MACLEAY COASTLINE FORUM REPORT 2011

Prepared by Jeff Thomas- National Parks and Wildlife Service
and Lyndel Wilson- Macleay Landcare Network Inc
with Contributions from all Coastline NRM staff and volunteers
2012

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Macleay Coastline Restoration Forum Report- 2011

Introduction

On the 23rd November 2011 the NSW National Parks and Wildlife Service and Macleay Landcare Network hosted a coastal restoration forum at South West Rocks surf club.

The purpose of the forum was to bring together all the different people involved with coastline restoration activities within Kempsey council area with a view to:

1. identify where and what efforts are occurring;
2. share knowledge, skills and tactics;
3. identify and discuss current and future issues;
4. develop better communication across the region;
5. develop a more strategic approach to coastline management in the area.

The forum was attended by representatives from local community care groups, NPWS, NRCMA and Kempsey Council staff, NRM contractors and consultants with knowledge and involvement in coastal restoration.

Guest speaker

Steve Griffith, coastal vegetation expert, gave a presentation on the conservation and management of headland vegetation on the mid north coast. Steve was commissioned by NPWS to map and describe the changes in vegetation since the 1940s on ten headlands in the mid north coast region with the aim of providing information to guide future management. Steve provided a wealth of information and some of the significant points he raised are:

- Vegetation types of high conservation value include: Littoral rainforest (EEC), *Themeda* sod grassland (EEC),Graminoid clay heathland
- Approximately 60 plant species of regional, state or national conservation significance occur on mid north coast headlands
- Threats to biodiversity pose challenges to management and conservation and are caused by: habitat loss and degradation; climate change; changes to disturbance regimes; dysfunction of biological interactions and over exploitation
- In the interests of biodiversity:
  - adopt a precautionary approach to the management of headland vegetation, given that much is still unknown;
  - get to know the vegetation and its component species before formulating a management strategy;
  - monitor and evaluate target and non-target impacts of management, so that we learn from failure;
  - maintaining the "status quo" may be a realistic option if, under past management, an area of vegetation has retained high biodiversity and appears resilient;
  -understand that it some instances a rehabilitated area may not revert to its pre-disturbance condition, but instead stabilise as a different type of native vegetation, because the habitat is no longer suitable; and
  -don't give up hope.

Who, where and what work is occurring?

This information has been gathered from the round the room presentations from group/agency representatives and the mapping of effort exercises. This is presented in the following summaries, maps and table.

AGENCIES/LAND MANAGERS

NPWS – Alex Wyatt Ranger for South West Rocks and Hat Head

Issues/priorities for the area:

- develop a weed plan to identify funding opportunities and increase chances of success
- Coolatai grass
- disturbed littoral rainforest at Gap beach
- Salvinia in swamp pool (Hat Head)
- Support and maintain SWR and Hat Head Dune Care areas

NPWS – *James Baldwin. Ranger for Limeburners to Point Plomer 20,000ha*

Major activities are through the Maria River Wildlife Project. A ground up approach has been taken with this project, with community, landholders and Landcare at the top and the agencies supporting their efforts.

10 landholders form Maria River Landcare Group. After the initial setup of the program, landholders are doing a lot of the veg maintenance, weed control etc themselves and relying less on Govt funding. Their approach to bush regeneration has been to not just focus on the weeds, but also to address fauna habitat issues. A Sub Catchment Action Plan for the Maria River was completed in 2011 to assist with funding applications.

Achievements:64 dingos, 67 foxes, 37 cats and 49 feral pigs have been caught. 138 nest boxes have been installed with a 73% occupation rate. 627ha of wildlife corridors have been established with the planting of 6,537 tubes, and 550 camphor laurels have been killed.

Limeburners Reserve was sand mined in the past, weeds invaded. In the past 8 years though there has been a major reduction in bitou, now the other weeds are popping up in the littoral rainforest. The good news is that we are winning over the bitou and it is now just at the maintenance stage.

NPWS – *Penny Kendall (Yarrahappini Wetlands and Goolawah Reserve)*

Both areas are new reserves as a result of community interest and pressure, and are degraded landscapes.

Yarrahappini – working to turn the area back into a saltwater estuary system.

Goolawah – Since the creation of this reserve, planting, weeding and feral animal control activities have been undertaken. However, much of the weeding done by NPWS in this area is cosmetic, volunteer groups/school groups are important for the real weeding.

Kempsey Shire Council – *Ron Kemsley* (Senior Natural Resources Officer)

Current Environmental Planning:

Estuary Management Plan. Currently covers Belgrave Falls to the mouth and is with the minister for certification

Coastal Management Plan. Addresses sea rise and climate change issues.

On ground responsibilities are to administer KSC Environmental Management Plans.

NRCMA – *Mark Robinson*

His job is to disperse funding through grants. Mark is also an information junkie, so if anyone ever wants to know or share anything about plants or the like… Services the Macleay, Port and Nambucca areas.

NRCMA – *Nicole Strehling (Southern Area Manager)*

CMA role is to engage the community regarding NRM issues and to guide the implementation of the NRM Act.

CMA is currently focusing on their Catchment Action Plan which is under review, and would encourage as many community members , NRM professionals etc as possible to complete the survey on their website.

NPWS (New) Area Manager- Russel Madeley

"*The work of volunteers on environmental projects is worth thousands if not millions of dollars, he is amazed at the work done. Thanks to all on behalf of Parks*."

COMMUNITY GROUPS

South West Rocks DuneCare – Ian Burnett and Alan Hill

SWR Dune Care has been active for 20 years now. The first ten of those years was spent focused on controlling the Bitou and Lantana, but now that they have done that initial work they are able to also tackle other weeds as they emerge. The group feels that using the splatter guns has increased achievements.

- $200,000+ in grant funding has been utilised
- A ten year management plan is in progress
- The group is recording 1500 volunteer hours per year and holds a monthly bitou bash
- Volunteer visitors are able to come and enjoy free accommodation in beautiful SWR in return for 4 volunteer hours a day. This program has had a lot of success.

Pandanus People – Uncle Carl and Terry Flanagan

Operating for 6 years at Trial Bay. Offering practical land based activities for the local indigenous community, as well as a gathering place which is of cultural importance to them. From humble beginnings they now have a nursery established at the NPWS depot at Trial Bay which provides employment for 12-15 employees, and is a base for a network of volunteers wanting to learn about propagation and bush regeneration. The incorporated body is made up of local aboriginal elders, and they have 1 ½ years of financials behind them now.

Grassy Head Dune Care – Chris Kaczan

Startup story – the group has been inactive for a number of years until 2011(the group established in the early 1980's. Recently communication has been started again with the community through flyers. Initial work

bees held have been well supported. Donated funds had paid for weed control at Little Head, this was then followed up with a workbee (20 people).

One major issue for the area is the Seventh Day Adventist convention that is held every year with 7000 attendees. The damages to the dunes from this influx of people is of concern, and local council/lifesavers have been approached to help keep people of the dunes. The group has a regular newsletter happening, currently has no funding to support their activities but is busy applying. More working bees are planned for the summer period.

Hat Head Dune Care – *Rhys Thomas (Vice Chair) His grandfather at age 84 was still working on the dunes and inspired him to get involved.*

Marg Ryan – Hat Head Dune Care was established in the early 80's because of community concern about climate, sea erosion of dunes and subsequently tides washing into the village, and also human impacts on the dunes. The group had a lot of volunteers and much planting, fencing and trackwork was done. Support had since dwindled until the past few years and now volunteer numbers are back up to 35.

Early volunteers were keen to see vegetation back on the dunes at all costs. This resulted in garden waste being dumped on the dunes as "brush matting", and garden weeds being brought into the dunes.

