Social media	We will be promoting the consultation on social media channels.	Consultation Zones A, B, C and D
Notices	Notices as required under Section 48 of the Planning Act 2008, in the Hampshire Chronicle, The Times, The London Gazette, The News (Portsmouth) and the Hampshire Independent to notify of the consultation and provide details of how to find out more and provide feedback.	Consultation Zones A, B, C and D

Additional consultation methods listed below are aimed to capture wider areas beyond the specific consultation zones.

Method	Detail
Emails	Emails (or letters where requested) will be sent to all prescribed and non-prescribed consultees, and members of the public that filled in keep in touch cards with full contact details at both the Summer 2022 Consultation and Summer 2024 Consultation and wanted to be kept in touch about the Project.
Website	A Project website will be the digital hub for Spring 2025 Consultation and will include the Consultation information and materials, and options to request further information or accessible print versions of consultation materials. **www.HampshireWTWRP.co.uk**

2.2.1. Consultation materials

The following information will be available for viewing online during the consultation:

- **Consultation Information** – including an introduction to the consultation, a summary of the updated water quality information, information sheets (containing before and after plans plus a description of the change) relating to each of the proposed design refinements, any new Frequently Asked Questions along with information on how to comment and provide feedback. This information will be presented on the website but will be available in printed format.
- **Environmental Water Quality Report** – a report summarising the updated water quality information, including a non-technical executive summary of the Report's findings.
- **Feedback form** – a simple survey designed to collect feedback on the proposals.
- **Approach to Consultation** – this document. It describes how we intend to carry out the Spring 2025 Consultation for the Project.

To ensure accessibility (including seldom heard groups), on request, documents can also be translated, made available in large print, audio versions, braille and in a digital data format. As the Spring 2025 Consultation is to be 'digital first' we won't be holding any in-person events or be providing any deposit locations. We believe this is a proportionate approach given that the Project as a whole has not fundamentally changed. However, people can contact us to ask questions about the Spring 2025 Consultation and, in addition, hard copies of consultation material can be sent, free of charge, to consultees if requested. Please see **contact us** section for our contact details to request these methods.

2.3. When we will consult

The Spring 2025 Consultation will be carried out over a 30-day period from 5 March 2025 until 4 April 2025. Prior to this there will be a two-week pre-awareness period (from 19 February 2025), during which time posters will be distributed, notices published, and content promoted on social media.

Consultation responses must be submitted to us by 11.59pm on 4 April 2025.

2.4. How the community can provide comments

In accordance with the SoCC, the following official feedback mechanisms will be provided as part of the consultation:

- Email comments to: **FeedbackHWTWRP@southernwater.co.uk**
- Letters: **FREEPOST HAMPSHIRE WTWRP CONSULTATION**
- Feedback form, located on the website **www.HampshireWTWRP.co.uk**

We cannot guarantee that responses sent via any other channel will be taken into account, unless agreed in advance with Southern Water.

2.5. How we will respond to consultation feedback

As outlined in the SoCC, once the consultation has closed, we will collate and analyse the responses received. We will carefully consider all issues raised and will have regard to this feedback when finalising our Development Consent Order application. As part of the application, we will publish a Consultation Report, detailing how we have engaged and consulted on the Project, whilst adhering to legislation and guidance and reporting on the issues raised in the consultation and our response to them.

In having regard to feedback and refining our proposals, it may be necessary to make further changes to the proposed Project following the statutory consultation process. If we deem a significant change is made to the Project as a whole, or new statutory consultees are affected, we will consider further targeted and proportionate consultation beyond what is specified in this document, to help inform the final design of the Project. If further consultation is carried out, we will provide appropriate notification to relevant stakeholders who may be affected by the change(s) in question.

Any comments received by way of the prescribed methods to the consultation by the deadline may be made available in due course to the Secretary of State, the Planning Inspectorate, appointed Examining Authority, and other relevant statutory authorities so that feedback can be considered as part of the application process. We will ensure that any personal details are not placed on public record, except where it is required in accordance with legislation or legal duty such as land referencing but held securely in accordance with the General Data Protection Regulation (GDPR), the Planning Inspectorate's Customer Privacy Notice[4] and the Data Protection Act 2018. Personal details will be used solely in connection with the consultation process and preparation of and subsequent DCO application.

[4] Customer Privacy Notice – Planning Inspectorate https://www.gov.uk/government/publications/planning-inspectorate-privacy-notices/customer-privacy-notice

3. Contact us

If you have any queries or questions about the Project, including requests for hard copies of any of the consultation documents, or any particular accessibility needs, please contact us at:

- Email: **HampshireWTWRP@southernwater.co.uk**
- Post: **FREEPOST HAMPSHIRE WTWRP CONSULTATION**
- Phone: **0800 254 5138**


WATER
for LIFE®
from
Southern
Water®

G.6 Section 48 notice

Section 48 of the Planning Act 2008

Hampshire Water Transfer and Water Recycling Project

Notice publicising a proposed application for a Development Consent Order

Regulation 4 Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

1. Southern Water Services Limited (Company number 02366670) ("the Applicant") of Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX intends to make an application to the Secretary of State for Environment, Food and Rural Affairs under Section 37 of the Planning Act 2008 for a Development Consent Order ("DCO"). The DCO, if granted, would authorise the construction, operation, maintenance and decommissioning of the Hampshire Water Transfer and Water Recycling Project (the "Project").

2. The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.

3. The Applicant carried out a statutory consultation in relation to the Project from 29 May 2024 to 23 July 2024 ("the Summer 2024 Consultation"). Having undertaken additional work since the Summer 2024 Consultation and having regard to feedback received, the Applicant is carrying out a further supplementary consultation on updated water quality information and project design refinements.

4. The Project is an Environmental Impact Assessment ("EIA") development for the purposes of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This means that the proposed works constitute development for which an EIA is required and the application for a DCO will therefore be accompanied by an Environmental Statement. The Environmental Statement will provide a detailed description of the Project and its likely significant environmental effects. As part of the Summer 2024 Consultation, information compiled so far about the Project's likely significant environmental effects was set out in a Preliminary Environmental Information Report ("the PEI Report") and summarised in a Non-Technical Summary, copies of which are available to view at: **www.HampshireWTWRP.co.uk/feedback.html**, along with the rest of the Summer 2024 Consultation materials (including the Statement of Community Consultation, which the Applicant has had regard to in relation to this supplementary consultation).

The supplementary consultation

5. The Applicant is undertaking a supplementary consultation from 5 March 2025 to 4 April 2025. The supplementary consultation will focus on:

   a. Updated water quality information, arising from additional modelling and assessments; and,

   b. Project design refinements that have arisen as a result of on-going project development and stakeholder engagement, including taking account of feedback from the Summer 2024 Consultation.

6. The supplementary consultation materials ("the Supplementary Consultation Materials") include:

   a. Consultation Information

   b. Water Quality Report, including a non-technical executive summary

   c. Feedback form

7. For further information or queries on the Supplementary Consultation Materials, please call **0800 254 5138** (free of charge); write to **FREEPOST HAMPSHIRE WTWRP CONSULTATION** (no stamp required); email **HampshireWTWRP@southernwater.co.uk** or visit **www.HampshireWTWRP.co.uk**

8. All of the Supplementary Consultation Materials are available to read, download and print on the Project's website at: **www.HampshireWTWRP.co.uk/consultation/html**. These will be available until at least 4 April 2025.

9. To ensure accessibility, on request (via the contact details below), all of the Supplementary Consultation Materials can be translated, made available in large print, audio versions, braille and in a digital data format.

10. Hard copies of the Supplementary Consultation Materials can be provided free of charge.

How to respond

11. Any person can provide a response or representation in respect of this supplementary consultation. Any such response or representation must be received by the Applicant on or before 11.59pm on 4 April 2025.

12. Feedback can be provided through the Applicant's website at **www.HampshireWTWRP.co.uk**, by email to **FeedbackHWTWRP@southernwater.co.uk**, or by post to **FREEPOST HAMPSHIRE WTWRP CONSULTATION**.

13. Any responses to or other representations in respect of the Project can also be sent to the applicant by email **FeedbackHWTWRP@southernwater.co.uk** or by post (free of charge) to **FREEPOST HAMPSHIRE WTWRP CONSULTATION**.

14. The Applicant will consider and have regard to all responses received on or before 11.59pm on 4 April 2025 when developing its application for a DCO once this supplementary consultation has closed. As with the Summer 2024 Consultation, responses will form the basis of a Consultation Report that will be submitted as part of the Applicant's application for a DCO. Therefore, in providing any comment, it should be borne in mind that the substance of it may be communicated to others as part of the Consultation Report.

15. Any comments received will be analysed by the Applicant and any of its appointed agents. Copies may be made available in due course to the Secretary of State, the Planning Inspectorate and other relevant statutory authorities so that your responses can be considered as part of the development of the Project. Your personal details will not be placed on public record, will be held securely by the Applicant and its appointed agents in accordance with the data protection law and will be used solely in connection with the consenting and regulatory processes, except as noted above, or in accordance with any legal requirements or process, and will not be passed to third parties.

16. If you would like further information about this notice, the consultation or the Project, please contact the Applicant by using one of the contact methods provided above.

WATER for LIFE®

from Southern Water®

G.7 Information Document clarification note

Consultation Information typographical errors

We have identified a few minor typographical errors, detailed below, which have now been corrected. These errors do not impact any other information provided as part of the consultation materials. These corrections have been made in the *Consultation Information* document, saved in the document library on the consultation website, and the information sheets, accessed on the new page called *Our Consultation* via our design refinements overview map.

1. **Design Refinement 18 – The River Hamble and Ford Farm**

   The following correction was made on 12 March 2025:

   *We have realigned the location of the trenchless crossing of the River ~~Meon~~ **Hamble** to a location further to the north.*

2. **Design Refinement 22 – Construction Compound L-1**

   The following correction was made on 12 March 2025:

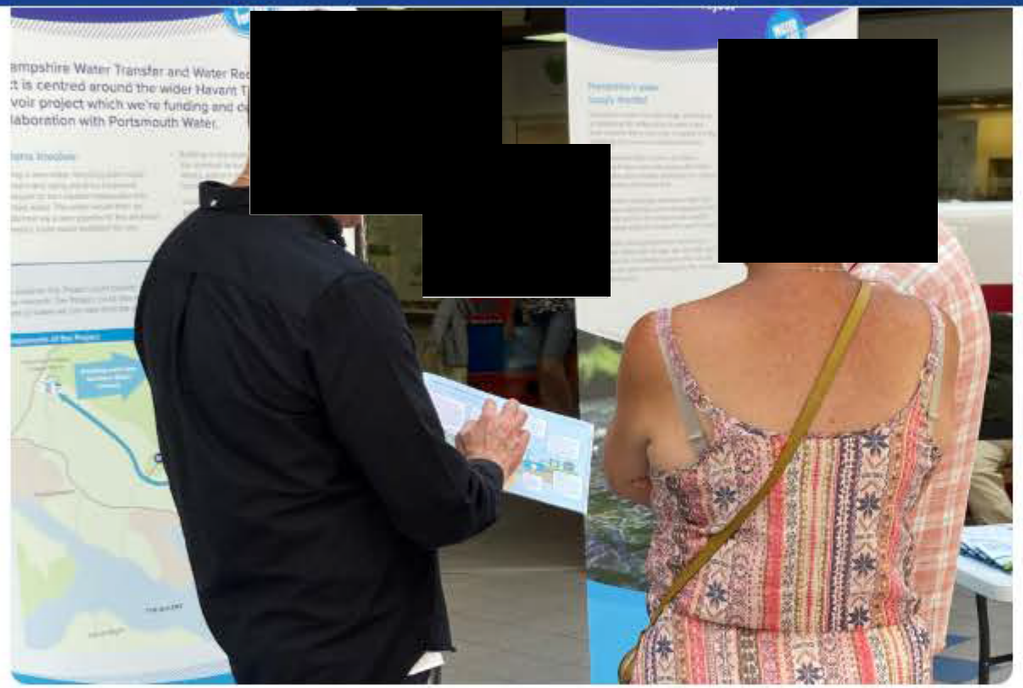
   *Construction compound L-1 is located to the north of Mortimers Lane (B3037) and to the west of Winchester Road (B2177) within ~~Winchester City Council's~~ **Eastleigh Borough Council's** administrative area, and within Section L of the pipeline between Havant Thicket Reservoir and Otterbourne Water Supply Works.*

3. **Design Refinement 23 – West of Stroudwood Lane**

   The following correction was made on 12 March 2025:

   *This design refinement is located north west of Lower Upham village, south of Portsmouth Road (B2177), west of Stroudwood Lane and south of Winchester Road, within ~~Eastleigh Borough Council's~~ **Winchester City Council's** administrative area.*

G.8 Website screenshots



Previous Consultation

Engagement and consultation on the future of Hampshire's water resources has been ongoing as the plans to provide a new source of water have developed.

In 2021, we consulted on a proposal for a desalination plant in the New Forest alongside water recycling and water transfer as a back-up. The desalination plant was found to be the least preferable solution due to its potential environmental impact on the Solent. Water recycling and water transfer was selected as the preferred option and supported by our regulators.

We consulted on our emerging proposals for the Hampshire Water Transfer and Water Recycling Project in our Summer 2022 Consultation. In that consultation we asked for feedback on topics such as the location of the proposed water recycling plant, the preferred pipeline corridors and the concept of water recycling.

Using the valuable feedback gained from this consultation, alongside our own further studies, we have been able to develop and advance our proposals in readiness for our Summer 2024 Consultation. Feedback from this consultation will play an important role in helping us refine our proposals in preparation for submitting our application for a Development Consent Order in 2025.

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs of the modelling and assessment of effects would be fully reported in the Environmental Statement with our Development Consent Order application. This modelling has since progressed, so we are taking the opportunity to share this updated information now, alongside a number of Project design refinements as part of our Spring 2025 Consultation.

Open in new window

- Environmental water quality
- Design refinements
- Anything else
- Our consultation
- About you
- Complete survey

NEXT SECTION

Open in new window

Environmental water quality
Design refinements
Anything else
Our consultation
About you
Complete survey

1. ENVIRONMENTAL WATER QUALITY

Do you have any comments on our updated environmental water quality information? Please tell us the reasoning behind your answer.

NEXT SECTION

- 1. Budds Farm Wastewater Treatment Works
- 2. Water Recycling Plant
- 3. Pipeline Sections A and B
- 4. Havant Thicket Reservoir
- 5. Pipeline Section D
- 6. Break Pressure Tank and Intermediate Pumping Station E
- 7. Pigeon House Farm
- 8. Construction Compound E-6
- 9. Intermediate Pumping Station F
- 10. Forest Lane
- 11. West of Crockerhill Farm
- 12. Hoad's Hill and Castle Farm Lane
- 13. Wickham Park Golf Club and River Meon

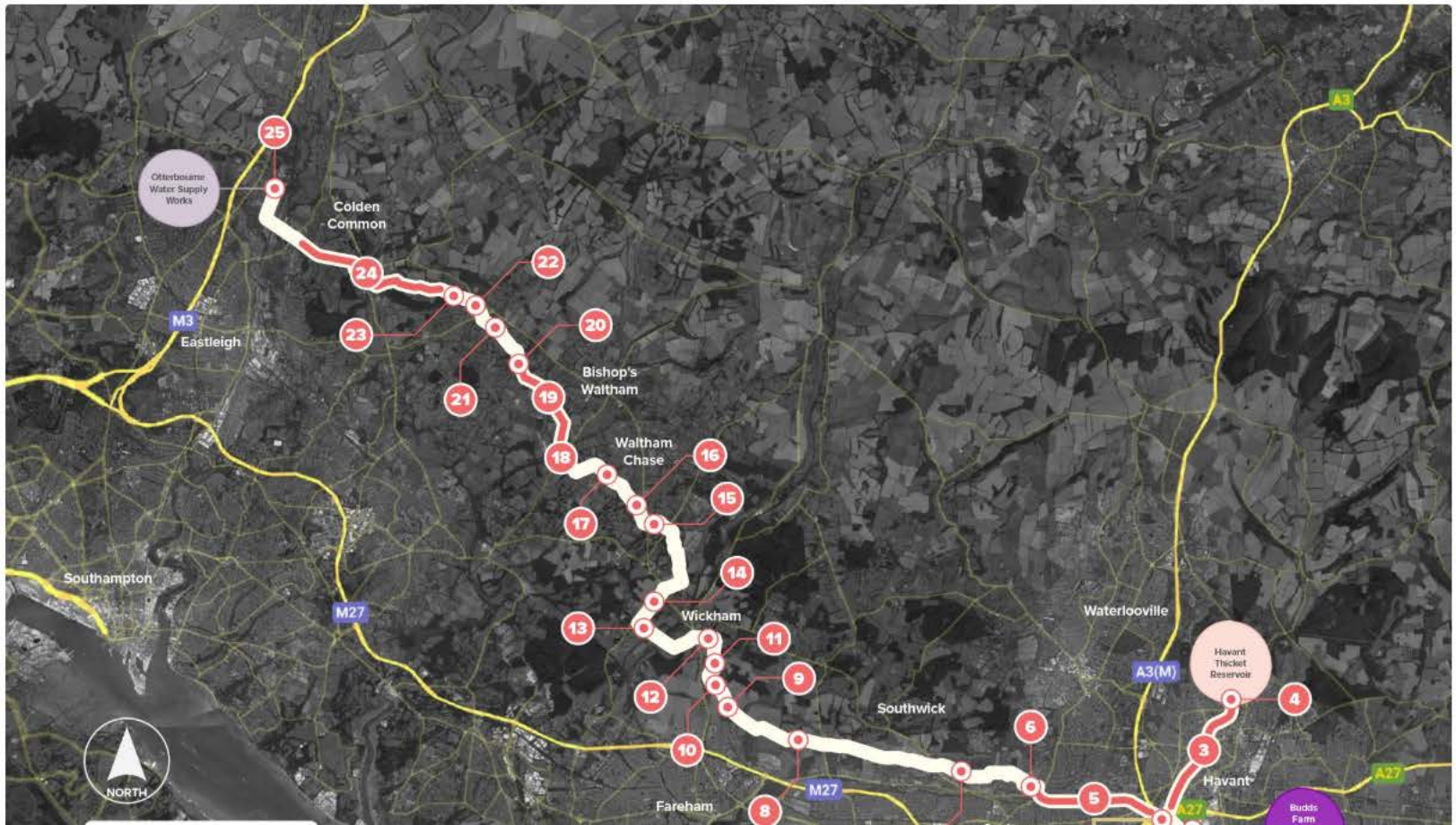
- 13. Wickham Park Golf Club and River Meon
- 14. Intermediate Pumping Station G
- 15. East of Winchester Road and south of Black Horse Lane
- 16. Little Bull Lane
- 17. Sandy Lane and Woodmans Farm
- 18. The River Hamble and Ford Farm
- 19. Tangier Farm
- 20. Break Pressure Tank K
- 21. Alma Lane and Scivier's Lane
- 22. Construction Compound L-1
- 23. West of Stroudwood Lane
- 24. Pipeline Section L
- 25. Otterbourne Water Supply Works

Environmental water quality
Design refinements
Anything else
Our consultation
About you
Complete survey

2. DESIGN REFINEMENTS

At our Summer 2024 Consultation we consulted on a number of Project proposals, including the proposed water recycling plant, pipeline routes, above ground plant and the preliminary environmental impacts and mitigation proposals relating to them. Following the feedback received in the summer, we have made several refinements to the design of the Project which are labelled on the map below. Each individual refinement can be viewed in more detail on our interactive map, or in the Consultation Information document in the document library.

