

# **BUILDING DUNES FOR THE COMMUNITY AND THE COAST – BUT HOW?**

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## **Abstract**

Coast care, dune care, BeachCare, Clean Beaches, Beach-a-thon, Adopt a Beach and even Adopt a Piece of Paradise. There are hundreds of coastal community engagement programs out on our beaches and foreshores. All with the aim of increasing coastal awareness in the community, community participation in coastal decision making processes and the health and well being of the coastal environment and community.

Some of these programs have been running for decades and others in more recent times. As we shift generations, programs are becoming savvier to bridge the gap and sustain such coastal initiatives. One issue is, the need to capture local knowledge to recognise how to continue these programs, and more importantly adapt to the changing coastal environment.

BeachCare, Gold Coast's dune care program has recognised that there is no set recipe to engage community members in community dune care. This is most certainly the case as each coastal community has a diverse array of characters, issues and solutions. It has been essential for BeachCare to identify such diversities to increase community momentum and on-ground works. Being on the dunes nearly every weekend - creating community capacity and the establishment of 'self-sufficient' dune care sites - has enabled BeachCare to capture a flexible and adaptive "how to build dunes guide" for the community and the coast.

This paper will highlight the chapters in the "how to build dunes guide", including coastal environments and issues, dune management, dune vegetation, dune care coordination, community engagement, capacity building, marketing, fundraising and other useful links and resources. It is hopeful this guide will provide an educational resource for coastal community engagement facilitators and communities to build healthy dunes around Australia.

## **Conceptualising the "How to Build Dunes guide"**

### ***Community as a key management agent***

Coastal communities have evolved amid the waves of change, both physically and culturally. From the indigenous people to today's chic coastal communities, there has been a strong connection to where the land meets the sea – and that is the coast. Initially being for the high-productivity and abundance of resources, today's coastline is Australia's backyard. With over 85% of the country's population calling the coast home, work, rest and play at the beach have been the many draw cards, and so too have the senses of the coastal atmosphere (Lazarow & Ozborn, 2008).

Connections to the coast can be reflected in every coastal community. One intriguing aspect is how some communities have capitalised on such connections to develop vast metropolitan centres. Coastal communities that have built on and along the active and dynamic coastal zone are now faced with many pressing issues. The unfortunate dilemma has been watching coasts deflect away, riding an emotional swash zone in many coastal communities.

Although there is much doom and gloom, the coastal environment will continue to exemplify a 'community beach vibe,' and not just on a sunny day. Coastal communities are determined to adapt, retrofit and develop sustainable coastal elements to ensure a healthy coastal zone is achieved for generations to come. Reasons for this enthusiastic drive, has been as a result of the positive investment into coastal community development. Today, there are 2000 registered Coastcare groups in the National Landcare Directory, who actively participate in taking action along the coast, tackling issues, engaging in coastal decision-making processes, and are on the forefront of developing new and innovative ways for sustainable coastal management (Coastcare, 2011).

Coastal managers must remember many coastal management initiatives have been sustained from the compassion communities have for the coast. More so, acknowledge the profusion of local knowledge and commitment. This has been evident with the development of dune care groups across Australia. Actively managing a strip of coast through on-ground vegetation restoration, monitoring and even data collection, dunes have become sustained through the hearts' of communities. Further, the promotion of local knowledge in dune management has equipped communities to become engaged, empowered and educated, which has been a key management agent for the coastal zone.

### ***Community networks – get yourself submerged***

Community action in coastal management would not be as proactive without the many coastal community engagement programs. The facilitation, initiation and enthusiasm provided by engagement officers are some of the many tasks needed to encourage communities to be part of the management plan. Bear in mind, this would not be possible without submerging oneself into the community, therefore developing conversations and partnerships is critical to develop efficient and effective coastal community networks.

