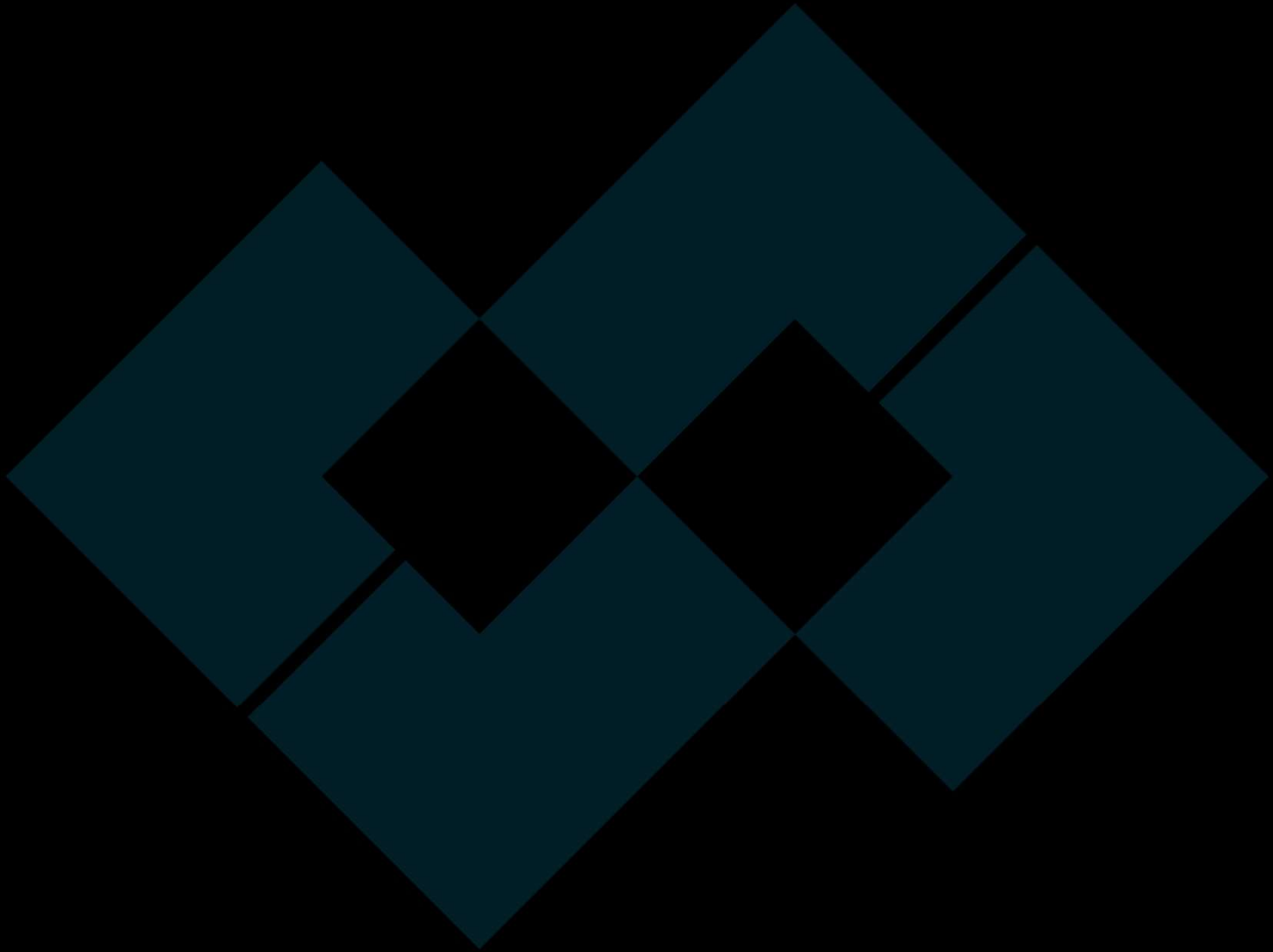




Appendix L3 - Botanical Survey Report
Langstone FCERM Scheme

July 2021

Document Information

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SUMMARY

A phase II vegetation survey of the coastal edge and adjacent habitat around Langstone was undertaken (hereafter called the Survey Area). This report sets out the results of this Survey including NVC habitats, IHS codes and UKHab codes.

NVC communities were recorded that fit within the UK BAP broad habitat included broad habitat of broadleaved woodland. UK BAP Priority habitats recorded included hedgerows, wet woodland, reedbeds, salt-marsh, maritime cliffs and slopes, strand line and coastal vegetated shingle.

Habitats of international importance noted found within the Survey Area include

MC6 community '1210 Annual vegetation of Drift Lines',

W6a - '91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*' in the woodland north of the Old Mill House and Pond,

SM14, SM23, SM24 - '**1330** Atlantic salt meadows (*Glauco- Puccinellietalia maritimae*)' comprising most of the salt-marsh habitat, within the Survey Area,

SM6 - '1320 - *Spartina* swards (*Spartinion maritimae*)' and

SM8 and **SM9** '1310 *Salicornia* and other annuals colonising mud and sand.'

Four notable species were recorded including curled dock, golden samphire, sea wormwood and lax-flowered sea-lavender.

The schedule 9 invasive species of Japanese Rose was also recorded.

1 INTRODUCTION AND SCOPE

- 1.1 A phase II vegetation survey of the coastal edge and adjacent habitat around Langstone was undertaken (hereafter called the Survey Area).

2 SCOPE OF SURVEY

- 2.1 The Survey Area included habitats from the coastal edge and just below the low tide line. The Survey was specifically targeted to identify NVC communities, UKhab (UKHab.org) codes and IHS habitats and any plants of interest. This report sets out the results of this Survey.

3 METHODOLOGY

3.1 A walkover survey was undertaken by Sophie Rogers on the 28th, 29th June and the 7th July 2021. NVC communities were identified from comparing species composition of plant communities in the Survey Area to the tables in Rodwell (1991 to 2000). The communities are mapped and shown on Figures 1 to 3 in **Appendix 2**. Target notes have been used to identify communities.

3.2 Access was limited to footpaths and the shore.

4 RESULTS

4.1 Background information

- 4.1.1 The Survey Area lies within the Internationally designated sites of Chichester and Langstone Harbour Ramsar and Special Protection Area (SPA) plus the Solent Maritime Special Area of Conservation (SAC). Annex 1 habitats that are a primary reason for the selection of the Solent Maritime SAC include 1130 Estuaries 1320 *Spartina* swards and 1330 Atlantic salt meadows. Annex 1 habitats present as a qualifying feature, but not a primary reason for selection of this site include 1110 sandbanks which are slightly covered by sea water all the time, 1140 mudflats and sandblast not covered by sea water at low tide, 1150 coastal lagoons, 1210 annual vegetation of drift lines, 1220 perennial vegetation of stony banks, 1310 *salicornia* and other annuals colonising mud and sand and 2120 'shifting dunes along the shoreline with *Ammophila arenaria*'. These habitats support internationally and nationally important numbers of overwintering and breeding bird species.
- 4.1.2 The Survey Area is part of the Nationally designated Site of Special Scientific Interest (SSSI) Chichester Harbour and Langstone Harbour SSSI. The Survey Area also lies within the Area of Outstanding Natural Beauty (AONB) of Chichester Harbour. Langstone Harbour is comprised of extensive intertidal mudflats and sandflats with areas of seagrass beds, saltmarsh, shallow coastal waters, coastal lagoons, coastal grazing marsh and shingle ridges and islands (langstoneharbour.org.uk).