Please tell us what you think about the proposed design refinement(s) and the reasoning behind your answer. This could be because you live nearby, work in the area, visit often or have a general interest in the area. You may comment on more than one.



Open in new window

Environmental water quality
Design refinements
Anything else
Our consultation
About you
Complete survey

3. ANYTHING ELSE

Is there anything else that you would like to share with us about the Project as part of your response to this consultation?

NEXT SECTION

Open in new window

Environmental water quality
Design refinements
Anything else
Our consultation
About you
Complete survey

4. OUR CONSULTATION

Please tell us your thoughts about our Spring 2025 Consultation.

	Very effective	Effective	Average	Poor	Not applicable
Was the information presented clearly?	○	○	○	○	○
Was the website easy to navigate?	○	○	○	○	○
Was the consultation promoted well and to the right people?	○	○	○	○	○

How did you hear about the consultation?

○ I received a letter ○ I received a postcard ○ I saw an advert or notice in the newspaper

○ I saw information on social media, not just on our Southern Water channels (Facebook, Instagram etc) ○ Information provided by my local authority

○ Word of mouth ○ Visited the dedicated consultation website 'HampshireWTWRP.co.uk' ○ Other

NEXT SECTION

Phone Number

Are you happy to be contacted?

- ◯ Yes
- ◯ No

Who are you responding as? (You may tick more than one box)

- ◯ Local resident
- ◯ Local representative (e.g. parish councillor)
- ◯ Potentially affected landowner or occupier
- ◯ Local business owner or supplier/contractor
- ◯ Regular visitor
- ◯ Local interest group member
- ◯ Statutory organisation
- ◯ Other (please specify in the text box below)

The following questions are to determine the demographic of those responding to our consultation. You do not have to answer them if you do not wish to.

Which gender do you identify as?

- ◯ Female
- ◯ Male
- ◯ Prefer not to say
- ◯ Other

What is your age?

- ◯ 16-24
- ◯ 25-34
- ◯ 35-44
- ◯ 45-54
- ◯ 55-64
- ◯ 65-74
- ◯ 75 years old or over
- ◯ Prefer not to say

NEXT SECTION

Open in new window

Environmental water quality
Design refinements
Anything else
Our consultation
About you
Complete survey

5. ABOUT YOU

We will only use these details in accordance with our Data Privacy Statement, as set out later in this form, including to contact you and update you on the proposals.

Name

Address

Sharing your postcode with us will help us to understand where in the community concerns and issues are being raised. We will only use your postcode data anonymously for the purpose of further understanding your feedback.

Postcode

Email Address

Phone Number

Water Recycling Project.

Project Overview

The Project would create a new source of water to supply homes and businesses in Hampshire, so less water needs to be taken from the county's chalk stream rivers. Our proposal is to tap into the highly treated wastewater that we currently waste and use advanced treatment techniques to turn it into purified recycled water.

This approach, called water recycling, is widely used around the world and will enable us to take significantly less water from the environment - especially during a drought, when nature needs it most. The Project will transform the way we source, treat and supply water across Hampshire for many generations to come.

Creating a new, resilient and sustainable water supply will protect and enhance the county's rare and sensitive chalk streams, while maintaining supplies for our communities and the local economy.

Our Spring 2025 Consultation

Our Spring 2025 Consultation will run from **5 March to 4 April 2025**. We are seeking your views on updated environmental water quality information and proposed Project design refinements. Specifically, our Spring 2025 Consultation focuses on:

- Predicted water quality impacts on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Details of this can be found in our Environmental Water Quality Report.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation and on-going project development and stakeholder engagement, details of which can be found on our website and in the Consultation Information document.

G.9 Adverts

Smoking takes its toll

DATA has revealed that smoking could be costing Hampshire public services £470 million and is responsible for 4,275 deaths in four years.

The annual report from Hampshire County Council's director of public health revealed that around 152,000 people smoke in Hampshire. Many more continue to be exposed to secondhand smoke in homes, at work, and outdoor public places.

It said people who smoke are 25 times more likely to develop lung cancer than non-smokers and are also at greater risk of developing heart disease, stroke, lung disease and other cancers.

This generates extra pressure on the already burdened NHS because people who smoke require access to assisted care 10 years earlier than people who do not smoke, it said. In Hampshire, figures show over 8,500 hospital admissions are caused by smoking each year.

Among collateral damage as a result of smoking is tooth decay and gum disease, infertility, stomach ulcers, cataracts, type 2 diabetes, dementia or chronic obstructive pulmonary disease (COPD).

It has also been reported that smoking may cost Hampshire public services £470 million and is linked to 4,275 smoking-related deaths between 2017 and 2019.

Simon Bryant, director of public health, said that working together is a key part of "make smoking history".

"There are a number of things we do and continue to do with the new investment. We've been able to invest in our smoking cessation services and expand that to include a vape quit service for young people."

Farm plans for bumper summer of raspberries

By Sebastian Haw
sebhaw@newsquest.co.uk

A MEON Valley farm team is busy preparing 50,000 raspberry plants for the 2025 summer season – more than five times the number planted last year.

Westlands Farm in Wickham had a bumper crop in the 2024 season with fruit from around 8,000 raspberry plants and 185,000 strawberry plants. Overall, the farm produced just under 200 tonnes of soft fruit.

This expansion is a significant investment in British-grown fruit at a time when many farms are reducing output due to rising costs and unpredictable weather and makes Westlands one of the south's biggest soft fruit growers.

While the farm's production is growing, the expansion isn't just about numbers. It's about meeting the demand for fresh, local produce and ensuring that Hampshire residents have access to high-quality soft fruit grown just a few miles from their doorstep.

"Every year, we see more and more people seeking out locally grown fruit," said Graham Collett, who runs the fruit farm alongside his wife, Kayleigh.

"We want to be able to meet that demand, and this expansion means that more of our raspberries will be enjoyed in homes across the region."

Graham Collett and his team is busy planting 50,000 raspberry plants

Despite the massive growth of production, sustainability remains at the forefront of everything Westlands Farm does. The raspberries will continue to be grown using eco-conscious farming practices, such as being irrigated using recycled rainwater that has been collected from a purpose-built on-site reservoir.

Westlands' fruit-growing history goes back to the 1980s, with strawberries already a major focus. Customers travel from across the county every summer for their renowned soft fruit - including strawberries and raspberries. With this expansion, raspberries will significantly increase in availability.

With planting already underway, the first raspberries from this new expansion will hit shelves in Westlands Farm Shop in summer 2025. Until then, the team at Westlands is hard at work, ensuring that Hampshire will have delicious homegrown raspberries for years to come.

Westlands Farm Shop in Wickham is a family-run business spanning two generations. It is known for its high-quality soft fruit, seasonal vegetables, and award-winning butchery.

Westlands operates two farm shops: one in Wickham, on the site of the original Westlands Farm and serving the local community since 2001; and the newly opened Winchester High Street shop, which brings the best of the farm into the heart of the city.

Both locations champion local suppliers and offer a range of fresh, seasonal, and sustainably produced food and drink.

Dementia-inspired play ‘explosive and joyous’

Community contributor

The Nature of Forgetting. Image: The Nature of Forgetting

WINCHESTER is set to welcome an extraordinary theatrical experience as Theatre Re’s internationally acclaimed performance, The Nature of Forgetting, arrives at the Theatre Royal.

Running for Wednesday, March 26 and Thursday, March 27, this powerful production has captivated audiences worldwide.

Described as an “explosive, powerful and joyous” piece of theatre, The Nature of Forgetting delves into the deeply emotive and often challenging topic of dementia. For its 2025 tour, Theatre Re has partnered with the National Institute for Health and Care Research (NIHR), using cutting-edge neurological research and real-life interviews to craft an authentic and moving portrayal of early-onset dementia.

Guillaume Pigé, the artistic director and a performer said: “Back in 2015, the making of The Nature of Forgetting started with a question: ‘what is left when memory is gone?’”

Through extensive research and collaboration with neuroscientist Kate Jeffery, Theatre Re explored the struggles faced by those living with dementia—particularly their challenges in forming and reconstructing memories, a cognitive ability often taken for granted. Pigé and his team sought to transform these poignant insights into a visually stunning and deeply affecting theatrical experience.

Hearing real-life stories from those affected by dementia inspired Guillaume to create a performance that conveys both the struggle and beauty within memory loss.

Guillaume said: “If there is one takeaway from the past few years of making, touring, refining, and breathing new life into The Nature of Forgetting, it’s to remind ourselves to be present, in the moment, and realise life as we live it. Ultimately, our piece is not about dementia. It is about the fragility of life and that eternal ‘something’ we all share that is left when memory is gone.”

Audiences will not only witness an unforgettable theatrical experience but will also have the opportunity to engage with important dementia research initiatives. Those interested in supporting dementia research can learn more through Join Dementia Research, a service run by NIHR in partnership with Alzheimer Scotland, Alzheimer’s Research UK, and Alzheimer’s Society. This platform enables individuals to register their interest in participating in dementia studies, helping to advance understanding and treatment of the condition.

Tickets and further information from the Theatre Royal Winchester website.

This article was written by Isabel Paul, from the University of Winchester.

Staff leaving slows down

THE number of staff leaving the NHS in the South East is among the lowest in more than a decade.

Retention schemes have helped reduce the number leaving the service to one of its lowest levels for years.

In the South East, 10.6 per cent of workers left the NHS in the 12 months up to September 2024, compared to 11.2 per cent of workers in the same period up to September 2023 and 13.4 per cent in the same period up to September 2022.

The South East performance is consistent with retention across the NHS nationally, where one in 10 (10.1 per cent) workers left the NHS in the 12 months up to September 2024.

This is nearly 21,300 fewer than in the same period up to September 2022 when one in eight (12.5 per cent) left the health service.

Louise Hall, NHS England in the South East’s director of workforce and training and education, said: “It is fantastic to see the impact of the efforts to improve the working environment for NHS staff in the South East, with fewer staff leaving the health service in the last year across the region.

“We know that the NHS is nothing without its colleagues, and The People Promise exemplar programme shows what is possible when you listen to staff and work with them to make changes that improve their lives.”

The fall in the number of leavers has been supported by an initial two-year programme, ‘The People Promise’ aimed at finding new ways to improve retention in the NHS - encouraging action by staff, for staff, around flexible working, leadership and culture.

Southern Daily Echo
URN: MFN0776429 Date: 2025-03-05 Section: MAIN
Advertiser: Southern Water Page: 15/40

Takeaway treats

THE Southampton area has a huge variety of restaurants and takeaways for people to try out, with there being plenty offering Chinese cuisine.

If you're looking for your next spot to order some food it might be hard to pick out an option due to the huge amount of choice.

Therefore, we thought it might be best to ask Daily Echo readers for their recommendations.

We put out a Facebook post asking the question and here are the responses we received.

Best Chinese takeaways in Southampton according to readers

More than 120 comments were left on the Facebook post, and a few establishments received multiple recommendations.

One of those was Peking Gourmet over in Woolston, which earned the praise of quite a few readers.

It was "without a doubt" the best for one person and another simply said: "Peking gourmet Woolston, can't beat it !!"

Overall, it got 12 mentions on the post and it also has a 4.5/5 score on Google Reviews from 225 ratings.

Meanwhile, Golden Pool over in Kendal Avenue earned the favour of a few people.

One wrote: "Golden pool Millbrook Southampton. Brilliant food& tasty. staff extremely friendly and helpful too. Best Chinese I've had I won't use any other Chinese other than this.x."

Kings House on St Mary's Road was also quite well-received with one reader highly commending them in particular.

They shared: "King House in St Mary's Road, always arrives hot and food is lovely and reasonable prices too. A wide range of food options and staff are friendly and helpful too."

China Garden over in Shirley got seven mentions, with one person saying: "China Garden in Shirley. Luckily I'm very close by".

Best pubs in Hampshire for 'proper' food according to readers The best pubs in Southampton endorsed by locals - do you agree? Locals recommend their favourite Southampton city centre pubs for a quiet pint

Carlo Simone

Peking Gourmet and China Garden are among the best in Southampton

Some other choices with multiple mentions included Peking House on Winchester Road and Taste of China on St Mary Street.

A couple of places got just one recommendation from a reader, but their praises were still sung highly.

One went to bat for Red Dragon in Freemantle, sharing: "Tried a few around here and no others compare when it comes to flavour. Their black bean beef is another level!"

IN BRIEF

Big Weekend family event

A NEW family-friendly event is heading to Fareham town centre later this year.

Fareham Borough Council has announced plans for "Fareham's Big Weekend" on July 12-13, 2025.

The two-day event will have activities across various locations including the shopping centre, waterfront, leisure centre, and Fareham Live.

The council has collaborated with partner organisations to put on a variety of activities.

Councillor Connie Hockley, executive member for leisure and community, said: "I am really excited about Fareham's Big Weekend and urge the whole community to save the date.

"There will be so much to see and do for all the family across the weekend and truly showcase what Fareham has to offer.

"We are also looking for sponsors and business partners to help us make the event even better, so please do get in touch if you would like to lend a hand."

Southern Daily Echo
URN: MFN0776429 Date: 2025-03-12 Section: MAIN
Advertiser: Southern Water Page: 9/40

NEWS

Smash hit on stage

Lorelei Reddin

SMASH hit show Matilda the Musical will return to Southampton in 2026, the Daily Echo can exclusively reveal.

The Royal Shakespeare Company's celebrated production, based on Roald Dahl's beloved book, includes Mayflower Theatre dates from April 29 to May 17 on its upcoming tour of the UK and Ireland.

Priority booking to members is available from Thursday March 27 and goes on general sale from Wednesday April 2.

Internationally renowned musical Matilda continues to play to packed houses in the West End at the Cambridge Theatre and has been seen by 12 million people across 100 cities around the world.

This anarchic production, about a strong and determined heroine with a vivid imagination, has won over 100 global awards, including 24 for Best Musical. A film adaptation made by the core creative team was another huge hit. Writer Dennis Kelly said: "It's great to get the chance to bring this little girl's story to people in their home cities and towns, and to all those theatres where theatre really matters."

Matilda the Musical returns to Mayflower Theatre in 2026 Image: Ellie Kurttz

Composer and lyricist Tim Minchin added: "When we first started working on the show, our aim was to make a lovely little jewel of a musical for the RSC's Courtyard Theatre in Stratford-upon-Avon. We never imagined that all these years later it would still be running in the West End, have been made into a film, and is now about to embark on its second tour of the UK and Ireland. I'm deeply proud of Matilda The Musical, and every single talented person who continues to work on it with passion and enthusiasm."

Matilda is an extraordinary girl, who armed with a sharp mind and a vivid imagination, dares to take a stand to change her story with miraculous results.

The production visited Mayflower Theatre during it first UK and Ireland tour in the summer of 2019, wowing packed audiences and being described by our reviewer as 'joyous and gleeful, yet nasty and dark, perfectly capturing the essence of Roald Dahl's novel.'

Casting and further tour dates will be announced soon.

Tickets from mayflower.org.uk or 023 8071 1811.

IN BRIEF

'Human factors' in North Sea crash

A MARITIME expert has suggested "human factors" may have played a major role in the North Sea crash between a cargo ship and a tanker.

Dr Seyedvahid Vakili, from the University of Southampton, said it was "difficult to determine the main cause of the collision" at this stage.

He said: "In most cases, human factors play a significant role.

"This is particularly relevant for container vessels where high workloads and fatigue can be major contributing factors.

"At this stage, it needs further comprehensive investigation."

Charles Clover, founder of the Blue Marine Foundation, said there were "no apparent AIS gaps for either vessel."

Tiago Alves, a professor at Cardiff University, said the rescued seafarers "can contribute to a future investigation."

He said: "The oil tanker was seemingly under a military mission and might have been found, unexpectedly, anchored in an area that is not common for ships to moor."

REVIEW

Musical explores life of girl band in early days of fame

by News Reporter
newsdesk@thenews.co.uk
@portsmouthnews

Girlz
Havant and South Downs College

Girlz was performed at Havant and South Downs College

Girlz is an original musical written by Daf Hughes and follows the story of a brand new girl band and their first tumultuous year of success and tragedy.

The high-energy performance at Havant and South Downs College enjoyed a 'live concert' edge to it.

And despite being a story we all recognise (think 'Little Mix') it's told through the eyes of the main character Nicky (Maggie Hughes) who narrates the storyline in a heartfelt Bridget Jones-style.

Though it deals with serious themes of mental health, drug abuse, trolling and sexual bullying, it is balanced with a thread of warm, cheeky humour running through its core. The acting, dancing and vocals were impressive.

A manufactured band of inexperienced wannabe popstars are thrown together by an obnoxious, sexist manager, Kyle Kashman (brilliantly played by John Paul McCrohon). Kyle unsurprisingly focuses entirely on profit and power, pushing these novices to the edge. It's no secret that the music industry continues to hit the headlines for not protecting artists but these five Girlz are stronger than they look.

As is usual with girl bands, they all have quite distinct back stories and characteristics. Nicky yearns for success but isn't sure this will include her singer-songwriter boyfriend Adam who is already disillusioned about the music business.

Alex (Keighley Smith) has a troubled past and continues to fight new demons that are very much in the present. Frankie (Sophie Lockwood) is a more confident but frustrated singer-songwriter who only auditioned for fun.

And Jaz (Zoe Antoniou) is an engagingly sweet character who has just left her parents for the first time so is the more easily impressed band member, while Kim (Luisa Edgecombe) is a young single mum who has a lot more to lose so tries to keep all the Girlz (especially wild child Alex) in check.

Daf manages to find the balance between hilarious pastiche and a full-on choreographed live concert.

