

## Saving our Species project 2013-14 annual report card

### Little Tern

#### Species attributes

Scientific name:	<i>Sternula albifrons</i>
NSW status:	Endangered
Commonwealth status:	Not listed
Management stream:	Site-managed



Photographer: Keith Egan

#### Overall project status\*

- Populations at all key management sites are generally stable or increasing
- All management is being implemented as planned; too early to detect response to management at some sites
- Management at some sites requires review/amendment to ensure that the project is likely to meet its objectives
- Major review of / changes to the project required to ensure long-term objectives are likely to be met

\*For SoS priority management sites (may not include all locations where the species occurs in NSW)

#### Project summary

Key management sites:	Towra Point; Tathra Beach; Sawtell - Nambucca; Lake Wollumboola; Tuross Brou; Hearnes Lake; Wallagoot Lake; Yuraygir South; Manning River; Conjola
Action implementation:	67 of 71 actions were implemented as planned for the financial year (includes species population monitoring actions + other project actions fully or partially implemented)
Total expenditure:	\$531,731 (cash and in-kind)
Project partners:	Office of Environment and Heritage

## Management site 1: Towra Point

LGA: Rockdale; Sutherland; Sydney Harbour And Botany Bay (Unincorporated)

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
22 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$83,290

## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Overgrowth / encroachment of weedy vegetation into nesting areas.	Physical and chemical control of weeds over approximately 2ha of potential nesting habitat.	Yes
Overgrowth / encroachment of weedy vegetation into nesting areas.	Monitor target weed density using methodologies outlined in the monitoring manual for Bitou Bush control and native plant recovery ( <a href="http://www.environment.nsw.gov.au/resources/pestsweeds/09352MManualStandardTier.pdf">http://www.environment.nsw.gov.au/resources/pestsweeds/09352MManualStandardTier.pdf</a> )	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement fox threat abatement plan (Fox TAP) for the Towra Point site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes

## Site summary

All actions implemented in full.

## Management site 2: Tathra Beach

LGA: Bega Valley

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
60 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$37,293

## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement fox threat abatement plan (Fox TAP) for the Tathra Beach site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Quantitative assessment of pest animal abundance/density/activity using appropriate methodology or qualitative estimate	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Monitor impacts of silver gulls and ravens on individual nest-sites and reactively control via appropriate method (e.g. egg destruction / poisoning / shooting) when/where required to minimise frequency of nest predation.	Yes

## Site summary

All actions implemented in full.

## Management site 3: Sawtell - Nambucca

LGA: Bellingen; Coffs Harbour; Nambucca

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
3 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$52,793

## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement fox threat abatement plan (Fox TAP) for the Bongil Bongil site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement the fox threat abatement plan (Fox TAP) for the Nambucca Heads site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes

## Site summary

All actions implemented in full.

## Management site 4: Lake Wollumboola

LGA: Shoalhaven

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
17 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$117,947



## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement fox threat abatement plan (Fox TAP) for the Lake Wollumboola site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Quantitative assessment of pest animal abundance/density/activity using appropriate methodology or qualitative estimate	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Monitor impacts of silver gulls and ravens on individual nest-sites and reactively control via appropriate method (e.g. egg destruction / poisoning / shooting) when/where required to minimise frequency of nest predation.	Yes

## Site summary

All actions implemented in full.

## Management site 5: Tuross Brou

LGA: Eurobodalla

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
62 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$25,075

## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement fox threat abatement plan (Fox TAP) for the Tuross Brou site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Quantitative assessment of pest animal abundance/density/activity using appropriate methodology or qualitative estimate	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Monitor impacts of silver gulls and ravens on individual nest-sites and reactively control via appropriate method (e.g. egg destruction / poisoning / shooting) when/where required to minimise frequency of nest predation.	Yes

## Site summary

All actions implemented in full.

