Guideline
for the
Management of
Seaweed Accumulations
within the
Coffs Harbour City Council LGA.

Version Control

Version #	Description	Date	Amended By
1.1	Draft for internal comment	June 2016	Jason Bailey
1.2	Draft for Executive Team	July 2016	Jason Bailey
1.3	Adopted. For referral to Agencies	August 2016	Jason Bailey
1.4	Post Agency Amendments	Nov 2016	Jason Bailey

Contents

1. Preamble

1.1. Background

1.1.1. Seaweed accumulation is a naturally occurring process and is vital to the sustainability of beach and marine environments. It provides a source of recycled nutrients, food source and habitat for other living organisms and acts as a barrier against coastal erosion.

1.1.2. Seaweed abundance is largely dependent upon prevailing conditions with wind, wave and tidal action the key determining factors in the natural movement of seaweed. The process is generally seasonal but can occur at any time throughout the year and build-up of seaweed and natural removal can occur very rapidly.

1.1.3. Accumulations of seaweed on beaches and boat ramps between or above the 'mean high water mark' and 'mean low water mark' can have an impact upon recreational use and amenity. The accumulations can also have adverse impacts upon access and egress for emergency services and commercial activities.

1.1.4. Public perceptions of the issue are diverse and range between zero interventions in the natural process to immediate action on minor accumulations. Arguments for and against removal include environmental issues, public safety, health concerns, visual amenity, impacts upon tourism and local business, and impacts upon recreational and commercial use of the locations.

1.1.5. Intervention in seaweed accumulations need to consider the various land tenures in place (Council Land, Crown Land, Coffs Coast State Park, and Coffs Coast Regional Park), along with a variety of stakeholders and approval agencies including Department of Industry – Lands (DoI-L), DPI – Fisheries which manages the Solitary Island Marine Park, National Parks and Wildlife Service, Roads and Maritime Services, NSW Marine Rescue and other emergency services.

1.2. Purpose

1.2.1. The purpose of this document is to provide a clear and consistent approach to the management of seaweed on beaches within the LGA, identify intervention triggers and requisite approvals and establish a communication strategy to ensure the community remains informed on the issue of seaweed intervention.

1.3. Scope

1.3.1. This document applies to all beaches impacted by seaweed accumulation within the Coffs Harbour City Council Local Government Area (LGA) with a specific focus upon identified primary locations. The document applies to all land under Council's responsibility including Council land, the Coffs Coast State Park Trust (CCSPT) and Coffs Coast Regional Park (CCRP).

1.4. Definitions

- **Seaweed**: marine and estuarine macroalgae species of non-microscopic plants that belong to the plant classification divisions of *Rhodophyta*, *Phaeophyta* and *Chlorophyta*, that are endemic to New South Wales marine and estuarine waters.
- **Accumulated Seaweed:** Seaweed that had been deposited onto beaches within and above the intertidal zone. Does not include water-borne seaweed.
- **Seaweed Intervention**: management and operational practices where natural processes are altered to achieve specific outcomes
- **Mean high water mark:** means the position where the plane of the mean high water level of all ordinary local high tides intersects the foreshore, being 1.44m above the zero of Fort Denison Tide Gauge and 0.515m Australian Height Datum.
- **Mean low water mark:** means the position where the plane of the mean low water level of all ordinary local low tides intersects the foreshore, being approximately -0.55m Australian Height Datum.

1.5. Strategic Intent

1.5.1. **General** – The preferred option for Council in relation to seaweed management is to undertake zero intervention in the natural process. Where practicable, every attempt should be made to retain the material within the coastal ecological system.

1.5.2. **Intervention Considerations** – Council will consider key social, environmental, economic and governance factors when assessing and undertaking seaweed intervention.

1.5.3. **Locations** – Council will identify primary locations based upon intervention considerations but will not be limited to these locations should an identified need arise.

1.5.4. **Statutory Requirements** – Council will identify and adhere to statutory approvals required for seaweed management intervention and endeavour to secure long term approvals to expedite the intervention when required. This document will form the basis for securing long term approvals from the relevant authorities.