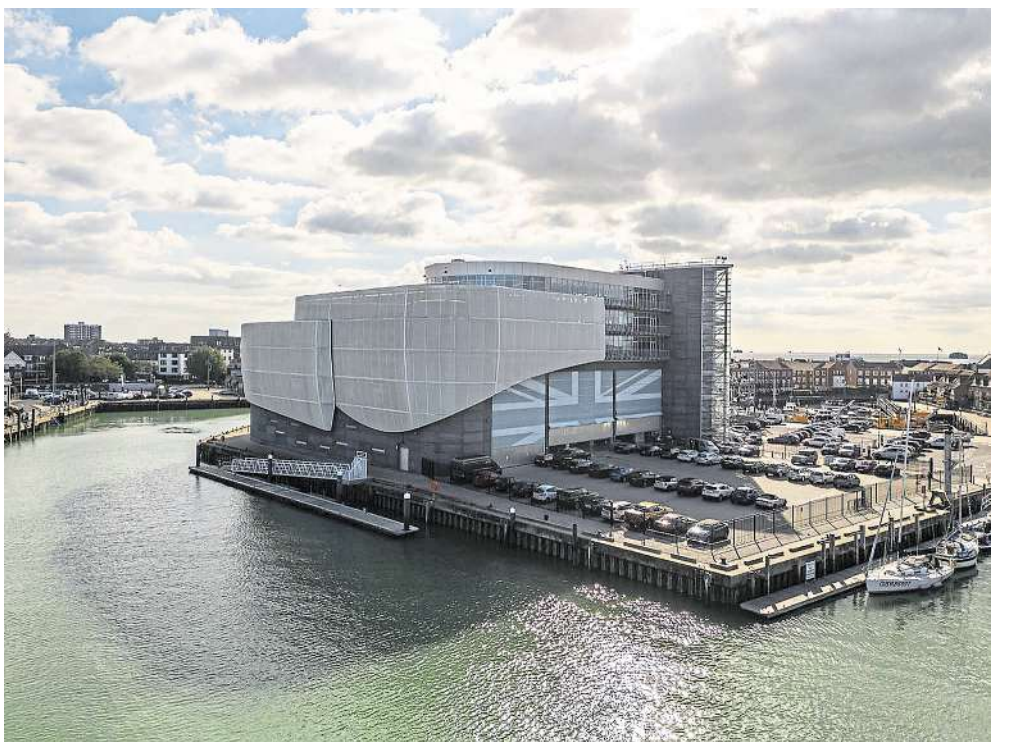
The show will feature at this year's Edinburgh Fringe and is likely to go down a storm.

JACKIE GREEN

PORTSMOUTH BRIEFING

A 'bright future' for business at employment hub

by Kelly Brown
kelly.brown@nationalworld.com
@KellyBrownMTW



The Camber in Old Portsmouth. Picture: Ben Parker

An iconic Old Portsmouth building housing specialist maritime and and engineering businesses has reached its full capacity, further solidifying the city's role as a hub for research and development.

The Camber has 600 desks across four floors and now houses 300 specialist employees from two of the UK's leading maritime and engineering employers, Subsea Craft and Bartech, which are driving the facility's success.

> *"Positive sign of the strength of these two industries in Portsmouth*

Cllr Steve Pitt, leader of Portsmouth City Council, with portfolio responsibility for culture, regeneration and economic development, said: "Seeing The Camber at full capacity is a positive sign of the strength of these two industries in Portsmouth.

"The land on which The Camber sits has a rich history, and its current success – combined with strong ties to the Portsmouth Harbour Authority – is a great achievement for the city.

"We're proud that Portsmouth boasts a higher employment rate compared to the rest of the South East, and this announcement from The Camber is testament to that."

Gabriel Remington, property manager, said: "The overwhelming demand for workspace at The Camber highlights the bright future of the maritime engineering sector in Portsmouth.

"The presence of these high-skilled, high-salary jobs is a key contributor to the local economy and keeps Portsmouth at the forefront of innovation in the UK."

The building was originally created as a purpose-built £12m project providing a home for Sir Ben Ainslie's America's Cup team before they moved out in 2021.

The building was originally given the go-ahead on city council land with a government cash grant of £6.5m in capital funding plus £1m for revenue costs.

G.10 Postcard

Hampshire Water Transfer and Water Recycling Project

Spring 2025 Consultation

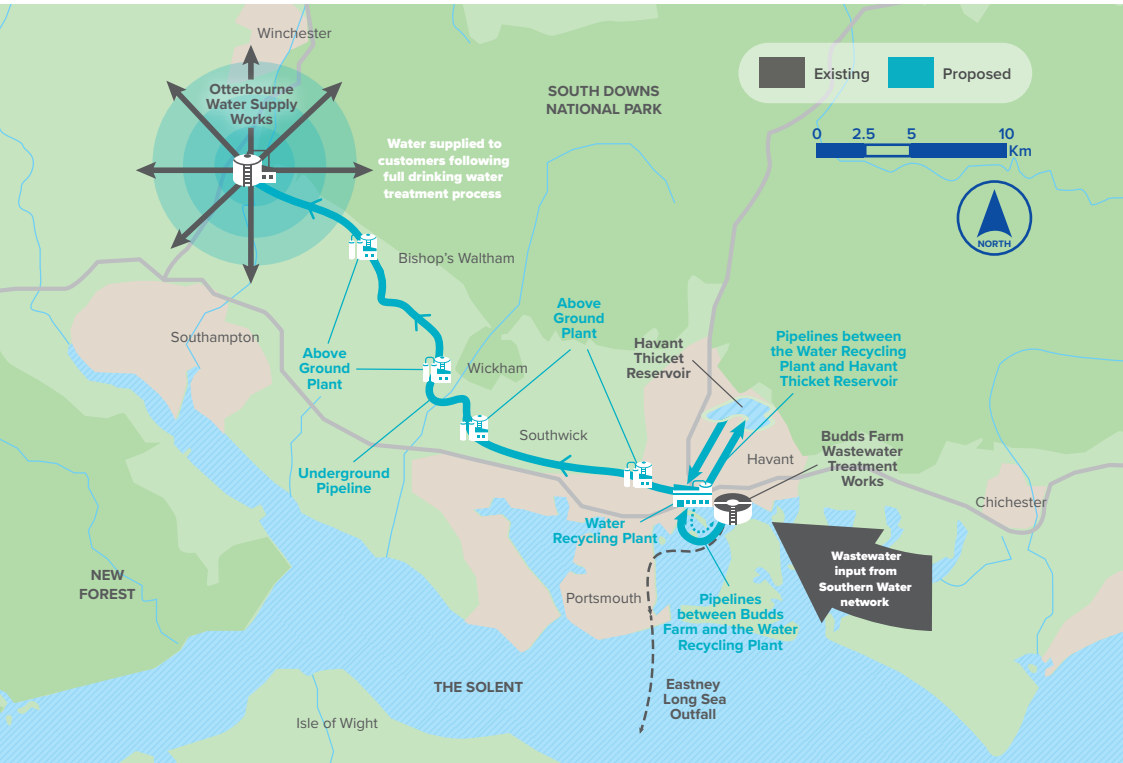
5 March to 4 April 2025

The Project

We're transforming the way we source, treat and supply water across Hampshire. Restrictions in the amount of water we can take from the environment, coupled with increased pressure from population growth and climate change, mean we need to create a new, resilient and sustainable water supply for the county. Doing so will protect and enhance Hampshire's rare and sensitive chalk streams, while maintaining supplies for our communities and the local economy.

We already have a shortfall of 166 million litres a day and this figure is only set to rise. The Hampshire Water Transfer and Water Recycling Project (the Project) would provide a new sustainable source of water, delivering up to 90 million litres of water a day into our Hampshire supply network. Meanwhile, we're also working hard to reduce leakage and improve water efficiency to help make up the shortfall.

In Summer 2024, we held an eight-week consultation on the Project. Listening to our stakeholders and local communities is important to us and your views are helping shape our plans.



Spring 2025 Consultation

Having undertaken additional work since our Summer 2024 Consultation, and having regard to the feedback received, we are now carrying out a supplementary consultation on updated water quality information and proposed Project design refinements.

You have received this postcard because you are located generally within 250m of the Project boundary and may be affected by the proposed Project design refinements. Our four-week consultation will run from **5 March to 4 April 2025**.

To learn more about our Spring 2025 Consultation, or to revisit our story so far, you can visit our website at **www.HampshireWTWRP.co.uk** to view the relevant consultation information and the previous material from our Summer 2024 Consultation.

Have your say

We want to hear if you have any further views about the updated water quality information, and our proposed design refinements to the Project.

The easiest way to respond is by completing an online feedback form via our website: **www.HampshireWTWRP.co.uk**

Send us an email at: **FeedbackHWTWRP@southernwater.co.uk**

Writing to us with no stamp required at:
FREEPOST HAMPSHIRE WTWRP CONSULTATION

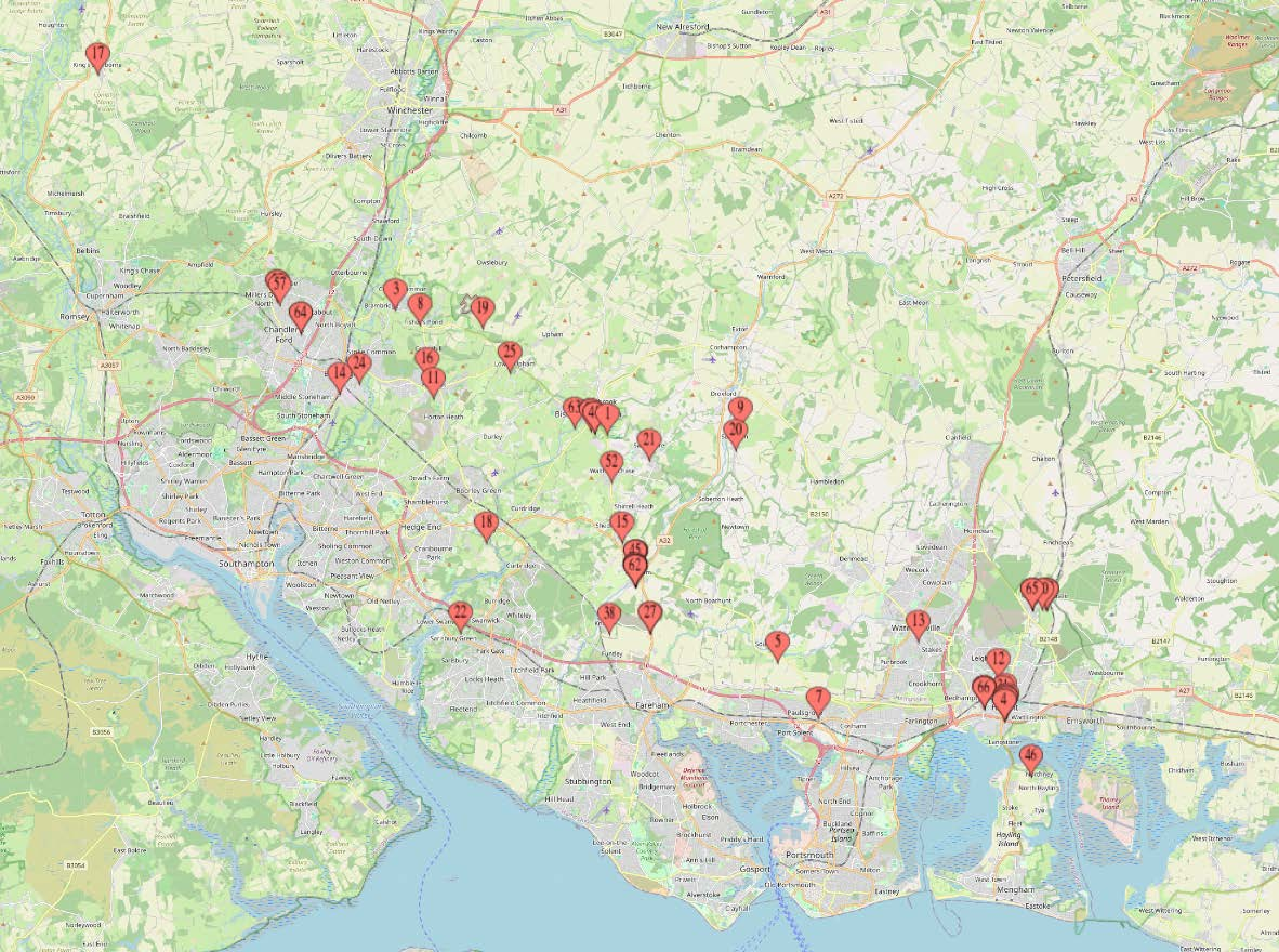
For Project related enquiries

Send us an email at:
HampshireWTWRP@southernwater.co.uk

Call us free on: **0800 254 5138**

All responses must be received by **11.59pm on 4 April 2025**.

G.11 Poster locations map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Petersfield
Romsey
Chandler's Ford
Southampton
Hedge End
Fareham
Stubbington
Gosport
Portsmouth
Hythe
Emsworth
Hayling Island
Mengham
Eastoke
Bishop's Sutton
Kings Worthy
Abbotts Barton
Owslebury
Upham
Durley
Curdridge
Shamblehurst
Botley Green
Cranbourne Park
Bursledon
Whiteley
Swanwick
Sarisbury Green
Locks Heath
Titchfield Park
Titchfield
Hill Park
Heathfield
West End
Funtley
Portchester
Port Solent
Paulsgrove
Cosham
Farlington
Hilsea
North End
Buckland
Portsea Island
Baffins
Milton
Eastney
Anchorage Park
Woodcot
Bridgemary
Holbrook
Elson
Rowner
Brockhurst
Ann's Hill
Alverstoke
Hill Head
Lee-on-the-Solent
Totton
Eling
Testwood
Shirley
Shirley Park
Shirley Warren
Bassett
Bassett Green
Hampton Park
Bitterne
Bitterne Park
Harefield
Thornhill Park
Sholing Common
Weston Common
Pleasant View
Woolston
Newtown
Old Netley
Marchwood
Dibden Purlieu
Hardley
Holbury
Langley
Beaulieu
East Boldre
Nursling
Rownhams
Lordswood
Aldermoor
Coxford
Upton
Middle Stoneham
South Stoneham
Chilworth
North Baddesley
Ampfield
Woodley
Cupernham
Halterworth
Whitenap
Michelmarsh
Timsbury
Braishfield
Hursley
Compton
Shawford
South Down
Otterbourne
Sparsholt
Littleton
Harestock
Fulflood
Winnall
Highcliffe
Chilcomb
Oliver's Battery
Tichborne
Cheriton
Bramdean
West Meon
Warnford
East Meon
Exton
Corhampton
Droxford
Soberton Heath
Newtown
Hambledon
Denmead
Lovedean
Horndean
Catherington
Clanfield
Chalton
Cowplain
Stakes
Purbrook
Crookhorn
Bedhampton
Westbourne
Southbourne
Langstone
North Hayling
Stoke
Fleet
West Town
Compton
West Marden
Walderton
Stoughton
Funtington
Chidham
Bosham
West Itchenor
West Wittering
East Wittering
Thorney Island
South Harting
Nyewood
Rogate
Buriton
Steep
Sheet
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Causeway
Stroud
Langrish
High Cross
Hawkley
Greatham
West Liss
Hill Brow
Rake
Selborne
Blackmoor
Newton Valence
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Gundleton
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Easton
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B2148
B2147
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G.12 Poster

Hampshire Water Transfer and Water Recycling Project

Spring 2025 Consultation
5 March to 4 April 2025

The Hampshire Water Transfer and Water Recycling Project is a key part of our strategy to address the county's water supply challenge.

Have your say

Following on from our Summer 2024 Consultation, we are now carrying out a further consultation on updated water quality information and Project design refinements.

You can provide feedback by:

- Filling out our online feedback form at www.HampshireWTWRP.co.uk
- Sending us an email at FeedbackHWTWRP@southernwater.co.uk
- Writing to us via FREEPOST HAMPSHIRE WTWRP CONSULTATION (no stamp required)

To find out more about these updates, the Project itself and all previous and new documents, scan the QR code, or visit the website below.

www.HampshireWTWRP.co.uk

For Project related enquiries

Phone
0800 254 5138

Email us
HampshireWTWRP@southernwater.co.uk

WATER for LIFE®

from Southern Water®

Consultation feedback must be submitted to us by 11:59PM on 4 April 2025

G.13 Social media

Our Spring 2025 Consultation opens soon.

Have your say

Hampshire Water Transfer and Water Recycling Project

Spring 2025 Consultation 5 March to 4 April 2025

WATER for LIFE from Southern Water

Our Spring 2025 Consultation is now open.

Have your say

Hampshire Water Transfer and Water Recycling Project

Spring 2025 Consultation 5 March to 4 April 2025

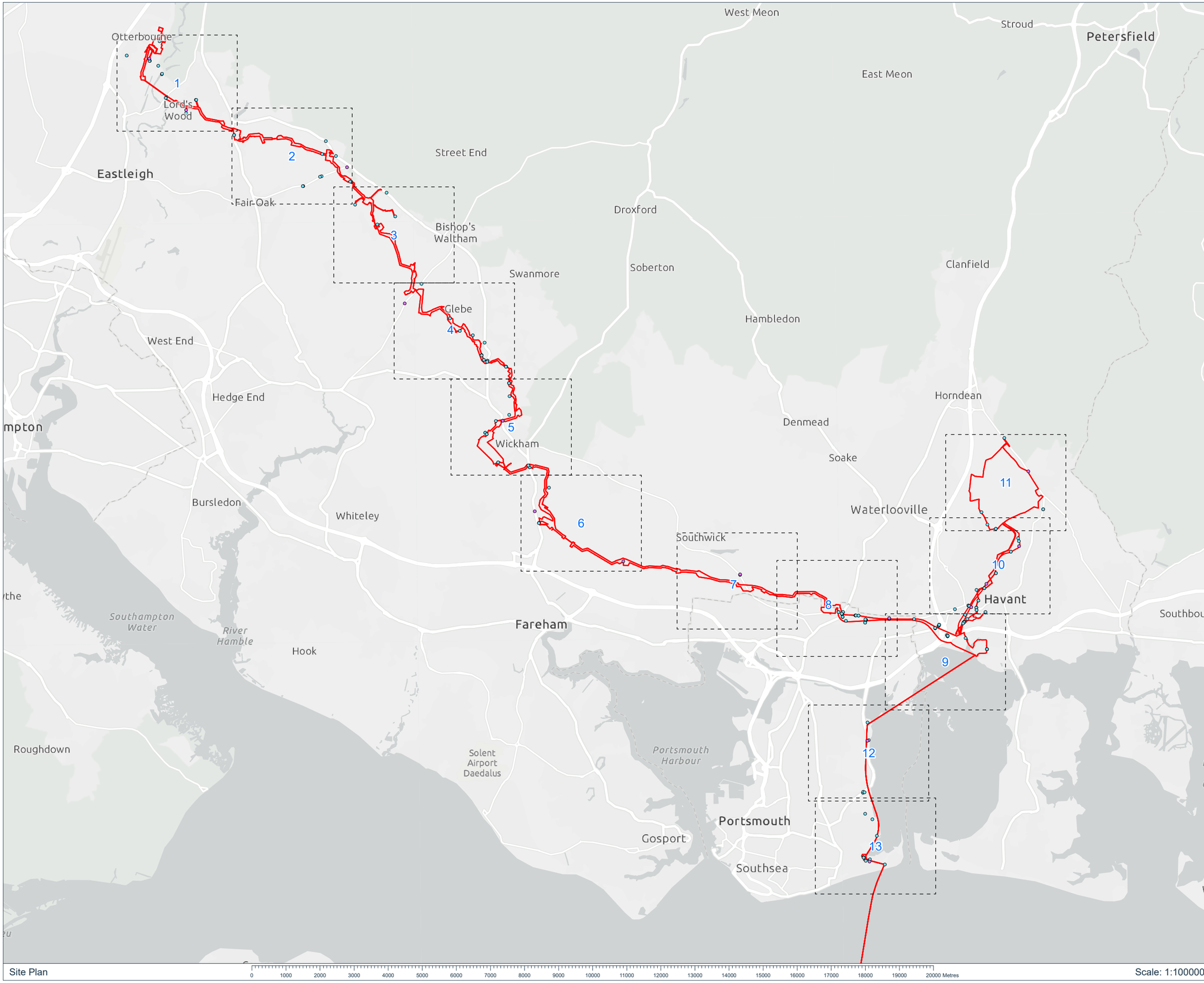
WATER for LIFE from Southern Water

Our Spring 2025 Consultation closes soon.