4.2 Description of Habitats

- 4.2.1 Habitat descriptions are divided into salt-marsh, swamp, woodland, ruderal and grassland habitats paragraphs 4.2.2 to 4.2.49. Photographs 1 to 10 are shown within the text. A summary of Target Notes, habitats and codes (TN1 to TN78) are listed in **Appendix 1**.

SALT-MARSH

- 4.2.2 Salt-marsh NVC habitats recorded within the Survey Area include:

SM6 salt-marsh, *Spartina anglica* common cord-grass salt-marsh community,
SM8 Annual *Salicornia* salt-marsh glasswort species salt-marsh community,

SM9 Suaeda maritima salt-marsh annual sea-blite salt-marsh community,
SM14 Halimione portulacoides (Atriplex portulacoides) salt-marsh sea-purslane salt-marsh community,
SM17 Artemisia maritima salt-marsh sea wormwood salt-marsh community,
SM24 Elymus pycnanthus (Elymus athericus) salt-marsh sea-couch grass community,
SM23 Spergularia marina-Puccinellia distans salt-marsh lesser sea-spurrey-reflexed salt-marsh grass salt-marsh community, and
MC6 Atriplex prostrata-Beta vulgaris ssp.maritima community sea-purslane-sea-beet strand line community - similar species noted as the maritime cliff community.

- 4.2.3 **SM6** is noted in swathes along on the eastern side at TN19, and around the western edge of the Survey Area at TN71. There is frequent *Ulva* species amongst the cord-grass with occasional common sea-lavender *Limonium vulgare* and glasswort *Salicornia* species.
- 4.2.4 **SM8 Annual Salicornia salt-marsh glasswort species salt-marsh community** is noted at TN39, inside the creek beside the sailing club, and on the western edge at TN74 of the Survey Area. Small patches of glasswort form a green mat with some *Ulva* species. **SM8** forms a mosaic of salt-marsh habitat at TN38, with the glasswort covering the lower dips in the ground and the **SM14** community covering the higher ground. Common sea-lavender is frequent and greater sea-spurrey *Spergularia media* occurs occasionally.
- 4.2.5 **SM9 Suaeda maritima salt-marsh annual sea-blite salt-marsh community** is noted in narrow bands around the spit at TN47 and at TN70 again on the western edge of the Survey Area. Annual sea-blite forms a single species open sward. There is a small band of **SM9** on the western side of the spit where cement blocks and an old pier give some protection.
- 4.2.6 **SM14 Halimione portulacoides (Atriplex portulacoides) salt-marsh community sea-purslane** is found near the old mill house at TN13, around the margins of the inlet at the sailing club TN40 and TN44 and on the western corner of the Survey Area at TN69 and TN73. In the sheltered corner at TN13 by the old mill house sea-purslane *Atriplex portulacoides* forms a mat with occasional sea club-rush *Bolboschoenus maritimus*. Lower down the shore in this sheltered corner is a thin

band of common saltmarsh-grass *Puccinellia maritima*, annual sea-blite and higher up a small patch of sea-couch grass *Elymus athericus* and saltmarsh rush *Juncus gerardii*.



Photo 1 Lower salt marsh of SM14 at TN40, beside sailing club.

- 4.2.7 At the head of the narrow inlet at TN38 sea purslane from a dense mat on the slightly higher ground than the **SM8** community. A variety of species is noted including scattered throughout golden-samphire *Limbarda crithmoides*, (Nationally and County Scarce), sea aster *Tripolium pannonicum*, common sea-lavender, common saltmarsh-grass, sea plantain *Plantago maritima* and occasional common scurvygrass *Cochlearia officinalis*. Two small clumps of thrift *Armeria maritima* are noted here at SU7183 0466. Further down the eastern side of the inlet at TN40 the band of sea-purslane continues all the way along the shore. On the west bank at TN44 where there is scattered common sea-blite, greater sea-spurrey and sea mayweed *Tripleurospermum maritimum* ssp. *maritimum* throughout the sea-purslane sward. On the western beach side of the spit a small patch of **SM14**, is located behind cement blocks and an old pier which offer some shelter.



Photo 2 Head of the inlet showing lower salt marsh of **SM14** and the **SM24** higher up the bank.

- 4.2.8 In the western corner of the Survey Area at TN69 the **SM14** community has frequent common sea-lavender, annual sea-blite and occasional greater sea-spurrey noted amongst the sea-purslane. *Spartina* species is noted amongst this vegetation infrequently. The **SM14** continues west into the inlet at TN73.



Photograph 3 **SM14** at TN69, western corner.

- 4.2.9 **SM17 *Artemisia maritima* salt-marsh community** Sea wormwood salt-marsh is noted at TN45 on the western bank of the inlet. The sea wormwood forms a dominant swathe in a thin band between the **SM14** and the **SM24** communities. It is

also frequent on the eastern bank beside the sailing club. Sea worm-wood is County Scarce.

- 4.2.10 **SM24 Elymus pycnanthus (Elymus athericus) salt-marsh community sea-couch grass community** is common all along the shore at the upper limit of the high tideline. This community forms a thin band along the top of the eastern sea wall at TN14 and just below it in places. Lax-flowered sea-lavender *Limonium humile* is noted at TN14 SU7203 0497 (Nationally and County Scarce) along a few metres of the sea wall. At TN22 small patches of **SM24** are visible forming a band on the grassy edge of the Ship Inn car park. On the cement bank east of the sailing club at TN23, scattered plants of golden-samphire, greater sea-spurrey and one clump of sea-rush *Juncus maritimus* is noted. Further south this forms a more distinct band above the tide line at TN28. In the inlet west side of the road bridge at TN31 sea-couch is dominant with occasional wild carrot *Daucus carrot ssp. carota*.
- 4.2.11 The **SM24** community runs west around the larger inlet, inwards to TN37 and continues all the way around the spit to the outer coastal edge at TN48. Higher up the inlet at TN37 the sea-couch is dominant with occasional golden-samphire, perennial sow-thistle *Sonchus arvensis*, hoary cress *Lepidium draba* and fat-hen *Chenopodium album*. In this sward sea-beet *Beta vulgaris ssp. maritima*, hemlock *Conium maculatum* and smooth sowthistle *Sonchus oleraceus* are noted sparsely. The band of sea-couch becomes narrower to seaward and merges with the ruderal and mesotrophic habitat higher up the bank. On the southern slopes of the sailing club the **SM24** salt-marsh grades into the ruderal, grass and scrub habitats higher up the bank and is scattered through the grassland and around the boat slipways at TN43.
- 4.2.12 The sea-couch sward of **SM24** community at TN54 covers much of the spit itself, predominantly on the western side. Sea couch is dominant with scattered false oat-grass *Arrhenatherum elatius* throughout and an underlay of red fescue and yarrow *Achille millefolium*. Where false-oat grass is more frequent at the northern end of the spit the grassland is suggested to be a transitional habitat between **MG1e** and **SM24**. Frequent herbs here include common bird's-foot-trefoil *Lotus corniculatus*, hedge bedstraw *Galium album*, yarrow, wild carrot and perforate St John's-wort *Hypericum perforatum*. Small seedlings of hawthorn *Crataegus monogyna*, and bramble *Rubus fruticosus agg.* are visible with occasional ant hills. Further south on the spit are rarely clumps of sea campion noted at SU7183 0451, with more

frequent white campion *Silene vulgaris*. One hemlock plant appears to have been treated with herbicide. Curled dock *Rumex crispus subsp. littoreus* (County Scarce) is noted at SU7183 04520. Further south at TN50 the grassland appears to be a transitional community between **SM24** and **MG1d**. At the very base of the spit at TN48 the **SM24** community is dominantly sea-couch with clumps of red fescue. In-between these there is sea mayweed, sea-beet, sea purslane and rarely sea fern-grass *Catapodium marinum* and buck's-horn plantain *Plantago cornopus*.



