Gnornbup and Tallerack Reserves Bremer Bay
Public Open Space Management Plan

Shire of Jerramungup

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Public Open Space Reserves Management Plan

Shire of Jerramungup

Vasey St Jerramungup WA 6337

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Cover images

Above: Tallerack Reserve northern end, looking east to Bremer Bay.

Below: Gnornbup Reserve, looking southeast across Bremer Bay Rd/Gnornbup Tce junction. Images by N McQuoid.

Prepared by

Nathan McQuoid

Landscape Ecologist

20 Short Beach Rd

Bremer Bay WA 6338

Table of contents

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1. Management Plan aim, purpose, principles and design

Aim
A Bremer Bay Public Open Space Management Plan, to guide the future use of town Bushland Reserves 51949, 47113 between John St and Seadragon Ave and the Bushland Corridor that is the Bremer Bay Road Reserve between Bremer Bay Rd and Gnornbup Tce.

Purpose
Address ongoing use, management and preservation of the ecological corridor, interpretive information, areas for public use and paths network consolidation, visibility and fire management.

Principles
In addressing the aim and purpose, four principles guide the design and implementation of this management plan:

1. Develop a complementary relationship between the community and the reserves.
2. Consideration of amenity and natural values.
3. Access for enjoyment by the community and visitors.
4. Hazard and risk regulated in accord with the first three principles.

Design
Design of this Management Plan is based on the common process used for the management of public lands, where objectives are identified, input through consultation sought, relevant management for related estate reviewed, expertise considered and management actions designed.

In line with this approach, this management plan responds to seven themes specified by the Shire of Jerramungup as objectives:

1. *Highlight the reserves role as a microcosm of the wider area (i.e. Bremer Bay & its relationship to the National Park/ Town Centre and its relationship to the Public Open Space strip.*
2. *Maintain the reserves as ecological corridors and part of the greater macro corridor.*
3. *Consider pedestrian access through the Public Open Space to improve access between the town centre development and residential area to the east.*
4. *Manage fire hazard and risk and potential threat to adjoining town centre & residential areas in John St, plus as conduit from outside of town into the middle of town. The approach is to be informed by the recently completed Bremer Bay Point Henry Vegetation Mapping and Management Project and is to inform the Bushfire Risk Mitigation Plan.*
5. *Provide opportunities for interpretation information, particularly the local flora and fauna, history and the surrounding landscape including the Fitzgerald River National Park and Fitzgerald Biosphere.*
6. *Manage weeds & dieback.*
7. *Address relationship and visibility of businesses on Gnornbup Terrace.*

The Management Plan should be reviewed every five years to track implementation, maintain currency and adjust for new information.

2. Consultation

Consultation with stakeholders is an integral part of the development process for this plan. It ensures that the range of issues relating to management of the Public Open Space Reserves is considered, and that the input is valued. A number of stakeholders as organisations, businesses and individuals with responsibilities or relationships with the Public Open Space Reserves contributed to the content of this plan.

The consultation process was designed to first inform stakeholders about the Public Open Space Management Plan and its main themes. It then sought responses to a set of five prescribed questions about the bushland reserves and their role as public open space, and input as comments about issues that respondents considered important for planning consideration and for which solutions are required.

Contributions as theme responses and specific comments relate to:

- Reserve proximity to business, civic and emergency infrastructure and services.
- Nature and amenity conservation, ecological connectivity, characteristic of the area, compelling entrance statement, the reserve's role in the natural appeal of Bremer Bay and surrounds as coastal reserves, beaches and ocean, national park and Fitzgerald Biosphere.
- Business visibility from roads, client use patterns, signage design and placement, bushland corridor serves as a buffer.
- Bushland management, removal of weeds and dead material, tidiness; that dieback infection is prevented.
- Public access and use, trails and paths, better availability for people, gazebo use, link to shared-use trail network, activation to improve access and use, architecture/installations and 'Scrub Top Walk' concept.
- Bushfire consideration and management, hazard sustainably managed to keep it as low as possible, strategic and parkland thinning, proximity to and surrounded by roads, access within – dual use paths, and suppression activities.
- Noongar and European history, original Telegraph Station road, Noongar food plants.
- Interpretation of natural and cultural history.

Specific consultation contributions by stakeholders are provided to the Shire of Jerramungup in a separate document. The document is not for public release, rather it serves as a record of the raw information data that guided the development of the management plan, particularly issues and actions.

3. Landscape, townsite and heritage context and setting

The public open space 'reserves' that are the subject of this management plan, are the road reserve between Gnornbup Tce and Bremer Bay Rd, and reserves 51949 and 47133 that sit between John St and Seadragon Ave. This management plan recommends that they be named respectively as Gnornbup Reserve and Tallerack Reserve. See also section *9. Interpretation.*

Consultation with a range of stakeholders will ensure this plan considers the most relevant issues in developing its actions to meet objectives. In doing this it will address the range of expectations of the community and reserve managers.

Gnornbup Reserve is part of the Bremer Bay Rd Road Reserve, vested in the Shire of Jerramungup (C. Pursey pers. comm.). Tallerack Reserve comprises Reserves 51949 and 47133, vested in the Shire of Jerramungup. The Purpose of Reserve 51949 is 'for the use and benefit of the Shire of Jerramungup, and the Purpose of Reserve 47133 is 'For Aged Persons Accommodation' (DOLA 2003, 2014).

Gnornbup and Tallerack Reserves serve as an introductory setting for Bremer Bay by their presence close to the town entrance. Their character as complex, old growth tall shrubland plant communities is shared by many other visually and biologically diverse plant communities that characterise the south coast region of WA.

