

Report for Saratoga Wetland Bush Regeneration July 2019

In September 2018 Bangalow Bushland Management was engaged by CCC to undertake 868 hours of bush regeneration at Saratoga Wetland. An additional 520 hours of bush regen was allocated to the project in February 2019.

Description of Work

Zone 1

A thorough secondary sweep through this zone was undertaken targeting all sizes of Asparagus Fern.

One Sicilian Lavender was located here. CCC weeds Officer was notified and it was disposed of appropriately

Asparagus fern was dug out at the crown. The fronds were cut off and piled on site to dry out and die.

Zone 2

A secondary sweep through the areas that were treated in the previous project was undertaken. Only the larger secondary Asparagus Fern were treated. There are still thousands of very small Asparagus Fern

Large mature Asparagus fern were treated in this zone. The Asparagus Fern was dug out at the crown. The fronds were cut off and piled on site to dry out and die. 99% of mature Asparagus Fern has now been treated in this zone.

Small Acacia saligna, Senna pendula and Gazania were also treated in this Zone.

Acacia and Senna were cut at the base and poisoned with Rounup Biactive. Gazania was dug up and piled on site.

Some Juncus acutus was also treated in this area.

A pair of Brush Turkeys have moved into this zone and are now maintaining a nesting mound.

A fox was also seen in this zone in July 2019.

Zone 3&4

A thorough secondary sweep through this zone was undertaken targeting all sizes of Asparagus Fern.

Asparagus fern was dug out at the crown. The fronds were cut off and piled on site to dry out and die.

Some *Juncus acutus* was also treated in this area.

Zone 5&6

A thorough secondary sweep along the levee bank in this zone was undertaken targeting all sizes of Asparagus Fern.

Asparagus fern was dug out at the crown. The fronds were cut off and piled on site to dry out and die.

Some reshooting *Juncus acutus* growing along the retaining wall behind the residential properties were not treated during this project.

Zone 7

Juncus acutus growing on this island were sprayed with 1:100 Roundup Biactive at low tide.

Zone 8

A secondary treatment Asparagus Fern was undertaken in this area.

A large patch of *Juncus acutus* was located in this zone. The *Juncus acutus* was carefully hand weeded around the edges where it mixed in with the native *Juncus kraussii*. The isolated patches of *Juncus acutus* were then sprayed with Roundup Biactive at low tide. See photos 5 & 6.

Zone 9

A large patch of Lantana was isolated and sprayed with Roundup Biactive in this zone.

Mature Asparagus Fern was hand removed in this zone.

Recommendations

I recommend that all of the areas that have been treated for mature Asparagus Fern be monitored and maintained to prevent Asparagus Fern from taking over again. Buffalo Grass that is coming up in some treated areas of Zone 2 should be controlled before taking over.

Any mature Asparagus left in Zone 2 should be treated.

Areas previously containing Sicilian Sea Lavender should be continually monitored until all Sea Lavender is eradicated from the site.

Juncus acutus in all zones should be monitored and treated with the goal of eradicating it from the wetland.

Days Worked

| <u>Date</u> | <u>Personnel</u> | <u>Zone</u> | <u>Hours Worked</u> |
|-------------|---|-------------|---------------------|
| 12/9/18 | Zac, Djari, Ciel, Beth, Damien | | 32 |
| 14/9/18 | Zac, Djari, Beth, Ciel | | 28 |
| 18/9/18 | Zac, Djari, Ciel, Beth, Damien | | 31 |
| 19/9/18 | Zac, Djari, Beth, Ciel | | 27 |
| 25/9/18 | Zac, Djari, Beth, Ciel, Damien | | 32 |
| 27/9/18 | Zac, Djari, Beth, Ciel, Damien | | 31 |
| 2/10/18 | Zac, Beth, Ciel, Djari | | 28 |
| 9/10/18 | Zac, Dorian, Beth, Ciel, Damien | | 31 |
| 11/10/18 | Zac, Djari, Beth, Ciel, Damien | | 27 |
| 16/10/18 | Zac, Djari, Beth, Ciel, Damien | | 31 |
| 26/10/18 | Zac, Djari, Beth, Ciel, Damien | | 32 |
| 15/11/18 | Zac, Djari, Ciel, Beth, Ron, Damien | | 37 |
| 22/11/18 | Zac, Djari, Ciel, Beth, Ron, Damien | | 39 |
| 29/11/18 | Zac, Djari, Ciel, Beth, Ron, Damien | | 39 |
| 13/11/18 | Zac, Djari, Ciel, Beth, Ron, Damien | | 38 |
| 15/1/19 | Zac, Beth, Djari, Ciel, Damien | | 30 |
| 29/1/19 | Zac, Beth, Djari, Ciel, Damien | | 31 |
| 6/2/19 | Zac, Beth, Djari, Ciel, Damien | | 32 |
| 7/2/19 | Zac, Djari, Ciel, Beth, Ron, Damien | | 38 |
| 5/3/19 | Zac, Djari, Ciel, Beth, Damien | | 32 |
| 13/3/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 40 |
| 19/3/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 39 |
| 4/4/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 37 |
| 10/4/19 | Zac, Ciel, Tony | | 21 |
| 16/4/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 37 |
| 18/4/19 | Zac, Djari, Ciel, Beth, Tony, Ron, Damien | | 36 |
| 23/4/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 37 |
| 16/5/19 | Zac, Djari, Ciel, Beth, Tony, Ron, Damien | | 45 |
| 22/5/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 38 |
| 29/5/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 36 |
| 3/6/19 | Zac, Djari | | 14 |