Photograph 4. **SM24** looking north on the Spit at TN54.

- 4.2.13 On the very western edge of the Survey Area a narrow patchy band of **SM24** runs further west around the inlet at TN72.
- 4.2.14 **SM23 Spergularia marina-Puccinellia distans salt-marsh Lesser sea-spurrey-reflexed saltmarsh grass.** Along the northern boundary of the Survey Area at TN16 is an area of ephemeral salt-marsh surrounding bare mud. Vegetation includes clumps of saltmarsh rush, common orache *Atriplex patula*, red fescue, sea mayweed, sea couch, sea fern-grass, spear-leaved orache and greater sea-spurrey. This grassland has some affinity with **SM23 Spergularia marina-Puccinellia distans salt-marsh Lesser sea-spurrey-reflexed saltmarsh grass.** This

community comprises a broad range of annuals and ephemerals of disturbed land, of which would occur here due to horse-grazing. It is suggested that this habitat is also noted in the western field at TN77 where bare ground and ephemeral species such as common orache were visible through binoculars.



Photograph 5, Poached **SM23** salt-marsh community at TN16.

- 4.2.15 **MC6 *Atriplex prostrata*-*Beta vulgaris* ssp.maritima community sea-purslane-sea-beet strand line community.** This drift line community is found along the western shore at TN63, comprising predominantly of sea-beet, spear-leaved orache *Atriplex litoralis* and in places clumps of common orache *Atriplex patula*. This has been labelled as **MC6** shingle community that has a similar composition of species as the maritime cliff community due to the build up of nutrient rich debris.



Photograph 6 Strand line community of **MC6** edge TN63.

- 4.2.16 Scattered common maritime and weedy species are found amongst the cracks in the footpath and sea wall running on the east side of the village at TN20. Species noted include annual pearlwort, *Sagina apetala*, common knotgrass Danish scurvy-grass *Cochlearia danica*, greater sea-spurrey and hedge mustard *Sisymbrium officinale*. On the garden wall (house number 25) ivy-leaved toadflax *Cymbalaria muralis*, procumbent yellow sorrel *Oxalis corniculata*, buck's-horn plantain *Plantago coronopus* and Pelitory of the wall *Parietaria judaica* are noted. Beside a cottage along here is a built up bank (above and adjacent to the water's edge) with mown grass comprised of red fescue, perennial rye-grass and buck's-horn plantain.

SWAMP

- 4.2.17 NVC swamp habitat recorded within the Survey Area include **S4 Phragmites australis swamp** common reed swamp. Bordering the Mill pond at TN11 and TN15 **S4** reed swamp is dominant on the pond margins and also visible in places within the woodland and along the stream edge. Common reed forms a dense stand, with occasional hemlock water-dropwort *Oenanthe crocata*, hedge bindweed *Caylsteigia sepium* and hemp-agrimony *Eupatorium cannabinum*. One plant of water dock *Rumex hydrolapathum* is noted at SU7201 0496 visible from the path. Plants noted

from the path in the reeds include infrequent sea-beet, bramble, spear-leaved orache, fat hen, sea couch grass, bitter-sweet *Solanum dulcamara*, common mallow *Malva sylvestris*, perennial sow thistle, sea club-rush, sea aster and false fox-sedge *Carex obtrubae*. The reed swamp is dense with few gaps visible. At TN15 alder *Alnus glutinosa* trees appear to have died.

WOODLAND AND SCRUB

4.2.18 NVC woodland and scrub communities include

W6a. *Alnus glutinosa*-*Urtica dioica* woodland typical sub-community alder-common nettle woodland plus a plantation of English elm *Ulmus procera*,

W24a *Rubus fruticosus*-*Holcus lanatus* underscrub sub-community *Cirsium arvense*-*Cirsium vulgare*. Bramble and Yorkshire Fog underscrub sub-community creeping thistle-spear thistle around the meadows,

W24b *Rubus fruticosus*-*Holcus lanatus* underscrub sub-community *Arrhenatherum elatius*-*Heracleum sphondylium* Bramble and Yorkshire Fog underscrub sub-community with false oat-grass and hogweed sub community along the cycle track,

Introduced shrub around the sailing club,

W21a *Cretagus mongyna*-*Hedera helix* scrub sub-community *Hedera helix*-*Urtica dioica* hawthorn and ivy scrub sub-community of ivy and common nettle,

W21 plus sycamore along the cycle track; and

W22c *Prunus spinosa*- *Rubus fruticosus* scrub sub-community *Dactylis glomerata* blackthorn-bramble sub-community of cock's-foot grass on the very western edge of the Survey Area and on the spit.

4.2.19 **W6a *Alnus glutinosa*-*Urtica dioica* woodland typical sub-community** alder-common nettle woodland. The woodland north of the mill pond was not accessible but the woodland beside the stream edge at TN9 and covering the islands at TN12 appeared to be dominated by alder *Alnus glutinosa* with some willow *Salix* species with affinity to **W6a** wet woodland community. Visible from the footpath the ground flora appears sparse with much bare, previously flooded ground. Patches of bramble, common nettle and ivy are infrequent. Further north adjacent to the meadows at TN4 the woodland edge has more variety of mature canopy trees with occasional oak *Quercus robur*, large willow species, poplar species *Populus* spp., plum species *Prunus* spp, large-leaved lime *Tilia platyphyllos*, sycamore *Acer*

pseudoplatanus and Monterey Pine *Pinus radiata*. At the junction of the footpath at TN10, there appears to be a stand of English elm *Ulmus procera* trees (possibly planted) with a field layer of amenity grassland. Beside the footpath fence there is field maple and hawthorn which are likely to have been planted along with frequent suckers of English elm and occasional elder *Sambucus nigra*. Ivy, common nettle, pendulous sedge *Carex pendula*, bittersweet *Solanum dulcamara*, Lord's-and-Ladies *Arum maculatum* are occasional with patches of fat-hen *Chenopodium album* throughout the field layer.

