

**North Golden Gate Estates
Regional Offsite Mitigation Area
NGGE ROMA**

**NGGE ROMA 2011 Monitoring Report
(4th Annual)**



prepared by:

Collier Soil and Water Conservation District

prepared for:

**Florida Department of Environmental Protection
and**

**Florida Department of Agriculture and Consumer Services,
Division of Forestry**

05 December 2011

North Golden Gate Estates Regional Offsite Mitigation Area: NGGE ROMA

NGGE ROMA 2011 Monitoring Report (4th Annual)

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Submitted by: Collier Soil and water Conservation District

INTRODUCTION

Collier Soil and Water Conservation District (CSWCD) entered into a Memorandum of Agreement (MOA) with the Department of Environmental Protection (DEP) and the Florida Division of Forestry (DOF) in September 2005 to create the North Golden Gate Estates – Regional Offsite Mitigation Area (NGGE ROMA), as shown in Figures 1 and 2. This report is the 3rd Annual monitoring and reporting of vegetative conditions on the NGGE ROMA area.

SITE DESCRIPTION

Picayune Strand State Forest (PSSF) is approximately a 70,000 acre property located in central Collier County (Figure 1) comprised of two large tracts known as Southern Golden Gate Estates (SGGE) and South Belle Meade (SBM). NGGE ROMA is a 212.4 acre site located within the SBM tract of the PSSF in Section 16, Township 50, Range 27 (Figure 2). The site was described in NGGE ROMA creation documents using a Uniform Mitigation Assessment Method (UMAM) evaluation as 192.8 acres of hydric-pine and cypress flatwoods and 19.6 acres of mesic pine/cypress/palmetto flatwoods.

METHODS

Twenty (20) permanent circular sampling points were established on north-south and east-west transect lines around and through the parcel. Sampling points were established at approximately 100 meters apart. Sampling points were also arranged based on a Melaleuca density map that was prepared by a previous mapping effort with PSSF DOF (Figure 3). Information was entered into ArcGIS 9 for report preparation and for utilization with handheld field computers.

Each circular sampling point was measured for a 1/10 acre area using the “sample point” as the center of a 37 foot radius circle. Each plant in the canopy, sub-canopy and groundcover stratum were identified and percentage of aerial cover was estimated, as described in Florida Statutes 62-340.

RESULTS

The site was visited on 29,30 November 2011. Field sheets and photos for each sample point are in Appendix A and B, respectively. For this monitoring period the ROMA area has been classified into 6 parcels- A through F (Figure 3). Generally, conditions were wet with more than half of the area with standing surface water. In the dryer areas it was evident some inundation had occurred.

Wading bird utilization of the area appeared to continue in the wetter areas. Flocks of 30-50 were noted of multiple species.

2011, the A area of 162 acres was inspected October 2010 and follow up treatment was not required. Exotics were below 5% coverage in all levels. Retreatment of the C area of 10 acres was completed 16 December 2010. Initial treatment of the B area of 11.7 acres was completed 14 January 2011. Areas D, E and F are untreated.

2010, the 1st follow up work on the A area -162 acre block was completed on 11 February 2010. Initial treatment on the C area-10 acre block was completed 26 February 2010. Areas A, D, E and F were untreated. (Figure 3 and 4).

2009, Initial treatment of the A area-162 acre block was completed.

2007, very hot wildfire burns through ROMA area. Wildfire kills most of canopy and sub canopy vegetation. Groundcover is incinerated so that mineral soil is exposed. Wetter cypress area to the north did not burn.

Treatment utilizes the herbicide Triclopyr. Canopy trees are girdled and treated with Triclopyr. Sub canopy and ground cover plants were cut and the stems treated with Triclopyr.

Figure 5 quantifies the areal coverage by sample plot and species for this monitoring period. Figure 6 quantifies the change in areal coverage by strata by sample point by year since monitoring was started in 2007.

A Block. For this monitoring period, the total areal coverages of the A area -162 acre block area for exotics continues to be maintained <5% for all strata after an initial treatment and 1 follow up. Canopy and sub canopy areal coverages for natural species appear to be holding a constant level. Ground cover natural species continue to increase in biomass and area covered.

B Block. The 11.7 acres of B Block has an areal coverage of exotics of approximately 25% in the ground cover after initial treatment. The area was heavily impacted after treatment in January 2011 and was heavily infested with Melaleuca. Natural species increased after the initial treatment due to the daylighting and removal of competition which offset the reduction in exotics causing the areal coverage to remain approximately the same.

The C block of 10 acres after initial treatment and 1 follow up has exotics at an areal coverage of approximately 7% in the ground cover only. Canopy and sub canopy show no change. Increase in natural species in the ground cover have offset the decrease in exotics for the total areal coverage.

The increase in ground water and longer hydroperiod have facilitated the increase in natural species in all the treated blocks.

For the entire 212 acre area, the canopy areal coverage compared to the last monitoring event of 2010 the coverage dropped approximately another 1.6% in total average coverage to 14.7%. The sub canopy areal coverage for the entire area dropped 1.8% to 18.5%.

Ground cover areal coverage has continued to increase this monitoring period of 12.1 percent to 146%. Most notable this period is the increase in *Andropogon virginicus*. The increase in daylighting and the removal of exotics combined with increased flooding of the area this period appears to be the reasons for the increase.

CONCLUSIONS / DISCUSSION

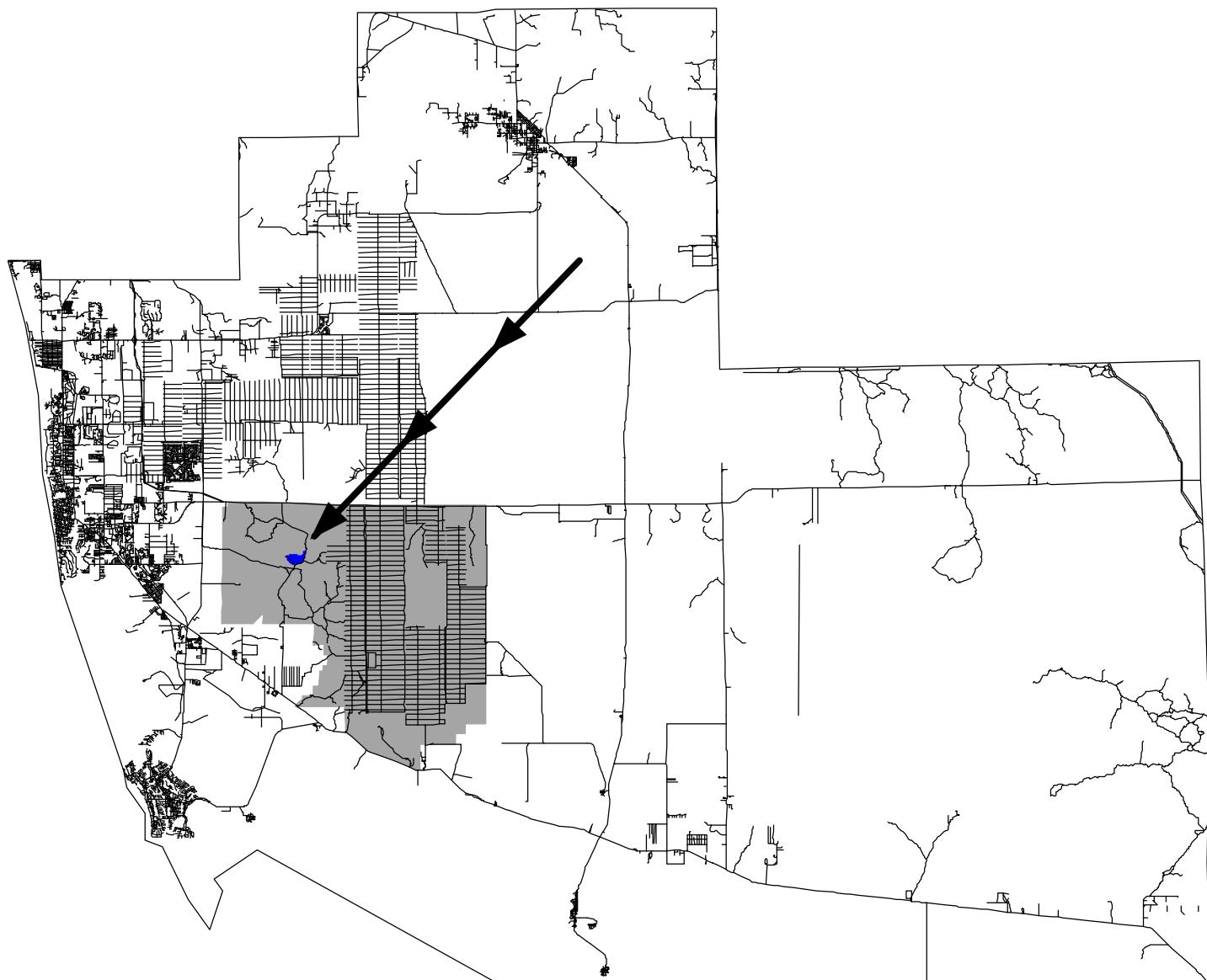
Areal coverage over the whole continues to drop in the canopy and sub canopy which is expected as exotics are removed. This decrease is due to the removal of exotics in the canopy and sub canopy over the last 2 years. It is expected that it will take 10 years or more for natural species to enter the canopy, and 4-5 years for the sub canopy to start increasing.

Ground cover aerial coverage increased by 12.1% compared to the last monitoring report to approximately 146% total. Factors leading to this increase appear to be the increased day lighting created by the removal of the canopy and sub-canopy by the 2007 wildfire, and the removal of exotics from the canopy, sub canopy and ground cover.

Burning of the A and C area is recommended for the 2012 period if conditions allow. First follow up retreatment is recommended for the B area for 2012. The remaining 30 acres in areas D, E, and F require initial treatment.

