

**ESCA RP Weed Monitoring Report**

**Date:** November 27, 2012

**Prepared by:** Danielle Muir, ESCA RP Biologist

**MRA/Parcel and Specific Locations Monitored:** Future East Garrison Munitions Response Area (MRA), Interim Action Ranges MRA, and Seaside MRA

**Monitoring Personnel:** Danielle Muir and Cynthia Fenter

**Date Monitored:** November 26-27, 2012

**Monitoring Protocol/procedure:**

Field personnel identified and located pampas grass individuals (*Cortaderia jubata*, *selloana*) by visual inspection in habitat parcels and in development parcels where pampas grass plants had the potential to spread to habitat parcels.

**Results:**

Several pampas grass plants were located and GPS coordinates were taken. Approximately 20 pampas grass plants were observed in Future East Garrison MRA, 25 pampas grass plants were observed in IAR MRA and 21 pampas grass plants were observed in Seaside MRA. Inflorescences containing seed heads were removed from the pampas grass plants using garden shears. The seed heads were placed in garbage bags and removed from the site.

**Recommendations for ESCA parcels:**

Soil disturbance exacerbates the spread of pampas grass and provides openings for seed germination, a concern in ESCA habitat parcels and immediately surrounding areas. In areas of soil disturbances resulting from investigation for munitions and explosives of concern (MEC) and associated remediation activities, entire pampas grass plants should be removed prior to seed set. The plants should be removed with shovels or backhoes, depending on plant size. Herbicide application by licensed applicators is another option for pampas grass removal.

**Field Documentation (logbook citations, maps, photos, etc.):**

Field notes: FN DYM 2012 11 26-27, FN CJF 2012 11 26-27

Photos: see attached photo

Figure: see attached figure

**Reviewed by:** Mary Carroll, Senior Qualified Biologist

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Photo 1: Pampas grass seed head removal in Seaside MRA



Photo 2: Pampas grass seed head removal in Interim Action Ranges MRA vegetation pile

**ESCA RP Weed Monitoring Report**

**Date:** March 11, 2013

**Prepared by:** Danielle Muir, ESCA RP Biologist

**MRA/Parcel and Specific Locations Monitored:** Seaside Munitions Response Area (MRA), Blue Line Road

**Monitoring Personnel:** Danielle Muir and Joshua Tallis

**Date Monitored:** March 4, 2013

**Monitoring Protocol/procedure:** Weed monitoring was conducted by visual inspection along the Blue Line road in the Seaside MRA. Consistent with monitoring efforts conducted in previous years in this area, French broom (*Genista monspessulana*), ice plant (*Carpobrotus edulis*) and pampas grass (*Cortaderia jubata*, *C. selloana*) were monitored for the potential to recruit across the boundary-land interface (borderland boundary or blue line).

**Results:**

No French broom was observed during this monitoring effort. Approximately X pampas grass plants were observed however, seed heads were removed November 26-27, 2012. (See November 26-27, 2012 monitoring report)

Ice plant was observed commonly in all of the Seaside MRA along the Blue Line Road and on either side of the fence line (Photo 1). In some locations it was observed that ice plant has been abated with herbicide application on the east side of the blue line road (Photo 2).

**Recommendations:**

The ESCA RP is responsible for monitoring and controlling French broom, ice plant, and pampas grass infestations that occur in areas of soil disturbances resulting from munitions and explosives of concern (MEC) investigation and remediation activities by ESCA RP personnel in the ESCA parcels. The main goal of weed management is to control invasive weed populations in habitat parcels, in areas adjacent to habitat parcels, and along the boundary-land interface to minimize degradation of habitat quality and/or sensitive plant populations. Additionally, monitoring, and where necessary abating, invasive weed populations in development parcels will help to eliminate or minimize dispersal across the blue line into the adjacent Natural Resource Mitigation Area.

Ice plant is abundant in the Seaside MRA and was pre-existing prior to ESCA RP activities. However, it is recommended that ESCA RP remove or spray ice plant with herbicides along the west side of the Inland Impact Ranges fence line in locations where it has been recently treated on the east side of the fence line. This would ensure that the ice plant was not recruiting back across the borderland boundary/blue line into the habitat parcel, where it has been abated.