Hampshire Water Transfer and Water Recycling Project - Spring 2025
Consultation: 5 March to 4 April 2025

WATER for LIFE from Southern Water

G.14 Unregistered site notice and Section 48 notice placement



DALCOUR MACLAREN

Key:

- DCO Order Limits
- Sheet Extents
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Otterbourne to Eastney, Hampshire

Coords: 459750, 110279

Scheme Name: Hampshire Water Transfer and Water Recycling Project

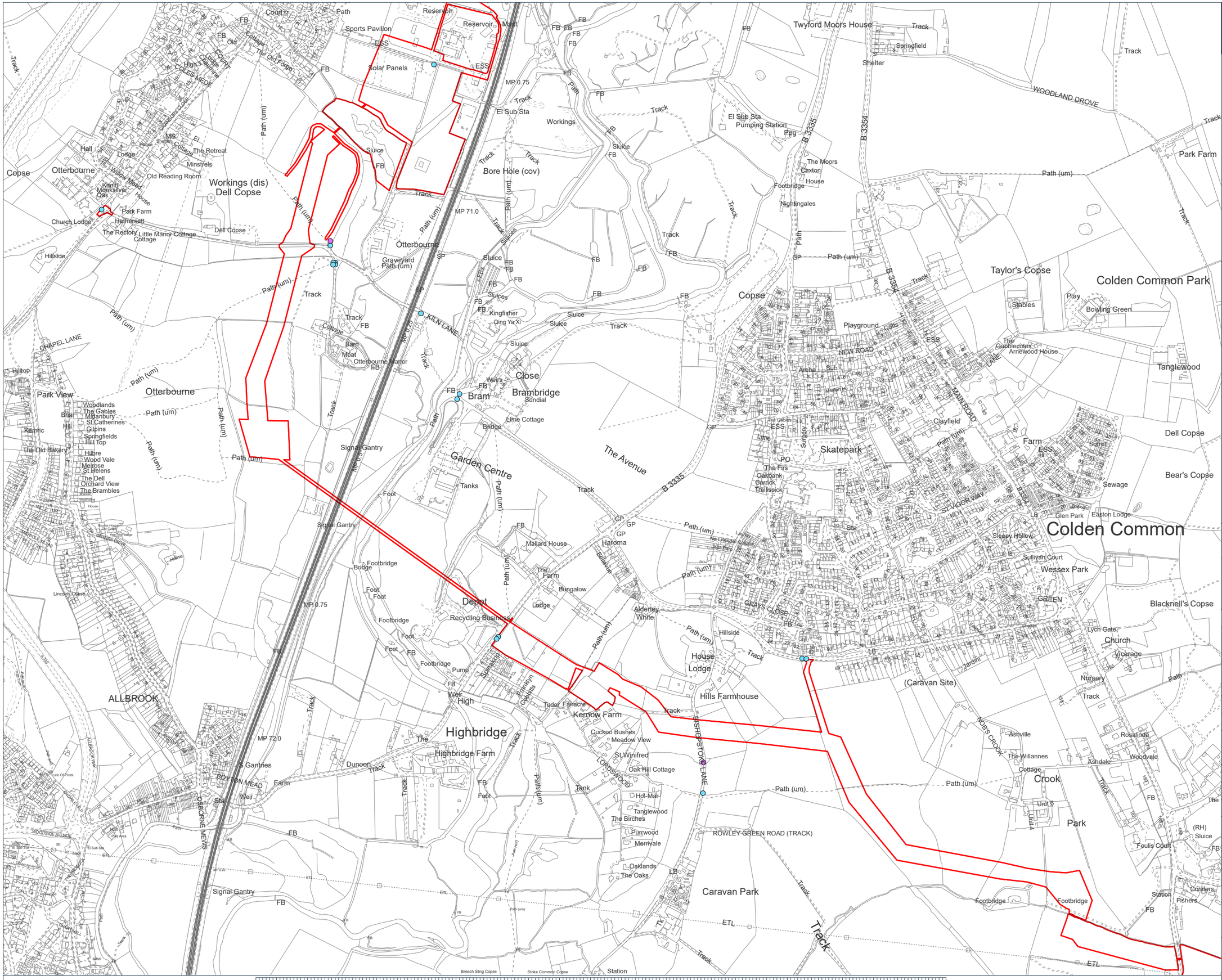
Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations - Overview Sheet

Drawing No: 23008223_PLN_INFO_8604.1

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	SC
Sheet No:	1 of 1
Sheet Size:	A3

WATER for LIFE from Southern Water.



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DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Colden Common, Brambridge, Winchester, Hampshire, SO50 6HL

Coords: 447205, 122008

Scheme Name: Hampshire Water Transfer and Water Recycling Project

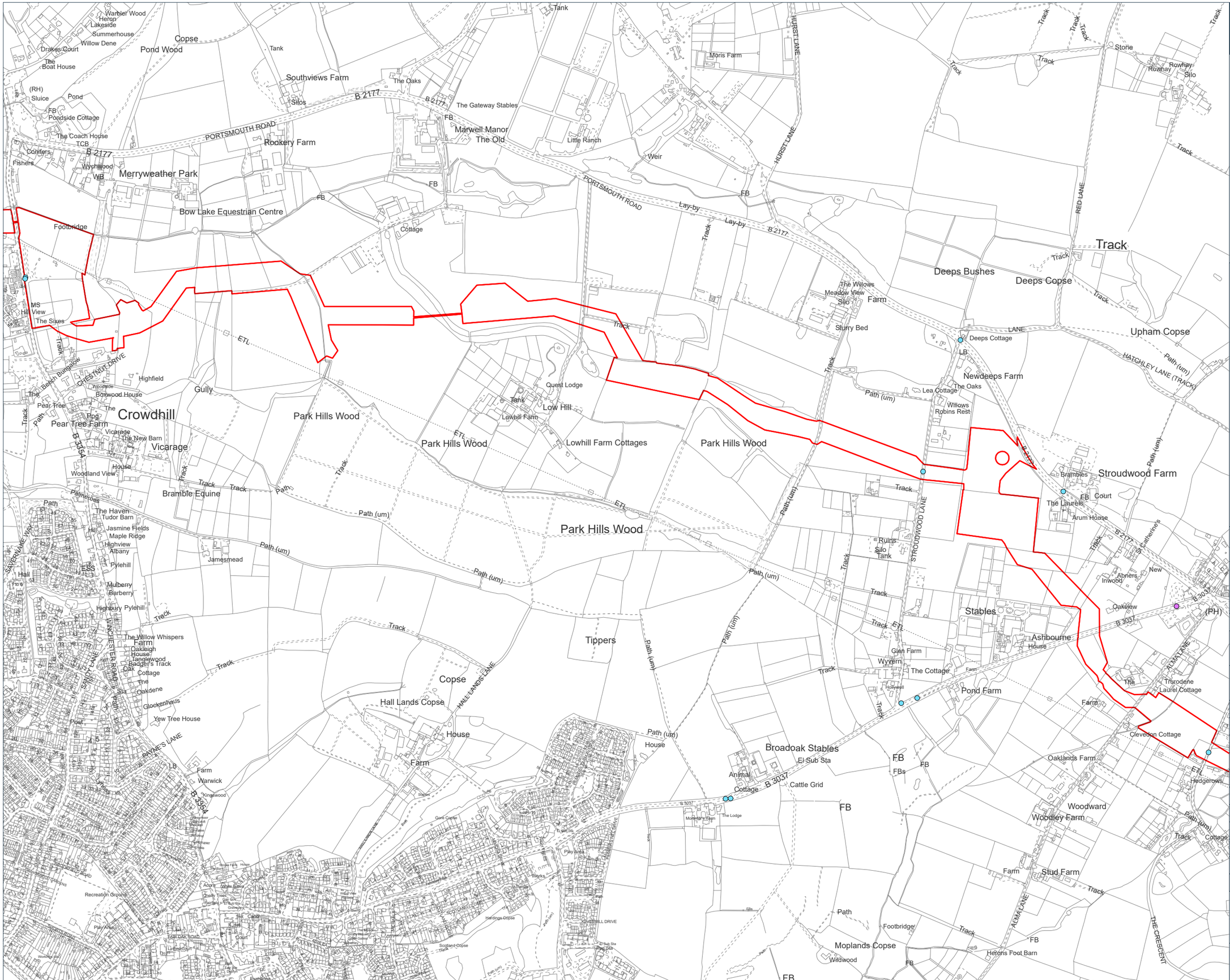
Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.1

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	1 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water



Site Plan

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DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest:
N/A

Location:
Fair Oak, Eastleigh, Hampshire, SO50 7QP

Coords: 450577, 119868

Scheme Name:
Hampshire Water Transfer and Water Recycling Project

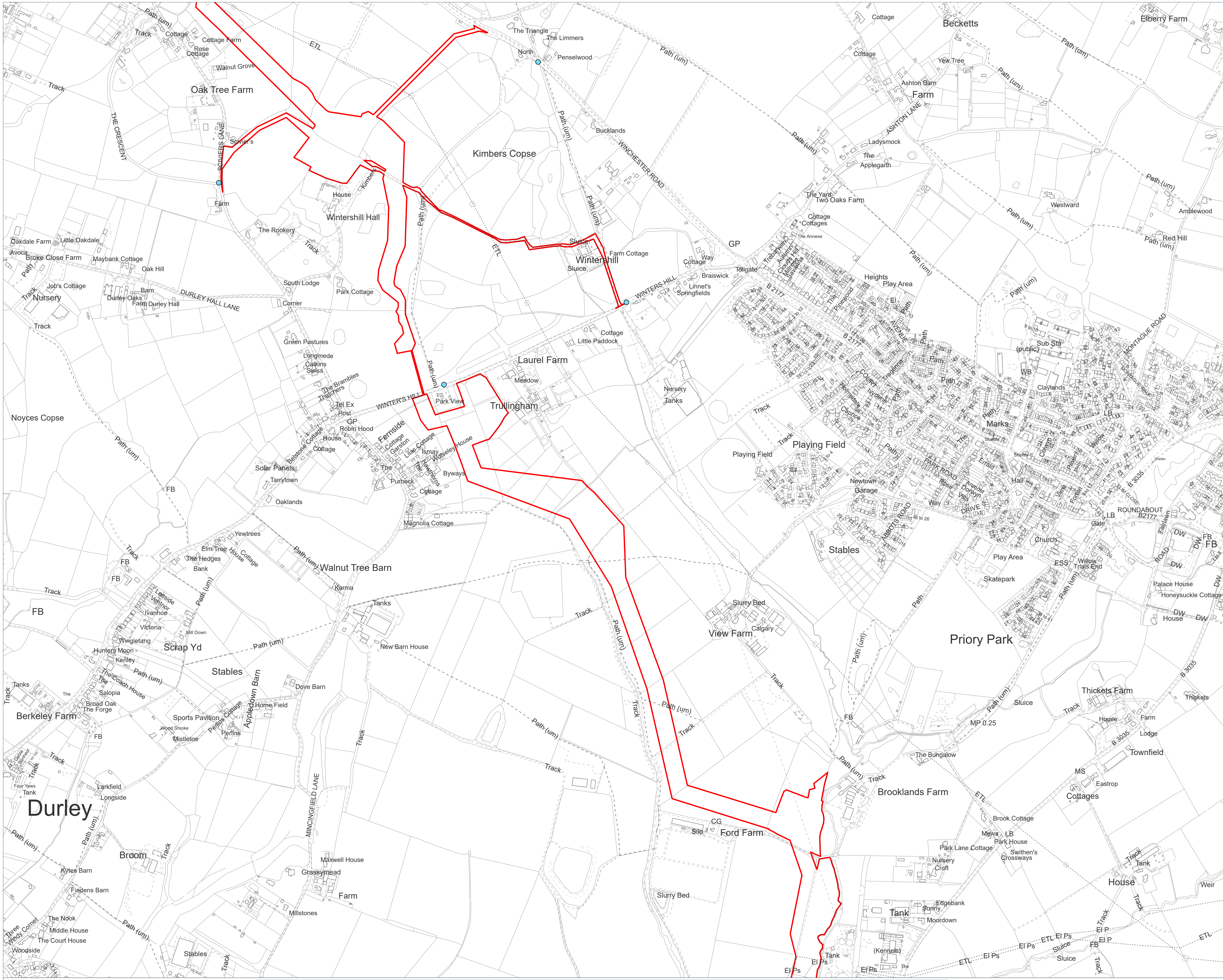
Drawing Name:
Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.2

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	2 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water



Drawing Location: C:\Users\martin.russ\Dalcour Maclaren\SW Hampshire DCO 23008223 - Geomatics\01 DM Plans\Information Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans.aprx

Site Plan

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 Metres

Scale: 1:10000

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Bishop's Waltham, Winchester, Hampshire, SO32 1TG

Coords: 453568, 117556

Scheme Name: Hampshire Water Transfer and Water Recycling Project

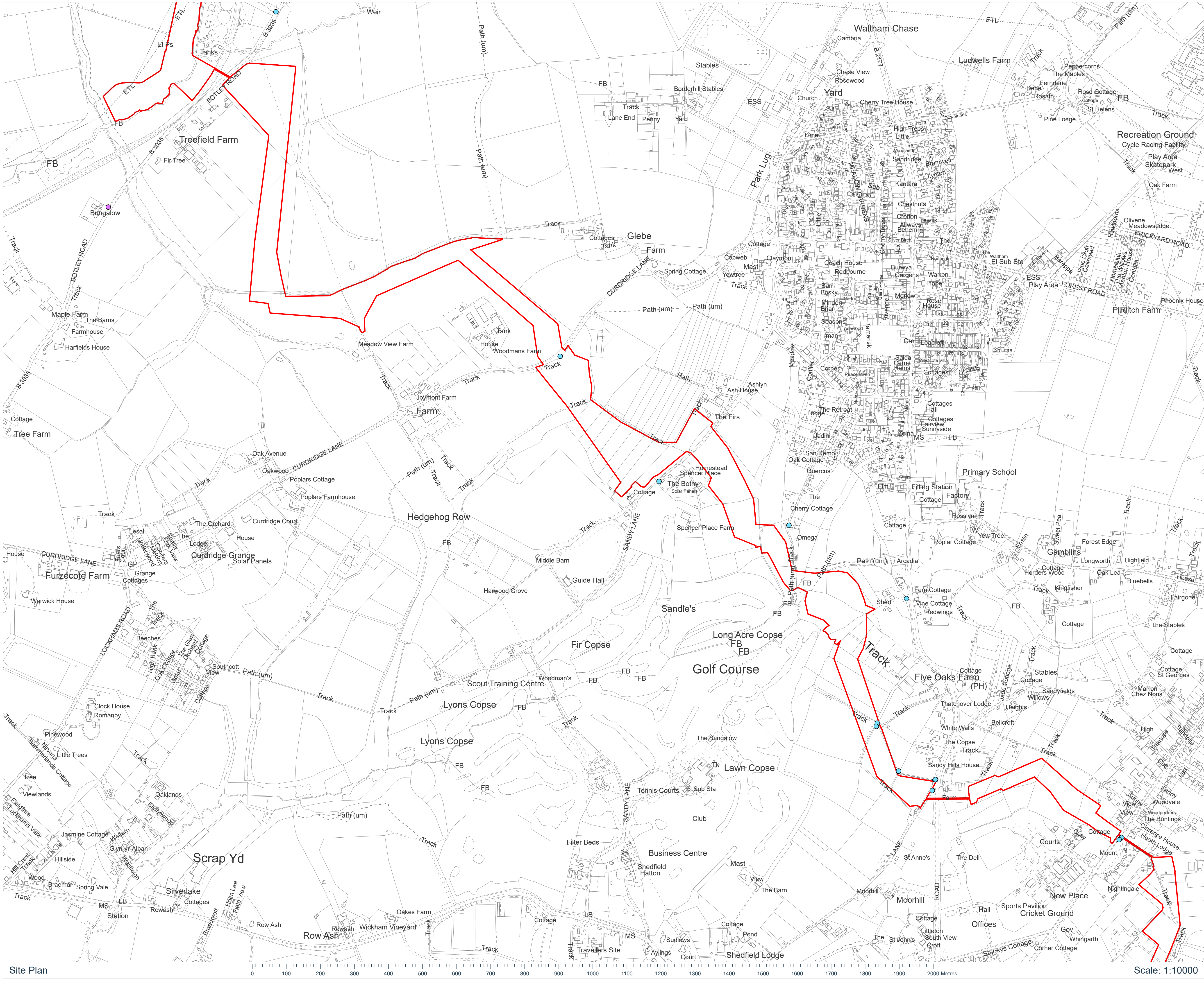
Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.3

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	3 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water



Site Plan

Scale: 1:10000

Drawing Location: C:\Users\martin.russ\Dalcour Maclaren\SW Hampshire DCO 23008223 - Geomatics\01 DM Plans\Information Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans.aprx

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Shedfield, Winchester, Hampshire, SO32 2HY

