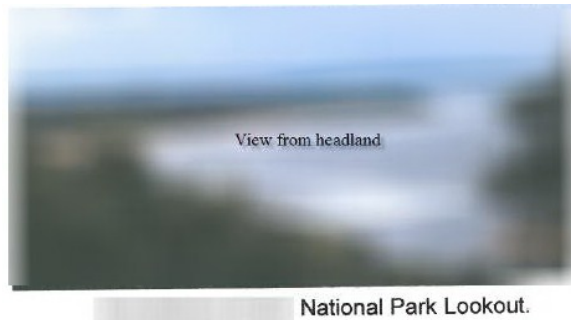


Coastal Management

Natural impacts at XXX Beach are evident from the XXX National Park Lookout. Erosion, beach, tombolo, rock platform, Rock island, headland and bay; significant sand loss at XXX Beach has been due to erosion, and human recreational purposes. Another example of erosion is the strip of water coming down the slope due to severe rain from the past 24hrs. XXX

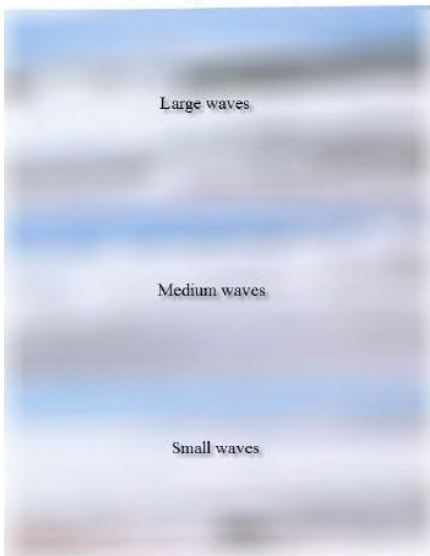
beach experiences three main types of waves; spilling, plunging and surging waves which are apparent through the rock platform southern end of the beach. Deposition is clear due to the fore dunes, tombolo bay and sand spit located from the



High level use of terminology, demonstrating a thorough understanding of coastal management

lookout; by this vegetation has grown on the fore dunes and protected by fencing.

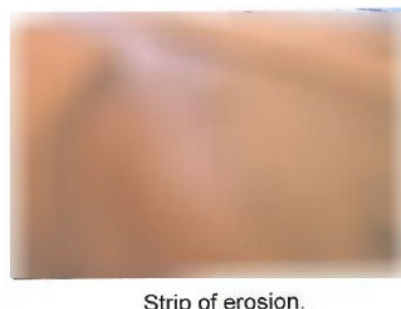
Plunging, Surging and Spilling



Human impacts are influenced and benefited by many surfers, locals, tourists, residents in both positive and negative ways for example urban encroachment, car parks, picnic areas, non native plants, pathways, roads, electricity, signs, fencing, bins, drainage and concrete slabs; urban encroachment has definitely been a human impact as developments and businesses have slowly made its way closer to the coast. The use of the back dune on XXX Beach has recently attracted community locals every weekend with the

Use of relevant current example

newly built Kiosk, centre front behind the beach. After two years of construction, the new building has renewed two surf clubs- Surf Life Saving XXX, the Soldiers and XXX Beach Club with the estimate cost of \$5 million from the support of then XXX Shire Council. With both services alongside each other, the public are able to benefit from the new facilities provided- toilets, family rooms, showers and facilities catering for the disabled. By demolishing and rebuilding the clubs, MayorXXXX had hoped that the services would *"improve their income through hall hire, hosting conferences and functions and by having better kiosk facilities to serve the public."*



Thorough discussion of development and users based on extensive research

The affects of the new kiosk has increased the popularity of the beach and XXX it has also introduced new plants such as palm trees around the kiosk, though it's interrupted the natural cycle for sand to be stored in the back dunes as well as the physical look of XXX Beach. Another urban development on the back dunes is the XXX Beach Golf Club, the local accommodations e.g. Caravan parks and resorts that are in walking distance of the beach.



Beach's new Le Kiosk.

On the fore dune of XXX beach, human interaction can be seen through XXX Car

Grassed picnic area.