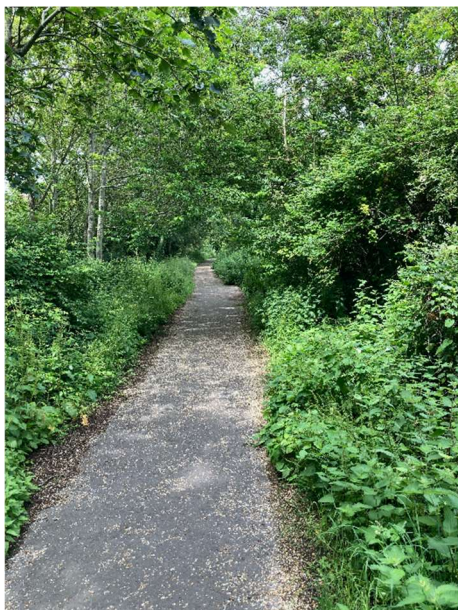
- 4.2.20 **W24a Rubus fruticosus-Holcus lanatus underscrub sub-community Cirsium arvense-Cirsium vulgare** bramble and Yorkshire fog underscrub sub-community creeping thistle-spear thistle. Scrub habitat noted around the meadows at TN6 has affinity with **W24a**. Bramble patches are thick and dense interspersed with much creeping thistle and other ruderal species such as broad-leaved dock *Rumex obtusifolius*, mugwort *Artemisia vulgaris* with hedge bindweed sprawling through the sward. Patches of false oat-grass with creeping buttercup *Ranunculus repens* and scattered grass species found in the meadows grow along the edge of the scrub. In the south-east corner elm suckers are frequent with an occasional plum tree.
- 2.2.21 The hedge along the meadow at TN7 is comprised of elm and blackthorn with occasional hawthorn. A rose species is climbing through it from the adjacent garden and one sprig of Russian vine *Fallopia baldschuanica*, possibly also from the garden. Blackthorn becomes more dominant at the footpath stile end. Overall this hedgerow appears to be species-poor. The middle hedgerow between the fields at TN3 is similar comprised of hawthorn and blackthorn, with occasional elder, holly *Ilex aquilifolium*, ash *Fraxinus excelsior* and clumps of elm.
- 4.2.22 **W24b Rubus fruticosus-Holcus lanatus** underscrub sub-community Arrhenatherium elatius-Heracleum sphondylium bramble-Yorkshire fog sub-community false oat-grass- hogweed. Scrub dominated by dense Japanese rose and bramble scrub along the path at TN59 has low affinity with **W24b** scrub community. Japanese rose is a Schedule 9 species (Part 2 of the (Wildlife & Countryside Act 1981) plants that have become established in the wild. In this scrub there is frequent gorse *Ulex europaeus*, occasional blackthorn and apple trees plus only rarely bay *Laurel nobilis* and hawthorn. The scrub structure is similar to **W24b** with ruderal species surrounding the bramble patches. On the spit itself dense

patches of bramble are visible along the top of the bank at TN61 and has affinity with **W24b**.

- 4.2.23 **W21a Cretagus mongyna-Hedera helix scrub sub-community Hedera helix-Urtica dioica** hawthorn and ivy scrub sub-community of ivy and common nettle. Scrub noted around the main road, sailing club and spit include habitats with low affinity to **W21a**. Bordering the boatyard at TN30 beside the main road is a mix of planted shrubs including Tamarisk *Tamarisk gallica*, a shrubby Orache species interspersed with elder and dog rose *Rosa caninna* agg. Ruderal species are scattered throughout including teasel *Dipsacus fullonum*, hogweed *Heracylum sphondylium*, common nettle, mugwort, bramble and ivy patches. Hemlock is occasional along the stretch of road verge beside the sailing club. The dominant shrub plants have replaced the hawthorn in the typical community but there is a similar structure and understory to **W21a**, with a closed canopy of shrub species. Opposite on the bank at TN29 the scrub is comprised of low hawthorn bushes covered in a thick layer of traveller's-joy *Clematis vitalba* which again has low affinity with **W21a**. At TN33 there is a planted hedge of Escallonia species.
- 4.2.24 Scrub at the main road-crossing and running down into the inlet/spit at TN35 also has low affinity with **W21a**, dominated by bramble and traveller's-joy sprawling over Japanese Rose *Rosa rugosa*, hawthorn, elder and occasional gorse *Ulex europeaus*. This scrub extends along the west bank of the sailing club at TN41 where taller species of elm suckers (or planted) are visible with occasional hawthorn, goat willow *Salix capreae* and rarely ash and oak *Quercus robur*. The scrub extends down the top of the spit itself at TN53 where hawthorn is dominant and wind-blown over the eastern edge.
- 4.2.25 Northwards along the main road at TN58 are mature sycamore trees, an ash tree with hawthorn and wild privet *Ligustrum vulgare* underscrub and a field layer of dense ivy. This has been classified as **W21a** plus sycamore.
- 4.2.26 Scrub bordering the southern edge of the cycle path at TN64 also has some affinity with **W21a**, comprised of mature hawthorn and elder with much bramble and nettle. On the northern edge of the cycle path the scrub becomes dominated by sea-buckthorn *Hippophae rhamnoides* at TN60 which is suggested to have some affinity to **W21a**, as more hawthorn and blackthorn becomes visible in the closed canopy of scrub. Gorse, tree-of-heaven *Ailanthus altissima*, white poplar *Populus albus* are

rare within the canopy with an understory dominated by ivy, and with a grass edge to the path of nettle, smooth hawk's-beard *Crepis capillaris*, Lady's bedstraw *Galium verum*, hedge bedstraw *Galium album* and greater knapweed *Centaurea scabiosa*.

- 4.2.27 Further west the scrub at TN67 is dominated by a willow species, possibly a hybrid between goat and grey willow. Rose and bramble grow through it. Bordering the houses and cycle path at TN68 is mature hawthorn again plus a high canopy of sycamore trees and this has been classified as **W21a** scrub plus sycamore. The hawthorn, hazel *Corylus avellana*, dog-rose *Rosa canina* agg. elder and plum appear mature with an understory dominated by ivy, and nettle patches where the canopy is open. Other ruderal species frequent on the path edge include stone parsley *Sison amomum*, perforate St John's-wort and cow parsley *Anthriscus sylvestris*. Infrequent species include false wood-brome *Brachypodium sylvaticum*, green-alkanet *Pentaglotis officinalis*, stinking iris *Iris foetidissima*, pendulous sedge *Carex pendula* and one clump of bears's breeches *Acanthus mollis* at SU7167 0480. Plum trees are frequent throughout and there is one fig *Ficus* species. There appears to be some gardening management of the scrub with some trees cut back and mounds of compost by gateways. Further north under hazel the underscrub has been cleared back and there is an occasional ash *Fraxinus excelsior* tree. Woodland adjacent to the north of the Survey Area appears to be a mature plantation of large-leaved lime, sweet chestnut *Castanea sativa*, hornbeam *Carpinus betulus* overgrown with secondary woodland growth of sycamore, ash, oak and holly. Overall, this woodland adjacent to the Survey Area has some affinity with **W8d Fraxinus excelsior-Acer campestre-mercurialis perennis woodland sub-community Hedera helix** ash-field maple-dog's-mercury woodland sub-community ivy woodland.



Photograph 7 **W21a** with sycamore canopy at TN68.

- 4.2.28 **W22c Prunus spinosa- Rubus fruticosus scrub sub-community Dactylis glomerata** Blackthorn-bramble sub-community of cock's-foot grass. Further south along the spit at TN52 short trees are visible along the bank such as a bay tree, oak sapling, yew *Taxus baccata* sapling, whitebeam *Sorbus* spp. seedling, holly sapling, apple and elder saplings. Hawthorn gives way to dominant dogwood *Cornus sanguineus*. Abundant bramble and frequent traveller's-joy grow over much of the scrub the latter giving a more calcareous feel to the scrub which is growing over an almost bare chalk outcrop. This has some affinity with **W22c**. At TN78 the bramble and blackthorn bank on the western edge of the Survey Area has some affinity also with **W22c**.

RUDERAL

- 4.2.29 **OV21b Poa annua-Plantago major sub-community Polygonum avicular Ranunculus repens** Annual meadow-grass- greater plantain sub-community of knotgrass- creeping buttercup,
OV24b Urtica dioica- Galium aparine sub-community Arrhenatherum elatius- Rubus fruticosus Common nettle-cleavers sub-community of false oat-grass-bramble, and

OV25b Urtica dioica- Cirsium arvense sub-community Rumex obtusifolius-Artemisia vulgaris common nettle-creeping thistle sub-community of broad-leaved dock and mugwort.