Understanding community dynamics soon becomes apparent as networks start to unfold. Capitalising on non-financial resources (e.g. knowledge, passion and commitment), community action turns into pro-action. BeachCare – Gold Coast's dune care program is a partnership initiative between Griffith Centre for Coastal Management and Gold Coast City Council. On the dunes nearly every weekend, alternating between nine dune care sites, BeachCare facilitates community dune care activities for everyone, and furthers the coast care message by providing technical advice and resources to groups/ individuals that wish to establish their own 'self-sufficient' dune care group. Being consistently active in the community has branded coastal management into a city where the beach is the interface, and additionally, created an avenue for the Gold Coast City Council to understand a community's ideology of the coast.

The Gold Coast is no stranger to the diverse characters it attracts. A tourism icon and a magnet for coastal migration, the beach environment has promoted the sea-change phenomena with a surging population of over 500,000 and on any given day 30,000 visitors. Conceptualising community dynamics may now seem unrealistic, which is why grounding partnerships with key change makers is essential. Finding those pearls – key people and networks – has helped recognise ways to forward the coast care message, which has proven competence with a local beach being crowned Australia's Cleanest Beach this year (Tallebudgera Beach).

### ***Recognising community elements through needs assessments***

The key objective in community engagement is to develop, deliver and/or promote services, resources and partnerships for communities that lack such, and foremost, primarily highlight community needs (Cavaye, 2001 and Kenny, 2010). Assessing community needs has therefore become apparent as part of the engagement, development and delivery process, as needs assessments are applied as a focus tool to refocus and redirect resources to where they are needed most (Percy-Smith, 1996 and Brohman, 1996). This also advances initial engagement, capacity building and creates a motion for feedback, and allocating time to learn about community issues opens new discoveries to community individuality and more importantly understand community aspects and driving tools (Percy-Smith, 1996 and Brohman, 1996). Reviewed as a concentrated means to quantify subjective concerns, therefore an 'official' assessment process helps recognise community elements, fundamental change catalysts and provide management with information to better manage change and provide essential resources.

In reflection of the many ways needs assessments can be carried out, it is efficient to acknowledge what engagement processes are present in the community and what type of atmosphere may promote interaction. Fortunately for BeachCare, a large part of engaging community members is via face-to-face interaction at a local beach. After community dune care activities, refreshments are provided to; a) reward volunteers for their efforts, and, b) encourage an atmosphere for community members to feel comfortable to discuss issues, ask questions and open opportunities to share knowledge and education. With reference to the Rotary International guide for needs assessments, such interaction follows a 'community café' inspired process (Rotary International, 2011). Capitalising on already established activities and networks through direct dialogue has been a proactive avenue to capture, evaluate and source resources that reflect engaging, creative and innovative community flare.

Through encouraging interactions with active BeachCare volunteers, it was highlighted how a 'how to guide to BeachCare' would provide a one-stop-shop educational resource to help guide community dune management and ultimately alleviate capacity pressures from the part-time coordinator. By assessing available needs, it was found that there were no such resources solely written for community dune management; therefore such a resource was born. The underlining theme through conceptualising this resource has been to *observe* community characters to further understanding and knowledge about the community and open opportunities to capitalise on existing resources to promote a sustainable coastal community program.

### **Developing the “How to Build Dunes guide”**

Engaged community members will continually exert eagerness to learn more. The clear inextricable interaction between knowledge and power, particularly regarding the dimensions of participatory principles, proves how expanding ones expertise prevails mobilization (Gaventa and Cornwall, 2008). Identifying these close interactions initiated the conceptualisation of the resource, and secondly developed the framework.

What would a BeachCare volunteer want to know about dune management? More importantly, what do BeachCare facilitators know that a volunteer may not know? Without information overload, the vision for this resource has been to develop community understanding about coastal environments and issues, dune management, dune vegetation, dune care coordination, community engagement, capacity building, marketing, fundraising and provide other useful links and resources. The “How to Build Dunes guide” has now evolved into a 10-chapter resource.