Park, the grassed picnic area and bins. As the parking is for free, cars are in the designated area and away from the dunes, avoiding its natural state and residential property; the grassed picnic area is close by the beach and is a convenient place to eat rather than eating on the beach and the access to rubbish bins limits the risk of pollution problems. Introduction of

non native plants- buffalo grass, weeds, Lantana and the Bitou Bush on the dunes are mixed in with the already existing vegetation-Grevillia, which brings danger and competition as it may cease to thrive and will not adapt to the salty environment or takeover the plants. a removal of native plants like the Grevillia will change the natural cycle since the plant is tall and stops the wind coming to the beach.

Designated pathways, roads, drainage and concrete slabs have allowed for people to walk through back dune without damaging the vegetation and can drive

through the central coast from one beach to another and decrease of flooding in the residential area. Electricity has allowed for lifeguards to communicate to the surf club, signs and fencing has improved the maintenance of the beach by protecting the



Fencing of fore dunes.

Weeds.



fore dunes and kept the beach unthreatened.

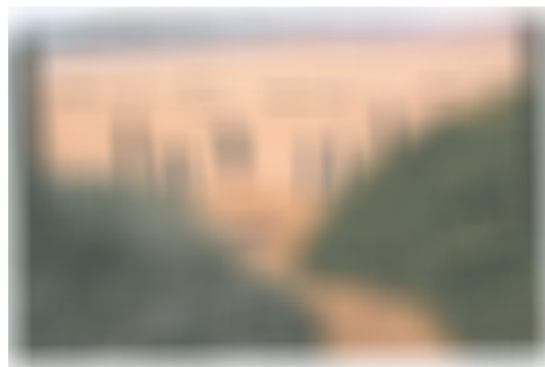
XXX Shire Council have implanted many coastal

High level use of geographical skills and tools from fieldwork

Thorough knowledge of the introduced species affecting the dune system

management strategies to keep XXX Beach looking its best all year round to attract tourists and locals by keeping it as ecological sustainable it can be. Fencing has been used on the beach in front of the fore dune and around the back dune outlining the designated pathways to minimize destruction of the sand and vegetation. This strategy is effective and maintains the beach well though as the fence is made out of wood and wire, it may be best to replace it after a couple of years to stop it from deteriorating.

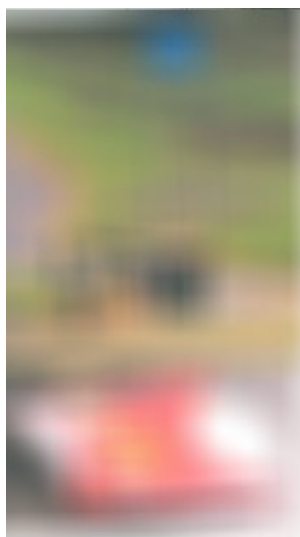
Designated pathways have been created to allow people accesses to the beach, some entries are made up of sand while other walkways are concrete or gravel that all slope down. However after severe wet weather, gravel forming the entry of the beach had eroded into the sand which combined mixture sediments from broken shells, rock, sand and the gravel making it look coarse and grainy. As a result, the impact of erosion can be seen especially from the fore dunes where parts may erode leading out to the sea and so the council should restore the designated pathway with sand removing the gravel implanted there.



Designated pathways.

There are many bins around the grassed picnic area at XXX Beach proving to be a successful strategy. This encourages the public to put their rubbish in the bin

keeping the beach clean, reducing the pollution although cigarette buds litter the picnic area which isn't appealing to visitors. But with the bins located far away the chairs and tables, individuals can be lazy thinking others will pick up after them. Therefore bins should be placed closer to the area making it efficient and reason for people to dispose their rubbish; recycle bins could also be introduced, Promoting XXX Beach free of rubbish. Cigarette bins should be provided around the beach as many buds were seen lying around; this could be hazardous as birds may think



Litter, bins too far away.

the used buds are food. Even though cigarette buds are seen littered on streets, XXX Shire Council should patrol the beach more to control the disarray of cigarette buds. Signs at XXX Beach aren't effective, small and placed only once or twice on



No Dogs sign



Dog running on beach



Signs not paid attention to.