1.5.5. **Triggers** – Council will identify specific triggers for intervention that will act as the catalyst for further action.

1.5.6. **Communication & Education** – Council will establish a communication plan and community education program to ensure the strategies within the document and intervention triggers are communicated to relevant stakeholders and the wider community.

1.5.7. **Action Plan and Work Methods** – Council have established an action plan and safe work methods for circumstances where intervention is required. (See Appendix 2)

2. Intervention Considerations and Triggers

2.1.1. General

Intervention will be considered holistically based upon the criteria in this section. There is no assigned order of priority for considerations nor is there a requirement to meet all of the considerations listed. There is often a strong interrelationship between intervention considerations.

2.1.2. Considerations

a) Natural Processes

Intervention will be considered when the accumulated seaweed is situated in a location where future short term tidal and wave action will not be sufficient to remove the seaweed from the location

b) Public Health

Intervention will be considered when the seaweed accumulation poses or has the potential to pose an established public health risk.

c) Volume and scope

Intervention will be considered when the volume of seaweed is such that it is highly unlikely that it will be removed by methods other than by direct intervention or when the scope of the accumulation is such that no alternate access is achievable. Intervention will consider the extent of seaweed removal required in the location. Opportunities may exist for limited relocation of seaweed to achieve suitable outcomes for other considerations such as access.

d) Safety

Intervention will be considered where the seaweed accumulation poses a risk to the normal safe use of the location

e) Public Amenity

Intervention will be considered when the accumulation impacts upon the public amenity of the location. This includes, but is not limited to, visual and olfactory amenity and impacts upon active and passive uses of the location.

f) Commercial and Tourism

Intervention will be considered when the accumulation has the potential to impact upon commercial activities or has a perceived negative impact upon tourism and other industries.

g) Public Access

Intervention will be considered when normal public access to the location is disrupted. This includes normal beach access and access to community infrastructure such as boat ramps and recreational facilities.

h) Seasonality and visitation

Intervention will be dependent upon the season and the level of visitation within the season. Peak holiday periods and summer months may require greater intervention as opposed to winter when usage and visitation is reduced.

i) Emergency Services

Intervention will be undertaken when Emergency Services access cannot be safely achieved.

j) Alternatives

In considering all of the items above, Council will consider if there is a suitable and viable alternative for public beach access that removes the requirement for intervention.

k) Logistics and Economics

Intervention should be considered in light of logistics and economic viability. There may be circumstances where intervention will be logistically or economically unviable. In these situations an appropriate risk assessment (see Attachment 3) should be undertaken to determine the most appropriate course of action which may include closure of the beach until the risk is ameliorated or resolved. Under these circumstances, appropriate measures must be taken to ensure the continued health and safety of the location.

2.1.3. Triggers

- A location based assessment must be undertaken in the appropriate form (Appendix 3) before any intervention is considered.
- The trigger for intervention will be determined through assessment of points a) to k) in section 2.1.2. Given the number of variables, there are no set criteria to determine if intervention is warranted. However, the assessing officer should ensure that the rationale for intervention and associated triggers are documented.
- All approvals must be in place before any intervention action is undertaken.

3. Locations

3.1. Primary Locations

3.1.1. Primary Locations for intervention include:

- **Arrawarra Beach & Creek**
  - Boat Ramp to the northern tip of the vegetated dunes on the southern side of Arrawarra Creek and accumulations within Arrawarra Creek that result in water quality issues as a result of low Dissolved Oxygen (DO)
- **Woolgoolga Main Beach**
  - Southern end of Woolgoolga Beach (boat ramp) to opposite Pacific Street beach access
- **Diggers Beach**
  - Southern end in locations impacting public access and Lifeguard activities
- **Park Beach**
  - Coffs Creek north to northern end of Park Beach Holiday Park (viewing platform) in locations that impact public access and Lifeguard/Life Saving activities
- **Jetty Beach (North)**
  - Jetty Structure north to Marina sea wall
- **Jetty Beach (South)**
  - Jetty Structure south to main car park on Jordan Esplanade
- **Sawtell Beach**
  - Sawtell SLSC south to island in locations that impact public access and Lifeguard/Life Saving activities
- **Sawtell Boat Ramp**

- Boat ramp north to island in locations that impact safe boating activities

3.2. Other Locations

3.2.1. Whilst interventions will generally be focussed upon the primary locations listed above there may be circumstances where intervention outside these areas is required. Intervention in these areas will be assessed on a case by case basis considering all contributing factors and consequences. Relevant agencies and stakeholders are to be consulted in these circumstances.