Funding from CFoC in 2009 brought Tien Pham in to provide a site assessment and action plan for the group. The area was mapped and priorities established. A native species audit was conducted and weeds identified. A bush regenerator was contracted to train volunteers and to tackle the more difficult areas. Council assisted with some initial weed spraying, and further funding has kept the momentum going.

The volunteers have hats and high vis shirts which has been good for community exposure and encouragement.

Other community groups supporting the group are ETC (employment agency/jobseekers), Green Teams, and Public schools.

Arakoon Bushcare – *Richard Single*

This group was established in 2001 to control weeds in Arakoon, and includes 13 people. These senior citizens work 11 core areas, and they have worked some areas to the point of maintenance only. 8 or 9 predominant weeds keep them occupied.

Grassy Head Nursery Reserve Trust – Dorothy Nelson

The nursery was established in 1985. It closed and then reopened. The Grassy Head Reserve Trust was formed in 2003 and manages the nursery facilities now. Flourishing at the moment, thanks to the support of Lyndel Wilson from Macleay Landcare and Grassy Head Dunecare.

Seed is collected from the areas surrounding the nursery, and volunteers propagate and replant and weed in the dune and littoral rainforest areas around Grassy Head.

Hat Head Bitou Bashers – Marg Ryan

In operation for 5 years. Have cleared the Connors area with the help of Arakoon Bushcare and John Delaney.

CONTRACTORS in NRM

Salt Air Flora and Fauna – *Bernard Whitehead*

Operating for 3 years as principal contractor for the Maria River Wildlife Project amongst other things. See Achievements above.

Gone Native – *Jamie Locke*

Local tubestock and native seed business operating for 2 years. Has worked on establishing a seedbank for Macleay Landcare Network, providing tubestock for Landcare projects, supplying seed/plants for National Parks in the Limeburners area (James Baldwin). Is also currently working with Kinchela School and Hat Head

Dune Care on a *Protecting our Places* project, and with Macleay Landcare as contractor for the Landcare Community Nursery at South Kempsey.

Mid Coast Land Management – *John Delaney*

Local bush regeneration business in operation for 5 ½ years. Has two teams – one in the Hastings area and one in the Macleay.

Has worked at Grassy Head, Yarrahappini Wetlands, and Arakoon. Also works with SWR Dunecare, HH Dunecare, and HH Bushcare in the National Park section.

Envite- *Kevin Pugh*

Crescent Head local, has grown up there.

Previous and current work with Envite at the southern end of Killick Beach, an area of approx. 5ha. A lot of Bitou control on the dunes and followup seed broadcasting with good results, asparagus fern has been/is a problem in the area.

Recently a path along the foreshore has been built to minimise erosion.

Has done environmental educational work with the Crescent Head Public School, they have been involved in the works that have been done in the area, weed control, plantings etc. Feels that community action and awareness in the Crescent Head area is improving.

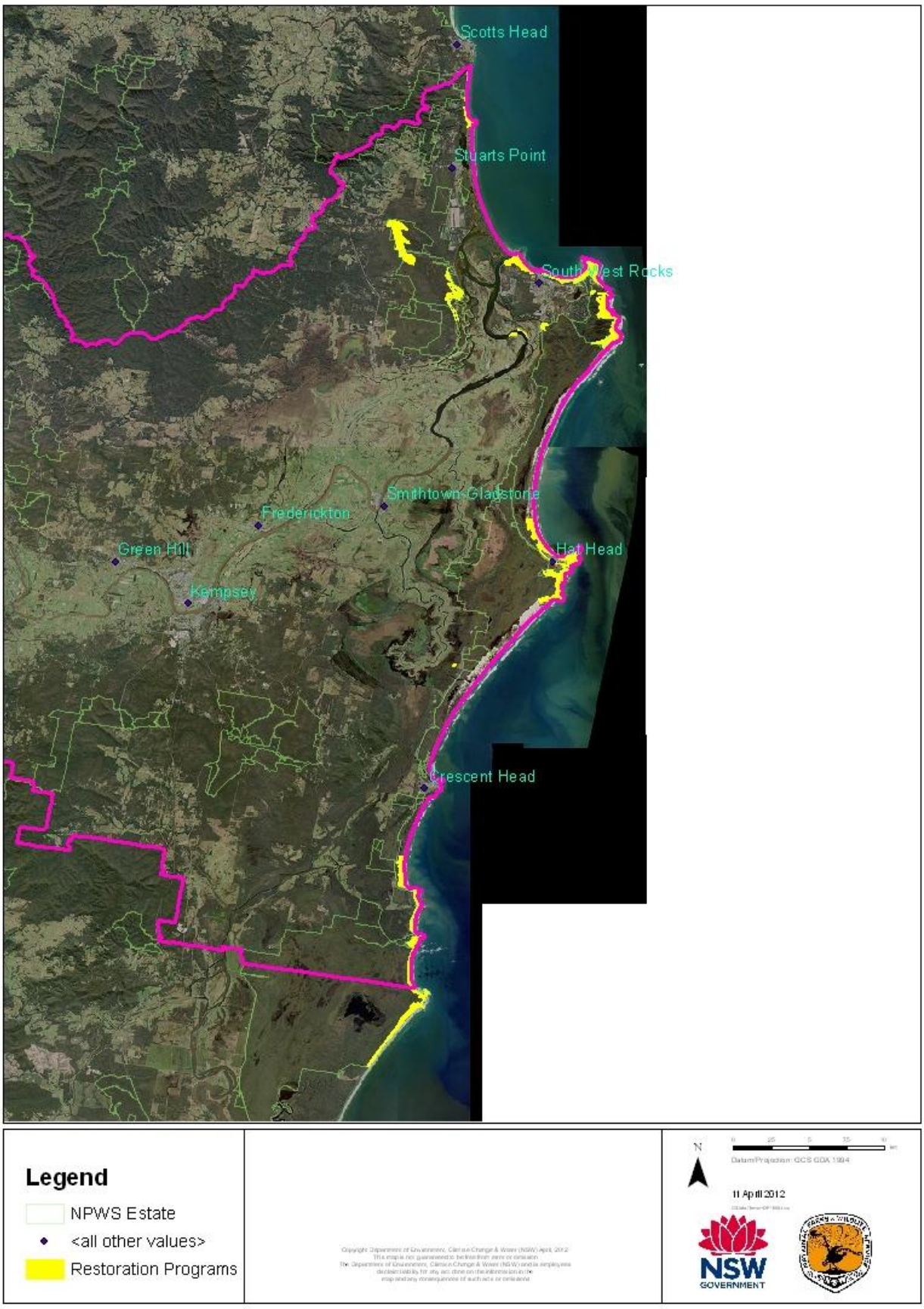
Far Left: NSW Landcare Award Winners- South West Rocks Dune Care- Coastal category

Left: Hat Head Bitou Bashers with NRM contractor John Delaney

Far Left : Coastline Forum discussion groups

Left: Making maps towards this forum write up.

