

Cane to Coast – Coastal Management in the Burdekin

Leonie Maddigan
Burdekin Dry Tropics NRM

ABSTRACT

Coastal management is unique to every area and must be adapted to individual localities. Every location is physically and biologically different and management strategies must reflect this in order to be effective. Land use in the Burdekin Shire is by a far majority agricultural and establishing a “coastal culture” has not previously been considered by the local authority. Under its Coast and Marine programme, Burdekin Dry Tropics NRM implemented a new strategy in local government coastal management capacity building by outsourcing an officer. In May 2006, a Coastal Management Officer was placed within Burdekin Shire Council as a hosted employee to implement coastal planning on a local scale. This new arrangement for BDTNRM has therefore been a big learning curve in several key areas: developing a partnership arrangement with local government, as well as introducing new ideas relating to coastal issues to a cane focussed community.

An Agricultural Coast

The Burdekin Shire is in North Queensland, eighty seven kilometres south of Townsville. It has an area of around 5000km² with a population of around 19 000, and is Categorised as a Rural Agricultural Very Large (RAV) Local Authority under the Australian Classification of Local Government.

Based on the rich soils of the Burdekin Delta, the Shire has two main towns of Ayr and Home Hill, and several smaller communities including the two beachside townships of Alva and Wunjunga Beaches. Alva Beach is home to around three hundred residents and approximately ten permanent residents live at Wunjunga. While permanent numbers may be relatively small, both beaches have numbers of holiday ‘shacks’ which are occupied during weekends and holidays, and as per the majority of the QLD coast their populations are increasing along with property prices.

The Burdekin is the largest sugar cane producing area in Australia with four sugar mills in the Shire. Sugar production is of great pride to the community, as well as a major source of seasonal and permanent employment. The sugar industry in the Shire is largely dependant on the nation's largest water development project - the mighty Burdekin Dam, which is capable of supplying more than 1 million mega litres of water each average year to the Lower Burdekin area.

This unique plentiful supply of irrigation water, combined with a favourable climate and good soils, has also resulted in the establishment of the Burdekin's multi-million dollar small crops industry. Crops harvested include capsicums, beans, melons, pumpkins, tomatoes, eggplants and mangoes. There are also reasonably strong grazing and aquaculture industries in the area.

The people in the Burdekin community have a very strong sense of place. As a whole, they identify themselves with their agricultural heritage but in addition to this, each township has its own identity. Beach culture, whilst not restricted to those who actually live at the beach, is significantly stronger within the beach community than the Burdekin community as a whole.

Coastal management issues with an agricultural coast

Environmental issues generally can be considered to be in direct conflict with the agricultural industry in many cases. As sometimes heard quoted by a farmer, "We need to get out of the red before we can get into the green." This holds true for coastal management issues. Working within NRM requires particular delicacy in areas such as this, where it is especially important to consider the triple bottom line implication of any action.

A good illustration is cane harvesting techniques. The older style of harvesting cane involves first burning the green material before using machinery to harvest the cane stalks. The cane fire allows a harvesting machine to cut the stalks without having to get through masses of unwanted greenery. The result of this however is significant air pollution as well as masses of ash material that can pollute waterways, wetlands and in some cases, beaches. Many environmentalists argue that green harvesting (harvesting cane without burning first) is far better for the environment as it avoids this 'black snow' and air pollution. The problem for the cane farmer however is the considerable expense of purchasing new harvesting equipment that will allow them to harvest without burning. Environmental verses economic issues are hard for policy makers to manage because the inevitable conflict takes time and energy to resolve.

In some cases, this kind of conflict can be linked to pre-existing ideas about things that people are unwilling to change. In smaller communities where generations have been harvesting the same piece of land using the same techniques, introducing new ideas or methods can take time and perseverance, and may not always be welcome. For example, a farmer may argue that there is no need for them to reduce the amount of herbicide and pesticide material they use as they have been using the same amount for several generations. An environmental scientist presenting water quality data indicating fertilizer run-off occurrence may not be meaningful to the farmer, especially if that farmer is not aware of the effects of runoff or how his farm is directly linked to his local waterway (and therefore the coast several kilometres away).

These kinds of cases present a unique challenge to an environmental manager. Action cannot be taken where there is no support by the community. Support by the community will not be raised if there is a limited understanding of the issue. This limited understanding cannot be combated with data and reports. Such change must start with basic environmental education and awareness raising, and simply gaining respect from the target audience to achieve a working relationship.

In places where natural resource management may not be of a high priority, and environmental concepts are in the early stages of development, an environmental manager may come up against barriers relating to both community and political support. As mentioned above, new concepts take time to introduce, and radical change may be resented. Policy makers such as local government authorities are leaders in community thinking and aim to represent community needs and wants. Without council support, environmental initiatives are often impossible.