3.3. Maps

3.3.1. See Appendix 1

4. Statutory Requirements

4.1. General

4.1.1. There are several statutory requirements pertaining to the management of seaweed within the LGA. These include

a) Approvals from DPI Fisheries under the *Marine Estate Management Act 2014* and associated regulations and under the *Fisheries Management Act 1994*

b) Compliance with relevant Acts

c) Compliance with adopted Plans of Management

4.2. Department of Primary Industries–Fisheries

4.2.1. Seaweed intervention for all coastal areas, north of Muttonbird Island Coffs Harbour, require approval under the *Marine Estate Management (Management Rules) Regulation, 1999.*

4.2.2. Permits are required for damage to habitat in Habitat Protection Zones

4.2.3. It is Councils intent to request and maintain a long term approval, under the Marine Estate Management Act and associated regulations, for the purposes of seaweed intervention under this guideline.

4.2.4. Seaweed intervention, for all coastal areas within the LGA, also require approval under the *Fisheries Management Act 1994.*

4.2.5. DPI – Fisheries can issue a maintenance permit to 'harm marine vegetation'

4.2.6. It is Councils intent to request and maintain long term approval, under the Fisheries Management Act 1994, for the purposes of seaweed intervention. An approval currently exists under the previous Seaweed Management Strategy and is valid until August 2018. Alignment of approvals under both acts managed by DPI Fisheries is desirable.

4.3. Relevant Acts

4.3.1. The guideline considers Council's obligations under the:

- Local Government Act.
- Crown Lands Act
- National Parks & Wildlife Act
- Marine Estate Management Act

- Fisheries Management Act

4.4. Plans of Management & Strategies

4.4.1. The guideline meets the requirements of the:

- Coastal Reserves Plan of Management
- Jetty Foreshores Plan of Management
- Sawtell Reserve Plan of Management
- Park Beach Reserve Plan of Management
- Woolgoolga Beach Reserve (North) Plan of Management
- Draft Woolgoolga Beach Reserve (South) Plan of Management

4.5. Non-Statutory Consultation

4.5.1. Consultation should be undertaken with relevant stakeholders where considered appropriate. Dependent upon the location, these may include:

- Department of Industry - Lands
- Marine Rescue NSW
- NPWS
- Water Police
- Coffs Coast Regional Park Trust Board
- Commercial Lease/Licence holders