Coords: 455338, 114735

Scheme Name: Hampshire Water Transfer and Water Recycling Project

Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations

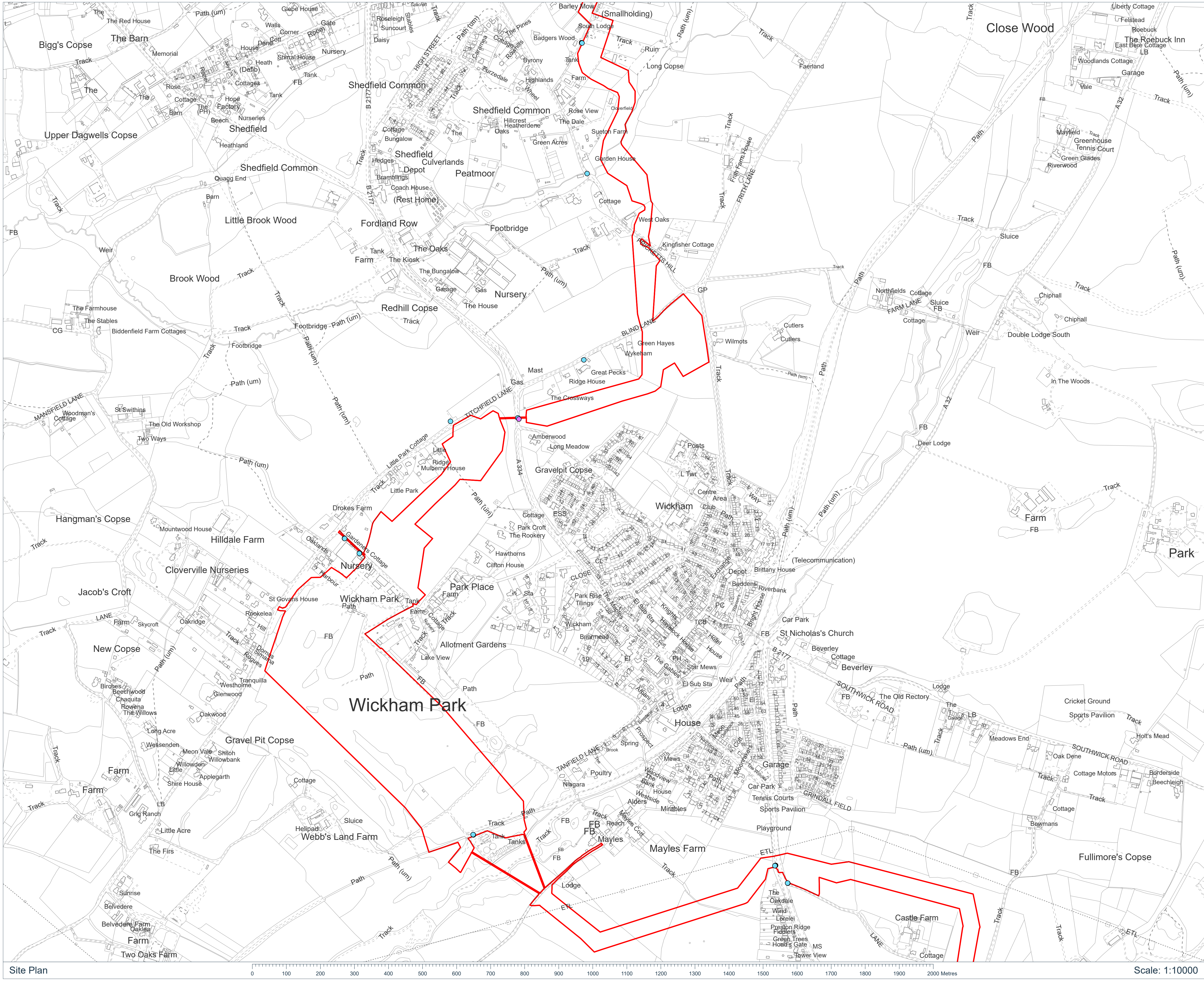
Drawing No: 23008223_PLN_INFO_8605.4

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	4 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water

Drawing Location: C:\Users\martin.russ\Dalcour Maclaren\SW Hampshire DCO 23008223 - Geomatics\01 DM Plans\Information Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans.aprx



Site Plan

Scale: 1:10000

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest:
N/A

Location:
Wickham, Winchester, Hampshire, PO17 5HN

Coords: 457007, 111915

Scheme Name:
Hampshire Water Transfer and Water Recycling Project

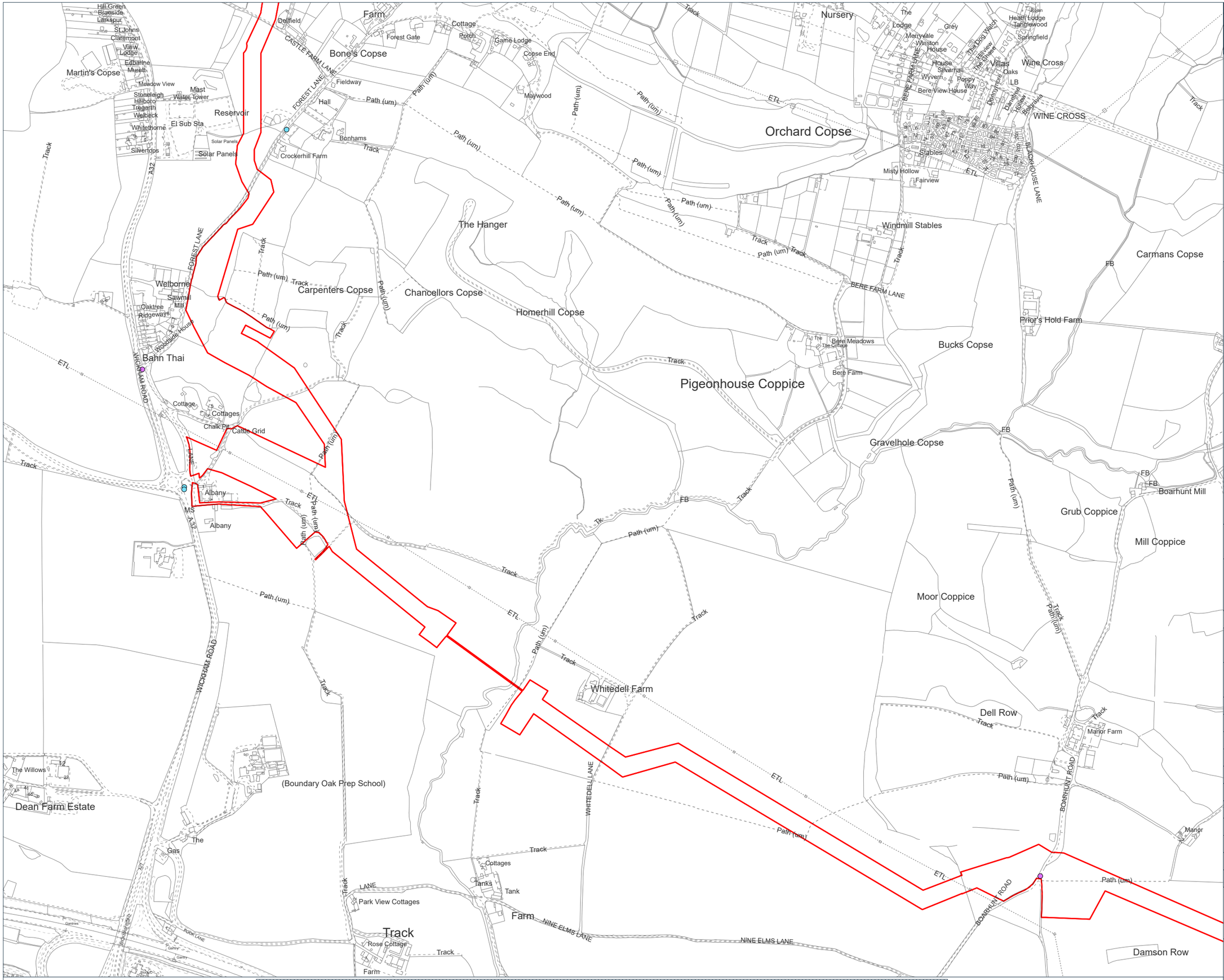
Drawing Name:
Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.5

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	5 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water



Site Plan

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Scale: 1:10000

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest:
N/A

Location:
North Wallington, Fareham, Hampshire, PO17 6NA

Coords: 459060, 109096

Scheme Name:
Hampshire Water Transfer and Water Recycling Project

Drawing Name:
Spring 2025 Statutory Consultation Site Notice Locations

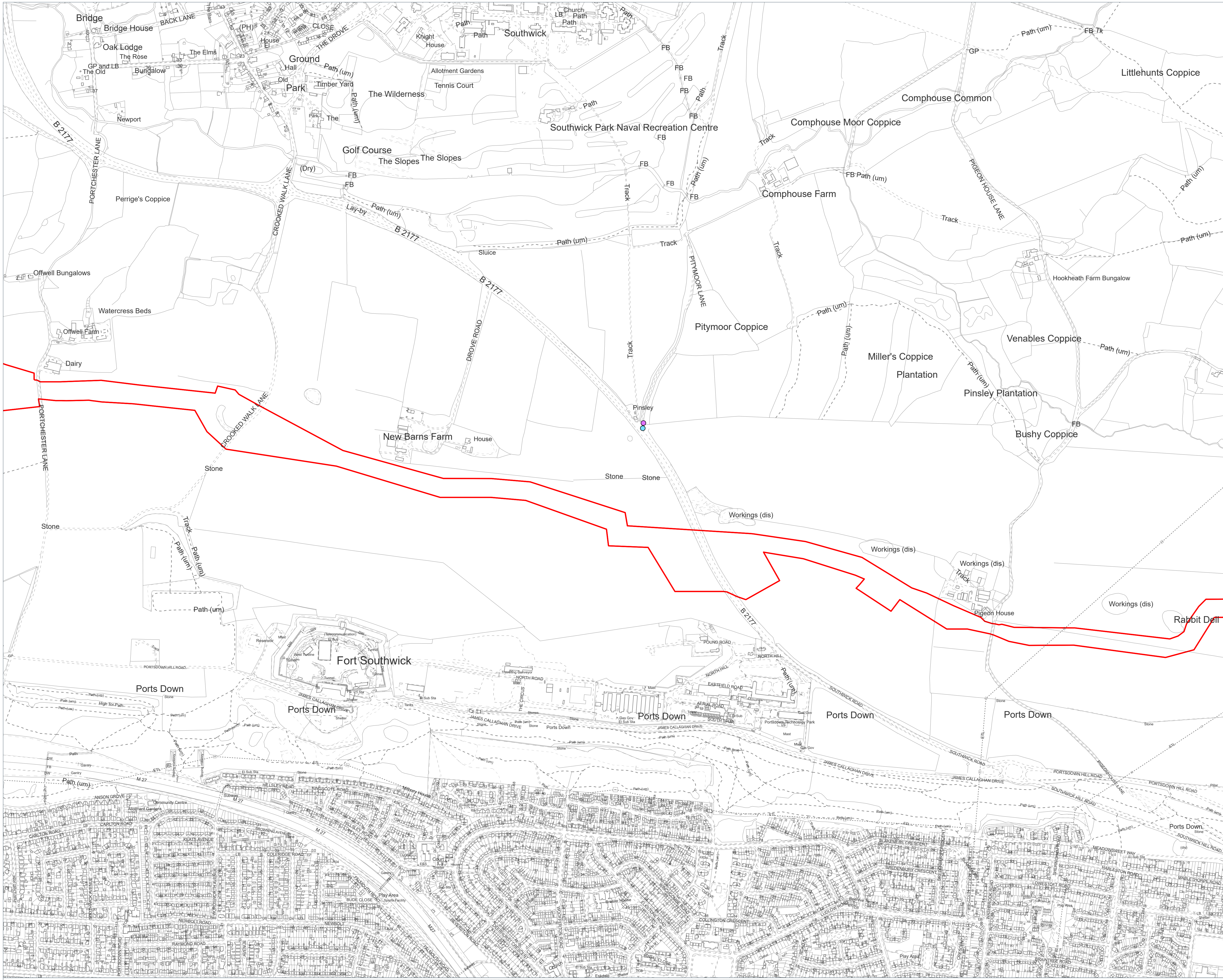
Drawing No: 23008223_PLN_INFO_8605.6

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	6 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water

Drawing Location: C:\Users\martin.russ\Dalcour Maclaren\SW Hampshire DCO 23008223 - Geomatics\01 DM Plans\Information Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans.aprx



Site Plan

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Scale: 1:10000

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Southwick and Widley, Southwick, Winchester, Hampshire, PO17 6EN

Coords: 463637, 107400

Scheme Name: Hampshire Water Transfer and Water Recycling Project

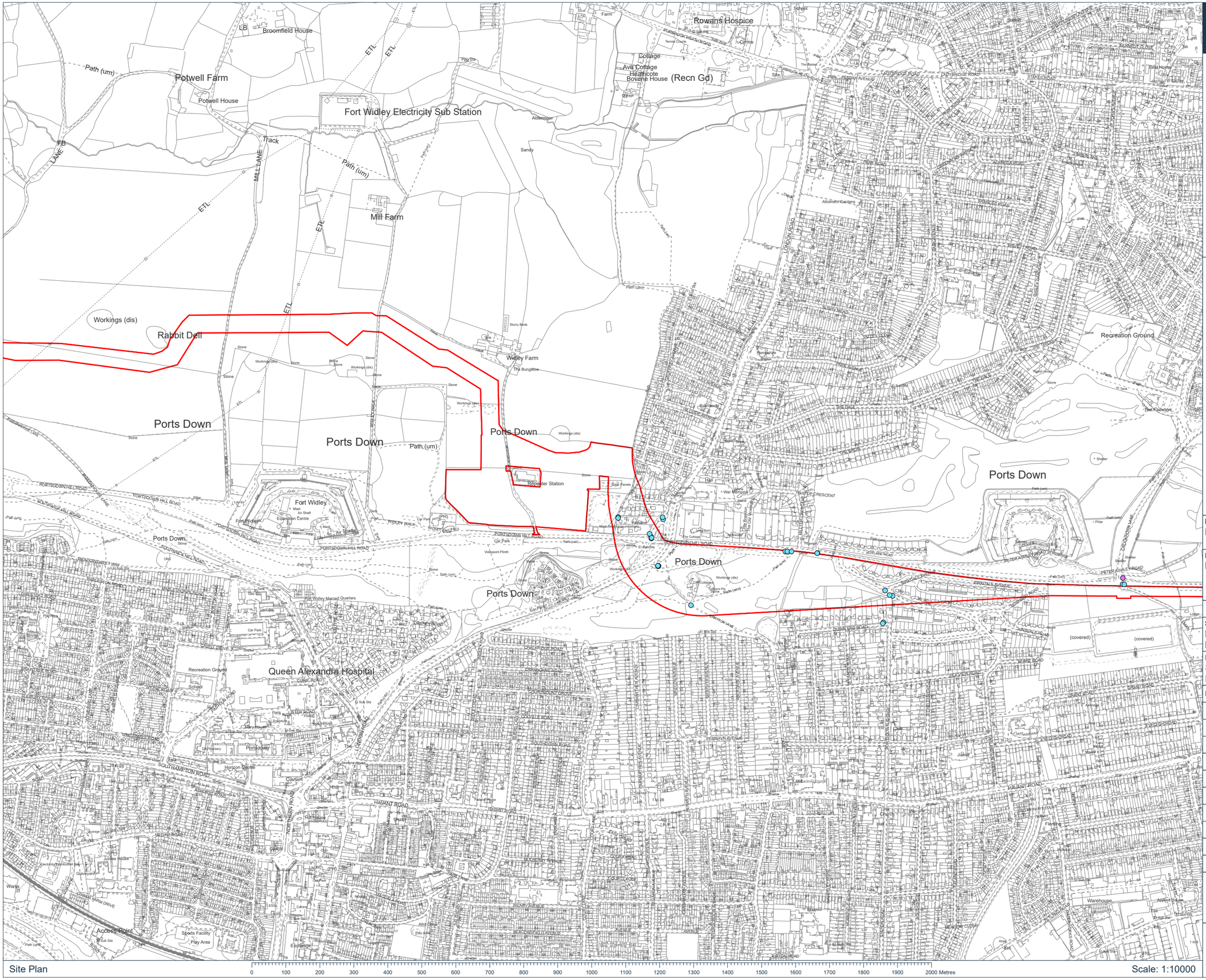
Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.7

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	7 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water.



Site Plan

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest:
N/A

Location:
Drayton, Portsmouth, PO6 3ND

Coords: 466568, 106594

Scheme Name:
Hampshire Water Transfer and Water Recycling Project

Drawing Name:
Spring 2025 Statutory Consultation Site Notice Locations

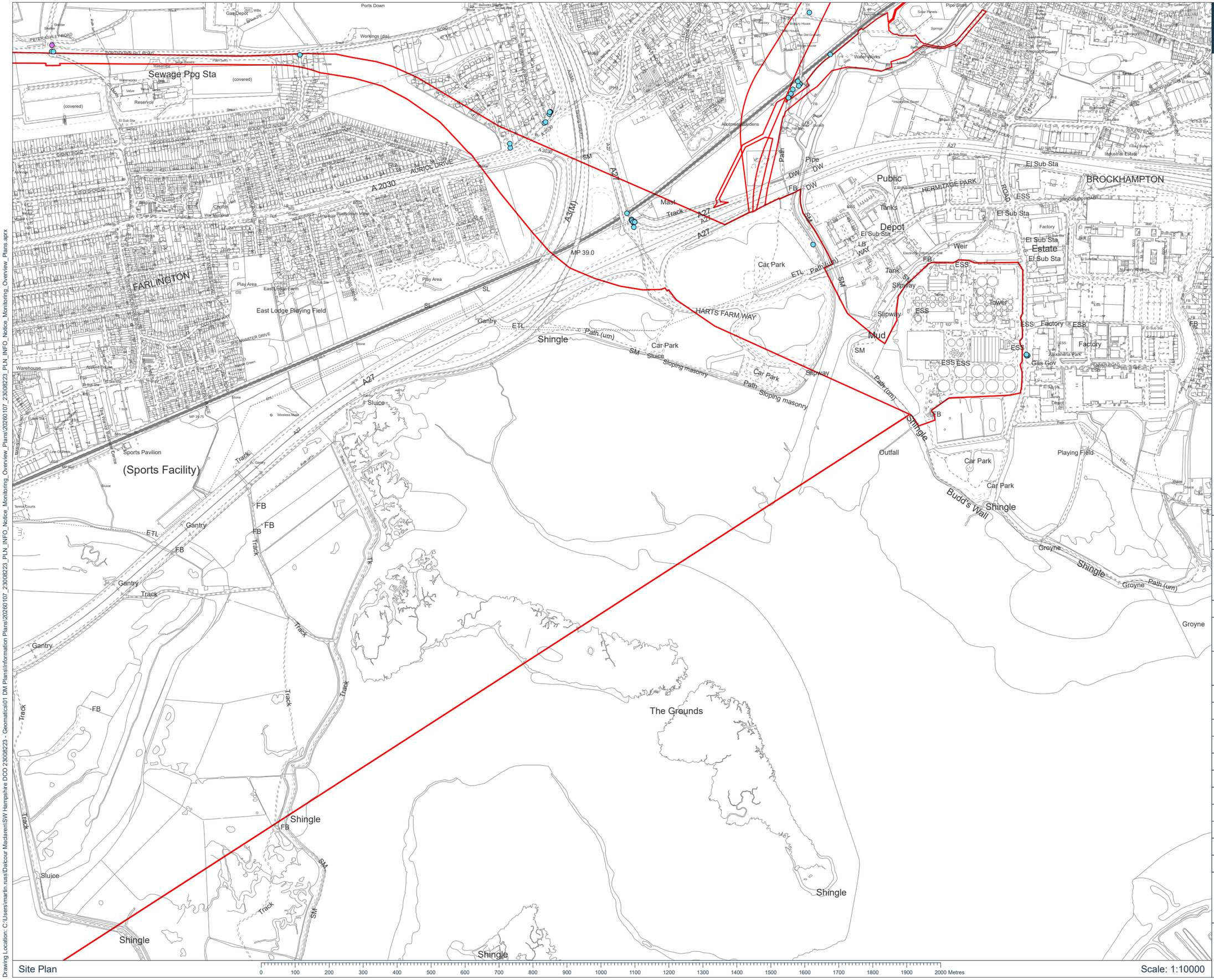
Drawing No: 23008223_PLN_INFO_8605.8

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	8 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water

