



TASMANIAN SALT MARSH HUMAN IMPACTS CHECKLIST



SURVEY DETAILS

Saltmarsh site name:

Saltmarsh cluster name (bay, river etc.):

Survey location details (landmarks etc.):

Geo-location (lat, long or E, N):

Recorders:

Survey date:

Start time: End time:

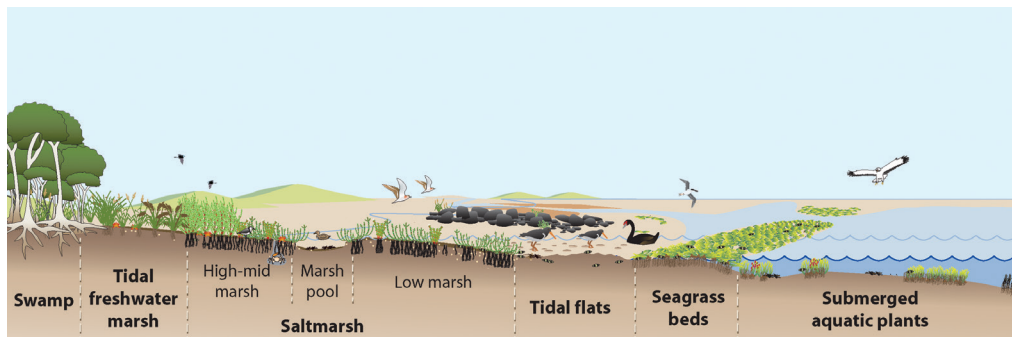
SURVEY METHOD

- (PS) Point-based 2-ha Area Search
- (TS) Transect-based Fixed-Route Monitoring
- (IS) Incidental Search

Before commencing the survey, please familiarise yourself with what is assessed as all sections (listed below) may need to be considered simultaneously.

- » Fringing vegetation adjacent to saltmarsh (p. 4)
- » Livestock and feral animal disturbance (p. 5)
- » Inappropriate development (land-use conversion) (p. 6)
- » Other inappropriate habitat disturbance features (p. 7)
- » Algal blooms (eutrophication) (p. 8)

Photos can be taken of disturbance features and objects of interest and made available as supporting evidence (photos need to be clearly visible, have accompanying captions and locality details).



Typical cross-section of saltmarsh habitat in the coastal landscape.

SOME THREATS TO SALTMARSHES

Despite their irreplaceable ecological role in our productive coastal landscapes and socio-economic contributions made through the provision of ecosystem services, saltmarsh wetlands have suffered from direct and indirect human impacts in Tasmania. Close to a half of these important natural assets have already been lost or degraded due to land use changes and impacts, sporadic and variable management approaches and lack of broad awareness of the important values provided by these habitats. In addition, future climate change and sea level rise projections leave these assets in a precarious position given that they occupy shores within 1m of high water.

The threats to saltmarsh wetlands can be summarised as:

- Inappropriate development through landfill, tidal restriction (building levees and other tidal barriers);⁶
- Nutrient enrichment from human activities such as farming or industrial effluents causing nuisance algal blooms and rotten spots;⁷

- Livestock (including cattle, sheep and horses) grazing and trampling on the saltmarsh removing plant biomass, disturbing the soil and clogging up the tidal channels;⁸
- Use of off-road vehicles that cause plant die-back and soil compression;⁹
- Introduction and spread of invasive species such as rabbits and a suite of weeds that displace native species;¹⁰
- Any dumping of rubbish (other than as landfill), both in-situ and ex-situ, including unmanaged waste drift from oyster farms;¹¹
- Any land clearing of upland fringing vegetation along the saltmarsh boundary up to a buffer distance of 100m (this can range from 50 – 200m depending on the size of the saltmarsh and the upland land use activities); and
- Lack of sympathetic management in low lying landward areas to accommodate the natural saltmarsh response to sea level rise as they move upland and inland.



⁶Levees as tidal barriers



⁶Inappropriate development



⁶Land clearing from the air



⁷Algal blooms causing 'rotten spots'



⁸Impacts of cattle grazing



⁹Off-road vehicle tracks



¹⁰Digging by feral pigs



¹¹Rubbish dumping

FRINGING VEGETATION ADJACENT TO SALTMARSH SITE

EXTENT OF FRINGING VEGETATION (PRESENCE/ABSENCE SURVEY)

DESCRIPTION	% ESTIMATE FROM GOOGLE MAPS ¹	% ON-GROUND ASSESSMENT
Lateral extent of fringing vegetation within a 100m buffer from the edge of the saltmarsh towards upland, measured along the perimeter of the saltmarsh	<5%	<5%
	5-30%	5-30%
	30-70%	30-70%
	>70%	>70%
	100%	100%
Width of fringing vegetation adjacent to the saltmarshes within a 100m buffer from the edge of the saltmarsh towards upland, measured along the perimeter of the saltmarsh	<5%	<5%
	5-30%	5-30%
	30-70%	30-70%
	>70%	>70%
	100%	100%
Comments:		

CONDITION OF FRINGING VEGETATION ADJACENT TO SALTMARSH SITE

Native vegetation composition relative to introduced species within a 100m buffer (as above)	% PRESENT (ON-GROUND ASSESSMENT)				
	<5%	5-30%	30-70%	>70%	100%
Comments (indicate any disturbance features noted):					

¹Please perform this assessment before undertaking the on-ground assessment, as it would provide the recorders an aerial overview of the site and its local environmental context.