5. Intervention Action Plan

Beach	Location	Action	Method
Arrawarra Beach & Creek	Southern headland to Arrawarra Creek.	Remove the seaweed and relocate it to the toe of the sand dunes north of Arrawarra creek. * *The seaweed is not to be buried at the foot of the dune or bank.*	• At an appropriate time, either side of and including the low tide period, pick up the weed with a front end loader machine. • Avoid removing unnecessary quantities of sand in the process. • Transport the seaweed by truck north of Arrawarra Creek (per map in appendix 1) and place on the beach at the toe of the sand dunes. • Avoid depositing the seaweed on the sand dune. • Do not bury the seaweed • Seaweed management to maintain access for the VRS and boat users will be required – this may include clearing an area from the boat ramp to the water only; pushing seaweed up to the fore-dune areas and/or transporting seaweed north past the Creek. *Note: at times Arrawarra creek will be impassable and the beach will have to be closed until the weed is naturally removed by the tide or access is re-established.*
Woolgoolga Main Beach	Southern end of beach to Pacific Street beach access, north side of Woolgoolga Beach Holiday Park.	Remove the seaweed and relocate it to the toe of the sand dunes north of Pacific Street. When practicable and required, seaweed should be used to reinstate fore dune damaged by erosion in areas south of Pacific Street.	• At an appropriate time, either side of and including the low tide period, pick up the weed with a front end loader machine. • Avoid removing unnecessary quantities of sand in the process. • Transport the seaweed by truck to the toe of the sand dunes north of Pacific Street. • Seaweed can be used to stabilise erosion along Woolgoolga Beach (as per the map in Appendix 1 • Avoid depositing the seaweed on the sand dune • Do not bury the weed.
Diggers Beach	Southern end in locations impacting public access and Lifeguard activities	Remove the seaweed and relocate it to the toe of the adjacent sand dunes.	• At an appropriate time, either side of and including the low tide period, pick up the weed with a front end loader machine. • Avoid removing unnecessary quantities of sand in the process. • Transport the seaweed with the front end loader and place at the toe of the adjacent sand dunes and cover it with sand. (Map Appendix 1) • Avoid depositing the seaweed on the sand dune

Park Beach	Entrance of Coffs Creek to the north side of Park Beach Holiday Park in areas impacting public access and/or Surf Life Saving/Lifeguard activities.	Remove the seaweed and relocate it to the toe of the sand dunes north of Park Beach Holiday Park	• At an appropriate time, either side of and including the low tide period, pick up the weed with a front end loader machine. • Avoid removing unnecessary quantities of sand in the process. • Transport the seaweed by truck to the toe of the sand dunes north of Park Beach Holiday Park. (Map Appendix 1) • Avoid depositing the seaweed on the sand dune • Do not bury the seaweed.
Jetty Beach	Jetty structure north to the marina sea wall.	Remove the seaweed and relocate it to the toe of the sand dunes south of the jetty structure.	• At an appropriate time, either side of and including the low tide period, pick up the weed with a front end loader machine. • Avoid picking up unnecessary quantities of sand in the process. • Transport the seaweed by truck to the toe of the sand dunes south of the jetty structure. Excavate appropriate size trench to contain seaweed and cover it with sand. (Map Appendix 1) • Avoid depositing the seaweed on the sand dunes.
Jetty Beach	Jetty structure south to opposite main car park on Jordan Esplanade and southern corner	Remove the seaweed and relocate it to the toe of the sand dunes south of the Jordan Esplanade main car park.	• At an appropriate time, either side of and including the low tide period, pick up the weed with a front end loader machine. • Avoid picking up unnecessary quantities of sand in the process. • South of Jetty Structure - Transport the seaweed by truck to the toe of the sand dunes south of the jetty structure. Excavate appropriate size trench to contain seaweed and cover it with sand. • Southern corner - Transport the seaweed by truck/excavator to the toe of the sand dunes north of the southern corner. Excavate appropriate size trench to contain seaweed and cover it with sand. (Map Appendix 1) • Avoid depositing the seaweed on the sand dunes.
Sawtell Beach & Boat Ramp	Boat ramp and areas impacting public access and/or Surf Life Saving/Lifeguard activities	Remove the seaweed and relocate it to the toe of the adjacent sand dunes	• At an appropriate time either side of, and including the low tide period, pick up the weed with a front end loader machine. • Avoid picking up unnecessary quantities of sand in the process. • Transport the seaweed by truck to the toe of the sand dunes south of the jetty structure. Excavate appropriate size trench to contain seaweed and cover it with sand.

Note: There will be times when tide, weather conditions or the sheer volume of seaweed presents to make the relocation of the seaweed in the designated location logistically and economically impractical. In these situations if the seaweed is deemed to present a potentially dangerous situation that section of beach should be closed and signs stating such with reasons placed in the vicinity.