- 4.2.30 **OV21b.** At TN2 Pineapple weed *Matricaria discoidea*, fat-hen and greater plantain *Plantago major* south of the gate resemble a trampled weedy community with low affinity to **OV21b.**
- 4.2.31 **OV25b** ruderal community is noted bordering the scrub by the sailing club at TN36. At TN36 common nettle and thistles are frequent with occasional wild carrot, hemlock, perennial sowthistle, teasel, black horehound *Ballota nigra*, mugwort and common mallow. This vegetation appears to have some similarity to **OV25b** with the umbellifers frequent throughout. Further south down the bank at TN42 the ruderal vegetation turns more grassy with false oat-grass scattered through clumps of nettle and bramble, suggested to have some affinity with **OV24b.** These ruderal species grade into the scrub above it and into the **SM24** below it.
- 4.2.32 **OV24b** ruderal community is also recorded further north along the shore at TN63 where umbellifers are frequent throughout a tall sward of false oat-grass and patches of common nettle. Tansy *Tanacetum vulgare*, black horehound, teasel, hemlock and hogweed are frequent with bramble higher up the bank where there is broad-leaved dock, hedge bindweed and bittersweet.

GRASSLAND

MG12a Festuca arundinacea sub-community Lolium perenne-Holcus lanatus tall fescue sub-community perennial rye-grass- Yorkshire fog grassland,

MG13 Agrostis stolonifera-Alopecurus geniculatus grassland Creeping bent-marsh fox-tail,

Mature MG7 ley and MG7e Lolium perenne ley - Lolium perenne-Plantago lanceolata grassland Perennial rye-grass with rib-wort plantain ley,

MG1a Arrhenatherum elatius sub-community Festuca rubra - False oat-grass sub-community red fescue grassland,

MG1b Arrhenatherum elatius sub-community Urtica dioica- False oat-grass sub-community common nettle,

MG1d Arrhenatherum elatius sub-community Pastinaca sativa- False oat-grass sub-community wild parsnip grassland,

MG1e Arrhenatherum elatius sub-community Centaurea nigra False oat-grass sub-community with common knapweed,

MC8a Festuca rubra- Armeria maritima red fescue- thrift typical sub-community of maritime grassland,

Mix of vegetation representing calcareous and maritime species over bare chalk, and

Transitional maritime grassland.

- 4.2.33 **MG12a Festuca arundinacea sub-community Lolium perenne-Holcus lanatus tall fescue sub-community perennial rye-grass- Yorkshire fog grassland.** The meadows north of the village at TN1 and TN5 have affinity with **MG12a** grassland. The lower meadow at TN5 has tall fescue constant throughout much of the tall open sward with Yorkshire fog also abundant. False oat-grass and cock's-foot grass are infrequent. Common bent *Agrostis capillaris*, red fescue and perennial rye-grass are frequent with a occasional sweet vernal-grass *Anthoxanthum odoratum*, small cat's-tail *Phleum bertolonii* and meadow foxtail *Alopecurus pratensis*. Herbs are scattered throughout with common knapweed *Centaurea nigra* and yarrow *Achillea millefolium* most visible. There is occasional creeping buttercup *Ranunculus repens*, meadow buttercup *Ranunculus acris*, common sorrel *Rumex acetosa*, common bindweed *Convolvulus arvensis* and common mouse-ear *Cerastium fontanum*. The upper meadow at TN1 has a similar sward with Yorkshire fog and common bent most visible throughout with tall fescue less frequent. Smaller cat's-tail is locally frequent with occasional meadow foxtail, false oat-grass and cock's-foot. Perennial rye-grass is more visible surrounding the footpaths and gateways where there is frequent white clover *Trifolium repens* and creeping bent *Agrostis stolonifera*. Near the gate entrance at TN8 a small area of the sward turns to a species-poor inundation grassland of creeping bent/Yorkshire fog sward where it is most likely frequently flooded.
- 4.2.34 At TN4 bordering the wet woodland the sward is dominated by tussocks of tall fescue, with creeping bent scattered throughout with occasional cock's-foot and false oat-grass representing an **MG12** community. Herbs are limited with creeping buttercup, meadow buttercup, creeping thistle, commons sorrel, creeping thistle and cut-leaved geranium *Geranium dissectum* all scarce. Scattered scrub includes white poplar saplings within this grassland.



Photograph 8, **MG12** grassland at TN4.

- 4.2.35 **MG7e Lolium perenne ley - Lolium perenne-Plantago lanceolata grassland Perennial rye-grass with rib-wort plantain ley.** Along the northern boundary of the Survey Area at TN18 a horse-grazed field appears to be a mature species-poor ley with some affinity to **MG7e** with much Yorkshire fog. It is overgrown with common nettle, bramble and fat-hen in clumps, amongst a tall open sward. Most visible is Yorkshire fog, bent species and perennial rye-grass with occasional black medick *Medicago lupulina*.
- 4.2.36 **MG13 Agrostis stolonifera-Alopecurus geniculatus grassland Creeping bent-marsh fox-tail.** Around the southern edge of the horse field at TN17 there is standing water and around this appears to be inundation grassland with some affinity to **MG13**.
- 4.2.37 **MG7** mature ley. The western field at TN75 is comprised of an open sward dominated by Yorkshire Fog and bent grass species with abundant false oat-grass, frequent cock's-foot and occasional herbs of yarrow, and hogweed. Perennial rye-grass was only visible at the gateway although this may well be dispersed through the field. This grassland is suggested to have low affinity with a **MG7** ley, being

mature and with coarse grasses now dominating the sward. There is also an **MG7** ley around the bench at TN65.

4.2.38 Along the northern edge of the field at TN76 is a species-poor hedge comprised of elm and hawthorn, with some dogwood and a mature sycamore tree. Ground elder and ivy are noted throughout.

4.2.39 **MG7e Lolium perenne ley - Lolium perenne-Plantago lanceolata grassland**
Perennial rye-grass and ribwort plantain ley is found on the verge of the car park at the Ship Inn. TN21 is mown grassland with affinity to **MG7e Lolium perenne ley - Lolium perenne-Plantago lanceolata grassland** perennial rye-grass and ribwort plantain ley. Perennial rye-grass is dominant in patches with frequent smaller cat's-tail grass, common bent, Yorkshire fog, annual meadow-grass, soft brome *Bromus hordeaceus ssp. hordeaceus*, and cock's foot. On the steeper slopes more herbs are visible including sea side plants such as buck's-horn plantain, sea-beet and wild carrot. Other common species include common mallow, dove's-foot crane's-bill, prickly sowthistle *Sonchus picris*. Common rest harrow *Ononis repens* is noted on the pavement edge with smooth hawk's-beard, sedum species and spear thistle.