The reserves perform as an ecological corridor linkage between the coastal reserves south and west of Bremer Bay and Fitzgerald River National Park to the east (Wilkins et al 2006; Aurora Environmental 2017). In doing so, they form part of the buffer zone within Fitzgerald Biosphere that surrounds the core zone of Fitzgerald River National Park (BIG 2017). The reserves perform as important ecological linkages and as small refuges in their own right due to their high plant diversity and considerably old (long unburnt), open and stable plant communities, a feature that is now particularly uncommon and therefore valuable.

The reserves sit along the edges of the old part of Bremer Bay townsite, between the combined newer semi-rural holdings to the west and the new town centre and civic developments and the older residential areas east of John St and north of Mary St.

No specific Noongar heritage sites are known within Gnornbup or Tallerack Reserves (H. Coyne, pers. comm.). Notwithstanding, Bremer Bay is an important historic and contemporary place for Noongar people, with several historic and registered sites known (H. Coyne, E. Eades, K. Flugge pers. comm.). This importance places the reserves in a social and historic context as part of a generally important place for Noongar people.

European heritage exists in Tallerack Reserve as the slightly diagonal trail through the southern part of the reserve linking John St and Seadragon Ave, opposite the Emergency Services Building. This trail is on the formation of the original track to the Telegraph Station. A more recent European heritage site is the long abandoned tennis court that sits under where the stormwater pond now stands (Map 2).

Gnornbup and Tallerack Reserves lend themselves to activation via access for people wishing to get to businesses and public building and spaces surrounding, and to enjoy the natural features of the reserves themselves. To achieve this and related objectives, this plan recommends the access ways be included in the broader Bremer Bay Shared-use Trail Network and its path, installation and interpretation standards and styles (Map 2).

Objective:

Consider social and landscape contexts. Highlight the reserve's roles as a microcosm of the wider area (i.e. Bremer Bay & its relationship to the National Park/Town Centre and its relationship to the Public Open Space strip).

Actions:

- Consult with stakeholders to cover the range of issues and potential solutions in developing actions to achieve the plan's objectives.
- Identify the reserves as an integral part of the natural appeal of Bremer Bay, through the objectives and actions in the remainder of this plan.
- Name the reserves the Gnornbup and Tallerack Reserves, and signpost them such at each end. This will immediately attach people and support activation and conservation objectives. See also section *9. Interpretation.*
- Implement the actions in support of the objectives of other sections of this plan.

4. Ecology

Gnornbup and Tallerack Reserves sit within the Fitzgerald Biogeographical Region of Australia (Thackway and Cresswell 1995), an area known for its high levels of biological diversity. They lie on the Marine Plain landform unit, so named because it is underlain by spongolite rocks of marine sediment origin laid down during the Eocene some 40 – 80 million years ago (McQuoid 2004).

The Reserves lie within the buffer zone of the recently renominated Fitzgerald Biosphere Reserve. The buffer zone surrounds and links to the core zone Fitzgerald River National Park (BIG 2017).

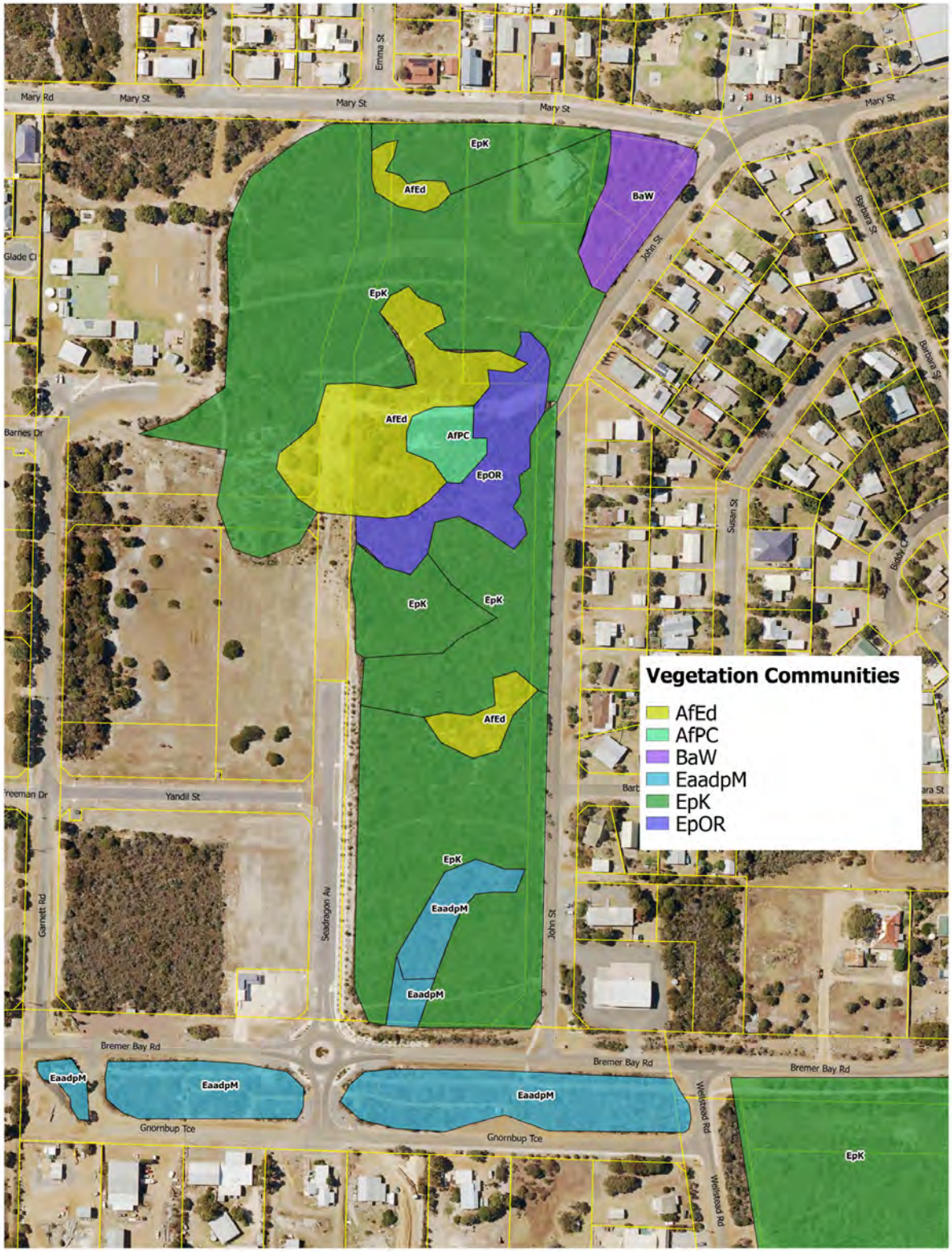
The Reserves form a priority coastal link in the South Coast bioregional Macro Corridor Network. This nature conservation concept protects the physical linkages between the extensive although often fragmented number of large and intact protected areas, which are of value for their high levels of endemism, floristic diversity and refuges for threatened fauna. The linkages also underpin the social and economic benefits to the community that the world-famous diverse nature provides. The Gnornbup and Tallerack Reserves in Bremer Bay serve as a critical link between the coastal reserves to the west and Fitzgerald River National Park to the east (Wilkins et al 2006).