6. Communication and Education

6.1. Communication

The success of this guideline is dependent upon strong communication to the public and stakeholders. Key outcomes of this guideline will include:

- Place the guideline on Council's website for community review
- Communicate the guideline through local media outlets
- Development of a proactive media plan to inform the public of progress with regards to seaweed accumulations and Council's intended actions. Process for this is :
  - Accumulation is identified by CHCC staff or reported by the public.
  - Senior Communications Officer is informed of the issue and appropriate communications are issued via media release, promoted via social media feeds, to advise that the issue is being investigated as per the guideline
  - Assessment is undertaken using Assessment Form (Appendix 3)
  - Course of action is identified and timeframes established
  - Senior Communications Officer is advised of action and appropriate communications are issued via media release, promoted via social media feeds, to advise that the issue is being actioned as per the guideline.
  - Any identified works are undertaken as per the guideline
  - Senior Communications Officer is advised of completed works and appropriate communications are issued via media release, promoted via social media feeds, to advise that the issue has been actioned as per the guideline.

6.2. Education

A collaborative community education program involving DPI – SIMP, DPI – Fisheries, NPWS and Council will be developed to communicate the ecological importance of seaweed accumulations and the impacts of unnecessary intervention on the local ecology.

7. Risk Management & Work Method Statement

Risk Management and Work Method Statement are to be as per the updated documentation supplied by CHCC Infrastructure Maintenance. Current version is located in Appendix 2

8. Associated Documents

Fisheries Management Act 1994
Marine Estate Management Act 2014
DPI Fisheries Policy
DPI Fisheries Macro Algae fact sheet

Appendix 1 – Maps

Cadastral, topographic and aerial ADS40 information supplied by the NSW Department of Finance and Services and maintained by Coffs Harbour City Council (Copyright © 2016, NSW Department of Finance and Services). Other data displayed may have been supplied by various other agencies under licence.

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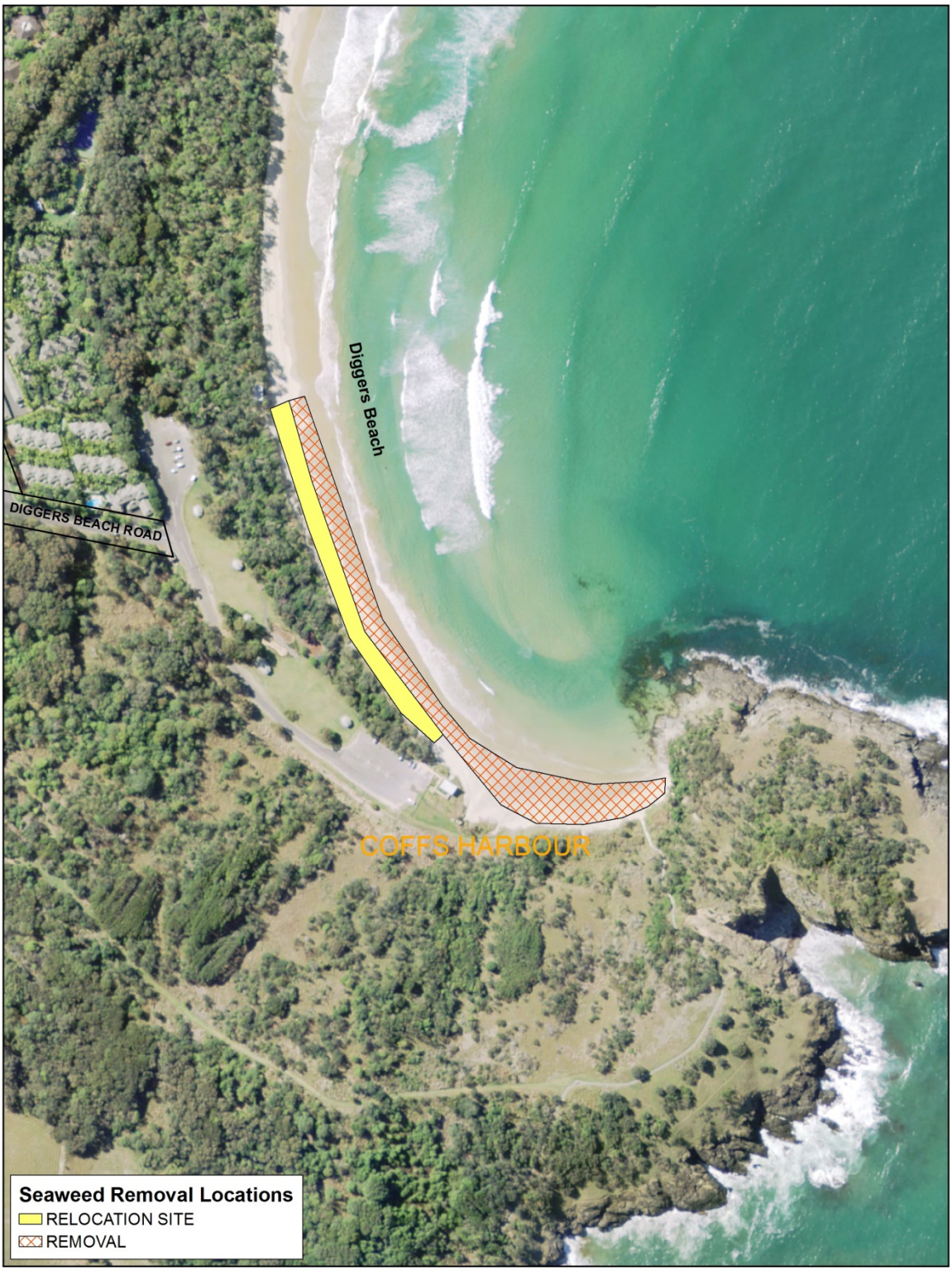
Seaweed Removal Locations
Coffs Harbour, Woolgoolga