PROJECT LOCATION MAP

Roads
NGGE ROMA
Picayne Strand State Forest Proposed Boundary



COLLIER COUNTY, FL

5 0 5 10 15 Miles



PROJECT: NGGE ROMA

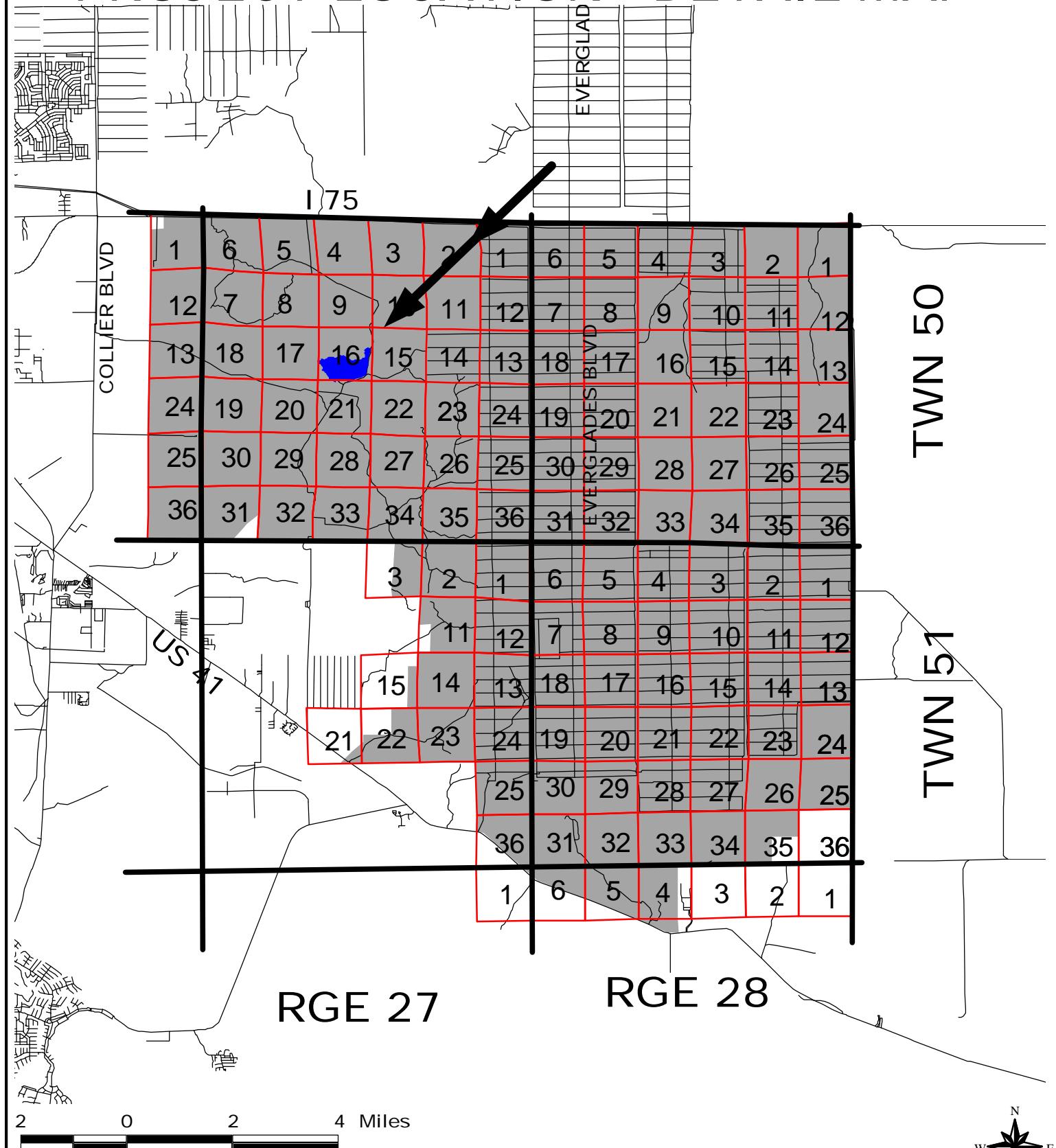
Figure 1. Project Location Map;

NGGE ROMA; Sections Sec 16, Twn 50, Rge 27;
totaling approx. 212 acres.

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Conservation District
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PROJECT LOCATION - DETAIL MAP



PROJECT: NGGE ROMA

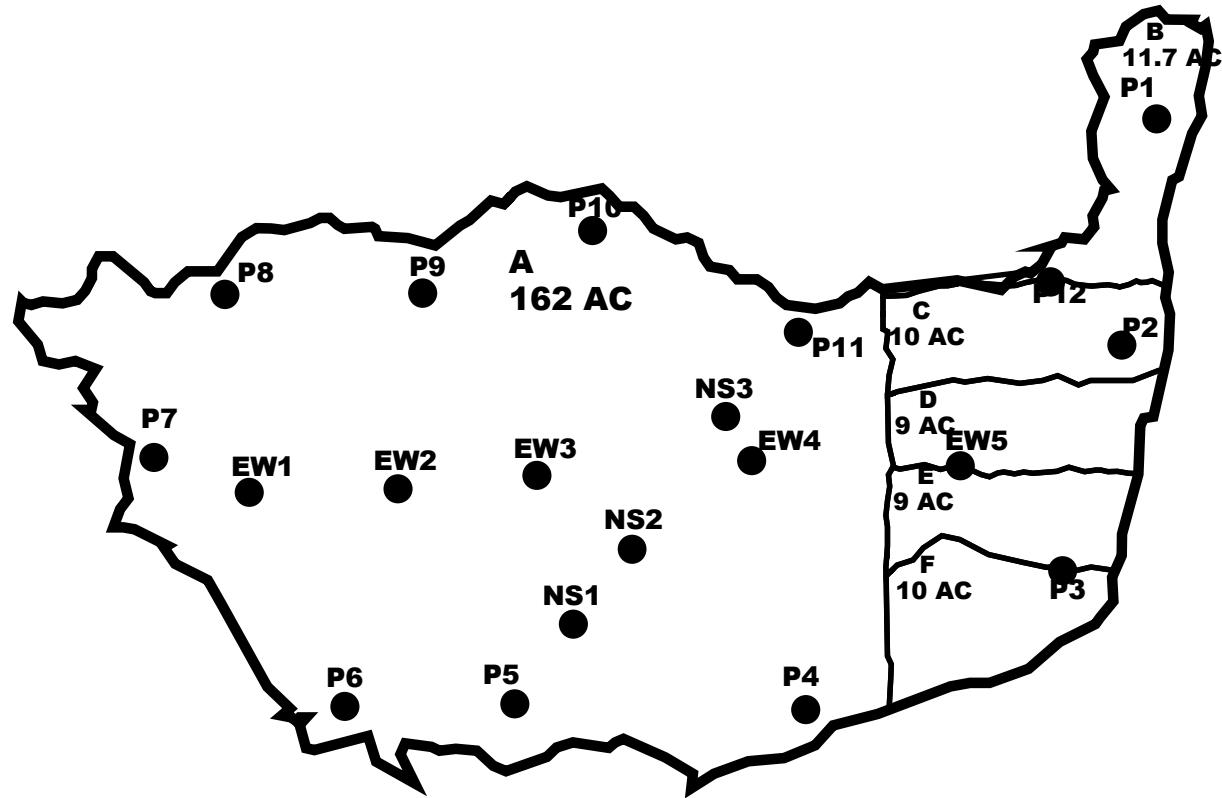
Figure 2. Project Location Detail Map;

NGGE ROMA; Sections Sec 16, Twin 50, Rge 27;
totaling approx. 212 acres.

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NGGE ROMA MONITORING SAMPLE POINT LOCATIONS



PROJECT: NGGE ROMA 2011 MONITORING REPORT



Figure 3. NGGE ROMA Monitiroing Sample Points location map.

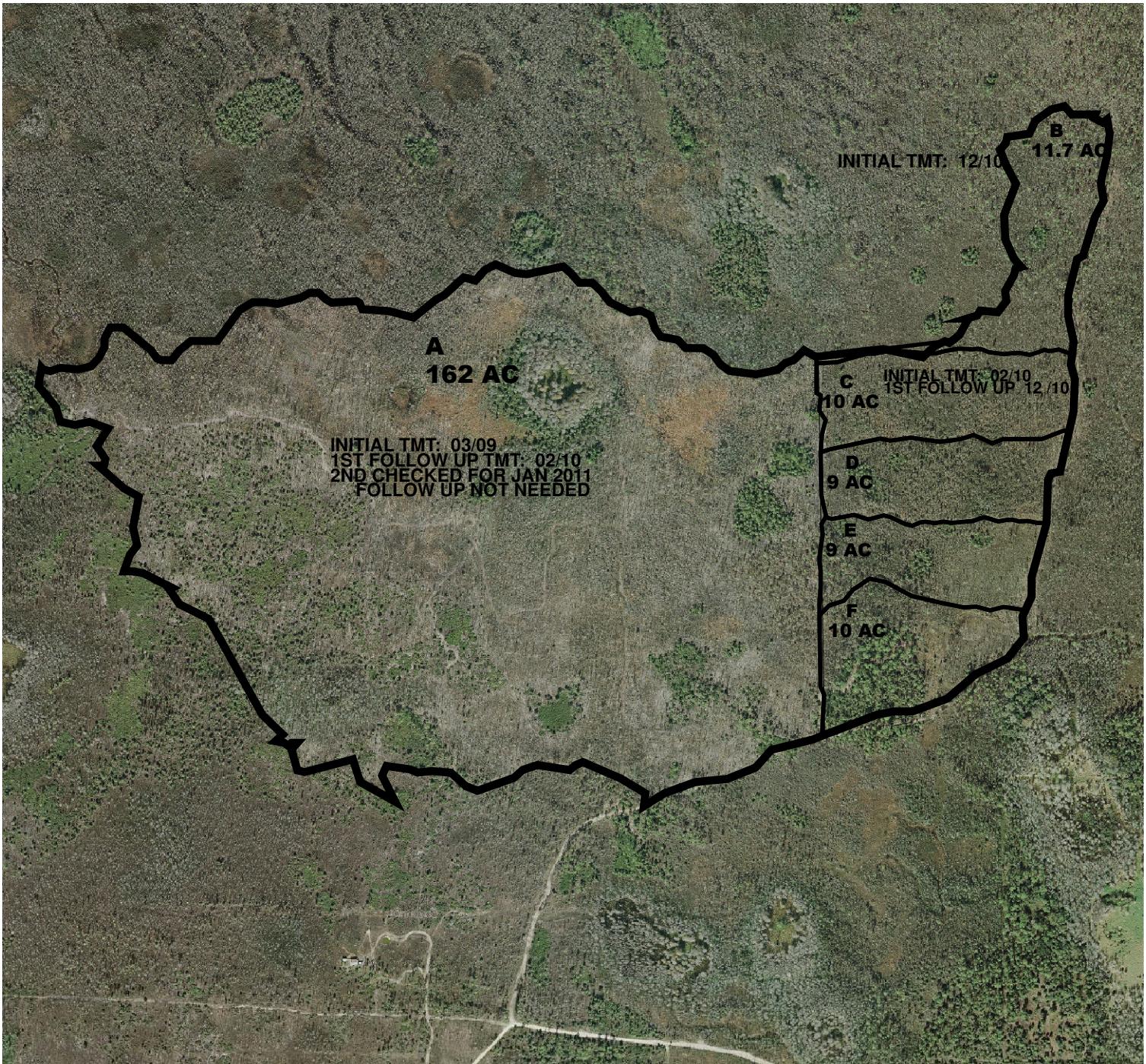
NGGE ROMA; Sections Sec 16, Twn 50, Rge 27; totaling approx. 212 acres.