Soil types in the reserves are of two main types, predominantly duplex units of sand of varying shallow depths over clay, and a smaller section of deeper yellow sand. The vegetation of the reserves reflects the distribution patterns of these soil types.

Plant communities that comprise the vegetation are of five main types (Shire of Jerramungup 2017), (Map 1):

1. BaW: Slender Banksia (*Banksia attenuata*) low open woodland.
2. EaadpM: Ridge-fruited mallee (*Eucalyptus aff. angulosa*), Redheart (*E. decipiens*), Tallerack (*E. pleurocarpa*) mallee shrubland.
3. EpK: Tallerack (*Eucalyptus pleurocarpa*) mallee shrubland over kwongkan,
4. EpOR: Tallerack (*Eucalyptus pleurocarpa*) very open mallee over dryland rush ground cover.
5. EpEd: tallerack (*Eucalyptus pleurocarpa*), Redheart (*E. decipiens*) mallee shrubland.

Map 1. Plant (Vegetation) Communities



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SCALE 1:2000	**VEGETATION COMMUNITIES**
SIZE A3	
DATE 9th May 2018	**CLIENT** Nathan McQuoid

The BaW Banksia Low Open Woodland community forms one of the manifestations of the Threatened Ecological Community (TEC) *Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia*. The community is listed under the national Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) as a TEC because it has undergone severe reduction in integrity and has a fragmented geographic distribution, due to historic clearing, frequent fire and phytophthora dieback, and its importance as habitat for a range of animals (Department of Environment 2014).

Animals found in the reserves include a number of birds, principally nectar feeders, some mammals, most likely the small nectar eating Pygmy and Honey Possum (*Tarsipes rostratus* and *Cercatetus concinnus*), reptiles, frogs and many invertebrates.

The vegetation of the reserves is intact, stable, relatively old, and sensitive to alteration from disturbance. The Tallerack mallee communities are in some places in the Tallerack Reserve, the oldest and most open examples of this relatively common plant community known. This brings habitat, aesthetic, sensitivity, exclusivity and low fire hazard appeal; all attributes important to conserve.

There appears to be no dieback activity in the reserves, which hold a number of susceptible plants. Maintaining dieback free status to protect the many values for the long term is imperative.

The objective and actions below are designed to conserve and enhance the natural, amenity and character values of the reserves. As well, these contribute to the realisation of other objectives related to vegetation including bushfire management, weeds and dieback management, and interpretation.

Objective:

Maintain the reserves as high quality ecological corridors and part of the greater macro corridor.

Actions:

- Remove *weeds and invasive native plants (from nearby costal plant communities): *Victorian Teatree (*Leptospermum laevigatum*), **Banksia integrifolia*, *SA Blue-gum (*Eucalyptus leucoxylon*), *River Red-gum (*E. camaldulensis*), Peppermint (*Agonis flexuosa*), Coast Wattle (*Acacia cyclops*) and Net Bush (*Spyridium globulosum*).
- Remove Victorian Teatree and Peppermint from bushland adjacent west across Seadragon Ave from Tallerack Reserve, as it is a harbour for dispersal into Tallerack reserve via the drain alongside Seadragon Ave.
- Maintain the dieback free status by providing pubic access along selected hard surfaced paths, strict dieback hygiene during any management operations, and including dieback information in interpretation.
- Keep fire out of the reserves, as it leads to destabilisation, the proliferation of weeds and weedy native plants and increased fire hazard.
- Interpret the natural and aesthetic values of the reserves, with particular mention and maps of the plant communities, reserves role as links in the greater bushland corridor, the Kwongkan TEC, animals and dieback hygiene.

- Repair disturbed areas by brush mulching with branches from native plants of the reserves. Brush mulch the stormwater sump with local wetland species including Paperbark (*Melaleuca cuticularis, M. preissii*), and Pale Rush (*Juncus pallidus*).
- Remove the old fence from north of the stormwater sump in Tallerack Reserve.
- Monitor the rehabilitation of the stormwater sump in Tallerack Reserve; pull up Victorian Teatree and Peppermint as they appear in sump area.
- Monitor the health of the ecology of the reserves, particularly along edges and in old disturbed areas. Use photo monitoring and camera traps to record plants and animals.
- Encourage nature study, including bird watching and the keeping of a bird, other animals, and plant list of Gnornbup and Tallerack Reserves on the Shire website for people to use and add to.