4.2.40 Grassland with some similarity to **MG7e** community is noted further south along the along the east side of the road verge at TN24 and TN27. Due to the verge sloping down to the water it is suggested much of the nutrients are lost and the dominant grasses are less vigorous than in the typical community giving a more diverse herb flora. Grasses include perennial rye-grass which is abundant throughout plus smaller cat's-tail *Phleum bertolonni*, cock's-foot, soft brome *Brooms hordeaceus ssp. hordeaceus* and bent grass species. Herbs include yarrow, dove's-foot crane's-bill *Geranium molle*, common knapweed, common bird's-foot trefoil, groundsel *Senecio vulgarise* and hawkweed oxtongue *Picris hieracioides*. One curled dock plant is noted here. AT TN27, a steeper slope, further herbs include white clover *Trifolium repens*, wild carrot, oxeye daisy *Leucanthemum vulgare*, daisy *Bellis perennis*, ribwort plantain *Plantago lanceolata* and cat's-ear *Hypochaeris radicata*. Higher up the bank here near the road edge is a clump of biting stonecrop *Sedum acre*, sea crane's-bill *Erodium maritimum* and sea couch; coloniser species that can cope with maritime/salty conditions.

Species list and cover for a 4m x 4m quadrat for **MG7e** transitional community at TN24.

Species	Cover (domin value)	Herbs	
Perennial rey-grass	5	Yarrow	7
smaller cat's-tail	4	Ribwort Plantain	4
Creeping bent	4	Dove's-foot crane's-bill	1
Red Fescue	2	Common bird's-foot-trefoil	2
Soft brome	2	Autumn hawk bit Scorzoneroides autunalis	1
Cock's-foot	5	Common knapweed	1
Yellow oat-grass Trisetum flavour	1	common ragwort	1
		Hawkweed oxtongue	2
		Dandelion Taraxacum spp.	1

4.2.41 Bordering the Escallonia species hedges the sward at TN34 is dominated by perennial rye-grass and appears to have affinity with a mature **MG7e Lolium perenne ley - Lolium perenne-Plantago lanceolata grassland** perennial rye-grass and ribwort plantain ley. Red fescue is scattered throughout along with soft brome. Frequent herbs include yarrow, black medic, common knapweed, daisy, common birds's-foot-trefoil and dandelion Taraxacum species. An **MG7** open sward is also noted at the top of the banks of the sailing club at TN43, where a mix of false oat-grass and perennial rye-grass is visible.

4.2.42 **MG1a Arrhenatherum elatius sub-community Festuca rubra - False oat-grass sub-community red fescue grassland.** The boat park itself at TN26 is comprised of tall false oat-grassland with frequent ruderals such as wild carrot, common mallow, sea-beet and common ragwort *Jacobaea vulgaris*. Along the western verge of the main road at TN32 the sward has affinity with **MG1a**, with a maritime influence. The sward is open, dominated by false oat-grass and Yorkshire Fog with occasional sea couch and clumps of ribwort plantain. Herbs include hedge bedstraw, perforate St

John's wort, wild carrot and occasional hemlock. **MG1a** is also noted at TN66 adjacent to scrub.

- 4.2.43 **MG1b Arrhenatherum elatius sub-community Urtica dioica- False oat-grass sub-community common nettle.** Bordering the cycle path at TN56, near the road crossing is a tall sward of false oat-grass and ruderal species. At SU7184 0468 there is musk mallow *Malva moschata*. The sward is comprised of abundant hogweed, mugwort *Artemisia vulgaris* and nettle. Red valerian *Centranthus ruber*, is noted (one plant) and common knapweed is occasional.
- 4.2.44 **MG1e Arrhenatherum elatius sub-community Centaurea nigra False oat-grass sub-community with common knapweed.** Bordering the footpath onto the salt-marsh edge there is a thin band of **MG1e**, which continues to cover the eastern edge of the spit at TN55. The sward is tall with much false oat-grass and a red fescue under layer with frequent sprawling hedge bindweed. Other frequent herbs include red clover *Trifolium pratense*, hop trefoil *Trifolium campestre*, common vetch *Vicia sativa ssp. nigra*, yarrow, white campion *Silene latifolia*, meadow vetchling *Lathyrus pratensis*, oxeye daisy and common knapweed. Overall, the spit appears to be a transitional habitat between an **SM24** and an **MG1e** grassland with both a calcareous and maritime influence on species present within the vegetation.
- 4.2.45 Further west at TN57 along the cycle path the scrub edge appears to have affinity with **MG1e**, where an open sward of false oat-grass appears species-rich with herbs such as common knapweed, greater knapweed, common bird's-foot-trefoil, hedge bedstraw, oxeye daisy, Lady's bedstraw *Galium verum*, white campion, salad burnet *Poterium sanguisorba ssp. sanguisorba* and smooth hawksbeard *Crepis capillaris*. This herb edge thins out when the scrub becomes more dense at TN60.



Photograph 9 **MG1e** edge along the path at TN57.

- 4.2.46 **MG1d Arrhenatherum elatius sub-community Pastinaca sativa-False oat-grass sub-community wild parsnip grassland.** Maritime and calcareous influences increase down to the southern end of the spit at TN51 where parsnip *Pastinaca sativa* becomes frequent within the false oat-grass sward and represents the sub-community of **MG1d**. Calcicole species noted here include pyramidal orchid *Anacamptis pyramidalis*, traveller's-joy and viper's bugloss *Echium vulgare* (the latter also associated with maritime grassland).
- 4.2.47 **MC8a Festuca rubra-Armeria maritima red fescue-thrift typical sub-community.** At the end of the spit at TN49 the sward is comprised of a mattress of red fescue, ribwort plantain and common bird's-foot-trefoil. This grassland community is suggested to have some affinity with a maritime grassland community such as **MC8a** community. The grassland is close to the sea and a few metres above the high tide line, with a well-trampled path through it. The spit itself is comprised of a chalk outcrop and this is also influencing the maritime community.
- 4.2.48 **Mix of vegetation representing calcarious and maritime species over bare chalk.** On the bare rocky cliff at TN46 there is a collection of herbs scattered on the bare rocks within an open sward of sea couch. Frequent grasses include false oat-grass, cock's-foot and sea couch with occasional herbs of common centuary

Centaureum erythraea, Viper's bugloss, wild carrot, toadflax species *Linaria* spp., hop trefoil, hawkweed oxtongue, wild parsnip and oxeye daisy. It is suggested to be a thin sward of vegetation representing calcareous and maritime species on a bare chalk surface. It merges into the **MG1d** and dogwood scrub higher up, and into the **SM17/SM14** salt marsh habitat below it.

Species list and cover for a 2m x 2m quadrat for Rocky calcareous/maritime habitat at TN46.

Species	Domin Value	Herbs	Domin value
Sea couch	5	Hawkweed oxtongue	2
False oat-grass	2	Brassica spp.	1
Sea fern-grass	1	Wild carrot	3
		Hedge bedstraw	4
Moss	2	Ragwort	1
Bare rock	5	Hop trefoil	4
		Viper's bugloss	6
		Oxeye daisy	4
		Wild parsnip	1
		Common centuary	1



Photograph 10 Rocky calcareous/maritime habitat at TN46.

- 4.2.49 **Transitional maritime grassland.** Along the eastern shore of the sailing club at TN25 is a sward of red fescue and common-bird's-foot-trefoil forming a mat just above the high tide line. This is suggested to be a transitional community towards a more maritime grassland with dominant red fescue.

5 EVALUATION

5.1 Habitats

5.1.1 Habitats identified within the Solent and Maritime SAC that were found within the Survey Area included Annex 1 habitats that are a primary reason; 1130 Estuaries, 1320 Spartina swards and 1330 Atlantic salt meadows. Annex 1 habitats identified in the Survey Area as a qualifying feature for the SAC included 1210 annual vegetation of drift lines and 1310 Salicornia and other annuals colonising mud and sand. The Annex 1 habitat of 1140 mudflats and sandblast not covered by sea water at low tide was noted throughout but not included in this survey.

