

# West Arm and Woods Inlet

## Summary

Water quality at the West Arm and Woods Inlet upper estuary monitoring sites is in excellent condition. No freshwater or biological sites are routinely monitored in this region because the freshwater section of the streams is very short and flows for only a very brief part of the year.

## Nature of system:

- Stream and riparian areas intact
- Large areas dry on spring tides in West Arm
- Extensive mangrove habitat and inter-tidal mudflats
- Minimal development in this region
- Most remote from development impacts within the Harbour, hence reference area

## Sources of pollution:

- Considered to have minimal pollution
- Sediment and nutrient from catchment diffuse sources during the wet season
- West Arm region commonly considered as 'reference' condition to compare with other areas of Darwin Harbour



Sampling oysters (*Saccostrea cucullata*) for assessing micropollutant levels at a reef in West Arm. This area is commonly considered to be a "reference" area with minimal human impacts.

**West Arm and Woods Inlet catchment showing rivers and monitoring sites**

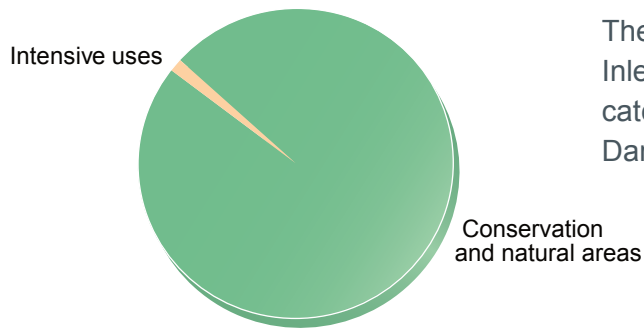


▲ Estuarine monitoring sites

0 6 12km



**Land use in the catchment**



**Catchment disturbance index**

The CDI for the West Arm/Woods Inlet catchment is 0.99. The West Arm catchment is the least disturbed in the Darwin Harbour region.

**Water quality issues in the catchment**



Sampling oysters (*Saccostrea cucullata*) for assessing micropollutant levels in a “reference” area in West Arm.

**West Arm and Woods Inlet marine ambient water quality**

Indicator and units	Water quality objective	Current condition	Number of samples	Compliance
<b>Electrical conductivity</b> (μS/cm)	NA	54200	27	
<b>Turbidity</b> (NTU)	NA	3.4	27	
<b>pH</b>	6–8.5	7.9–8.2	27	✓
<b>Dissolved oxygen</b> (%)	80–100	65–74	27	*
<b>Total suspended solids</b> (mg/L)	<10	18	20	*
<b>Chlorophyll a</b> (μg/L)	<4	1	27	✓
<b>NOx</b> (μg N/L)	<20	3	27	✓
<b>Ammonia</b> (μg N/L)	<20	5	27	✓
<b>Total nitrogen</b> (μg N/L)	<300	220	27	✓
<b>Total phosphorus</b> (μg P/L)	<30	10	27	✓
<b>Filterable reactive phosphorus</b> (μg P/L)	<10	4	27	✓



Period sampled for current condition is Sep 2008 to Dec 2009. NA Not available. \* WQO currently under revision



The Australian Institute of Marine Science research vessel "Solander" has been used in a collaborative project to assess micropollutant levels in molluscs in impacted areas of Darwin Harbour and unimpacted areas such as West Arm.



The blue-spotted fantail ray (*Taeniura lymma*) is a predator of molluscs on rocky reefs. Photo: Neil Wright