This map produced by GIS Section
Coffs Harbour City Council
User: tbstina
Creation Date: 19/07/2016

SCALE@A4 1:2500
0 10 20 40 60
Metres
Coordinate System: GDA 1994 MGA Zone 56
Projection: Transverse Mercator
Datum: GDA 1994

GRID NTH

Our Ref: A4_Seaweed_20160715



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Seaweed Removal Locations
Coffs Harbour, Diggers Beach

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Coffs Harbour City Council
User: tbstina
Creation Date: 19/07/2016

SCALE@A4 1:3000
0 10 20 40 60
Metres
Coordinate System: GDA 1994 MGA Zone 56
Projection: Transverse Mercator
Datum: GDA 1994

GRID NTH

Our Ref: A4_Seaweed_20160715

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Seaweed Removal Locations
Coffs Harbour, Park Beach

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SCALE@A4 1:3000
0 10 20 40 60
Metres
Coordinate System: GDA 1994 MGA Zone 56
Projection: Transverse Mercator
Datum: GDA 1994

GRID NTH

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Seaweed Removal Locations
Coffs Harbour, Jetty Beach

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Datum: GDA 1994

GRID NTH

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Seaweed Removal Locations
Sawtell

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Creation Date: 19/07/2016

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Metres
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Projection: Transverse Mercator
Datum: GDA 1994

GRID NTH

Our Ref: A4_Seaweed_20160715

Appendix 2 - Beach Access Maintenance and Beach Cleaning SWMS

Coffs Harbour City Council Safe Work Method Statement

Process / Activity:	**Coastal Works - Beach Access Maintenance and Beach Cleaning**		**Doc No. WMS-083**
Location:	All	**Branch:** Open Spaces	**Date**
Assessment Team:	S. Moore, J.Holmes, T. Thorn , N. Matthews		

PROCESS / ACTIVITY STEPS	POTENTIAL HAZARDS and RISK IDENTIFICATION	Risk Rating	CONTROL MEASURES
Planning	Notification Procedure		- Adhere to Protocol with CHCC, NPWS, State Fisheries, Solitary Islands Marine Park Authority
General Activity Hazards	Access and egress- Public	C3=H	- Isolate site from pedestrians/vehicles with barricades/webbing during works - Create detour access or direct public with signs
	Manual handling	C4=V	- Use mechanical lifts, team lifts as needed - Use correct tools, equipment for the job
	UV Radiation	C3=H	- PPE – sunscreen, hat, protective clothing as per CHCC Clothing Policy
	Slips, trips, falls	C3=H	- Check site for uneven ground, obstacles - Leave site in safe condition and barricade if works continuing overnight - Drivers use 3 points of contact entering/exiting plant
	Plant and equipment	C4=V	- Operate in accordance to relevant SOPs - Daily maintenance and safety checks