5. Access and activation

Current pedestrian access through Gnornbup Reserve is along a gravel walk trail that runs through the linear centre of western two thirds of the reserve, with three offshoots to Gnornbup Tce and three to Bremer Bay Rd. The roundabout area that connects Gnornbup Tce, Bremer Bay Rd and the new town centre via Seadragon Ave, has concrete footpaths surrounding, which access to Bremer Bay Rd, although not Gnornbup Tce.

Pedestrian access to Gnornbup Reserve is along gravel paths accessed by crossing Gnornbup Tce from a concrete footpath that runs along the south side, and by crossing Bremer Bay Rd at three places: opposite the end of the concrete path on the west side of John St, at the Seadragon Ave/Bremer Bay Rd roundabout, and opposite the information bay north of the west end of Gnornbup Reserve. These accesses are relatively informal and not well used.

Current pedestrian access through Tallerack Reserve is via three paths running from John St to Seadragon Ave. The easternmost path is a combination of ageing hotmix and bitumen and connects the town to the school; the westernmost path is a gravel path only a few metres east of Bremer Bay Rd and follows the old road to the Telegraph Station; and the centre path is a narrow foot pad from near the end of Yandil St through to opposite Barbara St.

Two infrequently used east-west foot/bike tracks exist towards the northern end of Tallerack Reserve: A previously closed-off bike track running from John St to Seadragon Ave, across the existing sealed path; and a rudimentary footpad runs between John St and the east side of the church. Both occasionally used paths should be closed and rehabilitated.

Other informal access in Tallerack Reserve is a once-cleared disturbed area just to the south of the sealed school path under which the sewer extension runs. This is little used, is of no strategic importance and allows weed ingression. It should be closed and rehabilitated.

Both reserves offer a natural experience to people looking to enjoy nature and for pedestrians looking to access facilities and businesses in the Gnornbup and new town centre precincts. Currently little pedestrian activity occurs in the reserves; activity that does occur being the use of the gazebos in Gnornbup Reserve, use of the sealed path between John St and Seadragon Ave, and by people interested in nature walking in the bush to experience the rich birdlife and wildflowers.

The reserves suffer neglect and at times derision because they are not formally or inclusively activated, and are seen as separate to built and service facilities.

Effective activation of the reserves can be had via the provision of quality connecting pathways to support pedestrian and other non-motorised shared access to the new town centre facilities and business precinct, as well as to enjoy the natural facility offered by the bushland reserves. This way, the reserve's natural bushland experience is part of the facility of the town centre area.

The existing and growing Bremer Bay Shared-use Trail Network has proven successful in providing high quality access linking accommodation, attraction and service facilities around Bremer Bay. Incorporating the same standard of trails/paths as the shared use access in the two reserves will link them physically and psychologically to the existing shared-use trail network and its timbre as a quality nature-based accessibility experience.

The current gravel and sealed paths in the two reserves serve as an ideal cleared and stable base upon which to construct hotmix or concrete paths to the same standard as the shared-use trail network. The narrow centre path link in Tallerack Reserve could be relatively easily upgraded to a sealed surface due to its existing stable natural surface (Map 2).

Three sealed paths through Tallerack Reserve linking Seadragon Ave and John St offer sufficient access for people to get from the new civic area on Seadragon Ave and the School, to the residential area on and north and east of John St. The construction of additional paths is not warranted, given the three existing paths and the amenity and conservation value of the reserve. The footpath along Seadragon Ave and the western edge of Tallerack Reserve will link to the residential areas north and northeast of the new civic area (Map 2).

Sealing the gravel paths in Gnornbup Reserve will activate the reserve by linking to the shared –use trail network, and to Tallerack Reserve via the footpath network near the Seadragon Ave/Bremer Bay Rd roundabout (Map 2; see also *7. Interpretation*).

The formal access paths could, like the shared-use network, be used as fire fighting and other emergency as multi-use access should the need arise. To enhance this use, maintain amenity and reduce bushfire hazard (see also *6. Bushfire Management*), denser midstorey vegetation at the immediate sides of the in some places could be carefully trimmed. This applies to the proposed upgraded centre path and northern existing path, as these have been identified as bushfire management access ways (M Haymont pers. comm.; Map 2). The southern path that is the old Telegraph Station road alignment is closely parallel with Bremer Bay Rd and not as strategic for bushfire management, as such it need not be subject to vegetation thinning.

Further, aspects of the reserves can be interpreted like the natural features on the shared-use trail. Taking this access-driven attachment method further still, an enhanced trail/path feature as a raised 'scrub top walk', placed strategically and carefully in Tallerack Reserve opposite the new playground and civic square, will provide an additional level of activation and wonder, to perform as part of the civic facility (Map 2).

All the above activated access paths, by simple design and gentle gradients, avail access-to-all capabilities, by their inclusion in the shared-use network, limit use to non-motorised methods. They are termed 'paths' rather than 'trails' due to their short lengths, principle A to B function and sealed surfaces.

Map 2. Path and Firebreak Network, Gnornbup and Tallerack Reserves

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SCALE 1:2000	**PATH NETWORK AND FIREBREAKS**
SIZE A3	
DATE 9th May 2018	**CLIENT** Nathan McQuoid

Objective:

Consider pedestrian and shared-use access through the Public Open Space to improve access between the town centre development and residential area to the east.