Drawing Location: C:\Users\martin.russ\Dalcour MacdarenSW Hampshire DCO 23008223 - Geomatics\01 DM Plans\Information Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans.aprx



Site Plan

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Scale: 1:10000

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Bedhampton, Havant, Hampshire, PO9 3NB

Coords: 469747, 105026

Scheme Name: Hampshire Water Transfer and Water Recycling Project

Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.9

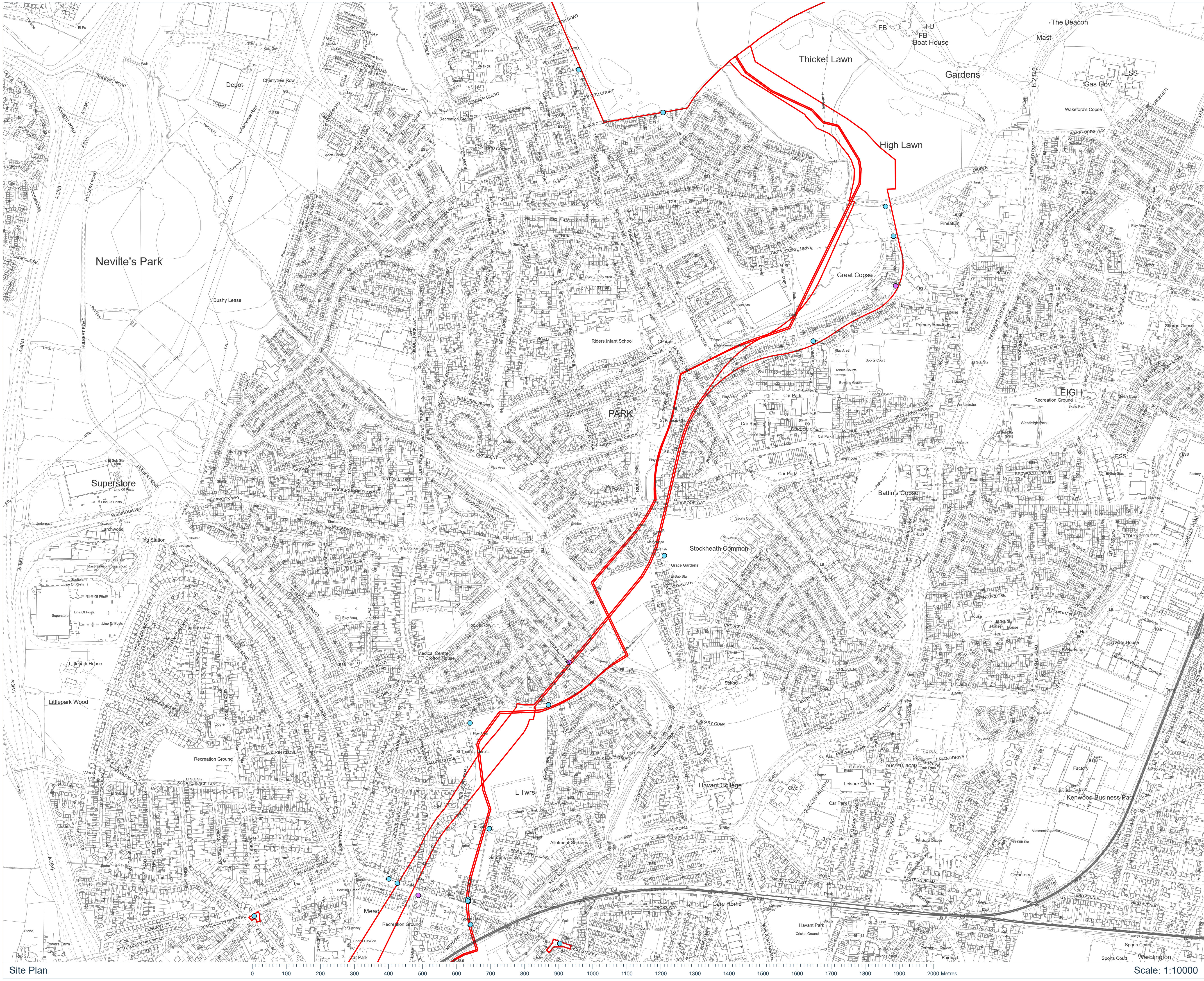
Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	9 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water.

Drawing Location: C:\Users\martin.russ\Dalcour Maclaren\SW Hampshire DCO 23008223 - Geomatics\01 DM Plans\Information Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans.aprx

Drawing Location: C:\Users\martin.russ\Dalcour Maclaren\SW Hampshire DCO 23008223 - Geomatics\01 DM Plans\Information Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans.aprx



Site Plan

Scale: 1:10000

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Leigh Park, Havant, Hampshire, PO9 4RD

Coords: 471053, 107845

Scheme Name: Hampshire Water Transfer and Water Recycling Project

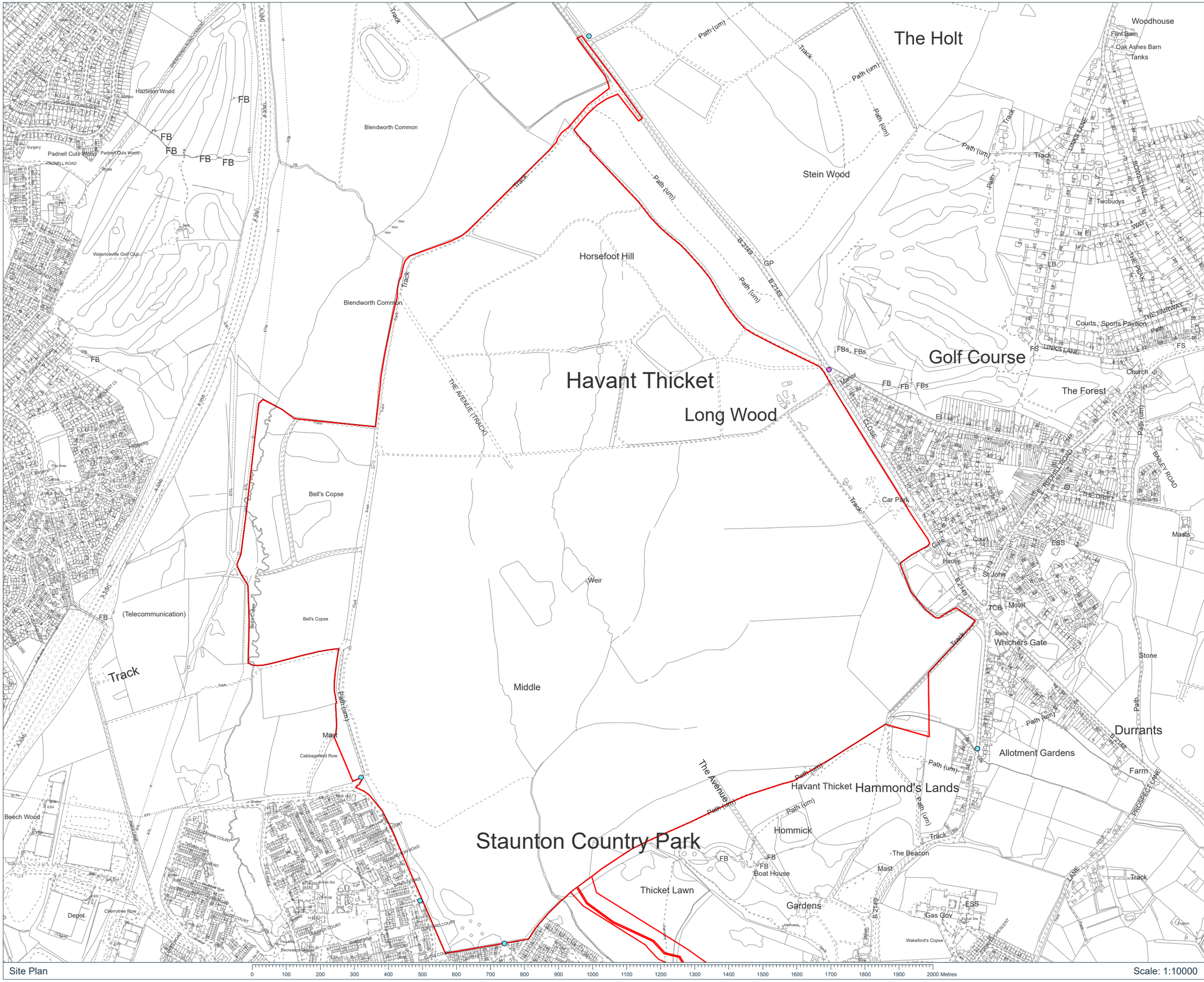
Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.10

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	10 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water



Site Plan

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 Metres

Scale: 1:10000

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest:
N/A

Location:
Rowlands Castle, Horndean, East Hampshire, Hampshire, PO8 0AJ

Coords: 471519, 110285

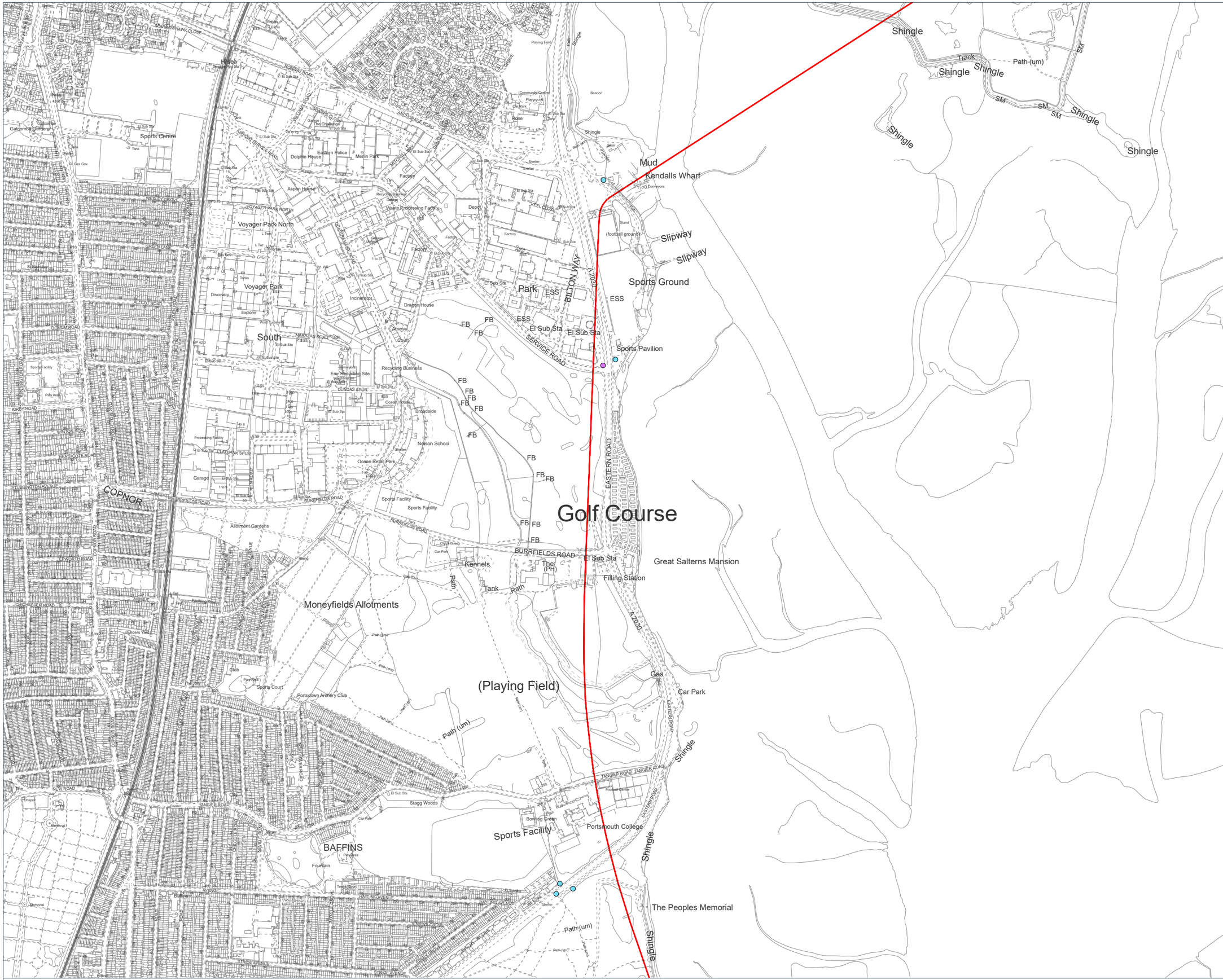
Scheme Name:
Hampshire Water Transfer and Water Recycling Project

Drawing Name:
Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.11

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	11 of 13
Sheet Size:	A3



Site Plan

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Scale: 1:10000

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Anchorage Park, Portsmouth, PO3 5FF

Coords: 467494, 102350

Scheme Name: Hampshire Water Transfer and Water Recycling Project

Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.12

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	12 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water.

Drawing Location: C:\Users\martin.russ\Dalcour Maclaren\SW Hampshire DCO 23008223 - Geomatics\01 DM Plans\Information Plans\20260107_23008223_PLN_INFO_Notice_Monitoring_Overview_Plans.aprx

DALCOUR MACLAREN

Key:

- DCO Order Limits
- S48 General Notice
- Unregistered Site Notice

Notes:

Notice locations are indicative

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936

Interest: N/A

Location: Eastney, Portsmouth, PO4 8LQ

Coords: 467696, 99623

Scheme Name: Hampshire Water Transfer and Water Recycling Project

Drawing Name: Spring 2025 Statutory Consultation Site Notice Locations

Drawing No: 23008223_PLN_INFO_8605.13

Rev	Date	Description
-	15.01.2026	First Issue

Drawn:	MR
Approved:	RB
Sheet No:	13 of 13
Sheet Size:	A3

WATER for LIFE from Southern Water.

G.15 Section 42(1)(a), (aa) and (b) cover letter – existing consultees

from Southern Water

Title First Name Second Name
Company Name/Name
Add 1
Add 2
Add 3
Add 4
Add 5
Postcode

Date
4 March 2025

Dear Salutation,

Hampshire Water Transfer and Water Recycling Project

Section 42(1)(a), (aa) and (b) Planning Act 2008: Duty to consult on a proposed application

The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

I wrote to you in May 2024 about Southern Water's Summer 2024 Consultation on its Hampshire Water Transfer and Water Recycling Project (the Project) in your capacity as a prescribed body or a local authority in respect of the Project. I am now writing regarding our Spring 2025 Consultation, and this letter is part of the statutory duty to consult under the relevant legislation[1]. This is an opportunity for you to find out further details on the Project and share your views on the additional information and refinements presented in our consultation.

About the Project

As a reminder, the Project will transform how we source, treat and supply water across Hampshire. In the face of increasing environmental restrictions, population growth and climate change, the Project will help maintain essential water supplies for customers while taking less water from the environment, protecting the rare and sensitive chalk streams of the River Test and River Itchen.

The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.

The Project has been directed by the Secretary of State as a project of national significance. We are therefore seeking consent for the Project under the Planning Act 2008 and anticipate making an application to the Secretary of State for a Development Consent Order in late 2025. As the Project falls within the threshold set out in Schedule 2 paragraph 10(l) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 Regulations), the Project will require an Environmental Impact Assessment (EIA). Accordingly, we prepared a Preliminary Environmental Information Report (PEI Report) as part of our Summer 2024 Consultation to help

[1] As prescribed under s.42 of the Planning Act 2008 and Regulation 3 of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

you understand the preliminary likely significant environmental effects of our proposals that we identified.

Further consultation on the Project

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs of the modelling and assessment of effects would be fully reported in the Environmental Statement with our Development Consent Order application. We are now carrying out a supplementary consultation on the updated water quality information, as well as a number of project design refinements. As part of our Spring 2025 Consultation, we want to know what stakeholders specifically think about:

- Likely water quality impacts of the Project on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Further detail can be found in the Water Quality Report on our website.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation, further investigations, surveys and assessments, and design development, details of which can be found on our website and in the Consultation Information document.

Our four-week consultation will run from **5 March 2025 until 4 April 2025**.

Feedback will provide us with an understanding of any relevant issues and will be used to inform refinement and finalisation of the scheme as the Project progresses along the consenting timetable towards an application for development consent.

To learn more about our Spring 2025 Consultation, or to revisit our story so far, you can visit our website at **www.HampshireWTWRP.co.uk** to find out the relevant consultation information and all the previous material from our Summer 2024 Consultation.

For further information on the Spring 2025 Consultation, please see the enclosed notice provided under section 48 of the Planning Act 2008.

How to respond to this consultation

You can provide feedback by:

- Emailing **FeedbackHWTWRP@southernwater.co.uk**
- Filling out our online feedback form at **www.HampshireWTWRP.co.uk**
- Writing to us with no stamp required at **FREEPOST HAMPSHIRE WTWRP CONSULTATION**

The deadline for submitting responses to this consultation is **11.59pm on 4 April 2025**.

We look forward to hearing from you.

Ending,

[redacted]

Water for Life Hampshire, Programme Manager

Scan the QR code to view our website and give your feedback

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

G.16 Section 42(1)(a), (aa) and (b) cover letter – existing consultees

from Southern Water

Title First Name Second Name
Company Name/Name
Add 1
Add 2
Add 3
Add 4
Add 5
Postcode

Date
4 March 2025

Dear

Hampshire Water Transfer and Water Recycling Project

Section 42(1)(a), (aa) and (b) Planning Act 2008: Duty to consult on a proposed application

The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

I am writing to you about Southern Water's consultations on its Hampshire Water Transfer and Water Recycling Project (the Project). You have been recently identified as a prescribed body in respect of the Project and this letter is part of the statutory duty to consult under the relevant legislation[1]. This is an opportunity for you to find out more about the Project, share your views on our proposals and the additional information and refinements presented in our consultation.

About the Project

The Project will transform how we source, treat and supply water across Hampshire. In the face of increasing environmental restrictions, population growth and climate change, the Project will help maintain essential water supplies for customers while taking less water from the environment, protecting the rare and sensitive chalk streams of the River Test and River Itchen.