PROCESS / ACTIVITY STEPS	POTENTIAL HAZARDS and RISK IDENTIFICATION	Risk Rating	CONTROL MEASURES
	Biological hazards	C4=V	- Relevant immunisations of staff - Sharps container, tongs & gloves on site - Refer CHCC-WI-031 Emergency Work Instruction Needle Stick & Biological Hazardous Incidents -
Maintenance of beach access ways	Environmental	E2=V	- Presence of noxious or environmental weeds reported to Supervisor - Works conducted in a manner which limits disturbance to surrounding bush land and dunes
	Electricity - power tools - generator	C5=X	- Ensure all power tools and leads are well maintained and currently tagged in accordance with Safe Work NSW Electrical Inspection and Testing. - Use earth leakage device - Do not operate generator in wet conditions - Use cordless power tools instead where possible - Locate flexible cords above any work area or passageway so that clear access is provided, beneath them. Do not locate extension cords in wet places or where they are subject to damage by liquids or impact.
	Hazardous substances – treated timber and timber preservatives	C3=H	- Use in accordance with Safe Work Australia Code of Practice for the safe handling of timber preservatives and treated timber - Wear appropriate PPE when cutting and handling. Protect cuts from sawdust, wash hands before eating or smoking
Beach Cleaning	Ergonomic hazards	D3=V	- Caution straining back and neck while looking backwards during operation - Take breaks and exercise neck and back muscles. Adjust seat to suit

PROCESS / ACTIVITY STEPS	POTENTIAL HAZARDS and RISK IDENTIFICATION	Risk Rating	CONTROL MEASURES
	Sharp edges	C2=M	- Ensure gloves and hand tools are used for clearing debris from implements when not in use
	Unstable ground – beach access points; dunes	C3=H	- Driver caution of erosion areas and undermined dunes. - Do not travel along or near drop off
Beach cleaning- Raking and Scraping	Access and egress – working during day	C4=V	- Ensure an observer is present to guide beach users and warn driver of people and obstacles. - Caution on access ways onto beach - Check for erosion and drop offs
Beach cleaning- Seaweed Removal	Access and egress (public)	C4=V	- Erect temporary workplace warning signage at extremities of worksite - Observer / s are to be stationed at entry points to warn and redirect public during removal
	Environmental	E3=X	- Seaweed to the moved in accordance with current seaweed removal procedure Seaweed not to be removed from beach. Move to fore dune and bury as necessary
Worksite cleanup	Public access and injury		- Clear all materials & debris from site on completion - Leave site in safe condition and barricade if works continuing overnight

Likelihood
A. IMPROBABLE - May occur only in exceptional circumstances
B. REMOTE - Could occur at some time
C. OCCASIONAL - Might occur at some time
D. FREQUENT - Will probably occur in most circumstances
E. CONTINUOUS - Is expected to occur in most circumstances

Refer also to Councils Hazards, Risks and Controls Guidelines

Consequence

1. INSIGNIFICANT - No injuries, minimal level of pollution, Employee grievances dealt with on site, Loss <5% of job cost, service, business failure resulting in delay < 1 week and costs, plant/equipment loss < $1,000
2. MINOR - First aid treatment, limited/localised impact, Employee grievances dealt with by senior management, loss 5-10% of job cost, business failure resulting in delay < 1 month and costs, plant/equipment loss < $10,000
3. MODERATE - Medical treatment and several days off work, significant pollution requiring outside assistance, Employee grievances taken to the union, loss 10-20% of job cost, non-compliance with legislation/License conditions, business failure resulting in delay < 3 months and costs, plant/equipment loss < $50,000
4. MAJOR - long term illness or serious injury, threatened industrial action, loss 20-70% of job cost, loss of production capability, order placed on Council by Authorities, business failure resulting in delay < 6 months and costs, plant/equipment loss < $100,000
5. CATASTROPHIC - Death or permanent disability/illness, serious permanent damage, Actual industrial action, loss >70% of job cost, potential prosecution by Authorities, business failure resulting in delay > 6 months and costs, plant/equipment loss > $100,000