Map 1: Summary Map indicating where restoration activities are being carried out on the Macleay Coastline



Issues

Some of the issues that were discussed in the forum, regarding volunteer activities, collaborative projects, grants and on ground related impacts

Project Management and Reporting

- Bureaucracy, paperwork, reporting, too much red tape-land tenure, repetitive and onerous reporting
- Monitoring eg MERI, also should be independent
- Consistency of funding, size of funding pot insufficient, short time spans, CMA responsible but not representative, Landcare needs to take more responsibility for allocating funds

Vegetation Management- Weeds and Pest Animals

- Weed incursion pathways and new weeds eg Glory Lily at South West Rocks, Chinese violet at Hat Head, exotic grasses eg Panic Veldt Grass, community understanding
- Mile a minute (*Ipomoea cairica*)
- Indian mynas
- Reinvasion processes
- Herbicide container management- potential for coordinated, purchase, storage, disposal
- Follow up essential
- Sustainability of vegetation and our efforts, importance of reducing carbon footprint, climate change impacts and threatened species

Community Activity

- Lack of volunteers, recruitment of younger people and succession planning, finding roles for people who may not be as physically active as they used to be. Volunteer numbers and hours
- Community awareness, education and communication, videos and electronic media for recruitment of young people, schools and TV. Collaboration and communication of promotional activities- newsletters etc, resource sharing
- Local impacts, litter, tourists unaware of local issues
- Need for publicity & marketing of the local groups
- Looking for local champions re wetland control

Skills and Knowledge

- Loss of traditional knowledge eg fire management
- NPWS weed programs under resourced
- Problems can be lost between government departments, better working relationships and communications between agencies.

Communication

- No forum for all interested parties in the community, NRM committee?

Land Manager Support

- Tip fees-dumping of rubbish (Council to assist volunteers with waste issues)
- Track/access management and repair

Positives

While a range of negative issues were raised in Macleay coastline management, positives were also documented that all stakeholders felt were a positive contribution towards successful Coastline restoration activities

Projects and project planning

- Rehabilitation and implementation of environmental projects, satisfaction of seeing goals met
- Action plans give good focus and direction
- Demonstrated examples that things can get better

Weed control progress

- Making progress in weed control at Limeburners Creek NP
- Good bitou bush control at Scotts Head
- Improved technology eg splatter guns for bitou bush
- Development of a more systematic and planned approach
- Integrated area based management.

Knowledge and Skills

- Increased levels of knowledge about environmental issues
- Increased involvement from landholders and the community
- Access to funding has improved, awareness of and successful grant funding
- Workshops to bring people together and share information

Partnerships and Collaborations

- Involving schools
- Multi agency involvement
- Social interaction
- Better working relationships between agencies and volunteers

Public Awareness

- 20 years of SWR Dunecare, huge on ground changes in weed density and recovery of natives at SWR
- Improved public awareness and engagement in NRM and weed management
- Good regeneration at Crescent Head in just a few years of on ground work
- Established community interest where there was none, community building

Wish List and where to from here

Support Systems

- Regional Monitoring Officer (for volunteers & other agencies) and reporting support
- More Investment in Landcare
- Maintenance funding

Weed Control

- Bitou bush still out there….

Training and Skills Improvement

- Tertiary training and support in the region
- School Packages – Sustainability Theme

Future Planning Needs

- Prepare for climate change
- Ability to maintain projects due to reduced capacity

Public Perceptions

- Raise our status as NRM manager

Feedback

Forum participants were asked to complete feedback information. This feedback has been collated in more detail in Appendix 1

Skills and Understanding

Mapping skills and the ability to secure grants were areas that needed to be improved. It was also good to see that skills in weed control, planning, plant identification and co-ordination rated quite high, there was no obvious difference between volunteer or professional skill levels. Overall respondents revealed a medium to high skill level in a wide range of areas, all necessary for sound Natural Resource Management.

Main Issues

Not surprisingly the number one issue along the Macleay Coast was **weed control,** and throughout the forum the concern was for Noxious and WoNS weeds such as Bitou, Lantana, Asparagus and vine weeds, but also emergent weeds such as Glory lily, Coolatai grass and a range of other minor weeds that are showing signs of becoming more problematic.

The other top issues were to protect significant vegetation, revegetation, vandalism or dumping and public awareness raising.

Support or Further Training Sought

Overall plant identification was the top area that members managing the coast felt they needed further training in, and continual improvement, one person specifically mentioned grass identification. Additional areas that forum attendees felt they could improve were the ability to develop projects and seek funding, restore degraded areas and know more about emergent weeds that could affect their coastline restoration.

Most attendees considered themselves to have a good knowledge of site safety issues and maintaining safe work areas, which is great to hear!

Current Support and Resources

The question was asked 'How are your coastline restoration activities supported?' Responses are ranked in order , 1 being the highest response to how activities are currently supported.

1. Volunteers
2. Local Landcare Community Support Officer
3. Specialists such as consultants/botanists
4. Catchment Management Authority grant funds/staff contacts
4. External grant funds
5. Land managers that employ me/support my volunteer activities
5. Other community groups
5. Weed contractors/spray specialists
6. Council staff/Noxious Weed staff
7. Other staff(field or technical) in my agency

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SUMMARY OF RESTORATION PROJECTS ACROSS THE MACLEAY COASTLINE- refer to Maps below against ID number

Id	Site__name	Landowner	Project Manager/Leader	Project Partners	Primary Target	Years	Asset (s)	Comments
1	Boyters Lane Revegetation Project	Kempsey Shire Council	Kempsey Shire Council	TBA		2011	Saltmarsh Restoration	
2	Jerseyville Riparian Project	Kempsey Shire Council	Kempsey Shire Council	TBA		2011		
4	Brighton Park Stormwater Project	Kempsey Shire Council	Kempsey Shire Council	TBA		2011		
4	Saltwater Creek Riparian Project	Kempsey Shire Council	Kempsey Shire Council	TBA		2011		
5	Caring for Country Grant Remove WONS from Themeda Grassland and Littoral rainforest	NPWS	NPWS	Arakoon Bushcare	Bitou Bush & Lantana	2009-2011	Littoral Rainforest	
6	Caring for Country Grant Remove WONS from Themeda Grassland and Littoral rainforest	NPWS	NPWS	Pandanus people	Lantana	2009-2011	Littoral Rainforest	
7	Caring for Country Grant Remove WONS from Themeda Grassland and Littoral rainforest	NPWS	NPWS	South West Rocks Duncare	Bitou Bush & Lantana	2009-2011	Littoral Rainforest and Themeda Grassland	
8	Coolatai Grass Awareness and Control Green Island Fire Trail	NPWS, Kempsey Shire Council	Macleay Landcare Network	NPWS, KSC, MLN, NRCMA	Coolatai Grass	2010	Themeda Grassland &Coastal vegetation	NRCMA funded $8900
9	Coolatai Grass Awareness and Control Borefields	NPWS, Kempsey Shire Council	Macleay Landcare Network	NPWS, KSC, MLN, NRCMA	Coolatai Grass	2010	Themeda Grassland &Coastal vegetation	NRCMA funded $8900
10	Smoky Cape Historic Heritage Precinct	NPWS	NPWS	Pandanus people			Cultural Heritage Viewscapes, Littoral Rf, Themeda grassland	
11	Pipeline to South West Rocks	Kempsey Shire Council/Lands?	SWR Dunecare	Contractor/Mutual Obligation Vols /SWR Dunecare Vols	Bitou bush, Glory Lily, Ground Asparagus, Lantana	2007-2011	Littoral Rainforest & Dune Vegetation	main focus now ground asparagus & glory lily, work ongoing