5.1.2 Habitats of international importance found within the Survey Area include Annex 1 habitats of:

MC6 - '1210 Annual vegetation of Drift Lines'

W6a - '91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*'

SM14, SM23, SM24 - '1330 Atlantic salt meadows (*Glauco- Puccinellietalia maritimae*)'

SM6 - '1320 Spartina swards (*Spartinion maritimae*).'

SM8 and **SM9** '1310 Salicornia and other annuals colonising mud and sand.'

5.1.2 Broad UK BAP habitat of national importance included broadleaved woodland; the elm plantation at TN10, scrub along the cycle path including the willow scrub TN57 and hawthorn with sycamore TN58 and TN68).

5.1.3 Priority UK BAP habitats of national importance included

'wet woodland' at TN9 and TN12, around the Mill Pond,

'reedbeds' at TN11 and TN15 around the Mill Pond,

'hedgerows' at TN3, TN7 and TN76,

'salt-marsh' east of the sailing club at TN13, TN14, TN16, TN19, TN22, TN28, and on the west side of the sailing club TN31, TN37 - TN40, TN44, TN45, TN47 to TN50, TN69 to TN74 and TN77.

'maritime cliffs and slopes' was noted at TN46 and

'strand line and coastal vegetated shingle' at TN63 (**MC6** NVC community).

5.2 Species

5.2.1 Notable species recorded within the Survey Area include:

- Curled dock *Rumex crispus subsp. littoreus* (County Scarce) at SU7183 0452 on the spit.
- Golden-samphire *Limbarda crithmoides* (Nationally and County Scarce) throughout the salt marsh habitats
- Sea wormwood *Artemisia maritima* (County Scarce) and found in the inlet at TN45, on both sides,
- Lax-flowered sea-lavender *Limonium humile* is noted at TN14 SU7203 0497 (Nationally and County Scarce)
- Japanese rose is a Schedule 9 species (Part 2 of the (Wildlife & Countryside Act 1981) plants that have become established in the wild.

6 CONCLUSIONS

- 6.1 NVC communities were recorded that fit within the UK BAP broad habitat included broad habitat of broadleaved woodland.
- 6.2 UK BAP Priority habitats recorded included hedgerows, wet woodland, reedbeds, saltmarsh, maritime cliffs and slopes and strand line and coastal vegetated shingle.
- 6.3 Habitats of international importance noted found within the Survey Area include **MC6** community '1210 Annual vegetation of Drift Lines', **W6a** - '91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*' in the woodland north of the Old Mill House and Pond, **SM14**, **SM23**, **SM24** - '1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)' comprising most of the saltmarsh habitat, within the Survey Area, **SM6** - '1320 - *Spartina* swards (*Spartinion maritimae*)' and **SM8** and **SM9** '1310 *Salicornia* and other annuals colonising mud and sand.'
- 6.3 Four notable species were recorded including curled dock, golden samphire, sea wormwood and lax-flowered sea-lavender. The schedule 9 invasive species of Japanese Rose was also recorded.

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APPENDIX 1: Habitat types and codes

Target Note	NVC habitat	IHS code	UKHab code	Annex 1 Habitat / BAP habitat
1	MG12	GN1Z	g3c6	
2	OV21b	G10	g4	
3	Species-poor hedge	LF1Z	h2a	Hedgerow (priority habitat)
4	MG12	GN1Z	g3c6	
5	MG12	GN1Z	g3c6	
6	W24a	SC21Z	h3d	
7	Species-poor hedge	LF1Z	h2a	Hedgerow (priority habitat)
8	Inundation grassland	GNZ	g3c	
9	W6	WB341	w1d5	Annex I 91E0 - Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae. Wet woodland Priority Habitat (Broadleaved Woodland BH)
10	Elm plantation	WB2	w1g7 with secondary code 36	Broadleaved Woodland (BH)
11	S4	EM11	f2e secondary code 138	Reedbeds Priority Habitat (Fen, Marsh, Swamp BH)
12	W6	WB341	w1d5	Annex I 91E0 - Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae. Wet woodland Priority Habitat (Broadleaved Woodland BH)

Target Note	NVC habitat	IHS code	UKHab code	Annex 1 Habitat / BAP habitat
13	SM14	LS331	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
14	SM24	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
15	S4	EM11	f2e secondary code 138	Reedbeds Priority Habitat (Fen, Marsh, Swamp BH)
16	SM23	LS33	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
17	MG13	GN5	U1a	
18	MG7b	G10	g4	
19	SM6 <i>Spartina anglica</i> salt-marsh community	LS32	t2a6	Annex I 1320 - <i>Spartina</i> swards (<i>Spartinion maritimae</i>). Saltmarsh Priority Habitat (Littoral Sediment BH)
20	Scattered plants	-	-	
21	MG7e	G10	g4	
22	SM24	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae)

Target Note	NVC habitat	IHS code	UKHab code	Annex 1 Habitat / BAP habitat
				Saltmarsh Priority Habitat (Littoral Sediment BH)
23	Scattered plants on cement bank (SM14)	LS333	t2a7	
24	MG7e	G10	g4	
25	Transitional Red fescue maritime grassland	GNZ	g3c5	
26	MG1a	GNZ	g3c5	
27	MG7e	G10	g4	
28	SM24	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
29	W21 mix	WB2	h3f	
30	W21 plus IS	WB2	h3f	
31	SM24	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
32	MG1a	GNZ	g3c5	
33	Escallonia hedge	SC12		
34	MG7a	G10	g4	
35	W21 plus	WB2	h3f	
36	OV25b	GNZ	g3c	

Target Note	NVC habitat	IHS code	UKHab code	Annex 1 Habitat / BAP habitat
37	SM24	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
38	SM14 mosaic	LS333	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
39	SM8	LS311	t2a6	Annex I 1310 - Salicornia and other annuals colonising mud and sand. Saltmarsh Priority Habitat (Littoral sediment BH)
40	SM14	LS333	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
41	W21 plus	WB2	h3f	
42	OV24b	GNZ	g3c	
43	MG7 mix	G10	g4	
44	SM14	LS333	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
45	SM17	LS333	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)

Target Note	NVC habitat	IHS code	UKHab code	Annex 1 Habitat / BAP habitat
46	Bare rock/maritime mix	SR1 Maritime cliff and slope	s2a6	Sub-form "Soft Natural" of Annex I 1230 - Vegetated sea cliffs of the Atlantic and Baltic coasts. Maritime Cliffs and Slopes Priority Habitat (Supra-littoral rock BH)
47	SM9	LS331	t2a5	Annex I 1310 - Salicornia and other annuals colonising mud and sand. Saltmarsh Priority Habitat (Littoral sediment BH)
48	SM24	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
49	MC8	SR1 Maritime cliff and slope	s2a6	Sub-form "Soft Natural" of Annex I 1230 - Vegetated sea cliffs of the Atlantic and Baltic coasts. Maritime Cliffs and Slopes Priority Habitat (Supra-littoral rock BH)
50	SM24 transitional to MG1d	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
51	MG1d	GNZ	g3c5	
52	W22c mix	WB2	h3h	
53	W21 mix	WB2	h3f	
54	SM24	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Saltmarsh Priority Habitat (Littoral Sediment BH)
55	MG1e	GNZ	g3c5	