Rating
L = Low
M = Medium
H = High
V = Very High
X = Extreme

	Likelihood				
Consequence	A	B	C	D	E
1	L	L	L	M	H
2	L	L	M	H	V
3	M	M	H	V	X
4	H	H	V	X	X
5	V	V	X	X	X

Work Method Statement (Continued)		
Personnel Qualifications and Experience (e.g. tickets, licenses)	**Personnel, Duties and Responsibilities**	**Training Required to Complete Work**
WorkCover OH&S General Induction-White card Current Driver's license- as appropriate for vehicle	Undertake work as per Work method statement Daily safety checks Conduct site specific risk assessment & control measures and record Any / all accidents, near misses and improvements – report all as per Improvements and Accident Procedure Complete and return to Worksite Supervisor completed run sheets, reports, documentation etc.	Induction into this Work method statement Manual Handling training Standard Operating Procedure assessment for plant and equipment used

Engineering Details (e.g. approvals) / Certificates / Approvals (e.g. RMS, OEH, WorkCover)	**Relevant Codes of Practice, Legislation**
Follow protocols approved between Council, National Parks and Wildlife Service and DPI Fisheries. Adherence to permits issued under the *Fisheries Management Act 1994* and the *Marine Estate Management Act 2014*	NSW WHS Act 2011 NSW WHS Regulations 2011 NSW Environmental Protection Act 1997 Fisheries Management Act 1994 Marine Estate Management Act 2014
Personal Protective Equipment (PPE)	**Other Plant / Equipment**
Standard PPE for all tasks: Boots – work; Protective clothing issue; Earmuffs; Earplugs; Gloves – disposable, latex, leather, PVC; Hat; Lip gel; Sunblock; Glasses – safety, sun; High visibility clothing; sharps unit. Chaps & face mask for chainsaw	4wd Loader, rake, Excavator, backhoe, trailer, grader, bobcat, trucks Generator, chainsaw, power tools, motorized auger
Immunisations	**Linked Internal Documents**

Hepatitis A & B Tetanus	Worksite Induction, Hazard identification & Risk control Form Standard Operating Procedures for plant and equipment used CHCC-WI-031 Emergency Work Instruction Needle Stick & Biological Hazardous Incidents

Appendix 3 – Assessment Form

Seaweed Accumulation Intervention Assessment Form

Date: _____ Time: _____

Location: _____

Next High Tide: _____ Predicted Height: _____

Next Low Tide: _____ Predicted Height: _____

Assessment By: _____ Position: _____

Assessment Criteria **A completed a copy of this assessment criteria is to be emailed to DPI Fisheries along with several photos of the site and the works notification form from the Fisheries Management Act Maintenance Permit**	**Yes**	**No**
Is it likely that short term tidal movements will remove the accumulation?		
Does the accumulation pose a health risk to the public?		
Does the volume and scope of the accumulation limit the ability for natural processes to take place?		
Is the accumulation of a size and scope that prohibits alternate access?		
Does the accumulation pose a safety risk to normal use of the location?		
Does the accumulation impact adversely upon the amenity of the location and the passive and active use of the site?		
Does the accumulation have an impact upon commercial activities being undertaken in the location?		
Is normal public access disrupted and no viable alternative is available?		
Has the accumulation occurred during a peak tourism period?		
Is access for emergency services able to be safely maintained?		
Is intervention logistically and economically viable? If no, a risk assessment must be undertaken and appropriate measure put in place to ensure health and safety.		
Have relevant stakeholders been consulted regarding intervention? Stakeholders:_____		

Assessment Appraisal:

_____

_____

Recommended Action:

_____

_____