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The Project has been directed by the Secretary of State as a project of national significance. We are therefore seeking consent for the Project under the Planning Act 2008 and anticipate making an application to the Secretary of State for a Development Consent Order in late 2025. As the Project falls within the threshold set out in Schedule 2 paragraph 10(l) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 Regulations), the Project will require an Environmental Impact Assessment (EIA). Accordingly, we prepared a Preliminary Environmental Information Report (PEI Report) as part of our Summer 2024 Consultation to help

[1] As prescribed under s.42 of the Planning Act 2008 and Regulation 3 of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

you understand the preliminary likely significant environmental effects of our proposals that we identified.

Summer 2024 Consultation

In 2024 we held an eight-week consultation on the Project from 29 May 2024 until 23 July 2024 on our proposals including:

- The Project overall
- The proposed pipeline routes
- The proposed water recycling plant
- Proposed above ground plant along the pipeline routes
- The process undertaken to develop the Project up to this consultation
- The preliminary environmental and other impacts of the Project and initial proposals for mitigation.

Although this consultation has now closed, because you are a recently identified prescribed consultee, we are inviting you to provide feedback on these proposals. We have further information available on our website, including a consultation brochure, consultation Frequently Asked Questions, PEI Report, PEI Report Non-Technical Summary, Statement of Community Consultation, the original notice provided under section 48 of the Planning Act 2008 and much more, to explain the proposals so you can understand how they might affect you. You can see this information by visiting the consultation website at **www.HampshireWTWRP.co.uk**.

Further consultation on the Project

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs of the modelling and assessment of effects would be fully reported in the Environmental Statement with our Development Consent Order application. We are now carrying out a supplementary consultation on the updated water quality information, as well as a number of project design refinements. As part of our Spring 2025 Consultation, we want to know what stakeholders specifically think about:

- Likely water quality impacts of the Project on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Further detail can be found in the Water Quality Report on our website.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation, further investigations, surveys and assessments, and design development, details of which can be found on our website and in the Consultation Information document.

Our four-week consultation will run from **5 March 2025 until 4 April 2025**.

Feedback will provide us with additional understanding of any relevant issues and will be used to inform refinement and finalisation of the scheme as the Project progresses along the consenting timetable towards an application for development consent.

To learn more about our Spring 2025 Consultation, you can visit our website at **www.HampshireWTWRP.co.uk** to find out the relevant consultation information and all the previous material from our Summer 2024 Consultation.

For further information on the Spring 2025 Consultation, please see the enclosed notice provided under section 48 of the Planning Act 2008.

How to respond to this consultation

You can provide feedback by:

- Emailing **FeedbackHWTWRP@southernwater.co.uk**
- Filling out our online feedback form at **www.HampshireWTWRP.co.uk**
- Writing to us with no stamp required at **FREEPOST HAMPSHIRE WTWRP CONSULTATION**

There is also a feedback form as part of the Spring 2025 Consultation, located on the website, with an open question (question 3) where feedback on the previous Summer 2024 Consultation can be provided.

The deadline for submitting responses to this consultation is **11.59pm on 4 April 2025**. However, should you require additional time to review the information from both consultations, please get in touch.

We look forward to hearing from you.

Yours sincerely,

Water for Life Hampshire, Programme Manager

Scan the QR code to view our website and give your feedback

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

G.17 Section 42 cover letter – existing landowners

from Southern Water

Title First Name Second Name
Organisation
Party Affiliation
Address 1
Address 2
Address 3
Address 4
Postcode

Date
4 March 2025

Dear

Hampshire Water Transfer and Water Recycling Project

Section 42(1)(d) and 44 of the Planning Act 2008: Duty to consult on a proposed application

The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

I wrote to you in May 2024 about Southern Water's Summer 2024 Consultation for the Hampshire Water Transfer and Water Recycling Project (the Project) because you had been identified as a person or organisation with an interest in land that is likely to be affected or has the potential to be affected by the Project. I am now writing regarding our Spring 2025 Consultation. This letter has been or is being sent to all parties required to be consulted under section 42(1)(d) and section 44 of the Planning Act 2008. Accordingly, you are being consulted on the Project because you have been identified as someone with one or more of the following interests in land that may be affected by the Project:

- you are an owner, lessee, tenant or occupier of land which is in our proposed draft Order Limits;
- you have an interest in the land or have the power to sell or convey some of the land or release the land which is in our proposed draft Order Limits; or
- your property or land may, in due course, be affected by the carrying out of or the use of the Project which may entitle you to bring a claim for compensation in the future through a 'relevant claim' (as defined in the Planning Act 2008).

This is an opportunity for you to find out further details on the Project and share your views on the additional information and refinements presented in our consultation.

About the Project

As a reminder, the Project will transform how we source, treat and supply water across Hampshire. In the face of increasing environmental restrictions, population growth and climate change, the Project will help maintain essential water supplies for customers while taking less water from the environment, protecting the rare and sensitive chalk streams of the River Test and River Itchen.

The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.

The Project has been directed by the Secretary of State as a project of national significance. We are therefore seeking consent for the Project under the Planning Act 2008 and anticipate making an application to the Secretary of State for a Development Consent Order in late 2025. As the Project falls within the threshold set out in Schedule 2 paragraph 10(I) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 Regulations), the Project will require an Environmental Impact Assessment (EIA). Accordingly, we prepared a Preliminary Environmental Information Report (PEI Report) as part of our Summer 2024 Consultation to help you understand the preliminary likely significant environmental effects of our proposals that we identified.

Further Consultation on the Project

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs of the modelling and assessment of effects would be fully reported in the Environmental Statement with our Development Consent Order application. We are now carrying out a supplementary consultation on the updated water quality information, as well as a number of project design refinements. As part of our Spring 2025 Consultation, we want to know what stakeholders specifically think about:

- Likely water quality impacts of the Project on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Further detail can be found in the Water Quality Report on our website.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation, further investigations, surveys and assessments, and design development, details of which can be found on our website and in the Consultation Information document.

Our four-week consultation will run from **5 March 2025 until 4 April 2025**.

Feedback will provide us with additional understanding of any relevant issues and will be used to inform refinement and finalisation of the scheme as the Project progresses along the consenting timetable towards an application for a Development Consent Order.

To learn more about our Spring 2025 Consultation, or to revisit our story so far, you can visit our website at **www.HampshireWTWRP.co.uk** to find out the relevant consultation information, and all the previous material from our Summer 2024 Consultation.

For further information on the Spring 2025 Consultation, please see the enclosed notice provided under section 48 of the Planning Act 2008.

How to respond to this Consultation

You can provide feedback by:

- Emailing **FeedbackHWTWRP@southernwater.co.uk**
- Filling out our online feedback form at **www.HampshireWTWRP.co.uk**
- Writing to us with no stamp required at **FREEPOST HAMPSHIRE WTWRP CONSULTATION**

The deadline for submitting responses to this consultation is **11.59pm on 4 April 2025**.

We look forward to hearing from you.

Yours sincerely,

[redacted]

Water for Life Hampshire, Programme Manager

Scan the QR code to view our website and give your feedback

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

G.18 Section 42 cover letter – new landowners

from Southern Water

Date
4 March 2025

Title First Name Second Name
Organisation
Address 1
Address 2
Address 3
Address 4
Postcode

Dear

Hampshire Water Transfer and Water Recycling Project

Section 42(1)(d) and 44 of the Planning Act 2008: Duty to consult on a proposed application

The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

I am writing to you about Southern Water's consultations for the Hampshire Water Transfer and Water Recycling Project (the Project). You have been recently identified as a new person or organisation with an interest in land that is likely to be affected or has the potential to be affected by the Project, either because of changed circumstances (i.e. change in land ownership or tenancy) or because of recent project refinements. This letter has been or is being sent to all parties required to be consulted under section 42(1)(d) and section 44 of the Planning Act 2008. Accordingly, you are being consulted on the Project because you have been identified as someone with one or more of the following interests in land that may be affected by the Project:

- you are an owner, lessee, tenant or occupier of land which is in our proposed draft Order Limits;
- you have an interest in the land or have the power to sell or convey some of the land or release the land which is in our proposed draft Order Limits; or
- your property or land may, in due course, be affected by the carrying out of or the use of the Project which may entitle you to bring a claim for compensation in the future through a 'relevant claim' (as defined in the Planning Act 2008).

This is an opportunity for you to find out more about the Project, share your views on our proposals and the additional information and refinements presented in our consultation.

About the Project

The Project will transform how we source, treat and supply water across Hampshire. In the face of increasing reductions in the amount of water that can be taken from the environment, population growth and climate change, the Project will help maintain essential water supplies for customers while taking less water from the environment, protecting the rare and sensitive chalk streams of the River Test and River Itchen.

The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.

The Project has been directed by the Secretary of State as a project of national significance. We are therefore seeking consent for the Project under the Planning Act 2008 and anticipate making an application to the Secretary of State for a Development Consent Order in late 2025. As the Project falls within the threshold set out in Schedule 2 paragraph 10(I) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 Regulations), the Project will require an Environmental Impact Assessment (EIA). Accordingly, we prepared a Preliminary Environmental Information Report (PEI Report) as part of our Summer 2024 Consultation to help you understand the preliminary likely significant environmental effects of our proposals that we identified.

Summer 2024 Consultation

In 2024 we held an eight-week consultation on the Project from 29 May 2024 until 23 July 2024 on our proposals including:

- The Project overall
- The proposed pipeline routes
- The proposed water recycling plant
- Proposed above ground plant along the pipeline routes
- The process undertaken to develop the Project up to this consultation
- The preliminary environmental and other impacts of the Project and initial proposals for mitigation.

Although this consultation has now closed, because you are a recently identified prescribed consultee, we are inviting you to provide feedback on these proposals. We have included with this letter a map of the Project showing the draft order Limits (proposed Project boundary) so that you can see how your interests may be affected. We also have further information available on our website, including a consultation brochure, consultation Frequently Asked Questions, PEI Report, PEI Report Non-Technical Summary, Statement of Community Consultation, the original notice provided under section 48 of the Planning Act 2008 and much more, to explain the proposals so you can understand how they might affect you. You can see this information by visiting the consultation website at **www.HampshireWTWRP.co.uk.**

Further consultation on the Project

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs of the modelling and assessment of effects would be fully reported in the Environmental Statement with our Development Consent Order application. We are now carrying out a supplementary consultation on the updated water quality information, as well as a number of project design refinements. As part of our Spring 2025 Consultation, we want to know what stakeholders specifically think about:

- Likely water quality impacts of the Project on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Further detail can be found in the Water Quality Report on our website.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation, further investigations, surveys and assessments, and design development, details of which can be found on our website and in the Consultation Information document.

Our four-week consultation will run from **5 March 2025 until 4 April 2025**.

Feedback will provide us with additional understanding of any relevant issues and will be used to inform refinement and finalisation of the scheme as the Project progresses along the consenting timetable towards an application for development consent.

To learn more about our Spring 2025 Consultation, you can visit our website at **www.HampshireWTWRP.co.uk** to find out the relevant consultation information, and all the previous material from our Summer 2024 Consultation.

For further information on the Spring 2025 Consultation, please see the enclosed notice provided under section 48 of the Planning Act 2008.

How to respond to this Consultation

You can provide feedback by:

- Emailing **FeedbackHWTWRP@southernwater.co.uk**
- Filling out our online feedback form at **www.HampshireWTWRP.co.uk**
- Writing to us with no stamp required at **FREEPOST HAMPSHIRE WTWRP CONSULTATION**

There is also a feedback form as part of the Spring 2025 Consultation, located on the website, with an open question (question 3) where feedback on the previous Summer 2024 Consultation can be provided.

The deadline for submitting responses to this consultation is **11.59pm on 4 April 2025**. However, should you require additional time to review the information from both consultations, please get in touch.

We look forward to hearing from you.

Yours sincerely,

[redacted]

Water for Life Hampshire, Programme Manager

Scan the QR code to view our website and give your feedback

G.19 Bespoke Section 42 cover letter for West Thorney Parish Council

from Southern Water

Date
08 May 2025

[redacted]arish Council
Building 134
Baker Barracks
Thorney Island
Emsworth
PO10 8DH

Dear [redacted]

Hampshire Water Transfer and Water Recycling Project

Section 42(1)(a), (aa) and (b) Planning Act 2008: Duty to consult on a proposed application

The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

I am writing to you about Southern Water's consultations on its Hampshire Water Transfer and Water Recycling Project (the Project). You have recently been identified as a prescribed body in respect of the Project and this letter is part of the statutory duty to consult under the relevant legislation[1]. This is an opportunity for you to find out more about the Project, share your views on our proposals and the additional information and refinements presented in our consultations.

We carried out consultations in Summer 2024 and Spring 2025 but unfortunately, we sent letters intended for you to another Parish Council in the country with a similar name. To ensure that you are able to provide us with your views, we are providing 30 days to respond to both our consultations if you so wish. As a result, the deadline for your views will be **June 11 2025**. During this time all the consultation material will remain available via the links below and the Project team is available to discuss any queries you may have.

Feedback will provide us with additional understanding of any relevant issues and will be used to inform refinement and finalisation of the scheme as the Project progresses along the consenting timetable towards an application for development consent.

About the Project

The Project will transform how we source, treat and supply water across Hampshire. In the face of increasing environmental restrictions, population growth and climate change, the Project will help maintain essential water supplies for customers while taking less water from the environment, protecting the rare and sensitive chalk streams of the River Test and River Itchen.

The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped

[1] As prescribed under s.42 of the Planning Act 2008 and Regulation 3 of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.

The Project has been directed by the Secretary of State as a project of national significance. We are therefore seeking consent for the Project under the Planning Act 2008 and anticipate making an application to the Secretary of State for a Development Consent Order in late 2025. As the Project falls within the threshold set out in Schedule 2 paragraph 10(l) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 Regulations), the Project will require an Environmental Impact Assessment (EIA). We then prepared a Preliminary Environmental Information Report (PEI Report) as part of our Summer 2024 Consultation, on which see below, to help you understand the preliminary likely significant environmental effects of our proposals that we identified.

Summer 2024 Consultation

In 2024, we held an eight-week consultation on the Project from 29 May 2024 until 23 July 2024 on our proposals including:

- The Project overall
- The proposed pipeline routes
- The proposed water recycling plant
- Proposed above ground plant along the pipeline routes
- The process undertaken to develop the Project up to this consultation
- The preliminary environmental and other impacts of the Project and initial proposals for mitigation.

Although this consultation has closed, because you have recently been identified as a prescribed consultee, we are inviting you to provide feedback on these proposals. We have further information available on our website, including a consultation brochure, consultation Frequently Asked Questions, PEI Report, PEI Report Non-Technical Summary, Statement of Community Consultation, the original notice provided under section 48 of the Planning Act 2008 and much more, to explain the proposals so you can understand how they might affect you.

Further consultation on the Project

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs would be presented in a supplementary consultation. This then formed the basis of our Spring 2025 Consultation, along with a number of project design refinements. As part of our Spring 2025 Consultation, we wanted to know what stakeholders specifically thought about:

- Likely water quality impacts of the Project on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Further detail can be found in the Water Quality Report on our website.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation, further investigations, surveys and assessments, and design development, details of which can be found on our website and in the Consultation Information document.

Our four-week consultation ran from 5 March 2025 and ended on the 4 April 2025.

Although this consultation has also now closed, because you have recently been identified as a prescribed consultee, we are inviting you to provide feedback on these proposals

To learn more about our Spring 2025 Consultation, you can visit our website at **www.HampshireWTWRP.co.uk** to find out the relevant consultation information. For further

information on the Spring 2025 Consultation, please see the enclosed notice provided under section 48 of the Planning Act 2008.

When and how to respond to both consultations

Deadline for your feedback:

As stated above, we are providing 30 days to respond to both our consultations if you so wish. The consultation will close on **11 June 2025**.

You can provide feedback by:

- Emailing **FeedbackHWTWRP@southernwater.co.uk**
- Writing to us with no stamp required at **FREEPOST HAMPSHIRE WTWRP CONSULTATION**

We thank you for your patience and look forward to hearing from you.

Yours sincerely,

[redacted]

Water for Life Hampshire, Programme Manager

Scan the QR code to view our website and give your feedback

G.20 Section 46 notification

from Southern Water

Secretary of State c/o
[redacted]
The Planning Inspectorate
National Infrastructure Planning
Temple Quay House
Temple Quay
Bristol
BS1 6PN

Date
5 March 2025

Dear [redacted]

Hampshire Water Transfer and Water Recycling Project

Section 46 Planning Act 2008 – notification of proposed application

I am hereby notifying you under section 46 of the Planning Act 2008 ("the 2008 Act"), that Southern Water Services Limited ("the applicant") intends to submit an application for a Development Consent Order ("DCO") for the Hampshire Water Transfer and Water Recycling Project ("the Project"), directed by the Secretary of State as a project of national significance under s.35 of the 2008 Act.

The applicant has today commenced its Spring 2025 Consultation, taking place between 5 March and 4 April 2025. Further detail is provided below.

About the Project

As a reminder, the Project will transform how we source, treat and supply water across Hampshire. In the face of increasing environmental restrictions, population growth and climate change, the Project will help maintain essential water supplies for customers while taking less water from the environment, protecting the rare and sensitive chalk streams of the River Test and River Itchen.

The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.

Further consultation on the Project

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs of the modelling and assessment of effects would be fully reported in the Environmental Statement with our Development Consent Order application. That modelling has since progressed, so we are taking the opportunity to consult on the updated water quality information, as well as a number of project design refinements. As part of our Spring 2025 Consultation, we want to know what stakeholders specifically think about:

- Likely water quality impacts of the Project on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Further detail can be found in the Water Quality Report on our website.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation, further investigations, surveys and assessments, and design

development, details of which can be found on our website and in the Consultation Information document.

Our four-week consultation will run from **5 March 2025 until 4 April 2025**.

The consultation documents are available on our website at **www.HampshireWTWRP.co.uk**.

The applicant is providing these documents to section 42 consultees in an electronic format, via the Project's website (to which those consultees are being directed).

Section 46 of the 2008 Act requires the applicant to send to the Secretary of State the information that it intends to provide to consultees under section 42 of the 2008 Act, on or before commencing section 42 consultation. Consistent with the section 42 consultees, the Secretary of State can access the above documents via the Project's website from 5 March 2025.