Actions:

- Rationalise existing access paths to provide three east-west access shared-use paths in Tallerack Reserve (Map 2).
- Close and rehabilitate the two rudimentary paths and the adjacent firebreak scar towards the northern end of Tallerack Reserve.
- Upgrade trail/path network in Gnornbup Reserve on the existing pathways to destinations as gazebos and road edges at roadhouse, information bay and Tallerack Reserve (Map 2; see also *7. Interpretation* and *9. Relationship with business precinct*).
- Extend the Gnornbup Path to meet Wellstead Rd and link to the Native Snail Shared-use Trail, along the route under the Western Power lines (Map 2), consistent with the footpath from Wellstead Rd to Frantom Way that continues opposite (Map 2).
- Name the paths and include in the Shared-use Trail Network as: Telegraph Station, Tallerack and School Paths In Tallerack Reserve, and the Gnornbup Paths in Gnornbup Reserve.
- Hotmix seal or pour the paths in concrete to meet the same standard as the Shared-use Trail Network (Map 2).
- Include pathways in the existing Bremer Bay Shared-use trail Network.
- Link directly to existing footpaths and trails at road crossing using the industry standard ramp design.
- Plan, design, fund and implement the Tallerack Top Walk in Tallerack Reserve. Place it opposite the main entrance to the civic space on the corner of Yandil Way and Seadragon Ave, taking care to position it among the Tallerack with least impact, and on the highest ground (Map 2; see also *7. Interpretation*).
- Consider pedestrian safety measures for crossing Seadragon Ave to link the new civic space to the Tallerack Top Walk.
- Interpret natural features along the new trails and on the Tallerack Top Walk. Include features in the broader area seen from the walk platform (see also *7. Interpretation*).
- Seek external funding from Lotterywest, Department of Transport, State and Commonwealth Bushfire Mitigation Programmes, and other sources to plan and implement the paths as multi-use access ways.

6. Bushfire management

Descriptions and recommendations for this section are guided by the Bremer Bay Point Henry Vegetation Mapping and Management Project (Shire of Jerramungup 2017), and input from the consultation process.

Tallerack and Gnornbup Reserves have low to moderate bushfire fuel hazards (Map 3; Shire of Jerramungup 2017). However, due to their proximity to built assets, the reserves constitute a bushfire concern, mainly in high and above bushfire weather conditions. As such due consideration is required for mitigating bushfire hazard.

Risk of bushfire igniting in the reserves is moderate, with potential sources being deliberate or accidental lighting and spot fire by ember-fall from other bushfire nearby. Notwithstanding, in line with the above, mitigation measures are a priority.

The reserves are relatively small and surrounded by a sealed road network. This provides an ideal level of access for fire fighting, and with the Fire and Emergency services facility opposite the both reserves, equipment is immediate and response time would be rapid. In addition, access into both reserves exists on current trails, or is recommended for retention and improvement in *5. Access and activation*.

The Church is separated from the bushland by a slashed firebreak around its southern edge, serving as an access and a low fuel buffer to reduce fire hazard and risk to the Church building (Map 2).

Regardless of good access, brigade proximity and firebreaks, the bushland of the reserves should be maintained to be as low a hazard as possible. Achieving this is possible given the plant communities comprising the vegetation are relatively old, stable and sparse; weeds and planted and invasive native plants are present and out of place in these community types; and dense sections can be thinned and/or reduced in places to limit bushfire hazard without compromising natural integrity (see also *5. Access and activation*).

The introduced weed that contributes most to bushfire hazard is Victorian Teatree (*Leptospermum laevigatum*), which is very invasive, thicket - forming and present in both reserves. Edge plantings of River Yate (*Eucalyptus macrandra*) are present surrounding Tallerack Reserve, along with sporadic planted South Australian Blue Gum (*E. leucoxylon*) and River Red Gum (*E. camaldulensis*) along John St. None of these planted trees thrive, are shrubby in form and they detract from the handsome native plants that naturally occur in the reserves. The invasive native trees or tall shrubs Peppermint (*Agonis flexuosa*), Coast Wattle (*Acacia cyclops*) and Net Bush (*Spyridium globulosum*) occur sporadically in the reserves, singly and in small groups. All of these alien and naturally invasive plants can be removed to reduce bushfire hazard, while enhancing the natural integrity of the bushland.

While the mallee overstorey and close to ground plant cover of the reserves is mostly open and sparse, in some places midstoreys and shrubland patches are relatively dense. These denser patches of predominantly Grey and Mauve Honeymyrtle (*Phymatocarpus maxwellii*) and Purple Pompom (*Regelia inops*), which bring about higher relative bushfire hazard patches within a generally low background hazard (Shire of Jerramungup 2017). These patches can be managed by very careful

thinning to reduce bushfire hazard as much as practicable and maintain the natural integrity of the reserves. An example of shrub thinning is on the discontinued slashed firebreak between John St and Seadragon Ave to the south of the Church.

The plant community in the southeastern corner of Tallerack Reserve below the Church constitutes the Kwongkan Threatened Ecological Community. As such, and due to its sensitivity, character as a feature of the reserve and its relatively small occurrence, it should be left alone and not thinned or manipulated. It is a priority asset to protect should bushfire occur in the reserve. The patch is protected by being surrounded on two sides by roads, on the west side by the Church firebreak, and sparse vegetation and a path to the south.

The use of prescribed fire to reduce fuel levels is not recommended, it will destabilise the old and sparse plant communities, promote regeneration and lead to a rapid increase in fuel loads and bushfire hazard. Targeted, careful physical plant removal, and slashing and mulching will bring about a more sustainable hazard reduction (Shire of Jerramungup 2017) and is safer to implement in relatively small reserves.