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TREATED / NOT TREATED AREAS-AERIAL



PROJECT: NGGE ROMA 2011 MONITORING REPORT



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Figure 4. Treated / Not treated areas; 2011 Nov; aerial map taken Jan. 2010.

NGGE ROMA; Sections Sec 16, Twn 50, Rge 27; totaling approx. 212 acres.

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AVERAGE AERIAL COVERAGE OF SAMPLE POINT SPECIES 2011

2011 NOVEMBER
CANOPY

Sample Point No.	Original Melaleuca Density	Crown Cover %			
		Pinus ellotti v. densa	Sabal palmetto	Melaleuca quinquenervia	Taxodium distichium
(Fac/Up)	(Fac)	(Fac)	(Obl)		
EW1	Low		15		
EW2	Medium				
EW3	Medium			25	
EW4	High	15			15
EW5	High			15	
NS1	High	3			
NS2	Medium				
NS3	High			25	
P1	Low	7			15
P2	Medium				
P3	High		3		
P4	Medium	7	15		7
P5	Medium				
P6	Medium	7			
P7	Medium		45		
P8	Medium				
P9	Low				35
P10	Medium	7			
P11	High				25
P12	High		7		
Average:		8	17	15	21
Maximum:		15	45	15	35
Minimum:		0	0	0	0

SUB CANOPY

Sample Point No.	Original Melaleuca Density	Crown Cover %			
		Pinus ellotti v. densa	Sabal palmetto	Melaleuca quinquenervia	Taxodium distichium
(Fac/Up)	(Fac)	(Fac)	(Obl)		
EW1	Low		7		7
EW2	Medium				15
EW3	Medium			25	
EW4	High			35	
EW5	High			65	3
NS1	High				
NS2	Medium			15	
NS3	High			15	
P1	Low			15	
P2	Medium			7	
P3	High		3		7
P4	Medium	7	7		7
P5	Medium			15	
P6	Medium			15	
P7	Medium		35		
P8	Medium				25
P9	Low				3
P10	Medium				7
P11	High			15	
P12	High				15
Average:		7	13	65	14
Maximum:		7	35	65	35
Minimum:		0	0	0	0

PROJECT: NGGE ROMA 2011 MONITORING REPORT

Figure 5. Aerial coverage's by strata for each sample point on the NGGE ROMA November 2011.

NGGE ROMA: Sec. 16. Twn 50, Rge 27; totaling approx. 212 acres.

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AVERAGE AERIAL COVERAGE OF SAMPLE POINT SPECIES 2011

GROUND COVER

Sample Point No.	Original Melaleuca Density	Crown Cover %											
		FU	F	3	F	25	3	F	55	7	F	3	F
P1	Low					7	45		3	3		3	
P2	Medium					15	35	15	3	3		7	
P3 T	High	7	7	7	0	25	15	15	3	3	3	15	7
P4	Medium	3	3	0	0	7	7	7	7	7	35	25	15
P5	Medium	3	7	15	0	35	15	15	3	25	3	3	15
P6	Medium	15	15	3	15	3	25			25	3	45	7
P7	Medium	3	3	3	3	25			3	7	3	7	7
P8	Medium	3	3	0	0	35	3	7	15	15	3	15	15
P9	Low					0	35	3	3	25		25	15
P10	Medium	3	3	3	3	35	35	35	7	7	35	3	15
P11	High	3	3	0	0	35	35	35	3	3	15	15	3
P12	High	25	7	3	25	45	7	3	3	15	15	15	7
EW1	Low					0	55	7	3	25	25	25	15
EW2	Medium	3	25	0	0	0	3	3	3	3	3	3	25
EW3	Medium	25	0	0	0	35	35	35	15	15	65	15	15
EW4	High	7	3	55	35	3	3	3	15	15	35	15	15
EW5	High	0	0	0	0	25	7	7	7	7	55	7	3
NS1	High					3	7	45	7	7	35	3	25
NS2	Medium					0	0	0	0	0	0	0	0
NS3	High					0	0	0	0	0	0	0	0
Average:		5	9	8	3	6	15	32	14	3	16	3	13
Maximum:		7	25	15	3	55	55	3	7	3	35	3	29
Minimum:		0	0	0	0	0	0	0	0	0	0	0	4

GROUND COVER CONTINUED

Sample Point No.	Original Melaleuca Density	Crown Cover %											
		FW	FW	3	FW								
P1	Low												
P2	Medium												
P3 T	High	7	3	7	3	7	3	3	3	15	15	15	25
P4	Medium	7	7	7	3	3	3	3	3	15	15	15	3
P5	Medium	7	7	7	7	7	7	7	7	7	7	7	7
P6	Medium	7	3	3	3	3	3	3	3	3	3	3	3
P7	Medium	7	3	3	3	3	3	3	3	3	3	3	3
P8	Medium	7	3	3	3	3	3	3	3	3	3	3	3
P9	Low												
P10	Medium												
P11	High												
P12	High												
EW1	Low												
EW2	Medium												
EW3	Medium												
EW4	High												
EW5	High												
NS1	High												
NS2	Medium												
NS3	High												
Average:		7	5	4	0	0	8	3	4	4	12	7	3
Maximum:		7	7	7	0	0	15	3	7	7	25	7	0
Minimum:		0	0	0	0	0	0	0	0	0	0	0	0

PROJECT: NGGE ROMA 2011 MONITORING REPORT

Figure 5. Continued, November 2011.

NGGE ROMA: Sec. 16, Twin 50, Rge 27; totaling approx. 212 acres.

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AVERAGE AERIAL COVERAGE OF SAMPLE POINTS 2011

CANOPY	2007 CANOPY TOTAL % AERIAL COVERAGE	2008 CANOPY TOTAL % AERIAL COVERAGE	2009 APR CANOPY TOTAL % AERIAL COVERAGE	2009 NOV CANOPY TOTAL % AERIAL COVERAGE	2010 CANOPY TOTAL % AERIAL COVERAGE	2011 CANOPY TOTAL % AERIAL COVERAGE
P1	40	22	22	22	29	15
P2	48	45	45	45	0	0
P3 T	35	3	3	3	3	25
P4	75	55	55	47	47	30
P5	0	7	7	0	0	15
P6	10	35	35	14	14	3
P7	42	80	80	45	45	0
P8	22	25	25	0	0	25
P9	50	60	60	35	35	22
P10	22	32	32	7	7	0
P11	70	60	60	25	25	3
P12	22	39	39	35	7	29
EW1	28	40	40	15	15	0
EW2	15	25	25	0	0	7
EW3	40	50	50	25	25	45
EW4	65	35	35	30	30	0
EW5	7	15	15	15	15	35
NS1	3	0	0	3	3	7
NS2	0	0	0	0	0	25
NS3	80	0	25	25	25	7
	33.7	31.4	32.7	19.6	16.3	14.7
CHANGE FROM PRIOR YEAR:	(2.3)	1.3	(13.1)	(3.3)	(1.6)	

SUB CANOPY	2007 SUB CANOPY TOTAL % AERIAL COVERAGE	2008 SUB CANOPY TOTAL % AERIAL COVERAGE	2009 APR SUB CANOPY TOTAL % AERIAL COVERAGE	2009 NOV SUB CANOPY TOTAL % AERIAL COVERAGE	2010 SUB CANOPY TOTAL % AERIAL COVERAGE	2011 SUB CANOPY TOTAL % AERIAL COVERAGE
P1	28	22	22	22	22	14
P2	42	42	42	42	7	15
P3 T	62	10	10	10	13	25
P4	18	18	3	47	47	35
P5	38	38	3	7	15	68
P6	15	35	0	0	15	0
P7	18	60	35	35	35	15
P8	30	70	15	15	25	15
P9	32	25	0	3	3	15
P10	18	22	7	7	7	7
P11	62	40	15	15	15	10
P12	45	45	45	45	15	21
EW1	48	55	0	7	14	15
EW2	28	28	3	3	15	15
EW3	22	40	25	32	25	35
EW4	30	60	25	25	35	25
EW5	35	68	68	68	68	3
NS1	25	25	0	0	0	7
NS2	30	50	15	15	15	15
NS3	40	22	7	7	15	15
	33.3	38.75	17	20.25	20.3	18.5
CHANGE FROM PRIOR YEAR:	5.5	(21.8)	3.3	0.1	(1.8)	

GROUND COVER	2007 GRD COVER TOTAL % AERIAL COVERAGE	2008 GRD COVER TOTAL % AERIAL COVERAGE	2009 APR GRD COVER TOTAL % AERIAL COVERAGE	2009 NOV GRD COVER TOTAL % AERIAL COVERAGE	2010 GRD COVER TOTAL % AERIAL COVERAGE	2011 GRD COVER TOTAL % AERIAL COVERAGE
P1	58	140	140	141	151	149
P2	48	62	62	97	105	109
P3 T	78	68	68	150	154	143
P4	92	128	88	248	251	254
P5	50	138	90	114	142	160
P6	69	110	92	96	126	155
P7	94	126	104	122	137	141
P8	35	81	61	90	116	116
P9	24	118	106	121	123	145
P10	24	100	50	87	83	117
P11	19	181	131	131	129	117
P12	84	70	70	84	63	109
EW1	100	157	149	172	229	218
EW2	97	91	31	46	91	138
EW3	119	159	137	136	148	165
EW4	67	82	74	95	148	147
EW5	68	71	71	74	74	115
NS1	73	97	69	94	125	118
NS2	81	106	78	98	123	130
NS3	34	125	95	159	160	174
	65.7	110.5	88.3	117.75	133.9	146
CHANGE FROM PRIOR YEAR:	44.8	(22.2)	29.5	16.2	12.1	

PROJECT: NGGE ROMA 2011 MONITORING REPORT

Figure 6. Comparison of aerial coverage averages for the canopy, sub-canopy And ground cover test plots, November 2011.

NGGE ROMA: Sec. 16. Twn 50, Rge 27; totaling approx. 212 acres.