In addition, the applicant has enclosed PDF versions of the following documents which have been sent to the relevant section 42 consultees:

- Template letters sent to consultees set out in section 42(1)(a) to (b) of the 2008 Act (including those prescribed in Schedule 1 to the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009)
- Template letters sent to Category 1, 2 and 3 persons as defined in Section 44 of the 2008 Act as required by section 42(1)(d) of the 2008 Act
- Copy of section 48 notice

Yours sincerely,

[redacted]

Water for Life Hampshire, Programme Manager

[redacted]

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX

[redacted]

G.21 Acknowledgement of Section 46 notification

Planning Inspectorate

National Infrastructure Planning
Temple Quay House
2 The Square
Bristol
BS1 6PN

Customer Services: 0303 444 5000
e-mail: HampshireWaterProject@planninginspectorate.gov.uk

To: Southern Water Services Limited

Our Ref: WA010002

Date: 06 March 2025

By email only

Dear [redacted]

Planning Act 2008 – section 46 and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 – regulation 8

Proposed application by Southern Water Services Limited for an Order Granting Development Consent for the Hampshire Water Transfer and Water Recycling Project

Acknowledgement of receipt of information concerning proposed application

Thank you for your email of 05 March 2025 and the following documentation:

- Section 46 Planning Act 2008 – notification of proposed application
- Template letters sent to consultees set out in section 42(1)(a) to (b) of the 2008 Act (including those prescribed in Schedule 1 to the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009)
- Template letters sent to Category 1, 2 and 3 persons as defined in Section 44 of the 2008 Act as required by section 42(1)(d) of the 2008 Act
- Section 48 Notice

We acknowledge that you have notified The Planning Inspectorate of the proposed application for an order granting development consent for the purposes of section 46 of The Planning Act 2008 and supplied the information for consultation under section 42.

We also acknowledge notification in accordance with regulation 8(1)(b) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 that you propose to provide an environmental statement in respect of the proposed development.

Please contact us if you have any queries.

Yours sincerely

[redacted]

Case Manager

This communication does not constitute legal advice.
Please view our 'Privacy Notice' before sending information to The Planning Inspectorate.

G.22 Section 47 cover letter

from Southern Water

Title First Name Second Name
Organisation
Add 1
Add 2
Add 3
Add 4
Postcode

Date
4 March 2025

Dear Salutation,

Hampshire Water Transfer and Water Recycling Project

I wrote to you in May 2024 about Southern Water's Summer 2024 Consultation on its Hampshire Water Transfer and Water Recycling Project (the Project) as you had been identified as an individual or organisation that may be interested in the Project. I am now writing regarding our Spring 2025 Consultation. This is an opportunity for you to find out further details on the Project and share your views on the additional information and refinements presented in our consultation.

About the Project

As a reminder, the Project will transform how we source, treat and supply water across Hampshire. In the face of increasing environmental restrictions, population growth and climate change, the Project will help maintain essential water supplies for customers while taking less water from the environment, protecting the rare and sensitive chalk streams of the River Test and River Itchen.

The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.

The Project has been directed by the Secretary of State as a project of national significance. We are therefore seeking consent for the Project under the Planning Act 2008 and anticipate making an application to the Secretary of State for a Development Consent Order in late 2025. As the Project falls within the threshold set out in Schedule 2 paragraph 10(l) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 Regulations), the Project will require an Environmental Impact Assessment (EIA). Accordingly, we prepared a Preliminary Environmental Information Report (PEI Report) as part of our Summer 2024 Consultation to help you understand the preliminary likely significant environmental effects of our proposals that we identified.

Further Consultation on the Project

At the Summer 2024 Consultation, we explained that extensive water quality modelling was being undertaken and that the outputs of the modelling and assessment of effects would be fully reported in the Environmental Statement with our Development Consent Order application. We are now carrying out a supplementary consultation on the updated water quality information, as well as a number of project design refinements. As part of our Spring 2025 Consultation, we want to know what stakeholders specifically think about:

- Likely water quality impacts of the Project on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Further detail can be found in the Water Quality Report on our website.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation, further investigations, surveys and assessments, and design development, details of which can be found on our website and the Consultation Information document.

Our four-week consultation will run from **5 March 2025 until 4 April 2025**.

Feedback will provide us with additional understanding of any relevant issues and will be used to inform refinement and finalisation of the scheme as the Project progresses along the consenting timetable towards an application for development consent.

To learn more about our Spring 2025 Consultation, or to revisit our story so far, you can visit our website at **www.HampshireWTWRP.co.uk** to find out the relevant consultation information and all the previous material from our Summer 2024 Consultation.

For further information on the Spring 2025 Consultation, please see the enclosed notice provided under section 48 of the Planning Act 2008.

How to respond to this Consultation

You can provide feedback by:

- Emailing **FeedbackHWTWRP@southernwater.co.uk**
- Filling out our online feedback form at **www.HampshireWTWRP.co.uk**
- Writing to us with no stamp required at **FREEPOST HAMPSHIRE WTWRP CONSULTATION**

The deadline for submitting responses to this consultation is **11.59pm on 4 April 2025**.

We look forward to hearing from you.

Ending,

[redacted]

Water for Life Hampshire, Programme Manager

Scan the QR code to view our website and give your feedback

Southern Water, Southern House, Yeoman Road, Worthing BN13 3NX
southernwater.co.uk

G.23 Section 47 keep in touch email

Good afternoon,

Hampshire Water Transfer and Water Recycling Project – Spring 2025 Consultation

I am writing to you regarding Southern Water's supplementary consultation on its Hampshire Water Transfer and Water Recycling Project as you previously expressed an interest in being kept up to date.

In 2024, we held an eight-week consultation on the Project from 29 May 2024 until 23 July 2024. Having undertaken additional work since our Summer 2024 Consultation and having regard to feedback received, we are now carrying out a further supplementary consultation on updated water quality information and proposed Project design refinements. As part of our Spring 2025 Consultation, we want to know what stakeholders specifically think about:

- Likely environmental water quality impacts of the Project on the Havant Thicket Reservoir, connected downstream water bodies (including Riders Lane Stream, Hermitage Stream, and Langstone Harbour), and the Solent. Further detail can be found in the Water Quality Report on our website.
- Proposed refinements to the design of the Project that take into account feedback from the Summer 2024 Consultation and on-going project development and stakeholder engagement, details of which can be found on our website and in the Consultation Information document.

Our four-week consultation will run from **5 March 2025 until 4 April 2025**.

Feedback will provide us with additional understanding of any relevant issues and will be used to refine and finalise the Project as it progresses towards a Development Consent Order application later this year.

To learn more about our Spring 2025 Consultation, or to revisit our story so far, you can visit our website at **www.HampshireWTWRP.co.uk** to find out the relevant consultation information and all the previous material from our Summer 2024 Consultation.

How to respond to this Consultation

You can provide feedback by:

- Emailing **FeedbackHWTWRP@southernwater.co.uk**
- Filling out our online feedback form at **www.HampshireWTWRP.co.uk**
- Writing to us with no stamp required at **FREEPOST HAMPSHIRE WTWRP CONSULTATION**

The deadline for submitting responses to this consultation is **11.59pm on 4 April 2025**.

We look forward to hearing from you.

Yours faithfully,

[redacted]

Water for Life Hampshire Programme Manager

G.24 Section 48 published notices

Section 48 of the Planning Act 2008

Hampshire Water Transfer and Water Recycling Project

Notice publicising a proposed application for a Development Consent Order

Regulation 4 Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

1. Southern Water Services Limited (Company number 02366670) ("the Applicant") of Southern House, Yeoman Road, Worthing, West Sussex, BN13 3NX intends to make an application to the Secretary of State for Environment, Food and Rural Affairs under Section 37 of the Planning Act 2008 for a Development Consent Order ("DCO"). The DCO, if granted, would authorise the construction, operation, maintenance and decommissioning of the Hampshire Water Transfer and Water Recycling Project (the "Project").
2. The Project would use advanced treatment techniques to turn highly treated wastewater, that is usually pumped far out to sea, into purified recycled water at a new water recycling plant in Havant. This purified recycled water would be pumped via an underground pipeline to the Havant Thicket Reservoir where it would mix with spring water. Water from the reservoir would then be pumped along another pipeline to our Otterbourne Water Supply Works where it would be treated to strict drinking water standards before being sent into supply.
3. The Applicant carried out a statutory consultation in relation to the Project from 29 May 2024 to 23 July 2024 ("the Summer 2024 Consultation"). Having undertaken additional work since the Summer 2024 Consultation and having regard to feedback received, the Applicant is carrying out a further supplementary consultation on updated water quality information and project design refinements.
4. The Project is an Environmental Impact Assessment ("EIA") development for the purposes of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This means that the proposed works constitute development for which an EIA is required and the application for a DCO will therefore be accompanied by an Environmental Statement. The Environmental Statement will provide a detailed description of the Project and its likely significant environmental effects. As part of the Summer 2024 Consultation, information compiled so far about the Project's likely significant environmental effects was set out in a Preliminary Environmental Information Report ("the PEI Report") and summarised in a Non-Technical Summary, copies of which are available to view at: www.HampshireWTWRP.co.uk/feedback.html, along with the rest of the Summer 2024 Consultation materials (including the Statement of Community Consultation, which the Applicant has had regard to in relation to this supplementary consultation).

The supplementary consultation

5. The Applicant is undertaking a supplementary consultation from 5 March 2025 to 4 April 2025. The supplementary consultation will focus on:
   a. Updated water quality information, arising from additional modelling and assessments; and,
   b. Project design refinements that have arisen as a result of on-going project development and stakeholder engagement, including taking account of feedback from the Summer 2024 Consultation.
6. The supplementary consultation materials ("the Supplementary Consultation Materials") include:
   a. Consultation Information
   b. Water Quality Report, including a non-technical executive summary
   c. Feedback form
7. For further information or queries on the Supplementary Consultation Materials, please call **0800 254 5138** (free of charge); write to **FREEPOST HAMPSHIRE WTWRP CONSULTATION** (no stamp required); email HampshireWTWRP@southernwater.co.uk or visit www.HampshireWTWRP.co.uk
8. All of the Supplementary Consultation Materials are available to read, download and print on the Project's website at: www.HampshireWTWRP.co.uk/consultation/html. These will be available until at least 4 April 2025.
9. To ensure accessibility, on request (via the contact details below), all of the Supplementary Consultation Materials can be translated, made available in large print, audio versions, braille and in a digital data format.
10. Hard copies of the Supplementary Consultation Materials can be provided free of charge.

How to respond

11. Any person can provide a response or representation in respect of this supplementary consultation. Any such response or representation must be received by the Applicant on or before 11.59pm on 4 April 2025.
12. Feedback can be provided through the Applicant's website at www.HampshireWTWRP.co.uk, by email to FeedbackHWTWRP@southernwater.co.uk, or by post to **FREEPOST HAMPSHIRE WTWRP CONSULTATION**.
13. Any responses to or other representations in respect of the Project can also be sent to the applicant by email FeedbackHWTWRP@southernwater.co.uk or by post (free of charge) to **FREEPOST HAMPSHIRE WTWRP CONSULTATION**.
14. The Applicant will consider and have regard to all responses received on or before 11.59pm on 4 April 2025 when developing its application for a DCO once this supplementary consultation has closed. As with the Summer 2024 Consultation, responses will form the basis of a Consultation Report that will be submitted as part of the Applicant's application for a DCO. Therefore, in providing any comment, it should be borne in mind that the substance of it may be communicated to others as part of the Consultation Report.
15. Any comments received will be analysed by the Applicant and any of its appointed agents. Copies may be made available in due course to the Secretary of State, the Planning Inspectorate and other relevant statutory authorities so that your responses can be considered as part of the development of the Project. Your personal details will not be placed on public record, will be held securely by the Applicant and its appointed agents in accordance with the data protection law and will be used solely in connection with the consenting and regulatory processes, except as noted above, or in accordance with any legal requirements or process, and will not be passed to third parties.
16. If you would like further information about this notice, the consultation or the Project, please contact the Applicant by using one of the contact methods provided above.

WATER for LIFE® from Southern Water®

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Pages 18 & 19

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Section 48 of the Planning Act 2008

Hampshire Water Transfer and Water Recycling Project

Notice publicising a proposed application for a Development Consent Order

Regulation 4 Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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WATER for LIFE from Southern Water.

Section 48 of the Planning Act 2008

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THE TIMES

Tuesday March 4 2025 | thetimes.com | No 74659

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Is this the most explicit film to win an Oscar?

INSIDE TIMES2

How I found out I have osteoporosis at only 55

ARTURO HOLMES/WIREIMAGE/GETTY IMAGES

A-list cast Adrien Brody, Mikey Madison, Zoe Saldana and Kieran Culkin show off their acting Oscars after the ceremony in Hollywood. The gags and the speeches, Times2

Trump lambasts Europe for showing weakness

● President criticises demand for US security guarantee ● Growing fears he will halt Ukraine aid

Alistair Dawber Washington
Steven Swinford, Oliver Wright

President Trump has accused European leaders of weakness for their reliance on the US, and threatened to pull the plug on support for Ukraine.

The American leader made a new attack on President Zelensky yesterday, saying that he "doesn't want there to be peace as long as he has America's backing". He added that the US "will not put up with it for much longer".

Trump also turned on Sir Keir Starmer and other European leaders after they said that they would not send peacekeeping troops into Ukraine without a security guarantee from the US to deter President Putin.

The UK and France hope to agree on their plans for a peace deal this week despite deteriorating relations between Trump and Zelensky. They are drawing up proposals for an initial truce "in the air and at sea" before committing troops to protect a full peace deal. But the plan is contingent on the US providing a "backstop" to deter Putin.

The prime minister and President Macron of France are keen to build on the "momentum" generated by a meeting of European leaders at the weekend as they seek to build a "coalition of the willing" to send peacekeeping forces to Ukraine. However, there are growing concerns that Trump is poised to pull military aid for Ukraine entirely after he clashed with Zelensky in the Oval Office on Friday.

Trump responded with anger to Zelensky's claim yesterday that the end of the war with Russia was "still very, very far away". The president said it was the "worst statement that could have been made", adding: "America will not put up with it for much longer! This guy doesn't want there to be peace as long as he has America's backing."

Trump said: "Europe, in the meeting they had with Zelensky [in London], stated flatly that they cannot do the job without the US. Probably not a great statement to have been made in terms of a show of strength against Russia. What are they thinking?"

At a press conference last night, Trump said that a mineral deal with Ukraine was not yet dead and would be a "great deal" for the US. Asked what Zelensky needed to do to get the deal back on track, Trump said: "I think he should be more appreciative. This country has stuck with him through

Continued on page 2

'One third of children overweight by 2050'

Poppy Koronka Health Correspondent

More than a third of UK children aged five to nine are on course to be obese or overweight by 2050 in a "monumental societal failure", a study has found.

The number of obese children and adults in Britain could rise by more than half in some age groups by 2050 "without urgent policy reform and action", the data suggests.

The estimates, published in The Lancet medical journal, are the most comprehensive global analysis of obesity rates to date.

For British children aged 5-14, obesity rates could rise from 12 per cent in girls in 2021 to 18.4 per cent in 2050, and from 9.9 to 15.5 per cent in boys. Analysis of the figures by the Press Association suggests that 39.2 per cent of girls aged 5-9 in the UK may either be overweight or obese in 2050, with the figure for boys expected to be 31.1 per cent. In children aged 10-14, 43.2 per cent of girls are on course to be overweight or obese in 2050, up from 34.7 per cent. The figure for boys may rise to 37.6 per cent, from 29.9 per cent.

Experts said overweight and obesity rates in all ages had more than doubled over the past three decades (1990-2021), affecting 2.11 billion adults and 493 million young people worldwide in 2021. Without improvement, about 60 per cent of adults and a third of all children and adolescents globally are forecast to be overweight or obese by 2050.

Professor Emmanuela Gakidou, lead author of the study from the Institute for Health Metrics and Evaluation at the University of Washington in the US, said: "The unprecedented global epidemic of overweight and obesity is a profound tragedy and a monumental societal failure."

Professor Volkan Yumuk, president of the European Association for the Study of Obesity, called the data "alarming", adding: "Because obesity is both a chronic disease in its own right and the cause of other chronic diseases and conditions, this unprecedented public health emergency will require co-ordinated policy action across Europe." He called for "evidence-based, even personalised, interventions" to reverse the trend.

IN THE NEWS

NHS assisted dying
The MP behind the assisted dying bill is planning to stipulate that services must be available on the NHS even if they are provided by private companies. Page 4

Banker's tribunal
Jes Staley, the former Barclays boss who faces a ban from the City, told Jeffrey Epstein to "hang in there" after Epstein's paedophilia conviction, a tribunal has been told. Page 5

Netanyahu threats
Binyamin Netanyahu, the Israeli prime minister, has told Hamas it faces "consequences you can't imagine" and that war may resume if all hostages are not returned. Page 24

Shop inflation falls
Discounting among fashion retailers contributed to a surprise fall in shop price inflation last month, defying industry predictions of a sharp increase. Page 29

Arsenal 'lack edge'
PSV Eindhoven's former Spurs defender Ivan Perisic says Arsenal's lack of a winning edge gives his side hope in their Champions League tie tonight. Page 58

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About Town and Country Planning notices

Town and Country Planning

Hampshire Water Transfer and Water Recycling Project

SECTION 48 OF THE PLANNING ACT 2008

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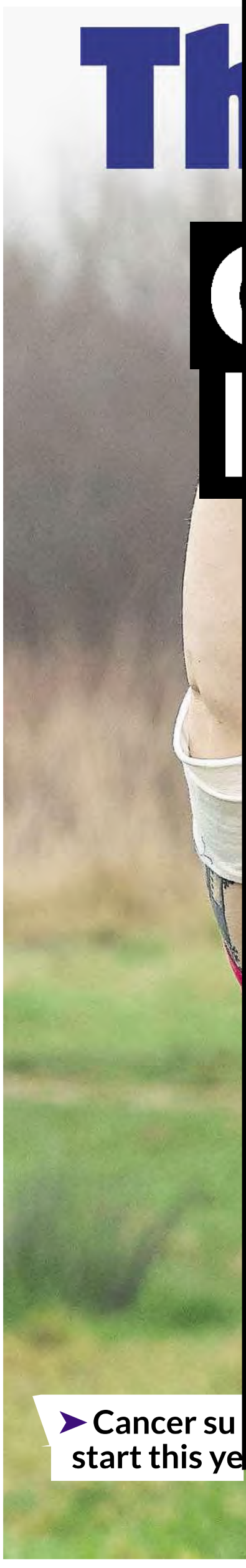

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14. The Applicant will consider and have regard to all responses received on or before 11.59pm on 4 April 2025 when developing its application for a DCO once this supplementary consultation has closed. As with the Summer 2024 Consultation, responses will form the basis of a Consultation Report that will be submitted as part of the Applicant's application for a DCO. Therefore, in providing any comment, it should be borne in mind that the substance of it may be communicated to others as part of the Consultation Report.
15. Any comments received will be analysed by the Applicant and any of its appointed agents. Copies may be made available in due course to the Secretary of State, the Planning Inspectorate and other relevant statutory authorities so that your responses can be considered as part of the development of the Project. Your personal details will not be placed on public record, will be held securely by the Applicant and its appointed agents in accordance with the data protection law and will be used solely in connection with the consenting and regulatory processes, except as noted above, or in accordance with any legal requirements or process, and will not be passed to third parties.
16. If you would like further information about this notice, the consultation or the Project, please contact the Applicant by using one of the contact methods provided above.

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