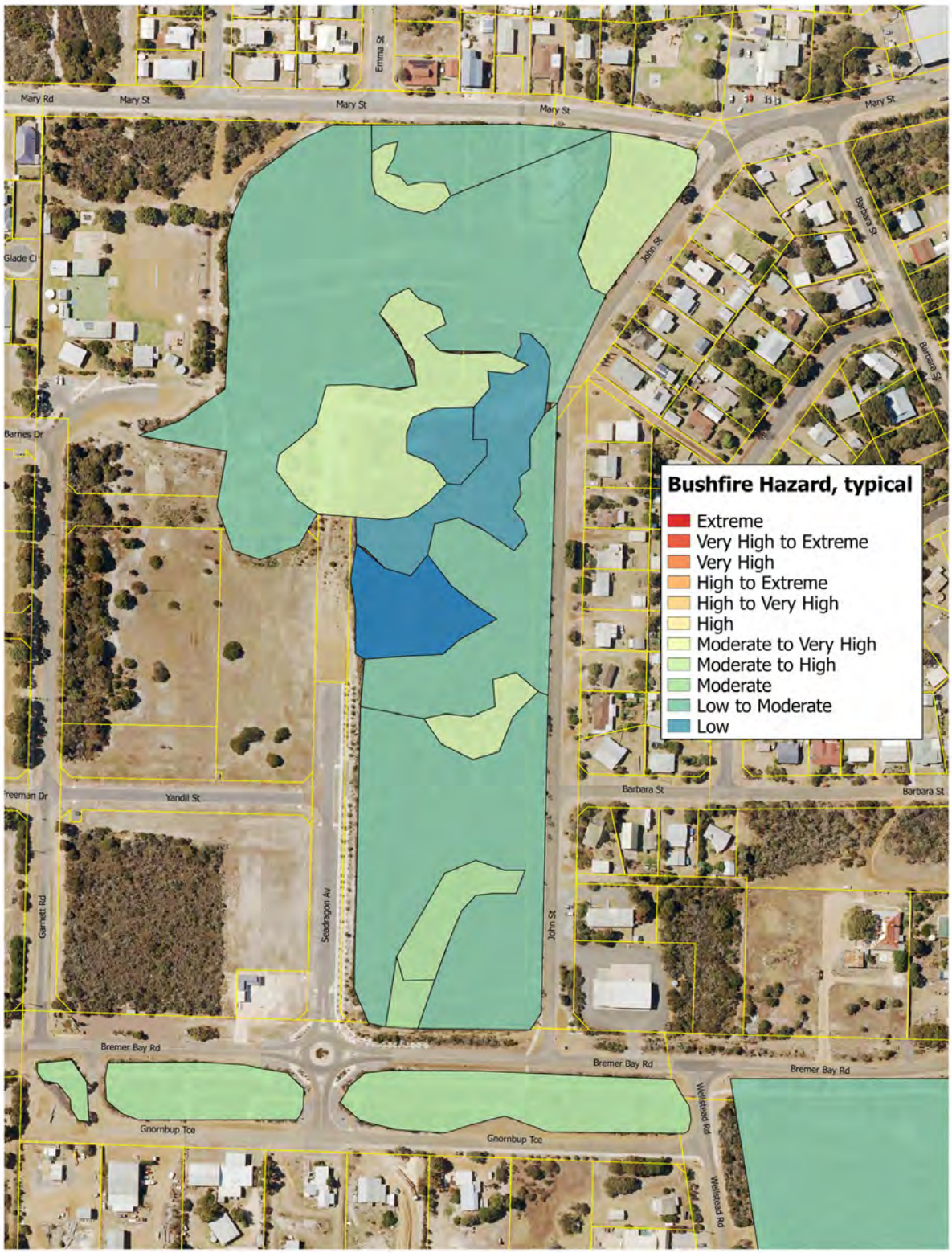
Objective:

Manage fire hazard and risk and potential threat to adjoining town centre & residential areas in John St, plus as conduit from outside of town into the middle of town. The approach is to be informed by the recently completed Bremer Bay Point Henry Vegetation Mapping and Management Project and is to inform the Bushfire Risk Mitigation Plan.

Actions:

- Ensure any vegetation management activities limit ground disturbance to an absolute minimum, lest the disturbance destabilise existing vegetation, promote plant regeneration and increase hazard.
- Remove all Victorian Teatree, Peppermint, Coast Wattle Net Bush, and most edge plantings of eucalypts, taking care to avoid ground disturbance. Remove branches from site. This will achieve a degree of parkland clearing to maintain.
- Treat the cut Peppermint, Teatree and edge Eucalypt trunks with herbicide to prevent resprouting. Coast Wattle will not resprout when cut and does not require herbicide treatment.
- Work with local vegetation experts to select native plants and patches for careful removal. This will also leave a degree of parkland clearing to maintain.
- Maintain a tidy appearance to remove obvious dead plants and branches from Gnornbup Reserve to reduce hazard and aid visibility.
- Ensure improved paths meet the standard applied to the shared-use trail network in width and surface construction to support light tanker use.
- Maintain the low fuel buffer around the Church by slashing and mowing.
- Employ a fast attack methodology for any fires that might start in the reserves to limit burnt areas and save the low to moderate hazard status of the reserves.
- Do not use prescribed fire, as alternative fuel reduction methods outlined above are more effective, safer and sustainable.
- Consider closing the reserve's pathways on days of extreme or catastrophic fire danger. Particularly if the level of community activity is high at the civic space.