## Management site 6: Hearnese Lake

LGA: Coffs Harbour

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
21 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$25,875

## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Nesting at flood-prone locations.	Assess habitat condition and proximity to high-water mark	Yes
Nesting at flood-prone locations.	Need to monitor nests and elevate nests where threatened by inundation. Requires physically building up nest sites using sand (taking before and after photos). Known to be successful.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement the fox threat abatement plan (Fox TAP) for the Hearn's Lake site.	Yes

## Site summary

All actions implemented in full.

## Management site 7: Wallagoot Lake

LGA: Bega Valley

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
0	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$23,936

## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	No
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	No
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement the fox threat abatement plan (Fox TAP) for the Wallagoot Lake site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Quantitative assessment of pest animal abundance/density/activity using appropriate methodology or qualitative estimate	No
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Monitor impacts of silver gulls and ravens on individual nest-sites and reactively control via appropriate method (e.g. egg destruction / poisoning / shooting) when/where required to minimise frequency of nest predation.	No

## Site summary

Site was monitored but no Little Terns used the site this season.

## Management site 8: Yuraygir South

LGA: Clarence Valley; Coffs Harbour

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
8 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$78,885



## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Nesting at flood-prone locations.	Need to monitor nests and elevate nests where threatened by inundation. Requires physically building up nest sites using sand (taking before and after photos). Known to be successful.	Yes
Nesting at flood-prone locations.	Assess habitat condition and proximity to high-water mark	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement the fox threat abatement plan (Fox TAP) for the Yuraygir South site.	Yes

## Site summary

All actions implemented in full.

## Management site 9: Manning River

LGA: Greater Taree

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
87 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$55,142

## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Nesting at flood-prone locations.	Assess habitat condition and proximity to high-water mark	Yes
Nesting at flood-prone locations.	Need to monitor nests and elevate nests where threatened by inundation. Requires physically building up nest sites using sand (taking before and after photos). Known to be successful.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement the fox threat abatement plan (Fox TAP) for the Manning River site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Quantitative assessment of pest animal abundance/density/activity using appropriate methodology or qualitative estimate	Partial
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Monitor impacts of silver gulls and ravens on individual nest-sites and reactively control via appropriate method (e.g. egg destruction / poisoning / shooting) when/where required to minimise frequency of nest predation.	Partial

## Site summary

All actions implemented.

## Management site 10: Conjola

LGA: Shoalhaven

Project partners: Office of Environment and Heritage

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### Species population monitoring action

*Reported trends are based on best available information*

Estimated population	Population monitoring conducted	Conducted by	Trend
40 breeding pairs (avg)	Yes	Office of Environment and Heritage	Unknown

### Investment

*This includes cash and in-kind contributions*

Project participant	Investment
Office of Environment and Heritage	\$33,245

## Project actions

The project actions below are those identified as being required in 2013-14 to secure the species in the wild

Threat	Management/monitoring action description	Implemented as planned?
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Monitor for evidence of direct disturbance on the species at the sites.	Yes
Disturbance to coastal feeding, nesting and roosting areas through beach-combing, fishing, dog-walking, horse-riding and 4WD vehicles; parents often leave the nest when approached, resulting in exposure of chicks or eggs.	Beach warden to coordinate continuous monitoring of known nesting sites and protect from / monitor human disturbance effects during the breeding season. Position also responsible for maintaining nest protection infrastructure (cages, fences) and promoting community awareness of the effects of disturbance on the species.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Implement the fox threat abatement plan (Fox TAP) for the Conjola site.	Yes
Predation of eggs and chicks by foxes, dogs, cats, black rats, silver gulls, ravens and raptors.	Monitoring of fox activity as per the relevant fox threat abatement plan (Fox TAP).	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Quantitative assessment of pest animal abundance/density/activity using appropriate methodology or qualitative estimate	Yes
Silver gulls / ravens depredating and disturbing nests, reducing reproductive success / recruitment.	Monitor impacts of silver gulls and ravens on individual nest-sites and reactively control via appropriate method (e.g. egg destruction / poisoning / shooting) when/where required to minimise frequency of nest predation.	Yes

## Site summary

All actions implemented in full.