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APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: EW1

Original Density Code: LOW

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 625 HYDRIC PINE

CANOPY

10-20% % FAC	%	FAC W
% PINUS ELLOTTII V DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)	—%	
0% MELALEUCA QUINQUENERVIA(F)	GIRDLED	
% ACACIA AURICULIFORMES(F)	—%	
Other	Other	

0	%	OBL
0	—%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)	
—%	ILEX CASSINE (O)	
—%	SALIX CAROLIANA(O)	
—%	FRAXINUS CAROLINIANA(O)	
Other	Other	

% UPL
% ALBIZIA JULIBRISIN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINIANA(FU)
Other

SUBCANOPY

5-10% % FAC	%	FAC W
% PINUS ELLOTTII V DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)	—%	CORNUS FOEMINA (FW)
% MELALEUCA QUINQUENERVIA(F)	CUT	
% SERENOA REPENS(F)	—%	
% FICAS AUREA(F)	—%	
% MYRSINE GUIANENSIS (RAPNEA PUNCTATA)(F)	—%	
% DIOSPYROS VIRGINIANA (F)	—%	
% EUGENIA CUMINI (F)	—%	
% ACACIA AURICULIFORMES(F)	—%	
Other	Other	

5-10% % OBL
5-10% TAXODIUM DISTICHIUM(O)
—% PERSEA PALUSTRIS (BORBONEA) (O)
—% ILEX CASSINE (O)
—% SALIX CAROLIANA(O)
—% FRAXINUS CAROLINIANA(O)
—% CEPHALANTHUS OCCIDENTALIS (O)
Other

% UPL
% ALBIZIA JULIBRISIN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINIANA(FU)
% RHUS COPALLINUM (U)
Other

GROUNDCOVER

80-90% % FAC	50-60% % FAC W
% PINUS ELLOTTII V DENSA(F)	—% QUERCUS LAURIFOLIA(FW)
20-30% % SABAL PALMETTO(F)	—% ACER RUBRUM(FW)
5-10% % MYRICA CERIFERA(F)	—% CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)	—% AMPHICARPUM MUHLENBERGANUM (FW)
<5% % MELALEUCA QUINQUENERVIA(F)	20-30% BLECHNUM SERRULATUM(FW)
CUT	20-30% CENTELLA ASIATICA (FW)
% SERENOA REPENS(F)	—% CHRYSOBALANUS ICACO (FW)
% FICAS AUREA(F)	—% CIRSIMUM NUTTALLI (FW)
% MYRSINE GUIANENSIS (RAPNEA PUNCTATA)(F)	—% COMMELINA SP (FW)
% DIOSPYROS VIRGINIANA (F)	—% CONOCARPOS ERECTUS (FW)
% EUGENIA CUMINI (F)	—% COREOPSIS SP (FW)
% ACACIA AURICULIFORMES(F)	—% CYPERUS LIGULARIS(FW)
% ANDROPONOGON VIRGINICUS(F)	—% CYPERUS ODORATUS(FW)
% ARISTIDA STRICTA(F)	—% DICHROMENA COLORATA (FW)
% AXONOPUS SP (F)	—% DIODIA VIRGINIANA (FW)
% BACCHARIS HALIMIFOLIA(F)	—% EUSTACHYS GLAUCA (FW)
% BIDENIA PILOSA (F)	—% FIMBRISTYLIS ANNUA (FW)
% BUMELIA (F)	—% GLEIDTSIA TRIACANTHOS (FW)
% DESCOREA BULBIFERA (F)?	—% HELIANTHUS SP (FW)
% ERAGROSTIS SP (F)	—% HYDROCOTYLE SP (FW)
% ERigeron QUERICIFOLIUS (F)	—% HYPERICUM SP (FW)
% ERYNGIUM BALDWINII (F)	—% HYPTIS ALATA (FW)
10-20% % EUPATORIUM SP (F)	—% JUNCUS MARGINATUS (FW)
% EUTHAMIA SP (F)	—% LACHNOCAULON SP(BOGBUTTON)(O/FW)
% FORESTIERA SEGREGATA(F)	—% LINDBERGIA GRANDIFLORA (FW)
% ILEX OPACA V OPACA(F)	—% MELANTHERA HASTATA (FW)
% IMPERATA CYLINDRICA (COGON)	—% PANICUM REPENS (FW)
% LACHNANTHES CAROLIANA(F)	—% PASPALUM LIGULARIS (FW)
% LYGDUM JAPONICUM (F)	—% PLUCHEA SP (FW)
<5 % LYONIA FERRUGinea (F)	—% RHEIXIA SP (FW)
% MELCOHIA CORCHORIFOLIA (F)	—% RUMEX VERTICILLATUS (FW)
20-30% % MIKANIA SCANDENS (F)	—% SCLERIA SP (FW)
% PHYLLO SP (F)	—% SOLIDAGO (FW)
% PSYCHOTRIA SP.(F)	—% SPARTINA BAKERI (FW)
10-20% % RUBUS SP (F)	—% THELYPTERIS SP (FW) SHELD FERN
% SAMBucus CANADENSIS (F)	—% WOODWARDIA VIRGINICA (FW) V CHN FERN
% SESBANIA SP (F)	—% XYRIS CAROLINANA (FW)
% SETERIA GENICULATA (F)	
% SMILAX SP (F)	
% TOXICODENDRON RADICANS(F)	
% VITIS ROTUNDIFOLIA(F)	
% WEDELIA TRLOBATA	
Other	Other

20-30% % OBL
—% TAXODIUM DISTICHIUM(O)
—% PERSEA PALUSTRIS (BORBONEA) (O)
—% ILEX CASSINE (O)
—% SALIX CAROLIANA(O)
—% FRAXINUS CAROLINIANA(O)
—% CEPHALANTHUS OCCIDENTALIS (O)
—% ANNONA GLABRA (O)
—% BACOPA (O)
—% CLADIUM JAMAICENSE(O)
—% DICHROMENA LATIFOLIA (O)
—% ELEOCHARIS SP (O)
—% ERIOCaulon SP(PIPEWORTS) (O/FW)
—% FUIRENA SCIRPODEA(O)
—% JUNCUS SP.(O)
—% LUDwigia SP (O)
—% NYMPHAEA SP (O)
—% PANICUM HEMITOMON (O)
—% POLYGONUM SP(O)
—% PONTEDERIA CORDATA (O)
—% PROSERPINACA SP (O)
—% RHYNCOSPORA (O)
20-30% SAGITTaria LANCIFOLIA (O)
—% SETARIA MAGNA (O)
—% THALIA GENICULATA (O)
—% TYpha SP (O)
—% UTRICULARIA (O)
Other

% UPL
% ALBIZIA JULIBRISIN
% AMBROSIA ARTEMISIIFOLIA (U)
% BURSERA SIMARUBA (U) GUM LIMBO
% CALLICARPA AMERICANA (U)
% CENCHRUS SP (U)
% CYDONIA DACTYLON (U) bermudagrass
% DACTYLOCENTRUM AEgyptium (U) crowfootgrass
% DESMODIUM SP(U)
% ILEX GLabra(U)
% LANTANA CAMARA(FU)
% OXALIS STRICTA (U)
% PANICUM MAXIMUM (U) guineagrass
% PASPALUM NOTATUM(U)
% PILOBLEPHIS RIGIDA (U)
% PITOPSYSS (HETEROPHYA) GRAMINIFOLIA (U)
% PTERIDIUM GLEDTISCH (U) BRACK FERN
% PTEROCaulon PYCNOTACHYUM (U)
% QUERCUS CHAMANII(U)
% QUERCUS VIRGINIANA(U)
% RHUS COPALLINUM (U)
% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
% SPERMACOCE SP. (U)
% STENOTAPHRUM SECUNDATUM (U) FLORATAM
% URENA LOBATA(U)
<5 % BARE GROUND

HYDROLOGIC INDICATORS:

XX	ALGAL MATS	ADVENTITIOUS ROOTS
	WATER MARKS	HYPERTROPHIC LENTICLES
	AUFWUCHS	XX ACTIVE CYPRESS KNEES
	RAFTING OF DEBRIS	FLOW CHANNELS

SURFACE WATER PRESENT
AQUATIC MOSSES/LIVERWORTS
DRIFT LINES
VEGETATED TUSSOCKS/HUMMOCKS
ELEVATED LICHEN LINES

AQUATIC PLANTS
BUMMELING
HYDROLOGIC DATA
SEDIMENT DEPOSITION
AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS: 2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.

2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED 80% OF THE CROWNS IN THIS AREA.

2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008

2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING

2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION

2011 GROUND COVER STILL INCREASING, AREA INUNDATED THIS YEAR, THIS SAMPLE POINT DRY,

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE

2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 80-90% CROWN FIRE KILL IN THIS AREA.

2008 SOME SABAL PALM AND MELALEUCA THAT APPEARED DEAD RESPROUTING. IN THIS AREA, MOST NOTICABLE IN THE CANOPY AND SUB CANOPY

2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER

2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.

2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.

2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEUCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPouting FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE

2008 LARGER INCREASE IN CANOPY AND SUB CANOPY OF MELALEUCA, THAN IN GROUND COVER

2009 TREATED IN JAN MAR 2009

2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.

2010 FEB 2010 1ST FOLLOW UP COMPLETED

2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: EW2

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

CANOPY

0%	% FAC	%	FAC W	%	OBL	%	UPL
	% PINUS ELLOTTII V DENSA(F)		% QUERCUS LAURIFOLIA(FW)		% TAXODIUM DISTICHIUM(O)		% ALBIZIA JULIBRISIN
	% SABAL PALMETTO(F)		% ACER RUBRUM(FW)		% PERSEA PALUSTRIS (BORBONEA) (O)		% BURSERA SIMARUBA (U) GUM LIMBO
	% MYRICA CERIFERA(F)		% CELTIS LAEVIGATA		% ILEX CASSINE (O)		% QUERCUS VIRGINIANA(FU)
	% SCHINUS TEREBINTHIFOLIUS(F)				% SALIX CAROLIANA(O)		
	% MELALEUCA QUINQUENERVIA(F)	GIRDLED			% FRAXINUS CAROLINIANA(O)		
Other			Other		Other		Other

SUBCANOPY

% FAC	%	FAC W	10-20%	OBL	% UPL
	% PINUS ELLOTTII V DENSA(F)			% TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
	% SABAL PALMETTO(F)			% PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
	% MYRICA CERIFERA(F)			% ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
	% SCHINUS TEREBINTHIFOLIUS(F)			% SALIX CAROLIANA(O)	% RHUS COPALLINUM (U)
	% MELALEUCA QUINQUENERVIA(F)	CUT		% FRAXINUS CAROLINIANA(O)	
	% SERENOA REPENS(F)			% CEPHALANTHUS OCCIDENTALIS (O)	
	% FICAS AUREA(F)				
	% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)				
	% DIOSPYROS VIRGINIANA (F)				
	% EUGENIA CUMINI (F)				
	% ACACIA AURICULIFORMES(F)				
Other		Other			