Map 3. Bushfire Hazard, Gnornbup and Tallerack Reserves



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SCALE 1:2000	**BUSHFIRE HAZARD**
SIZE A3	
DATE 9th May 2018	**CLIENT** Nathan McQuoid

7. Interpretation

The Cycle and Shared-use Trail Plan for Bremer Bay/Point Henry (Shire of Jerramungup 2013) outlines interpretation to convey the unique ability of the medium to enhance trail users' experiences through information and architecture. The interpretation section of the Cycle and Shared-use Trail Plan (Shire of Jerramungup 2013) has direct relevance to this public open space management plan, and it should be read in conjunction with this section.

The Interpretation Association of Australia (IAA) describes interpretation as: *Interpretation brings places to life. Heritage interpretation communicates ideas, information and knowledge about natural or historic places in a way that helps visitors to make sense of their environment. Good interpretation will create engaging, unique and meaningful experiences for visitors.*

Interpretation takes many forms including guided walks, talks, drama, art, sculpture, displays, signs, brochures and electronic media as well as any other way in which ideas can be communicated.

Good interpretation should:

- *enrich the visitor's experience by making it more meaningful and enjoyable;*
- *assist the visitor to develop a keener awareness, appreciation and understanding of the heritage being experienced;*
- *accomplish management objectives by encouraging thoughtful use of the resource by the visitor; and*
- *promote public understanding of heritage management organisations and their programs.*

(IAA 2018)

Gnornbup and Tallerack Reserves suffer a degree of disconnect with some community members and visitors, and therefore a perceived value discount, as borne out by the consultation process. Effective interpretation of the natural features of the reserves will bring about activation, appreciation and attachment; thereby improved connection, sense of value, appreciation and protection of the reserves as assets.

Limited interpretation of natural features is present in Gnornbup Reserve as a nature trail, gazebos and some prominent plants named on interpretive plaques. Tallerack Reserve has three trails/paths and no other interpretation.

Specifically naming, framing and better access to and through the reserves will deliver effective interpretation (and as by-products improved activation and protection). Naming, framing and access provide a platform for explanation and discovery as quality experiences, as follows:

- Naming the reserves as Gnornbup and Tallerack Reserves ascribes and conveys value, attachment, conservation and placement.
- Providing evocative signboards with these names in prominent places at entrances to the reserves qualifies the reserves and places them in people's consciousness. A traditional national park-style routed board design for the reserve names, mounted between either Jarrah poles or stone piers/plinths or a combination, evokes a sense of natural wonder as a framing medium.

- Use bollards, signposts, directional signs and interpretive panels in the same style, design and materials as the Shared-use Trail, in particular the Native Snail Trail, as it qualifies and frames the reserve's natural values as worthy of description and protection.
- Separating Gnornbup Reserve from Gnornbup Tce with road edge kerbing will negate the use of lines of bollards and limit their use to introductory/use separation barriers on paths.
- The upgraded paths, as part of the Bremer Bay Share-use Trail Network, join the reserves to this popular and growing nature trail initiative.
- The Tallerack Top Walk elevated platform activates and expresses a new perspective that enhances the connection and value, and interprets broader features seen from its elevation.

Objective:

Provide opportunities for interpretation information, particularly the local flora and fauna, history and the surrounding landscape including the Fitzgerald River National Park and Fitzgerald Biosphere.

Actions:

- Name the reserves the Gnornbup and Tallerack Reserves. Signpost them such at each end. Use 200 x 38 mm routed Jarrah boards on salvaged Jarrah power pole posts, in line with the shared-use trail network.
- Use the recycled Jarrah power poles as bollards and other fitments for the path entrances and protection of sensitive areas, and to replace the broken pine bollards and rails at path entrances along Gnornbup Tce. Ensure tops are chamfered like the Native Snail Trail bollards for aesthetic and tactile appeal.
- Bitumen seal the lay-by parking areas alongside Gnornbup Tce and delineate/separate from Gnornbup Reserve with concrete roadside edge kerbing, as part of roading works programme (see also *5. Access and activation*, and *9. Relationship with business precinct*).
- Interpret the themes: Tallerack and other mallees of the reserves, old-growth mallee, Pygmy and Honey Possums, Dryland Rushes and other obscure ground covers, birds of the reserves, plant diversity, Banksia Kwongkan TEC, connectivity as a corridor, Noongar food and medicine plants, spongolite marine plain formation, low hazard vegetation and methods for bushfire protection – and how that accords with old-growth vegetation, and the surrounding land and seascapes viewed from the Tallerack Top Walk.
- Use the same interpretation installation types as the Native Snail Trail as consistent and evocative encouragement to enjoy the reserves: Jarrah posts for bollards and directional signs, stone plinths for interpretive panels, and stone seats for people to take time on.
- Link the reserves to the new civic area through the Tallerack Top walk and the roadside pathways to link the places as activation and to access interpreted features (Map 2).
- Seek external funding from Lotterywest, Department of Transport and other sources to plan and implement interpretation, signage and installations.

8. Weeds and dieback

Weeds found in the reserves are predominantly Victorian Teatree (*Leptospermum laevigatum*), Fleabane (*Conyza sp.)* and African Love Grass (*Eragrostis curvula*). Only Victorian Teatree is of real concern, as such total removal is recommended because it has the ability to severely alter native plant communities and form monocultures with high bushfire hazards, as it can rapidly invade if left - or worse following disturbance - due to its allelopathic ability that impedes other plants. Fleabane and African Love Grass are weeds of disturbed and unstable sandy sites, and when stabilisation measures as spot and patch herbicide treatment and brush mulching have been implemented, they should diminish in time.

Some weedy, disturbance responding native plants also occur in the reserves, those of concern being Peppermint (*Agonis flexuosa*) and Coast Wattle (*Acacia cyclops*).