## ***How to Build Dunes guide outline – Introduction and the 10-Chapters***

### *Our Coastal Environment*

Our Coastal Environment opens the resource with a simple yet motivating introduction. Highlighting the diversities within the world's coastal environment paints a picture for how the Gold Coast, which in turn is just a drop in the world's ocean, has developed a vast, urbanized coastal atmosphere. Identifying coastal issues and the need for community involvement in the management of the coast, emphasises the key theme of how community participation in coast care is part of the recipe and helps steward the conservation of the coast. Therefore, caring for the dune environment is just one way communities can become part of the plan.

### *Chapter one – why care for the sand dunes?*

Chapter 1 provides the understanding philosophy of why care for the sand dunes and the underlining aim of dune care. This initiates dimensional knowledge and power interaction, by using subtle technical terms, e.g. "buffer zones", "shoreline variability" along stimulating active expressions e.g. "reduce", "provide" and "connection". Synchronizing key themes with technical expressions in the aim of dune care unfolds the need of this resource, and further motivates individuals to be part of the plan – "by promoting awareness of coastal processes and management, BeachCare reaches out to the wider community to encourage them"...

"The beach is yours, save it with BeachCare"

### *Chapter two – 101 coastal processes and the formation of dunes*

101 coastal processes and the formation of dunes introduces primary coastal processes and other interesting facts, such as:

- What shapes our sandy coast?
- What is a dune?
- Zones of a dune
- What is sand?
- Why do some beaches have soft sand, while others have coarse grains?
- Why are some dunes bigger than others?

The fast facts provide an interactive element and such questions were identified during community discussions.

### *Chapter three – Dune vegetation*

As dune vegetation solely provides the critical function of dunes in the formation and stability, it was important to highlight this function by categorizing the most commonly found species on the Gold Coast into the three zones. The question 'where would 'this species' be found on the dunes' was therefore identified.

### *Chapter four - Dispersal and succession of dune plants*

One intriguing aspect of dune vegetation is the ability to withstand extreme conditions and further, how they have colonized such a 'lifeless' landscape. How coastal vegetation has thrived in dynamic environments reflects the simple yet definitive seed dispersal and vegetative succession mechanisms, including:

- Water;
- Wind;
- Animals; and
- Vegetation succession.

Another interactive element includes answering a very common question, how long do dune plants live for? Therefore, “understanding the biology of dune vegetation is important for sustainable dune management.”

#### *Chapter five – Dunes are habitat too*

When working in community dune management it is inspiring to see community members acknowledge the overall benefit of restoration efforts and that includes – habitat for coastal fauna. The narrow dunal system along the Gold Coast exemplifies the critical need to proactively connect the coastal corridors for the refuge of fauna. The Gold Coast, just like surrounding coastlines, is also critical for migratory birds. This is why including the common coastal fauna found on the Gold Coast was essential (to acknowledge the importance of coastal habitat and the need for connectivity).

#### *Chapter six - Impacts to dunes*

Management is principally about controlling impacts, and dune management is no stranger to that. Unfortunately, much of Gold Coast’s dune environment has been lost to the urbanisation of the city, however there are many management strategies that can limit day-to-day impacts. This chapter highlights the natural and anthropogenic inflicted impacts, including:

- Erosion;
- Human traffic;
- Event infrastructure;
- Dune encroachment from adjacent properties;
- Garden escapee weeds (further classified in the weeds subsection);
- Deliberate weed plantings (further classified in the weeds subsection); and
- Litter.

Rephrasing impacts into “can be hazardous too” provides a positive element for community members to acknowledge the need to be aware. It is not uncommon to see people sand boarding, sliding or jumping down dunes after an erosion event. Instead of stating ‘keep off the dunes’, highlighting the hazards as well as the need to be patient and allow the beach to naturally recover limits negative interaction. For example, “...the sand budget in dunes gives the beach flexibility to move in accordance with the sand store, and maximises its ability to ecologically and structurally recover from storm events.”