GROUNDCOVER

50-60%	% FAC	20-30%	FAC W	10-20%	OBL	% UPL
	% PINUS ELLOTTII V DENSA(F)		% QUERCUS LAURIFOLIA(FW)		% TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
<5	% SABAL PALMETTO(F)		% ACER RUBRUM(FW)		% PERSEA PALUSTRIS (BORBONEA) (O)	% AMBROSIA ARTEMISIIFOLIA (U)
	% MYRICA CERIFERA(F)		% CORNUS FOEMINA (FW)		% ILEX CASSINE (O)	% BURSERA SIMARUBA (U) GUM LIMBO
	% SCHINUS TEREBINTHIFOLIUS(F)		% AMPHICARPUM MUHLENBERGANIUM (FW)		% SALIX CAROLIANA(O)	% CALLICARPA AMERICANA (U)
0%	% MELALEUCA QUINQUENERVIA(F)	CUT	% BLECHINUM SERRULATUM(FW)		% FRAXINUS CAROLINIANA(O)	% CENCHRUS SP (U)
	% SERENOA REPENS(F)		% CENTELLA ASIATICA (FW)		% CEPHALANTHUS OCCIDENTALIS (O)	% CYDONIA DACTYLON (U) bermudagrass
	% FICAS AUREA(F)		% CHRYSOBALANUS ICACO (FW)		% ANNONA GLABRA (O)	% DACTYLOCTENIUM AEGYPTIUM (U)
	% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		% CIRSIMUM NUTTALLI (FW)		% BACOPA (O)	% DESMODIUM SP(U)
	% DIOSPYROS VIRGINIANA (F)		% COMMELINA SP (FW)		% CLADIUM JAMAICENSE(O)	% ILEX GLABRA(U)
	% EUGENIA CUMINI (F)		% CONOCARPUS ERECTUS (FW)		% DICHROMENA LATIFOLIA (O)	% LANTANA CAMARA(FU)
	% ACACIA AURICULIFORMES(F)		% COREOPSIS SP (FW)		% ELEOCHARIS SP (O)	% OXALIS STRICTA (U)
50-60	% ANDROPOGON VIRGINICUS(F)		% CYPERUS LIGULARIS(FW)		% ERIOCAULON SP(PIPEWORTHS) (O/FW)	% PANICUM MAXIMUM (U) guineagrass
5-10%	% ARISTIDA STRICA(F)		% CYPERUS ODORATUS(FW)		% FUIRENA SCRPODEA(O)	% PASPALUM NOTATUM(U)
	% AXONOPUS SP (F)		% DICHROMENA COLORATA (FW)		% JUNCUS SP.(O)	% PILOBLEPHIS RIGIDA (U)
	% BACCHARIS HALIMIFOLIA(F)		% DIODIA VIRGINIANA (FW)		% LUDWIGIA SP (O)	% PITOPSYIS (HETEROTHECA) GRAMINIFOLIA (U)
	% BIDENS PILOSA (F)		% EUSTACHYS GLAUCIA (FW)		% NYMPHEA SP (O)	% PTERIDIUM GLEDTISCH (U) BRACK FERN
	% BUMELIA (F)		% FIMBRISTYLIS ANNUA (FW)		% PANICUM HEMITOMON (O)	% PTEROCaulon PYNOSTACHYUM (U)
	% DIOSCOREA BIFERIFERA (F?)		% GLEDITSIA TRIACANTHOS (FW)		% POLYGONUM SP(O)	% QUERCUS CHAMANI(U)
	% ERAGROSTIS SP (F)		% HELIANTHUS SP (FW)		% PONTEDERIA CORDATA (O)	% QUERCUS VIRGINIANA(U)
	% ERIGERON QUERICIFOLIUS (F)		% HYDROCOTYLE SP (FW)		% PROSERPINACA SP (O)	% RHUS COPALLINUM (U)
	% ERYNGIUM BALDWINII (F)		% HYPERICUM SP (FW)		% RHYNCOPOREA (O)	% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
<5	% EUPATORIUM SP (F)		% HYPTIS ALATA (FW)		% SAGITTARIA LANCIFOLIA (O)	% SPERMACOCE SP. (U)
	% EUTHAMIA SP (F)		% JUNCUS MARGINATUS (FW)		% SETARIA MAGNA (O)	% STENOTAPHRUM SECUNDATUM (U) FLORATAM
	% FORESTIERA SEGREGATA(F)		% LACHNOCAULON SP(BOGBUTTON)(O/FW)		% THALIA GENICULATA (O)	% URENA LOBATA(U)
	% ILEX OPACA V OPACA(F)		% LINDERIA GRANDIFLORA (FW)		% TYPHA SP (O)	
	% IMPERATA CYLINDRICA (COGON)		% MELANTHERA HASTATA (FW)		% UTRICULARIA (O)	
	% LACHNANTHES CAROLIANA(F)		% PANICUM REPENS (FW)			
	% LYGODIUM JAPONICUM (F)		% PASPALUM LIGULARIS (FW)			
	% LYONIA FERRUGinea (F)		% PLUCHEA SP (FW)			
	% MELCHIORIA CORCHORIFOLIA (F)		% RHEXIA SP (FW)			
	% MIKANIA SCANDENS (F)		% RUMEX VERTICILLATUS (FW)			
<5	% PHYLLO SP. (F)		% SCLERIA SP (FW)			
	% PSYCHOTRIA SP.(F)		% SOLIDAGO (FW)			
	% RUBUS SP (F)		% SPARTINA BAKERI (FW)			
	% SAMBUCUS CANADENSIS (F)		% THELYPTERIS SP (FW) SHELD FERN			
	% SESBANIA SP (F)		% WOODWARDIA VIRGINICA (FW) V CHN FERN			
	% SETERIA GENICULATA (F)		% XYRIS CAROLINANA (FW)			
	% SMILAX SP (F)					
	% TOXICODENDRON RADICANS(F)					
	% VITIS ROTUNDIFOLIA(F)					
	% WEDELIA TRLOBATA					
Other		Other				

20-30 % BARE GROUND

HYDROLOGIC INDICATORS:

XX	ALGAL MATS	XX	ADVENTITIOUS ROOTS		SURFACE WATER PRESENT		AQUATIC PLANTS
	WATER MARKS		HYPERTROPHIC LENTICELS		AQUATIC MOSSES/LIVERWORTS		BUMMELING
	AUFWUCHS	XX	ACTIVE CYPRESS KNEES		DRIFT LINES		HYDROLOGIC DATA
	RAFTING OF DEBRIS		FLOW CHANNELS		VEGETATED TUSSOCKS/HUMMOCKS		SEDIMENT DEPOSITION
					ELEVATED LICHEN LINES		XX AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED 100% OF THE CROWNS IN THIS AREA.
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH. NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
 2011 GROUND COVER STILL INCREASING, AREA INUNDATED THIS YEAR, THIS SAMPLE POINT DRY,

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
 2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 90-100% CROWN FIRE KILL IN THIS AREA.
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH. CYPRESS IN SUB CANOPY APPEAR TO BE RECOVERING FROM 2007 FIRE
 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEUCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPOUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
 2008 LG INCR IN MELALEUCA IN GRD COVER
 2009 TREATED IN JAN MAR 2009
 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 FEB 2010 1ST FOLLOW UP COMPLETED
 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

2009 CRAYFISH

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: EW3

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

CANOPY

0%	% FAC	%	FAC W
	% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
	% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
	% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
	% SCHINUS TEREBINTHIFOLIUS(F)		
	% MELALEUCA QUINQUENERVIA(F)	GIRDLED	
	% ACACIA AURICULIFORMES(F)		
Other		Other	

20-30 %	OBL
20-30 %	TAXODIUM DISTICHIUM(O)
%	PERSEA PALUSTRIS (BORBONEA) (O)
%	ILEX CASSINE (O)
%	SALIX CAROLIANA(O)
%	FRAXINUS CAROLINIANA(O)

% UPL

% ALBIZIA JULIBRISSEN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINANA(FU)

SUBCANOPY

%	FAC	%	FAC W
—%	PINUS ELLIOTTI V DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)
—%	SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)
—%	MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA
—%	SCHINUS TEREBINTHIFOLIUS(F)	—%	CORNUS FOEMINA (FW)
0%	MELALEUCA QUINQUENERVIA(F)	CUT	
—%	SERENOA REPENS(F)		
—%	FICAS AUREA(F)		
—%	MYRSINE GUIANENSIS (PAPENEA PUNCTATA)(F)		
—%	DIOSPYROS VIRGINIANA (F)		
—%	EUGENIA CUMINI (F)		
—%	ACACIA AURICULIFORMES(F)		
Other		Other	

20-30%	OBL
20-30%	TAXODIUM DISTICHIUM(O)
%	PERSEA PALUSTRIS (BORBONEA) (O)
%	ILEX CASSINE (O)
%	SALIX CAROLIANA(O)
%	FRAXINUS CAROLINIANA(O)
%	CEPHALANTHUS OCCIDENTALIS (O)

% UPL

% ALBIZIA JULIBRISSEN
% BURSERA SIMARUBA (U) GUM LIMBO

% QUERCUS VIRGINANA(FU)

% RHUS COPALLINUM (U)

GROUNDCOVER

30-40	% FAC	
	% PINUS ELLOTTI V DENSA(F)	
20-30	% SABAL PALMETTO(F)	
	% MYRICA CERIFERA(F)	
	% SCHINUS TEREBINTHIFOLIUS(F)	
0	% MELALEUCA QUINQUENERVIA(F)	CUT
	% SERENOA REPENS(F)	
	% FICAS AUREA(F)	
	% MYRSINE GUIANENSIS (RAPENEPA PUNCTATA)(F)	
	% DIOSPYROS VIRGINIANA (F)	
	% EUGENIA CUMINI (F)	
	% ACACIA AURICULIFORMES(F)	
	% ANDROPOGON VIRGINICUS(F)	
	% ARISTIDA STRICTA(F)	
	% AXONOPUS SP (F)	
	% BACHCHARIS HALIMIFOLIA(F)	
	% BIDENS PILOSA (F)	
	% BUMELIA (F)	
	% DIOSCOREA BULBIFERA (F?)	
	% ERAGROSTIS SP (F)	
<5%	% ERIGERON QUERCIFOLIUS (F)	
	% ERYNGIUM BALDWINII (F)	
5-10%	% EUPATORIUM SP (F)	
	% EUTHAMIA SP (F)	
	% FORESTIERA SEGREGATA(F)	
	% ILEX OPACA V OPACA(F)	
	% IMPERATA CYLINDRICA (COGON)	
	% LACHNANTHES CAROLIANA(F)	
	% LYGOLOMIA JAPONICUM (F)	
	% LYONIA FERRUGinea (F)	
	% MELCHIORA CORCHORIFOLIA (F)	
10-20%	% MIKANIA SCANDENS (F)	
	% PHYLAX SP (F)	
	% PSYCHOTRIA SP.(F)	
	% RUBUS SP (F)	
	% SAMBUCUS CANADENSIS (F)	
	% SESBANIA SP (F)	
	% SETERIA GENICULATA (F)	
	% SMILAX SP (F)	
	% TOXICOCDENDRON RADICANS(F)	
<5	% VITIS ROTUNDIFOLIA(F)	
	% WFDFIA TRI ORATA	
70-80	% FAC W	
	% QUERCUS LAURIFOLIA(FW)	
	% ACER RUBRUM(FW)	
	% CORNUS FOEMINA (FW)	
60-70	% AMPHICARPIUM MUHLENBERGANIUM (FW)	
10-20%	% BLECHNUM SERRULATUM(FW)	
	% CENTELLA ASIATICA (FW)	
	% CHRYSOBALANUS ICACO (FW)	
	% CIRSIUM NUTTALLI (FW)	
	% COMMELINA SP (FW)	
	% CONOCARPOS ERECTUS (FW)	
	% COREOPSIS SP (FW)	
	% CYPERUS LIGULARIS(FW)	
	% CYPERUS ODORATUS(FW)	
	% DICROMENIA COLORATA (FW)	
	% DIODIA VIRGINIANA (FW)	
	% EUSTACHYS GLAUCA (FW)	
	% FIMBRISTYLIS ANNULIA (FW)	
	% GLEDITSIA TRIACANTHOS (FW)	
	% HELIANTHUS SP (FW)	
	% HYDROCOTYLE SP (FW)	
	% HYPERICUM SP (FW)	
	% HYPTIS ALATA (FW)	
	% JUNCUS MARGINATUS (FW)	
	% LACHNOCAULON SP (BOGBUTTON)(O/W)	
	% LINDERNIA GRANDIFLORA (FW)	
	% MELANTHERA HASTATA (FW)	
	% PANICUM REPENS (FW)	
	% PASPALUM LIGULARES (FW)	
	% PLUCHEA SP (FW)	
	% RHEXIA SP (FW)	
	% RUMEX VERTICILLATUS (FW)	
	% SCLERIA SP (FW)	
	% SOLIDAGO (FW)	
	% SPARTINA BAKERI (FW)	
	% THELYPTERYX SP (FW) SHELD FERN	
	% WOODWARDIA VIRGINICA (FW) V CHN FERN	
	% XYRIS CAROLINIANA (FW)	