Id	Site__name	Landowner	Project Manager/Leader	Project Partners	Primary Target	Years	Asset (s)	Comments
12	Pipeline to gaol	NPWS	SWR Dunecare	SWR Dunecare, NPWS	Bitou bush, Glory Lily, Ground Asparagus, Lantana	2003-05	Littoral Rainforest & Dune Vegetation	main focus now ground asparagus & glory lily, work ongoing
13	TBA	NPWS	SWR Dunecare	Contractors, SWR Dunecare	TBA	2006-2007		ongoing
14	TBA	NPWS	SWR Dunecare	Contractors, SWR Dunecare	TBA	2006-2007		ongoing
15	Monument Area	NPWS	SWR Dunecare	SWR Dunecare, NPWS	Bitou Bush	2001-2011	Graminoid Clay heathland, Cultural heritage, headland vegetation	ongoing
16	Smoky Cape Headland	NPWS	SWR Dunecare	Contractors, SWR Dunecare, Abseilers	Bitou Bush, Lantana, Senna, Passionfruit,	2001-2011	Littoral Rainforest and Themeda Grassland	intense work, main work 2007-2010, ongoing
17	North Gap Headland	NPWS	SWR Dunecare	SWR Dunecare	Bitou Bush & Lantana	2007-2011	Littoral Rainforest and Themeda Grassland	main work 2007-10, 2nd year single working bees
18	South Gap Headland	NPWS	SWR Dunecare	SWR Dunecare	Bitou Bush & Lantana	2007-2011	Themeda Grassland	ongoing
19	Dead Cow	NPWS	SWR Dunecare	Contractors/SWR Dunecare	Bitou Bush	2008-2011	Littoral Rainforest and Themeda Grassland	significant hours invested, ongoing
20	Green Island Headland	NPWS	SWR Dunecare	SWR Dunecare	Bitou Bush, Lantana, Senna, Passionfruit,	TBA	Littoral Rainforest and Themeda Grassland	ongoing
21	North Smoky Beach	NPWS	SWR Dunecare	SWR Dunecare, Abseilers	Bitou Bush, Lantana, Senna, Passionfruit,	2005-2008	Littoral Rainforest and Themeda Grassland	now at low maintenance level
22	Senna Gully	NPWS	SWR Dunecare	SWR Dunecare	Winter Senna & Noogoora Burr	2007-2011	Littoral Rainforest & Dune Vegetation	ongoing
23	Hat Head Dune Care area- Boatramp to Beach access	Kempsey Shire Council/Lands?	Hat Head Dune Care,	Hat Head Dunecare,	Fencing and Beach access works pre 2009. Bitou Bush & Lantana,Glory Lily,GroundAsparagus,Chinese Violet,Ochna,Sea Rocket,Coastal Morning Glory.Native plantings in degraded areas & protection of native emergent	2009-2011	Littoral Rainforest	Contractors to spray bitou bush and glory lily 2011-2012 summer, HHDC monthly working bees, Kinchela school visit 4 times per year. HHDC established 1982, 35 members at present.

Id	Site__name	Landowner	Project Manager/Leader	Project Partners	Primary Target	Years	Asset (s)	Comments
24	Chinese Violet site A	Kempsey Shire Council	Kempsey Shire Council	Kempsey Shire Council, Hat Head Dune care	Chinese Violet	2009-2011	Littoral Rainforest	Note eradication is the aim.
25	Chinese Violet site B	Kempsey Shire Council	Kempsey Shire Council	Kempsey Shire Council, Hat Head Dune care	Chinese Violet	2009-2011	Littoral Rainforest	Note eradication is the aim.
26	Chinese Violet site C	Kempsey Shire Council	Kempsey Shire Council	Kempsey Shire Council, Hat Head Dune care	Chinese Violet	2009-2011	Littoral Rainforest	Note eradication is the aim.
29	Korogoro b2 TBA 3	NPWS	NPWS	Pandanus people	Bitou bush	2010-2011	Themeda Grassland	EnviroTrust Grant $99000 for 2 years, weed strategy prepared
28	Korogoro b2 TBA 2	NPWS	NPWS	Pandanus people	Bitou bush	2010-2011	Themeda Grassland	EnviroTrust Grant $99000 for 2 years, weed strategy prepared
27	Korogoro b2 TBA 1	NPWS	NPWS	Pandanus people	Bitou bush	2010-2011	Themeda Grassland	EnviroTrust Grant $99000 for 2 years, weed strategy prepared
30	Korogoro Ck south bank project	Kempsey Shire Council	Kempsey Shire Council		Bank erosion, mangrove establishment, revegetation		Coastal wetland	refer to KSC website
31	Kemps CornerTBA1	NPWS	NPWS	Pandanus people	Bitou Bush & Lantana	2010-2011	Themeda Grassland &Littoral Rainforest	EnviroTrust Grant $99000 for 2 years, weed strategy prepared
32	Kemps CornerTBA2	NPWS	NPWS	Pandanus people	Bitou Bush & Lantana	2010-2011	Themeda Grassland &Littoral Rainforest	EnviroTrust Grant $99000 for 2 years, weed strategy prepared
33	Kemps CornerTBA3	NPWS	NPWS	Pandanus people	Bitou Bush & Lantana	2010-2011	Themeda Grassland &Littoral Rainforest	EnviroTrust Grant $99000 for 2 years, weed strategy prepared
34	Kemps-Hungry	NPWS	NPWS	Pandanus people	Bitou Bush & Lantana	2010-2012	Themeda Grassland &Littoral Rainforest	EnviroTrust Grant $99000 for 2 years, weed strategy prepared, project area
35	N-W Korogoro	NPWS	NPWS	Pandanus people/NPWS	Bitou Bush & Lantana	2010-2012	Themeda Grassland &Littoral Rainforest	EnviroTrust Grant $99000 for 2 years, weed strategy prepared, project area
36	Korogoro east side	NPWS	NPWS	NPWS, Abseiling, aerial spray?	Bitou bush, Giant Parramatta Grass		Themeda Grassland &Littoral Rainforest	CMA funded
37	Back swamp/wetland Management project(s)	Private property	Kempsey Shire Council	KSC, landowners	TBA			
38	Grassy Beach dunes north?	Kempsey Shire Council	Kempsey Shire Council?	Kempsey Shire Council?	Bitou bush			
39	Grassy Beach dunes	Kempsey Shire Council	Grassy Head Dune Care	Grassy Head Dune Care/Kempsey Shire Council/Contractor	Reveg near main access, bitou bush and lantana control, follow up in littoral rainforest, planting of rf trees, banksia, wattles after weed control.	2011-12	Littoral Rainforest & Dune Vegetation	Ongoing work. Also involved with orgainsing working bees, publicity, newsletter, other issues eg visitir impacts on dunes. Group only started in 2011. 18 members at working bees.