Directly linked to this is resources - Council resources are obviously allocated according to priority. In many small agricultural communities, resources are limited to start with, and if environmental management is not of high importance, resources will not be allocated to it, and this is not just referring to money. It is not unheard of for small, agriculture based communities to not have an environmentally focussed staff member of any kind, or to have any major environmental management policies set out in their Corporate Plans. With no structure and no support, there is no funding.

A drive for natural resource management must be developed in order to put it higher on the Council agenda, and this drive ultimately comes from the community.

Community support may be hindered by fragmentation within a Shire. For example, the farming community may identify themselves separately to the 'townsfolk', as may do the beach community. This is a challenge in that the beach communities will often be a vast minority of the Shire population; this means that there could be a strongly passionate few about the coast, and an overwhelming majority who either don't have any connection or concerns for the beach or in some cases, even don't like that part of their community. In well developed coastal areas in larger towns this is a non-occurrence as here the coast is considered an affluent, highly valuable area. But in agricultural communities where beach areas may be underdeveloped and not particularly well managed, the general perception of the coast may be one of total nonchalance.

The BDTNRM Plan

The Burdekin Shire could be described as fitting under the umbrella of many of the above general attributes. The community is a proud primary producing area well known through the state for qualities relating to agriculture, not the coast. This is how the majority of the community identify themselves apart from the dedicated residents of the beach communities and some interested and passionate people from the towns.

This may seem surprising as the beaches are beautiful areas of the Burdekin – they are sandy (unusual for North Queensland), home to a wide array of flora and fauna (including birds, mangrove forests, seagrass beds, turtles, dugongs, dolphins, fish, invertebrates, crocodiles, wallabies), hold the access ways to the Great Barrier Reef (through several creek systems) and have significant recreational, aesthetic, environmental, economical and cultural values (boasting some of the largest Traditional Owner midden sites in Queensland).

But Burdekin Shire Council historically had not been in an ideal position to invest significant resources to coastal management. In typical small community style, specialist recruitment alone is sometimes an issue which means that simply having somebody to do a particular job is challenging. This problem stood true for environmental management with the Council's Environmental Health Services having not one single specialist Officer engaged to do NRM in any capacity. The closest resource was an Environmental Health Officer who was stretched to capacity in an authoritative health inspector type role – therefore coastal management was not high on Council's agenda for action.

Identifying the gap in capacity, Burdekin Dry Tropics NRM (head office based in Townsville) approached Burdekin Shire Council with the view of undertaking a partnership agreement. Under the BDTNRM Coast and Marine Program, one of the objectives as outlined in the Regional Investment Strategy, is to "Facilitate local government and community involvement in planning, prioritisation and management of coastal assets." A strategy chosen to meet this objective was to actually outsource two Officers to be based within Local Government to work in a coastal management capacity for the Council. One went to a larger city Council (Thuringowa) and the other, presently described, went to Burdekin Shire Council.

The arrangement was simple. The Coastal Management Officer would be based within Burdekin Shire Council whose only cost of having the labour for the contract period would be a desk, chair, telephone and administrative & IT support. BDTNRM

supplied the Officer (remuneration), media support, GIS & technical support and funding towards projects. A 14 month work plan based on the needs of Burdekin Shire Council that would fit under the Coast and Marine Regional Investment Strategy of BDTNRM was developed between the two parties.

What was achieved?

Over the 14 month period, several key outcomes were achieved which are outlined below:

Building a **coastal management profile** both within Council and the community was the fundamental key to the position. Coastal issues needed to be recognised and a contact point with the Coastal Management Officer had to be established. This was achieved through intense liaison with Councillors, Council Officers, local community groups and the wider public. Media coverage of the new position helped with the public awareness raising, and the community groups were an easy target for presentations and simple attendance/participation at meetings with a brief Council report. Through this, a working relationship was established with both local beach community groups, the local Landcare group and several other key community groups. Working with the community was an essential part of integrating coastal management into the other NRM works going on in the region, and also to bring community actions into the Council for a better working relationship.

Establishing the **partnership** with Council was a little more challenging but was achieved over time by presenting PowerPoint presentations on the coastal condition and by working with Council Officers on coastal related projects such as boatramps, foreshore development projects and environmental education. Over time this led to a general inclusion of coastal management across Council with a subsequent Council Coastal Development Application Assessment Pathway proposed for Council consideration to ensure that all matters relating to the coast go through the Environmental Health team for comment.

Establishing the framework for a local **Coastal Management Plan (CMP)** was another essential target to get the coastal management stone rolling. The first part of this project was to undertake a thorough community consultation exercise to determine the values the Burdekin community placed on their coast – how many people used the beaches and creeks? What did they use it for? How often? What were the issues they saw relevant to their local spot, and how could it be managed? What could Council do to improve the local coastal environment? The community consultation phase took close to three months and was done primarily through surveying. The survey was developed in consultation with a sociologist and the results were analysed with the same expertise. The resulting Burdekin Coastal Community Values report revealed detailed and in some cases surprising information, outlined below.