20-30 %	OBJ
%	TAXODIUM DISTICHIUM(O)
%	PERSICA PALUSTRIS (BORBOEAE) (O)
%	ILEX CASSINE (O)
%	SALIX CAROLIANA(O)
%	FRAXINUS CAROLINIANA(O)
%	CEPHALANTHUS OCCIDENTALIS (O)
%	ANNONA GLABRA (O)
%	BACOPA (O)
%	CLADIUM JAMAICENSE(O)
%	DICRÖMENA LATIFOLIA (O)
%	ELEOCHARIS SP (O)
%	ERICOCAULON SP(PIPEWORTS) (O/FW)
%	FURENA SCIRPODEA(O)
%	JUNCUS SP.(O)
%	LUDWIGIA SP (O)
%	NYMPHEA SP (O)
%	PANICUM HEMITOMON (O)
%	POLYGONUM SP(O)
%	PONTEDERIA CORDATA (O)
%	PROSERPINACA SP (O)
%	RHYNCOSPORA (O)
%	SAGITTaria LANCIFOLIA (O)
%	SETARIA MAGNA (O)
%	THALIA GENICULATA (O)
%	TYPHA SP (O)
%	UTRICULARIA (O)

% UPL
% ALBIZIA JULIBRISSEN
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% BURSERA SIMARUBA (U) GUM LIMBO
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% CYNODON DACTYLON (U) bermudagrass
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% DESMODIUM SP(U)
% ILEX GLABRA(U)
% LANTANA CAMARA(FU)
% OXALIS STRICTA (U)
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% PASPALUM NOTATUM(U)
% PILOBLEPHARIS RIGIDA (U)
% PITYPOPSIS (HETEROTHECA) GRAMINIFOLIA (U)
% PTERIDUM GLEDITSCH (U) BRACK FERN
% PTEROCaulON PYCNOStACHYUM (U)
% QUERCUS CHAMANII(U)
% QUERCUS VIRGINIANA(U)
% RHUS COPALLINUM (U)
% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
% SPERMACOCE SP. (U)
% STENOTAPHRUM SECUNDATUM (U) FLORATAM
% URENA LOBATA(U)

5-10% BARE GROUND

Other

HYDROLOGIC INDICATORS:	
<input checked="" type="checkbox"/>	ALGAL MATS
<input checked="" type="checkbox"/>	WATER MARKS
<input type="checkbox"/>	AUFWUCHS
<input type="checkbox"/>	BATTING OF BERRIES
<input checked="" type="checkbox"/>	ADVENTITIOUS ROOTS
<input checked="" type="checkbox"/>	HYPERTROPHIC LENTICELS
<input checked="" type="checkbox"/>	ACTIVE CYPRESS KNEES
<input type="checkbox"/>	FLOW CHANNELS

- SURFACE WATER PRESENT
- AQUATIC MOSSES/LIVERWORTS
- DRIFT LINES
- VEGETATED TUSSOCKS/HUMMOCKS
- ELEVATED LICHEN LINES

AQUATIC PLANTS
BUMMELING
HYDROLOGIC DATA
SEDIMENT DEPOSITION
AQUATIC FAUNA

SUMMARY-

GENERAL OBSERVATIONS

ERAVATIONS:
2007 AREA SUBJECT TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES
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2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH. NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION

2011 GROUND COVER STILL INCR
NATIVE VEGETATION HEALTH & REPRODUCTION

ATION HEALTH & REPRODUCTION:
2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 90-100% CROWN FIRE KILL IN THIS AREA.
2008 TAXODIUM IN SUB CANOPY AND GRD COVER RESPROUTING FROM MAY 2007 FIRE; AMPHICARPUM INCREASING
2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.

EXOTIC VEGETATION HEALTH & REPRODUCTION

TATION HEALTH & REPRODUCTION:
2007 MELALEUCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPOUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREES.
2008 MELALEUCA INCREASING IN CANOPY AND GRD COVER;
2009 TREATED IN JAN MAR 2009
2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.
2010 FEB 2010 1ST FOLLOW UP COMPLETED
2011 EXOTICS BELOW 5% INFLUENCING HELPER

WILDLIFE: 2000 CRAYFISH

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: EW4

Original Density Code: HIGH

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

CANOPY

10-20% FAC	%	FAC W
10-20% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
% MELALEUCA QUINQUENERVIA(F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

10-20% OBL	% UPL
10-20% TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
% PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
% ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
% SALIX CAROLIANA(O)	
% FRAXINUS CAROLINIANA(O)	
Other	Other

SUBCANOPY

0% % FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)	%	CORNUS FOEMINA (FW)
% MELALEUCA QUINQUENERVIA(F)		
% SERENOA REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUAIANENSIS (RAPENEAE PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

30-40% OBL	% UPL
30-40% TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
% PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
% ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
% SALIX CAROLIANA(O)	% RHUS COPALLINUM (U)
% FRAXINUS CAROLINIANA(O)	
% CEPHALANTHUS OCCIDENTALIS (O)	
Other	Other

GROUNDCOVER

50-60 % FAC	%	FAC W
5-10 % PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)	%	AMPHICARPUM MUHLENBERGANUM (FW)
0 % MELALEUCA QUINQUENERVIA(F)	%	BLECHNUM SERRULATUM(FW)
% SERENOA REPENS(F)	%	CENTELLA ASIATICA (FW)
% FICAS AUREA(F)	%	CHRYSOBALANUS IACO (FW)
% MYRSINE GUAIANENSIS (RAPENEAE PUNCTATA)(F)	%	CIRSIUM NUTTALLI (FW)
% DIOSPYROS VIRGINIANA (F)	%	COMMELINA SP (FW)
% EUGENIA CUMINI (F)	%	CONOCARPUIS ERECTUS (FW)
% ACACIA AURICULIFORMES(F)	%	COREOPSIS SP (FW)
30-40 % ANDROPONOPRON VIRGINICUS(F)	%	CYPERUS LIGULARIS(FW)
% ARISTIDA STRICKTA(F)	%	CYPERUS ODORATUS(FW)
% AXONOPUS SP (F)	%	DICHROMENA COLORATA (FW)
% BACCHARIS HALIMIFOLIA(F)	%	DIODIA VIRGINIANA (FW)
% BIDENS PILOSA (F)	%	EUSTACHYS GLAUCA (FW)
% BUMELIA (F)	%	FIMBRISTYLIS ANNUA (FW)
% DIOSCOREA BULIFERIA (F?)	%	GLEDITIA TRIACANTHOS (FW)
% ERAGROSTIS SP (F)	%	HELIANTHUS SP (FW)
% ERIGERON OLERCIFOLIUS (F)	%	HYDROCYTOTE SP (FW)
% ERYNGIUM BALDWINII (F)	%	HYPERICUM SP (FW)
-5% % EUPATORIUM SP (F)	%	HYPTIS ALATA (FW)
% EUHTAMIA SP (F)	%	JUNCUS MARGINATUS (FW)
% FORESTIERA SEGREGATA(F)	%	LACHNOCAULON SP(BOGBUTTON)(O/FW)
% ILEX OPACA V OPACA(F)	%	LINDERIA GRANDIFLORA (FW)
% IMPERATA CYLINDRICA (COGON)	%	MELANTHERA HASTATA (FW)
% LACHNANTHES CAROLIANA(F)	%	PANICUM REPENS (FW)
% LYGODIUM JAPONICUM (F)	%	PASPALUM LIGULARIS (FW)
% LYONIA FERRUGinea (F)	%	PLUCHEA SP (FW)
% MELCHIA CORCHORIFOLIA (F)	%	RHEXIA SP (FW)
10-20 % MIKANIA SCANDENS (F)	%	RUMEX VERTICILLATUS (FW)
% PHYLA SP (F)	%	SCLERIA SP (FW)
% PSYCHOTRIA SP.(F)	%	SOLIDAGO (FW)
% RUBUS SP (F)	%	SPARTINA BAKERI (FW)
<5 % RUELLIA CAROLINENSIS(F)	%	THELYPTERYIS SP (FW) SHELD FERN
% SAMBUCUS CANADENSIS (F)	%	WOODWARDIA VIRGINICA (FW) V CHN FERN
% SESBANIA SP (F)	%	XYRIS CAROLINANA (FW)
% SETERIA GENICULATA (F)		
% SMILAX SP (F)		
% TOXICODENDRON RADICANS(F)		
% VITIS ROTUNDIFOLIA(F)		
% WEDELIA TRLOBATA		
Other		Other