| | | | |
|---------|---|--|-------------|
| 11/6/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 38 |
| 12/6/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 38 |
| 13/6/19 | Zac, Djari, Ciel, Beth, Tony, Ron, Damien | | 36 |
| 18/6/19 | Zac, Djari, Ciel, Beth, Tony, Damien | | 38 |
| 23/7/19 | Zac, Djari, Ciel, Beth, Damien | | 31 |
| 25/7/19 | Zac, Djari, Beth, Damien | | 24 |
| 26/7/19 | Zac, Beth, Djari, Ciel, Damien | | 32 |
| 7/8/19 | Ciel, Beth, Damien | | 17 |
| 12/8/19 | Zac, Djari | | 14 |
| 13/8/19 | Zac, Djari, Ciel, Beth, Damien | | 32 |
| 14/8/19 | Zac, Djari, Ciel, Beth, Damien | | 32 |
| 16/8/19 | Zac, Djari, Beth, Damien | | 24 |
| | Reporting | | 6 |
| | | | |
| | TOTAL | | 1388 |
| | | | |

Zone Map:



Photos



Photo 1: Zone 2 Asparagus Fern. Before Primary weeding Treatment



Photo 2: The same area as Photo 1 after the Asparagus Fern was hand removed



Photo 3: Zone 9 Asparagus Fern before treatment



Photo 4: The same area as Photo 3 after Asparagus Fern was treated



Photo 5: Zone 8 *Juncus acutus* hand weeded along edge before spraying



Photo 6: Zone 8 *Juncus acutus* with hand weeded edge on the right.



Photo 7: Zone 2 thick Asparagus Fern before treatment



Photo 8: Zone 2 same area as photo 7 after the asparagus was treated

**WHS FORM
PESTICIDE APPLICATION
RECORD SHEET**



| | | | |
|---|---|--|-------------------------------------|
| Application Date | 26-7-19 | From | |
| Name of Applicator | Damon Moly | Name of Supervisor | Damon Moly |
| Start Time: | 9am | Finish Time: | 10:30 am |
| CHEMICAL 1 | | CHEMICAL 2 | |
| Chemical Name | ROUNDUP BIACTIVE | Chemical Name | |
| Active Constituent | Glyphosate 360 | Active Constituent | |
| Type of Chemical | | Type of Chemical | |
| Manufacturer | | Manufacturer | |
| Batch Number | | Batch Number | |
| APPLICATION INFORMATION | | | |
| Type of area treated | WETLAND | Area of application | |
| Location of treated area: | SARATOGA WETLAND | WILLARDS RD | SARATOGA |
| Target Pest | JUNCUS ACUTUS | Application Method | SPRAY / BACKPACK |
| APPLICATION SETTING | | | |
| Bar | RPM | Nozzle colour | |
| Rate of Application Chem 1 | Per Ha | Per 100m ² | |
| Chemical to water ratio | 1L | Per 100L | Litres of Water |
| Rate of Application Chem 2 | Per Ha | Per 100m ² | |
| Chemical to water ratio | Per | Litres of Water | |
| Quantity of Chemical mix applied (Lts) | 25L | | |
| Any additives used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | |
| WEATHER CONDITIONS AT START OF SPRAYING | | | |
| Temperature | 21°C | Wind Speed | 5 Kms |
| Wind Direction | NE | Humidity % | Delta 1 |
| Fine <input checked="" type="checkbox"/> Overcast <input type="checkbox"/> | Rain (last 24hrs) | mm | Humidity % |
| Tide: high <input type="checkbox"/> m | Low <input checked="" type="checkbox"/> | Delta T | |
| Any weather changes during spraying? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | |
| Irrigation Requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | |
| WEATHER CONDITIONS AT COMPLETION OF SPRAYING | | | |
| Temperature | | Wind Speed | Kms |
| Wind Direction | | Humidity % | Delta 1 |
| Fine <input checked="" type="checkbox"/> Overcast <input type="checkbox"/> | Rain (post 24hrs) | mm | Humidity % |
| Any environmental incidents during application? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | |
| Any WHS incidents during application? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | | | |
| PPE and Safety Data Sheets | | | |
| SDS number/s: | | Mark "X" below for PPE as reflected in the SDS | |
| Apron | Respirator | Face Mask | Goggles |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Gloves | Overalls | Boots | Hat |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| As the applicator of the above mentioned chemical, I hereby certify that I have read the above information and the chemical label and confirm that the chemical was applied in complete accordance with the label instructions. | | | |
| Signature: | Date: 26-7-19 | | Job No: |
| Comments: | | | |

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