LIVESTOCK AND FERAL ANIMAL DISTURBANCE

LIVESTOCK² DISTURBANCE

DESCRIPTION	% DEGRADED (ON-GROUND ASSESSMENT)			
Grazing within the saltmarsh (apparent vegetation removal, soil disturbance, livestock tracks, droppings, or other forms of disturbance)	<5%*	5-30%	30-70%	>70%
Grazing adjacent to the saltmarsh (apparent vegetation removal, soil disturbance, livestock tracks, droppings, or other forms of disturbance)	<5%*	5-30%	30-70%	>70%
Comments (surrounding land use, livestock grazing/horse country):				

*Please make a note in the comments if there is no evidence or likelihood of any grazing disturbance in or adjacent to the saltmarsh.

FERAL ANIMAL³ DISTURBANCE

DESCRIPTION	% DEGRADED (ON-GROUND ASSESSMENT)			
Impacts within the saltmarsh (apparent vegetation removal, soil disturbance, livestock tracks, droppings, or other forms of disturbance)	<5%*	5-30%	30-70%	>70%
Impacts adjacent to the saltmarsh (apparent vegetation removal, soil disturbance, livestock tracks, droppings, or other forms of disturbance)	<5%*	5-30%	30-70%	>70%
Comments (surrounding land use):				

*Please make a note in the comments if there is no evidence or likelihood of any feral animal disturbance in or adjacent to the saltmarsh.

²Livestock includes animals raised in agricultural setting such as cattle, sheep, horses, pigs, deer, goats, alpaca, rabbits etc.

INAPPROPRIATE DEVELOPMENT (LAND-USE CONVERSION)

MAJOR DEVELOPMENT⁴ (LAND-USE CONVERSION)

DESCRIPTION	% ESTIMATE FROM GOOGLE MAPS ⁵	% PRESENT (ON-GROUND ASSESSMENT)
Any major development within/ on the saltmarsh that has replaced the original habitat (e.g., houses, buildings, playing fields, tip sites, farms constructed over saltmarshes)	<5%	<5%
	5-30%	5-30%
	30-70%	30-70%
	>70%	>70%
	Comments:	
Any major development adjacent to the saltmarsh that has replaced the original non-saltmarsh habitat (e.g., houses, buildings, playing fields, tip sites, farms constructed over non-saltmarsh habitats such as woodland, grassland, freshwater wetlands etc.)	<5%	<5%
	5-30%	5-30%
	30-70%	30-70%
	>70%	>70%
	Comments:	

⁴Major developments are a significant concern to saltmarsh conservation as they can irrevocably destroy the habitat and are important to record here.

⁵Please perform this assessment before undertaking the on-ground assessment, as it would provide the recorders an aerial overview of the site and its local environmental context.

OTHER INAPPROPRIATE HABITAT DISTURBANCE FEATURES

DESCRIPTION	% PRESENT (ON-GROUND ASSESSMENT)			
Rubbish debris (e.g., plastics, glass, metal)	<5% *	5-30%	30-70%	>70%
Dumping of rubbish (e.g., old tyres, building waste, garden waste)	<5% *	5-30%	30-70%	>70%
Roads/walking tracks within	<5% *	5-30%	30-70%	>70%
Unmanaged tracks from use of off-road vehicles	<5% *	5-30%	30-70%	>70%
Presence/extent of drainage channels, levees, ditches within the saltmarsh	<5% *	5-30%	30-70%	>70%
Other (please specify in comments below)	<5% *	5-30%	30-70%	>70%
Comments:				

*Please make a note in the comments if there is no evidence or likelihood of any inappropriate habitat disturbances in or adjacent to the saltmarsh.



ALGAL BLOOMS (NUTRIENT ENRICHMENT/EUTROPHICATION)

DESCRIPTION	% PRESENT (ON-GROUND ASSESSMENT)			
Nuisance algal blooms ('rotten spots' of filamentous algae) on the saltmarsh platform (on plants or pools in the saltmarsh)	<5% *	5-30%	30-70%	>70%
Nuisance algal blooms ('rotten spots' of filamentous algae) in tidal channels or tidal flats both within and adjacent the saltmarsh	<5% *	5-30%	30-70%	>70%
Comments:				

*Please make a note in the comments if there is no evidence or likelihood of any human induced eutrophication in or adjacent to the saltmarsh.

ADDITIONAL COMMENTS

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