Target Note	NVC habitat	IHS code	UKHab code	Annex 1 Habitat / BAP habitat
56	MG1b	GNZ	g3c5	
57	MG1e	GNZ	g3c5	
58	W21a plus sycamore	WB3Z	h3h	Broadleaved woodland (BH)
59	W24b and Japanese rose	WB21	h3c	
60	W21 plus sea buckthorn.	WB3Z	h3c6	Broadleaved woodland (BH)
61	W24b	SC21Z	h3d	Broadleaved woodland (BH)
62	OV24b	GNZ	g3c	
63	MC6 strandline	SS312 Annual Vegetation of Drift lines	s3b6	Annex I 1210 – Annual vegetation of drift lines. Strandline/Coastal vegetated shingle Priority Habitat
64	W21a	WB3Z	h3f	Broadleaved woodland (BH)
65	MG7	G10	g4	
66	MG1a	GNZ	g3c5	
67	Willow scrub	SC11	h3h	Broadleaved woodland (BH)
68	W21 plus sycamore	WB3Z	h3h	Broadleaved woodland (BH)
69	SM14	LS333	t2a7	Annex I 1330 - Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) Saltmarsh Priority Habitat (Littoral Sediment BH)
70	SM9 <i>Suaeda maritima</i>	LS312	t2a5	Annex I 1310 - <i>Salicornia</i> and other annuals colonising mud and sand. Saltmarsh Priority Habitat (Littoral sediment BH)

Target Note	NVC habitat	IHS code	UKHab code	Annex 1 Habitat / BAP habitat
71	SM6 <i>Spartina anglica</i> salt-marsh community	LS32	t2a6	Annex I 1320 - <i>Spartina</i> swards (<i>Spartinion maritimae</i>). Saltmarsh Priority Habitat (Littoral Sediment BH)
72	SM24	LS37	t2a7	Annex I 1330 - Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) Saltmarsh Priority Habitat (Littoral Sediment BH)
73	SM14	LS333	t2a7	Annex I 1330 - Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) Saltmarsh Priority Habitat (Littoral Sediment BH)
74	SM8	LS311	t2a6	Annex I 1310 - <i>Salicornia</i> and other annuals colonising mud and sand. Saltmarsh Priority Habitat (Littoral sediment BH)
75	MG7 mature	G10	g4	
76	Species-poor hedge	LF1Z	h2a	Hedgerow (priority habitat)
77	Inundation grass (possibly SM23)	LS33	t2a7	Annex I 1330 - Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) Saltmarsh Priority Habitat (Littoral Sediment BH)
78	W22a	WB2	h3a6	

APPENDIX 2: Map figures



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Langstone_Habitats

Bare rock/maritime mix
Woodland
Hedge

Vegetated Shingle

Maritime grassland

Neutral Grassland

Wet grassland

Rough Grassland

Grass ley

open water

Ruderal

Reedbed

Saltmarsh

Scrub

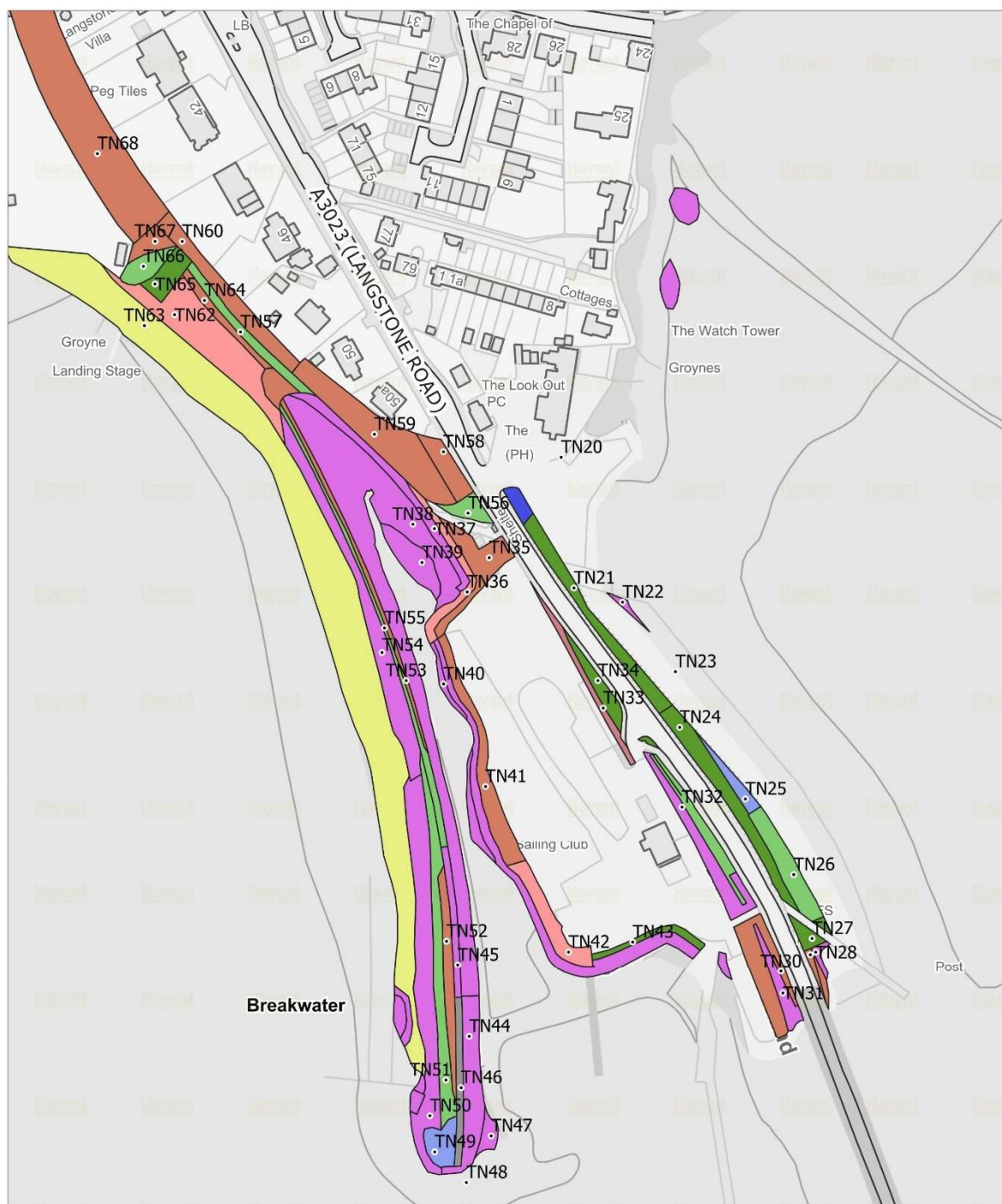
Wet woodland



LOCATION: Langstone FCERM

TITLE: Botanical Survey 1/3





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Langstone_Habitats

Bare rock/maritime mix	Vegetated Shingle	Rough Grassland	Reedbed
Woodland	Maritime grassland	Grass ley	Saltmarsh
Hedge	Neutral Grassland	open water	Scrub
	Wet grassland	Ruderal	Wet woodland



LOCATION: Langstone FCERM

TITLE: Botanical Survey 2/3





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Langstone_Habitats

Bare rock/maritime mix	Vegetated Shingle	Rough Grassland	Reedbed
Woodland	Martime grassland	Grass ley	Saltmarsh
Hedge	Neutral Grassland	open water	Scrub
	Wet grassland	Ruderal	Wet woodland



LOCATION: Langstone FCERM

TITLE: Botanical Survey 3/3