**Field Documentation (logbook citations, maps, photos, etc.):**

Field notes: FN JTT 2013 03 04 and FN DYM 2013 03 04

Photos: See attached

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Reviewed by: Mary Carroll, ESCA RP Senior Biologist



**Photo 1: Ice plant observed on either side of the Blue Line Road**



**Photo 2: Ice plant abated with herbicide on the east side of the Blue Line Road**

## ESCA RP Weed Abatement Report

**Date:** June 12-14, 2013

**Prepared by:** Danielle Muir, ESCA RP Biologist

**MRA/Parcel and Specific Locations Monitored:** Future East Garrison (FEG) Munitions Response Area (MRA), Interim Action Ranges (IAR) MRA, and Seaside MRA

**Personnel:** Danielle Muir, Cynthia Fenter ESCA RP Biologist, and Steve Hendricks Weston Solutions UXO support

### Abatement procedure:

Field personnel located pampas grass individuals (*Cortaderia jubata*, *Cortaderia selloana*) using GPS coordinates taken in November 2012 (see November 2012 monitoring report). Additional pampas grass individuals were identified by visual inspection. Pampas grass individuals in habitat parcels and in development parcels where plants had the potential to spread to habitat parcels, were manually abated. Small and medium sized plants were removed using shovels. (See Photos A and B) Larger plants where access was available were removed with a backhoe. All plants were dug up and turned so that they would dry out and not re-root. If any seed heads were observed they were cut and placed in garbage bags to prevent seed from dispersing. Biologist surveyed the area around the plants prior to removal. Sensitive resources were avoided during pampas grass abatement. Biologists ensured that disturbance was kept to a minimum and that the backhoe used the same route in and out of the locations of pampas grass abatement. See photos 1-5.

### Results:

55 pampas grass plants were abated in FEG MRA, 43 in habitat parcels and 12 pampas grass plants in the development parcel. 33 pampas grass plants were abated in IAR MRA, 23 in the habitat parcel and 9 in the development parcel. 23 pampas grass plants were abated in Seaside MRA.

### Recommendations for ESCA parcels:

ESCA RP personnel should return to the locations of the pampas grass abatement to ensure plants have dried out and not re-rooted. Additional monitoring for seedlings should also be done around abated plants and downwind of abated plants.

### Field Documentation (logbook citations, maps, photos, etc.):

Field notes: FN DYM 2013 06 12-14, FN CJF 2013 06 12-13

Photos: see attached photo

Figure: see attached figure

**Reviewed by:** Mary Carroll, Senior Qualified Biologist

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Photo 1: Pampas grass plants abated using shovels.



Photo 2: Pampas grass plant turned over once removed.



Photo 3: Pampas grass plants abated with shovels.



Photo 4: Pampas grass abated with backhoe.



Photo 5: Pampas grass abated with backhoe.



**ESCA RP Weed Monitoring Report**

Date: November 7, 2013

Prepared by: Joshua Tallis

MRA/Parcel and Specific Locations Monitored: Future East Garrison MRA / northeast portion of parcel E11b.7.1.1, near *Eucalyptus* stand.

Monitoring Personnel: Mary Carroll, Danielle Muir, Joshua Tallis, and Mitch Siemens

Date Monitored: July 16, 2013 and September 30, 2013

Monitoring Protocol/procedure: Approximately ten veldt grass (*Ehrharta calycina*) plants were observed in close proximity (within 10 feet [3 meters] of each other) by Mary Carroll and Danielle Muir on July 16, 2013 just outside the boundary of the FEG MRA on the east side of the roadway about ¼ mile (0.4 kilometer) northwest of the turnoff to the tank wash area along Crescent Bluff Drive (near *Eucalyptus* stand).

This location was revisited on September 30, 2013 by four ESCA RP biologists. Mary Carroll and Mitch Siemens provided training to Danielle Muir and Joshua Tallis in grass species identification, and then the team surveyed suitable nearby areas in the FEG MRA for additional individuals of veldt grass. The survey area is presented in Figure 1.

Results: No new veldt plants were identified.

Abatement: Existing veldt grass plants were not abated and are currently growing in cracked asphalt just outside the FEG MRA.

Recommendations: While manual removal is possible for perennial veldt grass, it is recommended to that the plants be treated with an appropriate herbicide because the plants are growing in asphalt on the edge of the road where complete manual removal would be difficult. Subsequent visual surveys should be conducted in northeast FEG MRA each spring when the flowering structures of the plants are readily visible and before seed has set. Abatement should be implemented immediately if additional plants are observed.

Field Documentation (logbook citations, maps, photos, etc.): Field notes in JTT Fort Ord#13; Mary Carroll field notes and photographs from July 16 and September 30, 2013

Photos: See attached photographs

Maps: See Figure 1

Reviewed by: Mary Carroll



Photograph 1: Veldt grass individual growing in asphalt at side of road just outside FEG MRA.



Photograph 2: Several isolated clumps of veldt grass grow up and through deerweed and other plants within 20 feet of each other in this location.