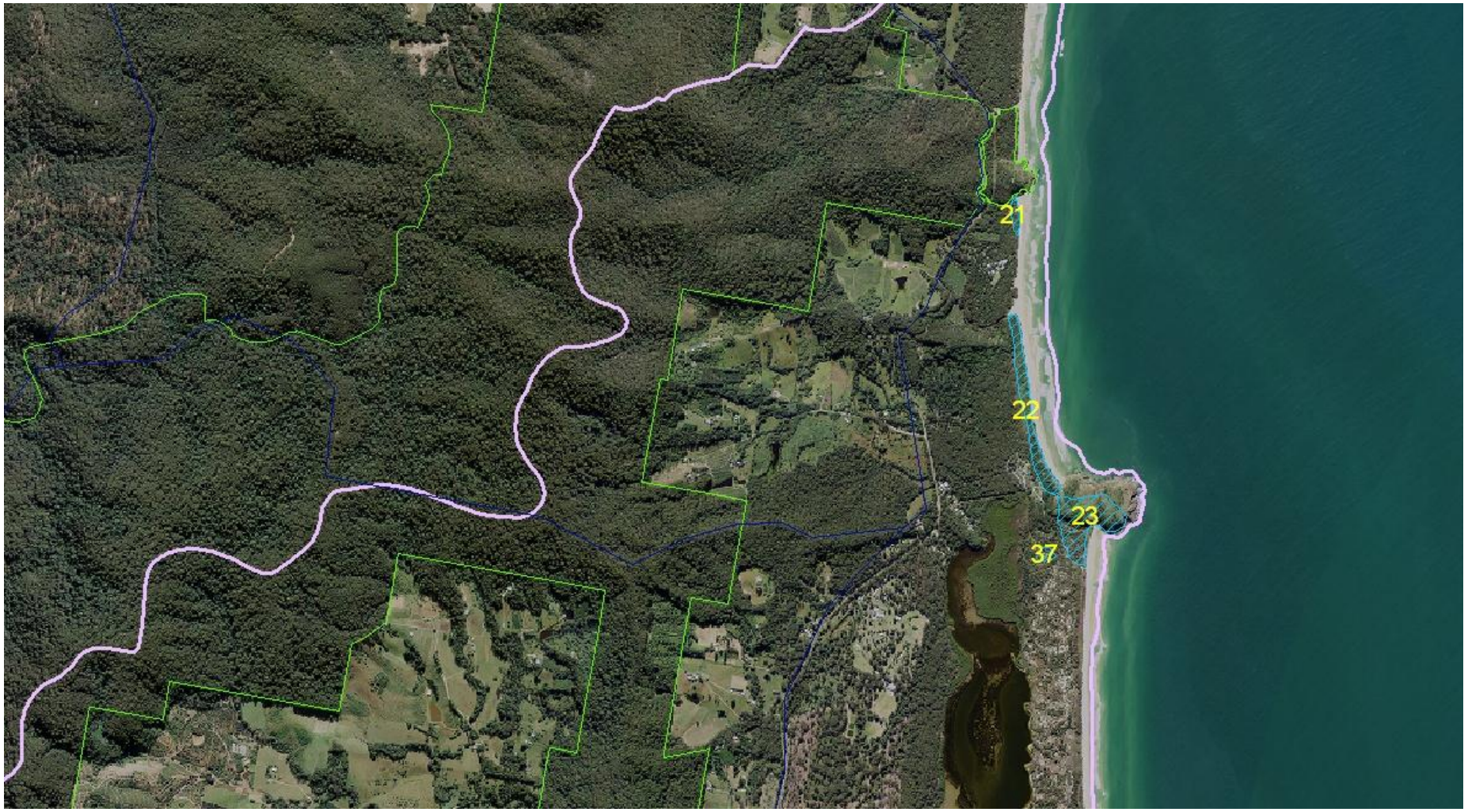
Id	Site__name	Landowner	Project Manager/Leader	Project Partners	Primary Target	Years	Asset (s)	Comments
40	Grass Head Nursery Reserve Trust Dune Restoration	Grassy Head Nursery Reserve Trust	Grass Head Nursery Reserve Trust	Grass Head Nursery Reserve Trust volunteers	Dune restoration		Dune Vegetation & Themeda grassland	
41	Delicate Beach	NPWS	Goolawah Dune Care	Goolawah Dune Care, Kempsey Shire Council, NPWS	Bitou bush and lantana. Infrastructure upgrade, planning	1980-2011	Dune Vegetation	Goolawah NP & RP new in 2001. Infrastructure upgrades to current standards, planning underway various issues.
42	Racecourse Beach	NPWS	Goolawah Dune Care	Goolawah Dune Care/NPWS/Lands Dept	Bitou bush and lantana. Infrastructure upgrade, planning	1980-2011	Dune Vegetation	Goolawah NP & RP new in 2001. Infrastructure upgrades to current standards, planning underway various issues.
44	Big Hill	NPWS	NPWS	NPWS contractors	Bitou bush and lantana. Infrastructure upgrade, planning	2003-2011	Littoral Rainforest	Goolawah NP & RP new in 2001. Infrastructure upgrades to current standards, planning underway various issues.
43	Delicate Beach South	NPWS	NPWS	KSC/Lands to 2010 Goolawah Dune Care?	Bitou bush and lantana. Infrastructure upgrade, planning		Dune Vegetation	Goolawah NP & RP new in 2001. Infrastructure upgrades to current standards, planning underway various issues.
45	Point Plomer beach dunes	NPWS	NPWS	NPWS contractors	Bitou Bush & Multiple species	2003-2011	Dune Vegetation	aerial and Ground spraying
46	Point Plomer Headland	NPWS	NPWS	NPWS contractors	Bitou Bush & Multiple species	2003-2011	Littoral Rainforest and Themeda Grassland	
47	Back Plomer Headland	NPWS	NPWS	NPWS contractors	Bitou Bush	2003-2011	Themeda Grassland	
48	Queens Head	NPWS	NPWS	NPWS contractors	Bitou Bush	2003-2011	Themeda Grassland	
49	North Shore Beach dunes	NPWS	NPWS	NPWS contractors	Bitou Bush	2003-2011	Dunes	aerial and Ground spraying
50	Yarrahappini Wetlands	NPWS	NPWS	NPWS, Pandanus people, Ngarala Green Team	Bitou Bush & Multiple species	2009-2011	Coastal wetland	Plants grown to order from local seed collected.To be planted 2011-12
51	Smoky Beach 4WD access	NPWS	SWR Dunecare	SWR Dunecare, NPWS	Beach access		Access	
52	Smoky Beach 4WD access to Smoky Cape	NPWS	SWR Dunecare	SWR Dunecare, NPWS	Bitou Bush	2011	Dunes	current work area
53	Back Creek-Back Beach 200m	Kempsey Shire Council/Lands?	SWR Dunecare	SWR Dunecare/Mutual Obligation	Bitou Bush, Lantana, Senna, Passionfruit,	2011		current work area

Id	Site__name	Landowner	Project Manager/Leader	Project Partners	Primary Target	Years	Asset (s)	Comments
5?	Yarrahappini Wetlands Restoration	NPWS	NPWS	NPWS/Contractors	Restore saline ecosystem, control-groundsel,lantana,madeira, also feral animal control and veg monitoring	2011-2014	Coastal wetland	Planning complete, Stage 1 inundation, partial opening. EnviroTrust Grant 3 yrs @$33000/yr
54	Arakoon Campground	NPWS	Arakoon Bushcare	Arakoon Bushcare/NPWS	Bitou Bush, Lantana, Senna, Ochna,Asparagus,Glory Lily, Ageratum,Mist Flower, Crofton Weed, Groundsel	2001-2011	Coastal vegetation, campground amentity	Ongoing work
55	NPWS depot	NPWS	Arakoon Bushcare	Arakoon Bushcare/NPWS	Ochna, Mother of Millions	2010-2011	Coastal vegetation,	current work area
56	Little Bay Dam and Mozzie Alley	NPWS	Arakoon Bushcare	Arakoon Bushcare/NPWS	Bitou Bush, Lantana, Senna, ,Asparagus, Ageratum, Crofton Weed,Groundsel	2010-2011	Coastal vegetation,	current work area
57	Grassy Head Nursery environs	Lands	Grass Head Nursery Reserve Trust	Grass Head Nursery Reserve Trust	Revegetation(Seed collection, propogation,planting) weed control and rubbish removal	2005-2011	Coastal vegetation	current work area, 12 members at present.