10-20 % OBL	% UPL
10-20 % TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
% PERSEA PALUSTRIS (BORBONEA) (O)	% AMBROSIA ARTEMISIIFOLIA (U)
% ILEX CASSINE (O)	% BURSERA SIMARUBA (U) GUM LIMBO
% SALIX CAROLIANA(O)	% CALCARICA AMERICANA (U)
% FRAXINUS CAROLINIANA(O)	% CENCHRUS SP (U)
% CEPHALANTHUS OCCIDENTALIS (O)	% CYDONOD DACTYLON (L) bermudagrass
% ANNONA GLABRA (O)	% DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
% BACOPA (O)	% DESMODIUM SP(U)
% CLADIUM JAMAICENSE(O)	% ILEX GLABRA(U)
% DICROMENA LATIFOLIA (O)	% LANTANA CAMARA(FU)
% ELEOCHARIS SP (O)	% OXALIS STRICTA (U)
% ERIOCALON SP(PIPEWORTS) (O/FW)	% PANICUM MAXIMUM (U) guineagrass
% FUIRENA SCIRPODEA(O)	% PASPALUM NOTATUM(U)
% JUNCUS SP.(O)	% PILOBLEPHIS RIGIDA (U)
% LUDWIGIA SP (O)	% PITOPSYL (HETEROTHECA) GRAMINIFOLIA (U)
% NYMPHAEA SP (O)	% PTERIDIUM GLEDTICHS (U) BRACK FERN
5-10% PANICUM HEMITOMON (O)	% PTEROCALON PYCNOTACHYUM (U)
% POLYGONUM SP(O)	% QUERCUS CHAMANI(U)
% PONTEDERIA CORDATA (O)	% QUERCUS VIRGINIANA(U)
% PROSERPINACA SP (O)	% RHUS COPALLINUM (U)
% RHYNCOSPORE (O)	% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
% SAGITTaria LANCIFOLIA (O)	% SPERMACOCE SP. (U)
% SETARIA MAGNA (O)	% STENOTAPHRUM SECUNDATUM (U) FLORATAM
% THALIA GENICULATA (O)	% URENA LOBATA(U)
% TYPHA SP (O)	
% UTRICULARIA (O)	
20-30 % BARE GROUND	

HYDROLOGIC INDICATORS:

XX ALGAL MATS	XX ADVENTITIOUS ROOTS
WATER MARKS	HYPERTROPHIC LENTICELS
AUFWUCHS	ACTIVE CYPRESS KNEES
RAFTING OF DEBRIS	FLOW CHANNELS

1 INCH
SURFACE WATER PRESENT
AQUATIC MOSES/LIVERWORTS
DRIFT LINES
VEGETATED TUSSOCKS/HUMMOCKS
ELEVATED LICHEN LINES

AQUATIC PLANTS
BUMMELING
HYDROLOGIC DATA
SEDIMENT DEPOSITION
XX AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP/OCT 2009
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
 2011 GROUND COVER STILL INCREASING, AREA INUNDATED, SURFACE WATER PRESENT

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
 2007 PINE AND CYPRESS TREES APPEAR TO HAVE NO CROWN FIRES IN THIS AREA/GROUND COVER ERADICATED
 2008 PINE AND CYPRESS TREES IN CANOPY THAT APPEARED TO SURVIVE MAY 2007 WILDFIRE DIED.
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH; SOME BURNT CYPRESS AND PINE THAT LOOKED DEAD RESPROUTING
 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEuCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPouting FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
 2008 SUB CANOPY AND GRD COVER MELELAUCA INCREASING
 2009 TREATED IN JAN MAR 2009
 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 FEB 2010 1ST FOLLOW UP COMPLETED
 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

2007 RED SHOULDERED HAWK, RED FLICKER

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: EW5

Original Density Code: HIGH

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

UNTREATED

CANOPY

10-20 % FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
10-20 % MELALEUCA QUINQUENERVIA(F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

%	OBL
%	TAXODIUM DISTICHIUM(O)
%	PERSEA PALUSTRIS (BORBONEA) (O)
%	ILEX CASSINE (O)
%	SALIX CAROLIANA(O)
%	FRAXINUS CAROLINIANA(O)
Other	Other

%	UPL
%	ALBIZIA JULIBRISIN
%	BURSERA SIMARUBA (U) GUM LIMBO
%	QUERCUS VIRGINIANA(FU)
%	RHUS COPALLINUM (U)
Other	Other

SUBCANOPY

60-70 % FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)	%	CORNUS FOEMINA (FW)
60-70 % MELALEUCA QUINQUENERVIA(F)		
% SERENOA REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUIANEensis (RAPENEA PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

<5 %	%	OBL
<5 %	%	TAXODIUM DISTICHIUM(O)
<5 %	%	PERSEA PALUSTRIS (BORBONEA) (O)
<5 %	%	ILEX CASSINE (O)
<5 %	%	SALIX CAROLIANA(O)
<5 %	%	FRAXINUS CAROLINIANA(O)
<5 %	%	CEPHALANTHUS OCCIDENTALIS (O)
Other		Other

%	UPL
%	ALBIZIA JULIBRISIN
%	BURSERA SIMARUBA (U) GUM LIMBO
%	QUERCUS VIRGINIANA(FU)
%	RHUS COPALLINUM (U)
Other	Other

GROUNDCOVER

80-90 % FAC	<5 %	%	FAC W
% PINUS ELLOTTI V DENSA(F)		%	QUERCUS LAURIFOLIA(FW)
<5 % SABAL PALMETTO(F)		%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)		%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)		%	AMPHICARPUM MUHLENBERGANUM (FW)
50-60 % MELALEUCA QUINQUENERVIA(F)		%	BLECHNUM SERRULATUM(FW)
% SERENOA REPENS(F)		%	CENTELLA ASIATICA (FW)
% FICAS AUREA(F)		%	CHRYSOBALANUS IACO (FW)
% MYRSINE GUIANEensis (RAPENEA PUNCTATA)(F)		%	CIRSIMUM NUTTALLI (FW)
% DIOSPYROS VIRGINIANA (F)		%	COMMELINA SP (FW)
% EUGENIA CUMINI (F)		%	CONOCARPUSS ERECTUS (FW)
% ACACIA AURICULIFORMES(F)		%	COREOPSIS SP (FW)
% ANDROPONOGON VIRGINICUS(F)		%	CYPERUS LIGULARIS(FW)
<5 % ARISTIDA STRICTA(F)	<5 %	%	CYPERUS ODORATUS(FW)
% AXONOPUS SP (F)		%	DICHROMENA COLORATA (FW)
% BACCHARIS HALIMIFOLIA(F)		%	DIODIA VIRGINIANA (FW)
% BIDENS PILOSA (F)		%	EUSTACHYS GLAUCA (FW)
% BUMELIA (F)		%	FIMBRISTYLIS ANNUA (FW)
% DIOSCOREA BULIFERA (F?)		%	GLEIDITIS TRIACANTHOS (FW)
% ERAGROSTIS SP (F)		%	HELIANTHUS SP (FW)
% ERIGERON OLERCIFOLIUS (F)		%	HYDROCYTOTE SP (FW)
% ERYNGIUM BALDWINII (F)		%	HYPERICUM SP (FW)
<5 % EUPATORIUM SP (F)		%	HYPHTIS ALATA (FW)
% EUTHAMIA SP (F)		%	JUNCUS MARGINATUS (FW)
% FORESTIERA SEGREGATA(F)		%	LACHNOCAULON SP(BOGBUTTON)(O/FW)
% ILEX OPACA V OPACA(F)		%	LINDERIA GRANDIFLORA (FW)
% IMPERATA CYLINDRICA (COGON)		%	MELANTHERA HASTATA (FW)
% LACHNANTHES CAROLIANA(F)		%	PANICUM REPENS (FW)
% LYGODIUM JAPONICUM (F)		%	PASPALUM LIGULARIS (FW)
% LYONIA FERRUGinea (F)		%	PLUCHEA SP (FW)
% MELCHIA CORCHORIFOLIA (F)		%	RHEXIA SP (FW)
% MIKANIA SCANDENS (F)		%	RUMEX VERTICILLATUS (FW)
% PHYLA SP (F)		%	SCLERIA SP (FW)
% PSYCHOTRIA SP.(F)	<5 %	%	SOLIDAGO (FW)
% RUBUS SP (F)		%	SPARTINA BAKERI (FW)
<5 % RUELLIA CAROLINENSIS(F)		%	THELYPTERIS SP (FW) SHELD FERN
% SAMBUCUS CANADENSIS (F)		%	WOODWARDIA VIRGINICA (FW) V CHN FERN
% SESBANIA SP (F)		%	XYRIS CAROLINANA (FW)
% SETERIA GENICULATA (F)			
% SMILAX SP (F)			
% TOXICODENDRON RADICANS(F)			
% VITIS ROTUNDIFOLIA(F)			
% WEDELIA TRLOBATA			
Other			Other

5-10 %	%	OBL
5-10 %	%	TAXODIUM DISTICHIUM(O)
5-10 %	%	PERSEA PALUSTRIS (BORBONEA) (O)
5-10 %	%	ILEX CASSINE (O)
5-10 %	%	SALIX CAROLIANA(O)
5-10 %	%	FRAXINUS CAROLINIANA(O)
5-10 %	%	CEPHALANTHUS OCCIDENTALIS (O)
5-10 %	%	ANNONA GLABRA (O)
5-10 %	%	BACOPA (O)
5-10 %	%	GLADIUM JAMAICENSE(O)
5-10 %	%	DICHROMENA LATIFOLIA (O)
5-10 %	%	ELEOCHARIS SP (O)
5-10 %	%	ERIOCAULON SP(PIPEWORTS) (O/FW)
5-10 %	%	FUIRENA SCIRPODEA(O)
5-10 %	%	JUNCUS SP.(O)
5-10 %	%	LUDWIGIA SP (O)
5-10 %	%	NYMPHAEA SP (O)
5-10 %	%	PANICUM HEMITOMON (O)
5-10 %	%	POLYGONUM SP(O)
5-10 %	%	PONTEDERIA CORDATA (O)
5-10 %	%	PROSERPINACA SP (O)
5-10 %	%	RHYNCHOSPORE (O)
5-10 %	%	SAGITTARIA LANCIFOLIA (O)
5-10 %	%	SETARIA MAGNA (O)
5-10 %	%	THALIA GENICULATA (O)
5-10 %	%	TYPHA SP (O)
5-10 %	%	UTRICULARIA (O)

%	UPL
%	ALBIZIA JULIBRISIN
%	AMBROSIA ARTEMISIIFOLIA (U)
%	BURSERA SIMARUBA (U) GUM LIMBO
%	CALLICARPA AMERICANA (U)
%	CENCHRUS SP (U)
%	CYDONOD DACTYLON (U) bermudagrass
%	DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
%	DESMODIUM SP(U)
%	ILEX GLabra(U)
%	LANTANA CAMARA(FU)
%	OXALIS STRICTA (U)
%	PANICUM MAXIMUM (U) guineagrass
%	PASPALUM NOTATUM(U)
%	PILOBLEPHIS RIGIDA (U)
%	PITYOPSY (HETEROTHECA) GRAMINIFOLIA (U)
%	PTERIDIUM GLEDTISCH (U) BRACK FERN
%	PTEROCALON PYCNOTACHYUM (U)
%	QUERCUS CHAMANI(U)
%	QUERCUS VIRGINIANA(U)
%	RHUS COPALLINUM (U)
%	RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
%	SPERMACOCE SP. (U)
%	STENOTAPHRUM SECUNDATUM (U) FLORATAM
%	URENA LOBATA(U)