Celebrating **CoastCare Week** in the Shire and participating in the **Clean Beach Challenge** were important awareness raising activities. The Shire had previously never held a CoastCare event and the inaugural CoastCare Community Fun Day was an event to be funded by both BDTNRM and Burdekin Shire Council. A lot of media coverage and community interest was achieved for the event which was unfortunately rained out, twice. But the Clean Beach Challenge entries were of a very high standard and achieved various local media recognition.

For the Future

The future for coastal management in the Burdekin will focus on continuing coast care awareness raising, integrating triple bottom line practices into Council activities and using the information revealed through the community consultation process to build the local CMP framework into a Burdekin Coastal Management Plan. Specifically, this will need to address local development plans relevant to coastal development, the adoption of local laws relating to coastal issues (such as vehicles on beaches and illegal camping), future plans for rehabilitation and maintenance and community education initiatives. These can all be drawn from the survey results, outlined briefly below:

What does the community like about the Burdekin Coast?

The top three things were:

It's good for recreation	84%
I enjoy the natural environment	75%
It's good for social activities	59%

Some other likes listed:

Educational value; relaxed lifestyle; bird watching; wildlife; minimal commercialisation; midden and burial sites; commercial value.

How often are they visiting the beaches and creeks?

Most respondents visit the coast relatively frequently, at least several times per year.

What do they do there?

Recreational fishing	76%
Walking	63%
Relaxing	59%
Boating	48%
Swimming	33%
Dog walking	32%
Nature watching	26%
Driving vehicles on beaches	26%
Wind surfing	11%
Surf life saving	11%
Commercial fishing	3%

The relatively low ranking of vehicle activity may not be reflective as respondents may have indicated another activity used in conjunction rather than indicating the use of a vehicle. For example, a fisherman on a quad-bike driving to a fishing spot is likely to have indicated the activity as 'fishing' rather than driving a vehicle.

What should be managed?

Waste disposal and erosion of dunes and beaches were the two most outstanding concerns coming in at 75% and 72% respectively. Then follows the desire for more improved amenities at 65%, and issues relating to the natural environment – use of vehicles on beaches, the need to protect flora and fauna, vegetation loss and water quality. Pollution was of concern to half the respondents and 27% of respondents indicated midden and traditional owner sites (although a limited Traditional Owner response should be taken into account here).

Waste issues listed covered a range of topics, particularly the need for more rubbish bins and more frequent clearing of them. Better control of litter on beaches is of

concern and it was suggested that more bins should be placed close to the shore line. Illegal dumping on the salt pans at Alva was raised as a concern as was a lack of waste service at Wunjunga.

Dune and beach erosion can be linked to, but not wholly connected with vehicles on beaches. Concerns about vehicles on beaches included dangerous driving, high traffic volume, noise, high vehicle speeds and drivers not keeping to tracks. Twenty five out of 34 beach vehicle drivers who responded indicated a concern to have vehicle use effectively managed. It was also raised that a major attraction of Alva is the fact that 4 wheelers are allowed on the beach and that if effectively managed, vehicle use should not be a problem.

The desire for improved amenities focused around parks, toilets, BBQs and picnic areas. Requests for a skate ramp, a netted swimming area and a water park were also included. Better roads, access ways and boat ramps were also frequently mentioned (or new boat ramps at beach sites currently without them such as Alva and Wunjunga).

Other concerns listed were: pollution and water quality issues relating to the prawn farm; commercial fishing concerns (out of Council jurisdiction); the desire for walking tracks; the desire for improved signage and information; management of crocodiles; more trees; the installation of solar lights; better vector control; a dog leash free area; vandalism; the protection of burial sites; creek protection; a need for disability parking; turtle conservation, biodiversity conservation, more traditional owner representation at management level and tight developmental controls.

The Burdekin is in the developmental stages of coastal (and general environmental) management and basic community education is the foundation on which future management actions will arise. The community must take responsibility for managing their own environment with the assistance of Council and other NRM bodies; not the other way around. BDTNRM's partnership with Burdekin Shire Council set the groundwork for coastal management and it will only be further developed with the continuation of the partnership. Outsourcing an Officer proved to be a successful way of integrating regional NRM objectives into a local level where resources at that local scale had previously been stretched. If administered properly with thought to realistic work plans and access to adequate support, such a partnership can greatly improve environmental management in an area whilst achieving both local and regional body objectives through a strengthened and effective relationship.

TAKE HOME MESSAGES

Agricultural coasts are unique in management and require thorough community groundwork.

Partnerships between regional bodies and local government can be an effective way of achieving both local and regional objectives, and may lead to environmental outcomes not possible on a local level without regional support.

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REFERENCES

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