High level use of geographical terminology

Comparison of management strategies demonstrates a thorough understanding of the issues

Very effective use of photographs and captions

Thorough discussion of possible improvements to the existing management strategies

other sides of the beach. Nevertheless it does help lifeguards manage the beach better with the signs up to indicate beach rules and regulations but local residents do tend to ignore the signs e.g. No Dogs on beach, this could present arguments for other beach goers who cannot bring their dog to the beach. Consequently, the council and lifeguards can be blamed for not patrolling the beach accordingly; for that reason, signs should be bigger, bolder and brighter to ensure residents get the message.

Grevillia



Evidence of thorough observations in the field

New coastal management strategies could be introduced to XXX Beach, firstly, exterminating the non native plants and vegetation that are taking over the fore and back dunes. Yet little has been done to the weeds that have taken over as there isn't a council member here to clean it up. Leaving the plants to grow and develop will allow Snake Vine and Spinifex to hold the sand on the dunes together and protect it from blowing away. A coastal management strategy could be placing signs at the entrance of the car park or a couple of metres



Spinifex

ahead on the road; this will allow beach goers to recognise the rules and regulations beforehand. This could be an improvement for the council and lifeguards making their lives easier especially during holiday season. Better patrolling of the beach can also be effective through signs as well- the council can invest in volunteer work to patrol the beach.

As XXX Beach is a hazardous beach known for rips, signs should be implemented to warn swimmers of the dangers before entering the beach and on the grassed picnic area. A shade cloth over the picnic area can be an improvement to the area to cater for the hot summer's day. Groyne construction can also be another coastal management strategy as XXX Beach has experienced significant sand loss, using this strategy can prevent further beach loss and large swash zones. Groyne construction is a little costly than fencing but is made of large rocks or boulders which are placed parallel to the beach it has been successful in a number of places along the coast such as Botany Bay- NSW and



Demonstrates a thorough understanding and knowledge of possible management strategies

achievement in both areas, XXX Beach could undergo a trial by in storing a Groyne northern end of the beach avoiding the usual swim zone; this might have a negative effect to surfers and local stakeholders as they can disapprove of this plan arguing to keep XXX Beach as natural as possible. But if placed on the southern end it could help prevent much erosion from the rock platform.

Bibliography

Coastal Management at XXX Beach excursion booklet.

Jaxzyn. (2011). *Maroochydore groyne and seawall*. International Coastal Management. Accessed 25/3/12, <http://www.coastalmanagement.com.au/maroochydore-groyne-seawall>

Picot, J. (2005-2010). *Sunrise at XXX Beach*. Hosting SEO. Accessed 5/3/12, http://www.google.com.au/imgres?imgurl=http://www.jimpicot.com/galleries/seascapes/page_1_files/XXX_Beach2_USM_Build.jpg&imgrefurl=http://www.jimpicot.com/galleries/seascapes/page_1.htm&h=253&w=750&sz=46&tbnid=207JsMLo-dErZM:&tbnh=40&tbnw=120&prev=/search%3Fq%3D+XXX%2Bbeach%2Bnsw%26tbm%3Disch%26tbo%3Du&zoom=1&q=XXX+beach+nsw&docid=jplyaCrdmwJMLM&hl=en&sa=X&ei=MijXT-ysDsiYiAe7ooSZDQ&ved=OCHOQ9QEwCw&dur=278

Surf Life Saving Australia. (2009). *XXX Beach*. Macdaddy. Accessed 5/3/2012, <http://beachsafe.org.au/beach/nsw280>

Shire Council. (16 November 2011). *New look XXX Beach Club to be officially opened*. Blu Arc, Content Management. Accessed 22/3/12 nsw.gov.au/about-council/media-releases-2012/media-releases-20111-XXX-beach/

Shire Council. (19 November 2010). *XXX Beach surf club demolished*. Blu Arc, Web Content Management. Accessed 22/3/12, <http://www.XXX.nsw.gov.au/about-council/media-releases-2012/media-releases-2010/XXX-beach-surf-club-demolished/>

Grade Commentary

Chris has demonstrated thorough knowledge and understanding of coastal processes and management issues. A well-written response which could have been improved by inclusion of more sophisticated language, analysis and geographical terminology. Chris has described and explained a range of management strategies and given some clear recommendations for council. This work sample demonstrates characteristics of work typically produced by a student performing at B grade standard.