“A healthy dune = a healthy beach = a happy community”

#### *Chapter seven - We need to plan*

Chapter seven introduces the need to plan, who plans, the types of plans needed and their contents, additional coastal management plans and advice on restoration techniques. This underlines the concept that it is not just about pulling a few weeds out and planting native species, instead following management protocols and regulations “for the provision and guidance of dune restoration and protection.”

#### *Chapter eight - Sharing the need to care*

For long-term engagement, engaging with a diversity of beach stakeholders is essential. When conceptualising the technical elements of dune management, it can be easy to limit investment into marketing and further skills, needed to communicate, coordinate, etc. It has been highlighted how natural resource management (NRM) facilitators can be limited in the soft sciences of community development (Lazarow and

Osborn 2008). Most often, emphasis on the need for in-depth understanding about local NRM issues and science is needed (Lazarow and Osborn 2008). Without community engagement as part of the plan, community efforts would be limited if not nil.

To maximize community engagement, this resource highlights:

- Community engagement 101;
- Themed messages;
- Networking advantages;
- Engagement resources – e.g. interpretative signage, information sheets;
- Safer dunes – the neighborhood dune-watch concept; and
- School involvement.

#### *Chapter nine - Plan a community dune care event*

What's involved when organising a BeachCare session? Not only is drive and enthusiasm needed, however, administration, facilitation and coordination skills are also an integral component. This chapter goes through the process of identifying time commitment (community availability), putting the work action plan into action, resources and equipment needs, marketing the event, on-ground action (including OH&S) and reporting processes. This is in hope of running a smooth event that can capture efforts over a period of time.

#### *Chapter ten - Funding and grants*

Unfortunately, community dune management still needs financial investment for longevity and best restoration outcomes. Strategically partnering with community stakeholders, ways to successfully access resources starts to surface. On the dunes, there is ample opportunity for creative resource conceptualisation. For example, partnering with corporate bodies for sponsorship and regional NRM bodies and local umbrella environmental groups for support (Gold Coast Catchment Association and Gold Coast Volunteering). Also, being aware of grants can be channeled through online alerts, and conversations between each other to further lessons into learning experiences. This chapter highlights the creative ways to stay up in the resource allocation world and useful links for successful grants.

### **Promoting the “How to Build Dunes guide”**

#### ***A tool by the community, for the community and delivered from the community***

Education has become an increasingly popular method to address social and environmental issues, as it plays a key role in the empowerment of people. The purpose of coastal educational resources is to improve the quality of life, for all individuals and groups (Williams *et al.* 2011). However, valuable community information can become lost and underutilised by local community members, especially in large, diverse and quite transient communities like the Gold Coast (Williams *et al.* 2011).

Given such, the dissemination of community education remains a challenge to resource developers (Williams *et al.* 2011). Considering the challenging limitations, a proactive response has been to develop resources *with* communities and further capitalise on ‘known’ community characters as positive promotional agents. In the case for BeachCare, the consistent community engagement has created a positive engagement platform, which in turn has discovered those ‘known’ characters and maximised opportunities to better understand community aspects.

Primarily understanding such community aspects has addressed the contradictions of giving “outside-in” help that is usually adopted, towards an “inside-out” local knowledge approach (Ellerman, 2004). This in turn has created an “autonomous learning” environment, which promotes “good” community engagement where people help people (Ellerman, 2004). It is of great inspiration to *observe* long-term volunteers teach new volunteers, essentially increasing BeachCare’s engagement capacity, long-term program sustainability and the promotion of resources.

Providing a resource with key, clear and easily interpretative information further capitalises individual knowledge towards a more collective understanding. Tools that can communicate key themed messages with simplicity are going to have a more proactive response compared to critical, comprehensive, technical educational resources. Engaging community members throughout the development of the “How to Build Dunes guide” has encouraged the development of an adaptive resource.

### **Take home messages**

- Use community knowledge;
- Limit technical jargon;
- Submerge yourself in the community to understand the community element; and
- A community resource should be delivered by the community – it’s their publication!

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