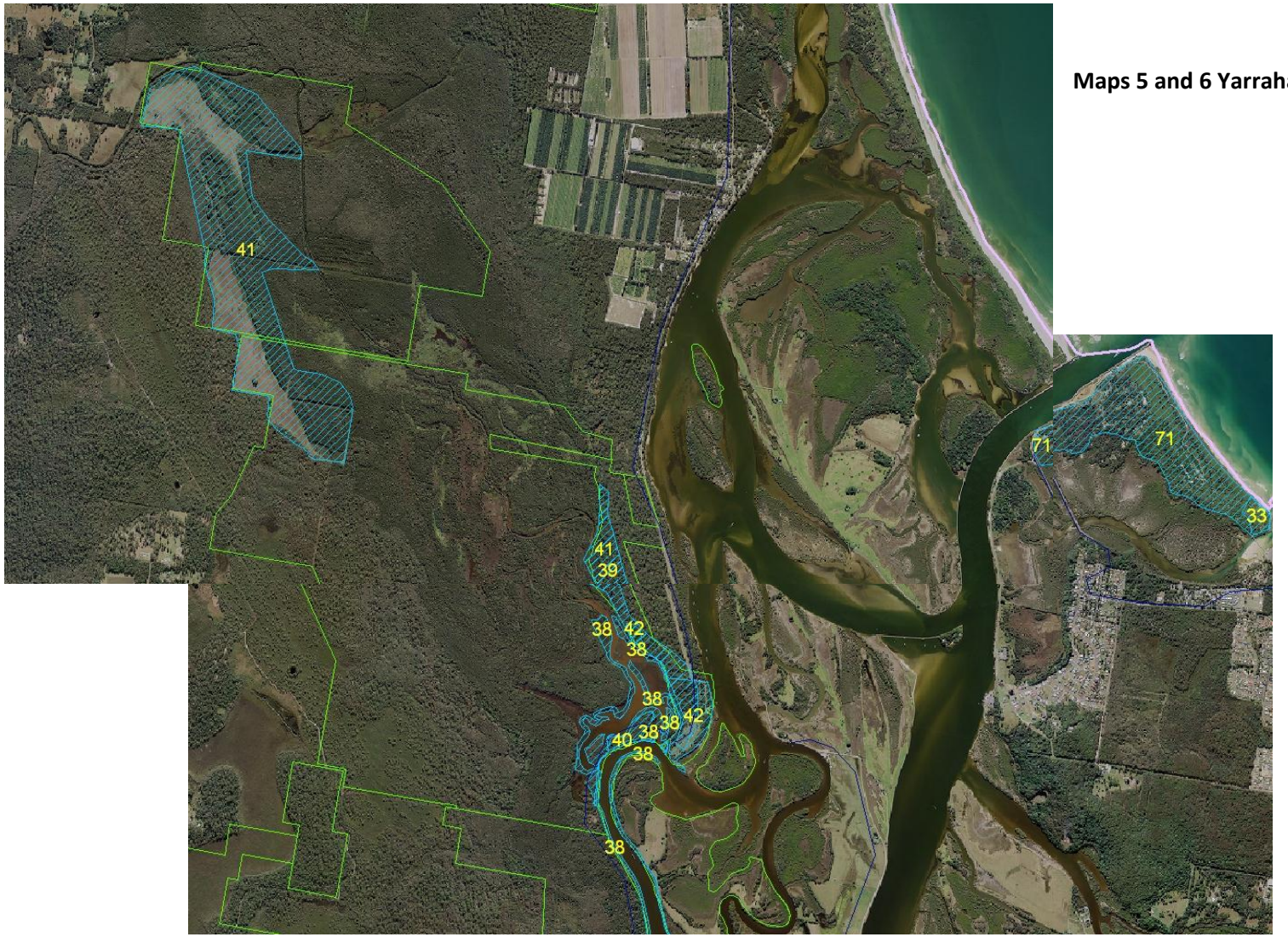
MAPS OF COASTLINE RESTORATION ACTIVITIES