Peppermint was unlikely to have been originally present on the predominantly duplex and yellow sand soils in the reserves. As it is able to disperse readily, it has probably moved in to occupy disturbed areas, as it has appeared to do in some places on Point Henry Peninsula (Shire of Jerramungup 2017).

Coast Wattle is naturally present, most abundantly as long-living seed in the soil seed bank; it is a strong disturbance opportunist, which is a great benefit with infrequent disturbance. However, with frequent disturbance it can dominate and distort the size of the seed bank, leading to over-domination in some places (Shire of Jerramungup 2017). Coast wattle plants should be carefully removed where they occur in patches, and used as brush mulch in areas where African Love Grass weed has been controlled, as the branches are unlikely to have seed present unless done in October to December. Weedy native plants are alo discussed in section *4. Ecology*.

Dieback does not appear to be present in the reserves. This is evident by the large number of susceptible species present and the lack of any signs of dieback disease impacts. Due to the diversity of susceptible plants, the significant natural and social values of the reserves could be severely impacted if dieback disease was introduced. As such, dieback hygiene by managers and users to prevent its introduction is a priority. Fortunately, this is easily achieved through standard measures as sealed pathway access, and adherence to dieback hygiene measures for equipment, footwear and vehicles used in reserve management.

Objective:

Manage weeds and dieback to conserve the natural and amenity values.

Actions:

- Identify and map weed species and dieback locations in the reserves and adjacent where relevant to potential invasion.
- Remove Victorian Teatree, and other introduced plants if they appear. Victorian Teatree removal must include cutting shrubs off at the base, immediate treatment of the bases with Glyphosate mixed with ®Pulse wetting agent at stump spray rates, removal of branches taking great care to hold all seed capsules, and branches destroyed by burning off site in piles or deep burial. Removal sites must be monitored annually to remove any plants regenerating or growing from seed.

- Limit ground and fire disturbance to an absolute minimum to prevent opportunities for weeds to respond.
- Monitor for new weed occurrences, and remove if and when they appear.
- Implement strict dieback hygiene measures, including clean equipment and vehicles used for management,
- Training in dieback awareness and hygiene for reserve managers, and commitment to keeping the reserves dieback free.
- Implement the sealed path access actions in section *5. Access and activation* as a priority.
- Monitor for the presence of dieback disease in the reserves annually.

9. Relationship with business precinct

Gnornbup Reserve lies alongside the northern edge of Gnornbup Tce, which it separates from Bremer Bay Rd. The Bremer Bay Service Commercial area lies along the southern side of Gnornbup Tce, it includes light industrial and some retail oriented enterprises that rely on public knowledge of and visibility to visitors to support economic success.

The new Bremer Bay town centre and civic area sits to the west of the southern section of Tallerack Reserve across Seadragon Ave. The new town centre and civic area will hold business enterprises and civic buildings and recreation facilities and spaces. At the time of the preparation of this plan, only one business building is in place, on the corner of Seadragon Ave and Bremer Bay Rd, and the civic space and skate-park was under construction.

The primary issues for businesses and civic facilities in relation to the reserves, borne out through consultation are:

- The visibility through Gnornbup Reserve of Gnornbup Tce retail businesses that rely on walk-in traffic;
- Ineffective street signs;
- Gnornbup Reserve serves as a buffer between the light industrial businesses along Gnornbup Tce and Bremer Bay Rd, as the town gateway; and,
- Access to and activation of the reserves as part of the business and civic precincts.

Solving the problem of business visibility is likely best met through a set of compromise solutions that involve:

- More prominent street and business signage;
- Considerate and careful thinning and tidying of Gnornbup Reserve, particularly west of Seadragon Ave;
- Improved access and activation of both reserves via paths and incorporation into the Bremer Bay Shared-use Trail Network, such that the reserve's paths become common thoroughfares by which to access businesses;
- Improvement of the lay-bys and associated road edge works on the north side of Gnornbup Tce to make them more inviting.
- Implementation of the Tallerack Top Walk as an adjunct part of the new civic space on Seadragon Ave.

Objective:
Address visibility of businesses on Gnornbup Terrace and relationship between civic and business precincts with the reserves

Actions:

- Shire Staff work with Gnornbup Tce businesses to improve street signage at the ends of Gnornbup Tce where it meets Bremer Bay Rd and Wellstead Rd, and at the Bremer Bay Rd/Seadragon Ave roundabout. The new signs for businesses on the approaches to Jerramungup can serve as a guide.
- Review sign specifications for businesses along Gnornbup Tce to consider allowing taller or larger business name signs to improve visibility from Bremer Bay Rd.

- Carefully remove dead plant material, and thin the thickest areas of midstorey vegetation from Gnornbup Reserve north of the Seadragon Ave intersection.
- Implement actions in section *5. Access and activation*, which will activate the use of reserves via paths and promote access to businesses and the new civic space.
- Bitumen seal the parking lay-bys and concrete kerb the road edge on the north side of Gnornbup Tce (see also *5. Access and activation*, and *7. Interpretation*).
- Remove the pine bollards and rails between the lay-bys along Gnornbup Tce and Gnornbup Reserve. At lay-by/path junctions, use Jarrah recycled power pole posts in line with other installation specifications and styles for the reserves and the share-use trail network, as outlined in *7. Interpretation*.
- Provide directional signs near lay-bys and at path ends in Gnornbup Reserve in line with the shared-use trail network.
- Maintain the gazebos in Gnornbup Reserve to a high standard.
- Liaise with businesses to monitor improvement (or not) of visitor access resulting from implementing the above actions.

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