MAP 2 South West Rocks and Jersevyille area

Map 3 Northern South West Rocks area



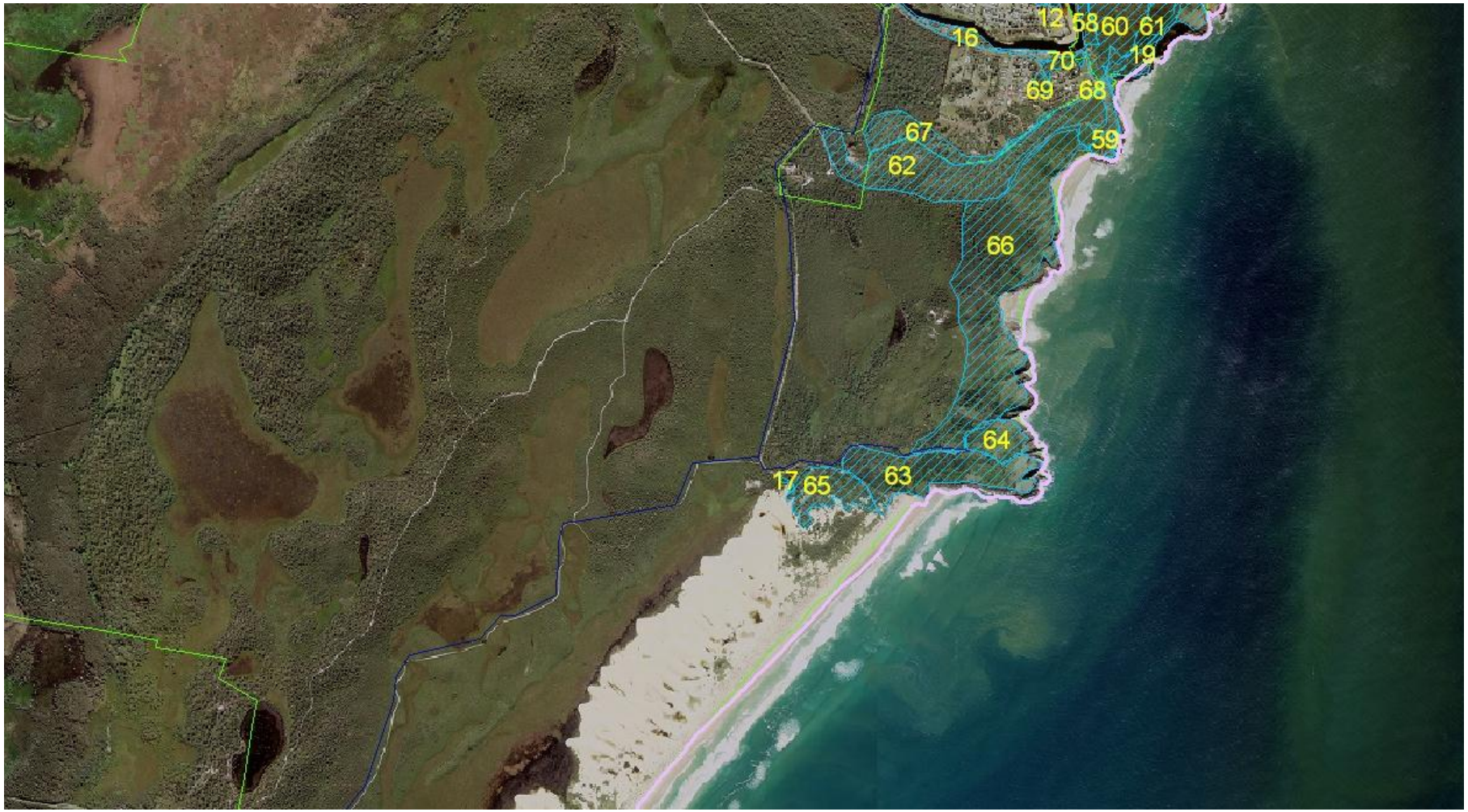
Map 4 Grassy Head area



Maps 5 and 6 Yarrahappini

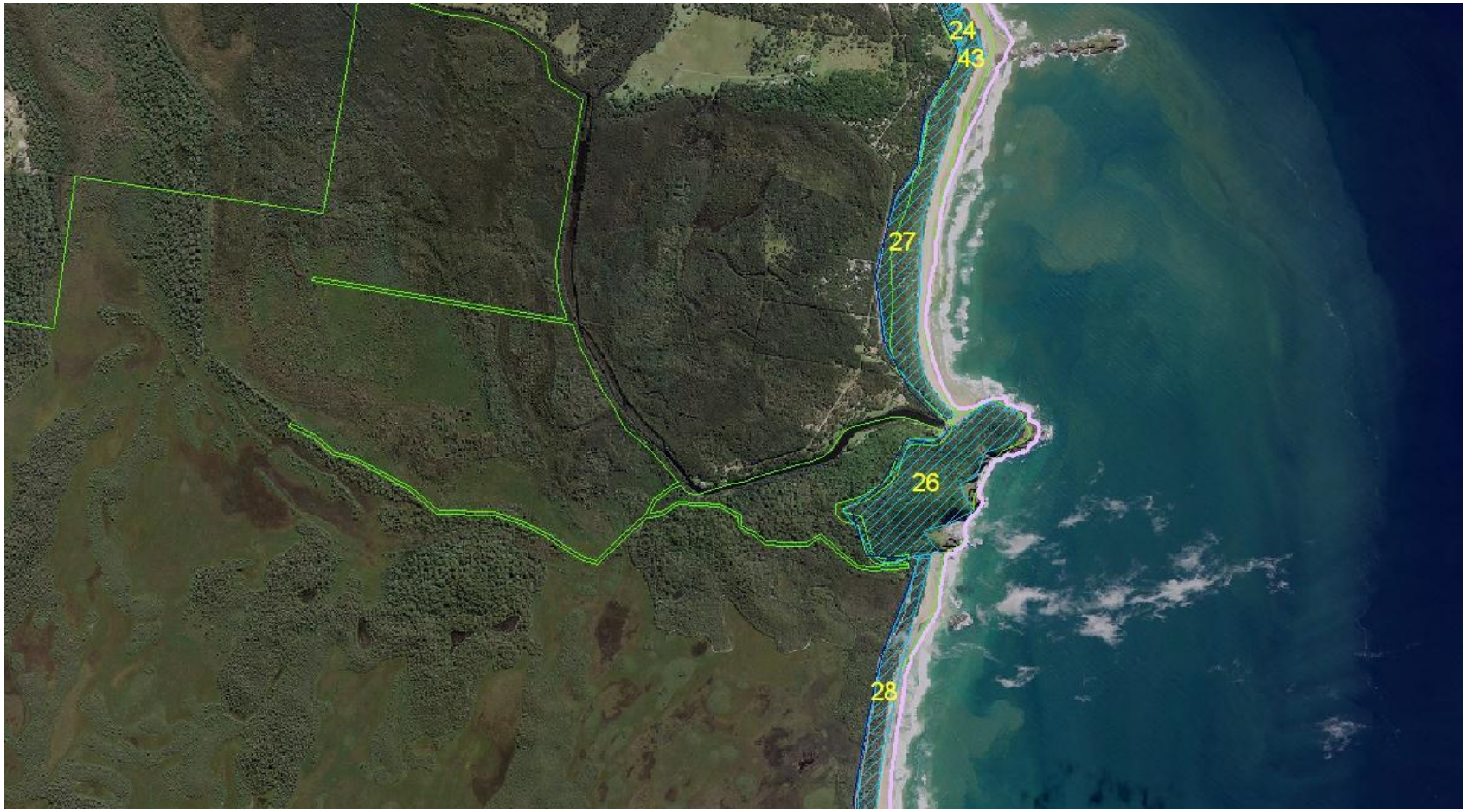
Map 7- Hat Head- Korogoro

Map 8 Hat Head- Back Swamp



Map 8 Hat Head- Hungry Head

Map 9 Goolawah- South Crescent Head



Map 9 Big Hill

Map 10:Point Plomer

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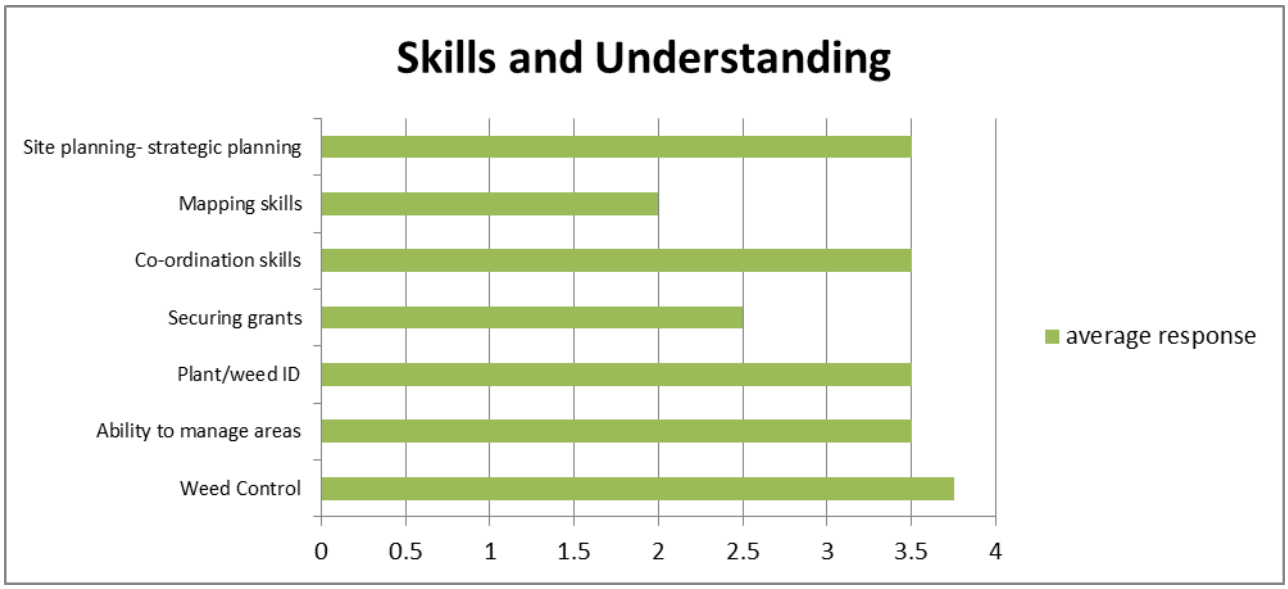
APPENDIX 1

Feedback for skills, support and resources for current Coastline Restoration Activities

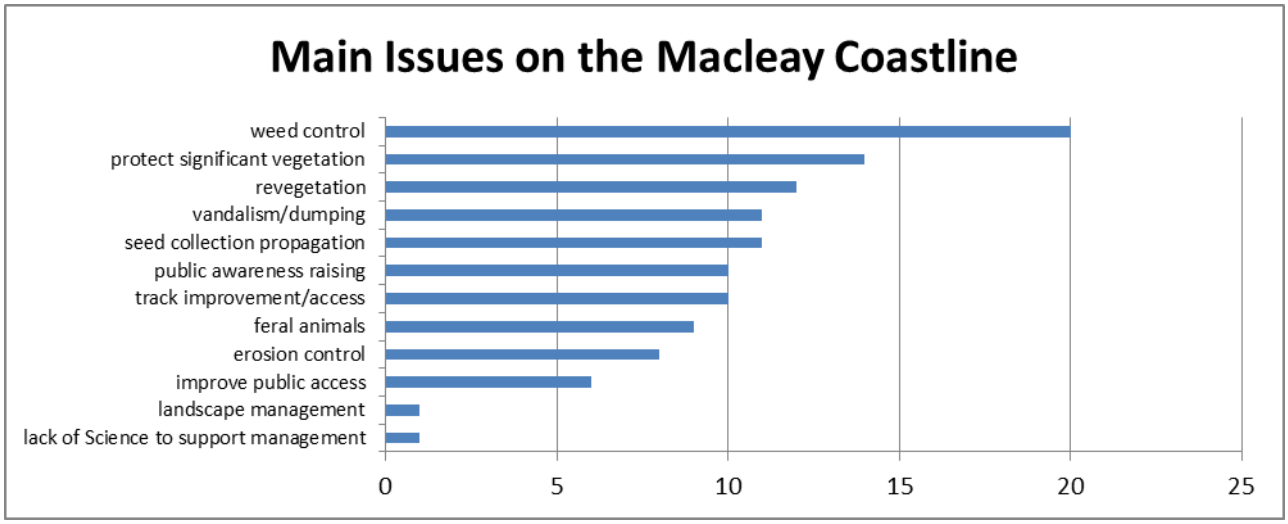
24 feedback responses were returned, 55% were volunteers, 23% were land managers or agency staff with the remaining 22% being contractors or consultants.

Skills and Understanding

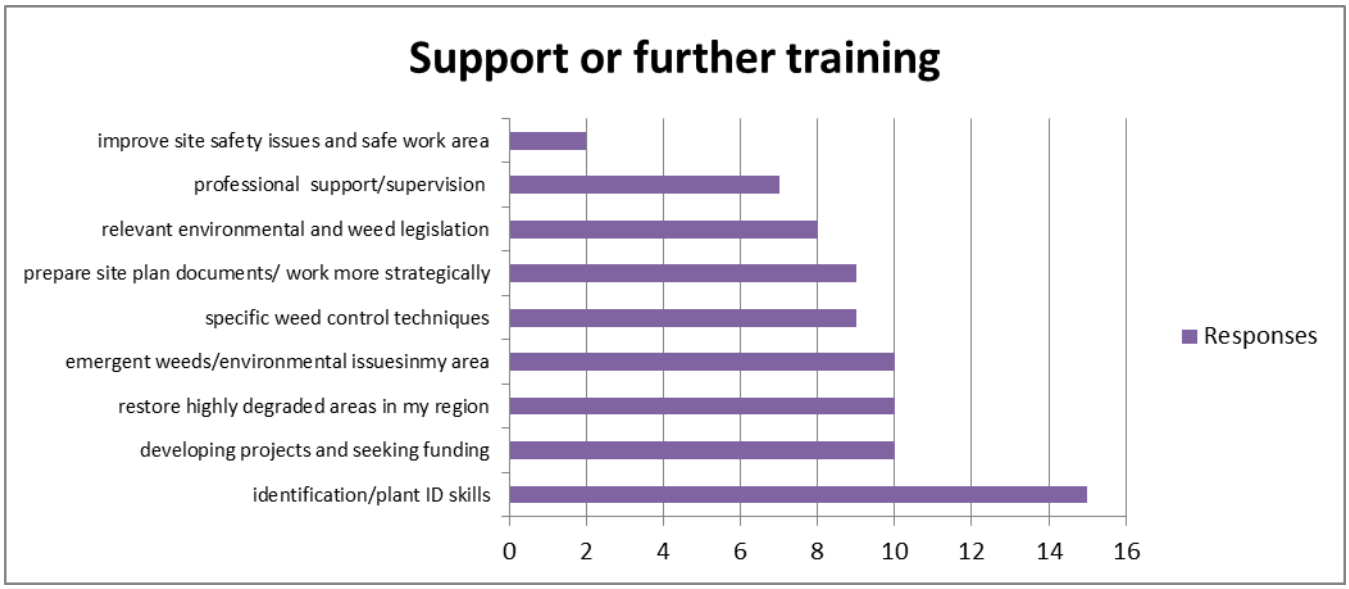


(1 is the lowest skill level and 5 is the highest)

Main issues on the Macleay Coastline



Support or Further Training Sought



Current Support and Resources

Responses are ranked in order , 1 being the highest response to how activities are currently supported.

1. Volunteers
2. Local Landcare Community Support Officer
3. Specialists such as consultants/botanists
4. Catchment Management Authority grant funds/staff contacts
4. External grant funds
5. Land managers that employ me/support my volunteer activities
5. Other community groups
5. Weed contractors/spray specialists
6. Council staff/Noxious Weed staff
7. Other staff(field or technical) in my agency

APPENDIX 2

List of Participants (including those invited but unable to attend)

NAME	POSITION	ORGANISATION
Amie McElroy (absent on day)	Aboriginal Extension Officer	Boorengen Djugin
Georgia Rayner (absent on day)	Acting Coordinator Strategic Planning and Natural Resources	Kempsey Council
Russel Madeley	Area manager NPWS	NPWS
Jamie Locke	Bush regen and nursery contractor	Gone Native
Mark Robinson	Catchment Officer-Coast & Marine	NRCMA
Diana Seghers	Chair	Hat Head Dune Care
Graham Butcher	Chair	Maria Landcare
Ian Burnett	Committee	South West Rocks Dune Care
Alan Hill	Committee	South West Rocks Dune Care
Steve Griffith	Consultant- Headland Review	Consultant
Max Osborne (absent on day)	Consultant/Weed Contractor	Big River Environmental Services
Kevin Pugh	Contractor/volunteer	Envite/Crescent Head Dune Care
Lyndel Wilson	Co-ordinator	Macleay Landcare Network
Jeff Thomas	Co-ordinator	NPWS
Alister Gee(absent on day)	Environmmental Project Officer	Kempsey Council
Bernard Whitehead	Feral animal and weed contractor	Salt Air Flora and Fauna
Michael Dodkin	Former NPWS Pest Management Officer	
Roger Stanley (absent on day)	Former NRCMA coastal officer	
Dorothy Nelson	Grassy Head reserve Trust	Grassy Head Nursery Reserve trust
Tatt Neuenbauer	Grassy Head reserve Trust	Grassy Head Nursery Reserve trust
Chris Kaczan	Group Co-ordinator	Grassy Head Dune Care
James Tedder(absent on day)	Group Co-ordinator	Grassy Head Dune Care
David Selvey	Hat Head Reserve Trust- President	Hat Head Reserve Trust
Bruce Raeburn	MLN Committee- Chair Bruce	Macleay Landcare Network
Chris Osborne	MLN Committee Chris	Macleay Landcare Network
Neil Cracknell	MLN Committee Secretary Neil	Macleay Landcare Network
Vanessa Standing(absent on day)	MLN Committee- Vice Chair Vanessa	Macleay Landcare Network
Amanda Locke	MLN-admin	Macleay Landcare Network
Greg Egan- (absent on day)	Noxious Weeds Officer	Kempsey Council
Brad Nesbitt	NPWS Pest Management Officer	NPWS
Greg Johnston	NPWS Senior Field Supervisor	NPWS
Peter Greenup	NPWS Senior Field Supervisor	NPWS
John Van Pierce	Nursery grower	Rivendell Rainforest Nursery/Macleay landcare
Terry Schmitzer(absent on day)	project Officer	Mid North Coast Weeds Committee
Cath Ireland	Ranger Arakoon	NPWS
Chels Marshall(absent on day)	Ranger Goolawah	NPWS
Alex Wyatt	Ranger Hat Head	NPWS
James Baldwin	Ranger Limeburners	NPWS
Penny Kendall	Ranger Yarrahappini	NPWS
Marg Ryan	Secretary	Hat Head Bitou Bashers
Terry Hemmingway (absent on day)	Senior Environmental Officer	Dept Lands
Nicole Strehling	Southern Area Co-ordinator	NRCMA
Ron Kemsley	Sustainability Officer	Kempsey Council
John Schmidt(absent on day)	Urban & Coastal Waters Program	DECCW

Rhys Thomas	Vice Chair	Hat Head Dune Care
Richard Single	Volunteer	Arakoon Bushcare
Peter Wise	Volunteer	Arakoon Bushcare
Aunty Shirley	Volunteer	Pandanus People
Uncle Carl	Volunteer	Pandanus People
Bill Chapman	Volunteer	
Terry Flanagan	Weed contractor	Flora Inspirations
John Delaney	Weed contractor	Mid Coast Land Management