10-20 % BARE GROUND

HYDROLOGIC INDICATORS:

XX	ALGAL MATS		ADVENTITIOUS ROOTS
XX	WATER MARKS		HYPERTROPHIC LENTICELS
AUFWUCHS			ACTIVE CYPRESS KNEES
RAFTING OF DEBRIS			FLOW CHANNELS

XX	1/2 INCH	
		SURFACE WATER PRESENT
		AQUATIC MOSES/LIVERWORTS
		DRIFT LINES
		VEGETATED TUSSOCKS/HUMMOCKS
		ELEVATED LICHEN LINES

		AQUATIC PLANTS
		BUMMELING
		HYDROLOGIC DATA
		SEDIMENT DEPOSITION
		AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 INDICATORS AREA INUNDATED LAST WET SEASON
 2011 GROUND COVER STILL INCREASING, AREA INUNDATED, SURFACE WATER PRESENT

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
 2007 PINE AND CYPRESS DEAD IN THE CANOPY
 2007 CYPRESS IN THE GROUND COVER COMING BACK
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEuCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPouting FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
 2007 MELALEuCA IN CANOPY INCREASED SLIGHTLY, STEMS THAT APPEARED DEAD HAS RECOVERED AND RESPROUTED.
 2009 AREA NOT TREATED IN JAN MAR 2009 INITIAL TMT, SEEDLINGS NOW 3 FEET TALL
 2010 MELALEuCA SEEDLINGS APPROXIMATE 6 FOOT TALL
 2011 MELALEuCA SEEDLINGS APPROXIMATE 7 FOOT TALL

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: NS1

Original Density Code: HIGH

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

CANOPY

<5%	% FAC	%	FAC W
—%	PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
—%	SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
—%	MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
—%	SCHINUS TEREBINTHIFOLIUS(F)		
—%	MELALEUCA QUINQUENERVIA(F)		
—%	ACACIA AURICULIFORMES(F)		
Other		Other	

%	OBL
—%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
Other	

%	UPL
—%	ALBIZIA JULIBRISIN
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	QUERCUS VIRGINIANA(FU)
Other	

SUBCANOPY

% FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)	%	CORNUS FOEMINA (FW)
% MELALEUCA QUINQUENERVIA(F)	CUT	
% SERENOAE REPENS(F)		
% FICAS AUREAF		
% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other	Other	

%	OBL
—%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
—%	CEPHALANTHUS OCCIDENTALIS (O)
Other	

%	UPL
—%	ALBIZIA JULIBRISIN
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	QUERCUS VIRGINIANA(FU)
—%	RHUS COPALLINUM (U)
Other	

GROUNDCOVER

10-20% FAC	50-60%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)	50-60%	AMPHICARPUM MUHLENBERGANUM (FW)
0 % MELALEUCA QUINQUENERVIA(F)	5-10%	BLECHNUM SERRULATUM(FW)
% SERENOAE REPENS(F)	%	CENTELLA ASIATICA (FW)
% FICAS AUREAF	%	CHRYSOBALANUS ICACO (FW)
% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)	%	CIRSIMUM NUTTALLI (FW)
% DIOSPYROS VIRGINIANA (F)	%	COMMELINA SP (FW)
% EUGENIA CUMINI (F)	%	CONOCARPA ERECTUS (FW)
% ACACIA AURICULIFORMES(F)	%	COREOPSIS SP (FW)
% ANDROPOGON VIRGINICUS(F)	%	CYPERUS LIGULARIS(FW)
% ARISTIDA STRICTA(F)	10-20 %	CYPERUS ODORATUS(FW)
% AXONOPUS SP (F)	%	DICHROMENA COLORATA (FW)
5-10 % BACCHARIS HALIMIFOLIA(F)	%	DIODIA VIRGINIANA (FW)
% BIDENS PILOSA (F)	%	EUSTACHYS GLAUCA (FW)
% BUMELIA (F)	≤5%	FIMBRISTYLIS ANNUA (FW)
% DICROSTEA BULIFERA (F?)	%	GLEDITIA TRICANTHOS (FW)
% ERAGrostis SP (F)	%	HELIANTHUS SP (FW)
% ERIGERON OLERCIIFOLIUS (F)	%	HYDROCOTYLE SP (FW)
% ERYNGIUM BALDWINII (F)	%	HYPERICUM SP (FW)
5-10 % EUPATORIUM SP (F)	%	HYPTIS ALATA (FW)
% EUTHAMIA SP (F)	%	JUNCUS MARGINATUS (FW)
% FORESTIERA SEGREGATA(F)	%	LACHNOCAULON SP(BOGBUTTON)(O/FW)
% ILEX OPACA V OPACA(F)	%	LINDERNIA GRANDIFLORA (FW)
% IMPERATA CYLINDRICA (COGON)	%	MELANTHERA HASTATA (FW)
% LACHNANTHES CAROLIANA(F)	%	PANICUM REPENS (FW)
% LYGDONIUM JAPONICUM (F)	%	PASPALUM LIGULARIS (FW)
% LYONIA FERRUGinea (F)	%	PLUCHEA SP (FW)
% MELCHIORA CORCHORIFOLIA (F)	%	RHEXIA SP (FW)
% MIKANIA SCANDENS (F)	%	RUMEX VERTICILLATUS (FW)
% PHYLLA SP (F)	≤5%	SCLERIA SP (FW)
% PSYCHOTRIA SP.(F)	%	SOLIDAGO (FW)
% RUBUS SP (F)	%	SPARTINA BAKERI (FW)
% RUELLIA CAROLINIENSIS(F)	%	THELYPTERIS SP (FW) SHELD FERN
% SAMBUCUS CANADENSIS (F)	%	WOODWARDIA VIRGINICA (FW) V CHN FERN
% SESBANIA SP (F)	%	XYRIS CAROLINANA (FW)
% SETERIA GENICULATA (F)		
% SMILAX SP (F)		
% TOXICODENDRON RADICANS(F)		
% VITIS ROTUNDIFOLIA(F)		
% WEDELIA TRLOBATA		
Other	Other	

5-10%	OBL
5-10%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
—%	CEPHALANTHUS OCCIDENTALIS (O)
—%	ANNONA GLABRA (O)
—%	BACOPA (O)
—%	CLADIUM JAMAICENSE(O)
—%	DICHROMENA LATIFOLIA (O)
—%	ELEOCHARIS SP (O)
—%	ERIOCAULON SP(PIPEWORTS) (O/FW)
—%	FUIRENA SCIRPODEA(O)
—%	JUNCUS SP.(O)
—%	LUDWIGIA SP (O)
—%	NYMPHAEA SP (O)
—%	PANICUM HEMITOMON (O)
—%	POLYGONUM SP(O)
—%	PONTEDERIA CORDATA (O)
—%	PROSERPINACA SP (O)
—%	RHYNCHOSPORE (O)
—%	SAGITTARIA LANCIFOLIA (O)
—%	SETARIA MAGNA (O)
—%	THALIA GENICULATA (O)
—%	TYPHA SP (O)
—%	UTRICULARIA (O)
Other	

%	UPL
—%	ALBIZIA JULIBRISIN
—%	AMBROSIA ARTEMISIIFOLIA (U)
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	CALLICARPA AMERICANA (U)
—%	CENCHRUS SP (U)
—%	CYDONOD DACTYLON (L) bermudagrass
—%	DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
—%	DESMODIUM SP(U)
—%	ILEX GLabra(U)
—%	LANTANA CAMARA(FU)
—%	OXALIS STRICTA (U)
—%	PANICUM MAXIMUM (U) guineagrass
—%	PASPALUM NOTATUM(U)
—%	PILOBLEPHIS RIGIDA (U)
—%	PITYOPSYIS (HETEROPHYA) GRAMINIFOLIA (U)
—%	PTERIDIUM GLEDTISCH (U) BRACK FERN
—%	PTEROCAULON PYCNOTACHYUM (U)
—%	QUERCUS CHAMANII(U)
—%	QUERCUS VIRGINIANA(U)
—%	RHUS COPALLINUM (U)
—%	RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
—%	SPERMACOCE SP. (U)
—%	STENOTAPHRUM SECUNDATUM (U) FLORATAM
—%	URENA LOBATA(U)
5-10 % BARE GROUND	

HYDROLOGIC INDICATORS:

XX	ADVENTITIOUS ROOTS
XX	HYPERTROPHIC LENTICELS
AUFWUCHS	ACTIVE CYPRESS KNEES
RAFTING OF DEBRIS	FLOW CHANNELS

SURFACE WATER PRESENT
AQUATIC MOSSES/LIVERWORTS
DRIFT LINES
VEGETATED TUSSOCKS/HUMMOCKS
ELEVATED LICHEN LINES

AQUATIC PLANTS
BUMMELING
HYDROLOGIC DATA
SEDIMENT DEPOSITION
AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

- 2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
- 2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED 100% OF THE CROWNS IN THIS AREA.
- 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
- 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
- 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
- 2011 GROUND COVER STILL INCREASING, AREA INUNDATED THIS YEAR, THIS SAMPLE POINT DRY.

NATIVE VEGETATION HEALTH & REPRODUCTION:

- 2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
- 2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 90-100% CROWN FIRE KILL IN THIS AREA.
- 2007 GROUND COVER ERADICATED
- 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
- 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

- 2007 MELALEuca OBSERVED IN EACH LEVEL APPEARS TO BE RESPOUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
- 2009 TREATED IN JAN MAR 2009
- 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEuca SEEDS AND SEEDLINGS IN GROUND COVER.
- 2010 FEB 2010 1ST FOLLOW UP COMPLETED
- 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

- 2009 RED HEADED FLICKER, RED SHOULDERED HAWK

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: NS2

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

CANOPY

% FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
% MELALEUCA QUINQUENERVIA(F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

%	OBL	% UPL
	TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
	ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
	SALIX CAROLIANA(O)	
	FRAXINUS CAROLINIANA(O)	
Other		Other

SUBCANOPY

% FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
% MELALEUCA QUINQUENERVIA(F)	CUT	
% SERENOAE REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUIANEensis (RAPENEAE PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

10-20%	OBL	% UPL
10-20%	TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
	ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
	SALIX CAROLIANA(O)	% RHUS COPALLINUM (U)
	FRAXINUS CAROLINIANA(O)	
	CEPHALANTHUS OCCIDENTALIS (O)	
Other		Other

GROUNDCOVER

20-30% FAC	50-60% FAC	50-60% FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)		
0 % MELALEUCA QUINQUENERVIA(F)	CUT	
% SERENOAE REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUIANEensis (RAPENEAE PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
20-30% ANDROPOGON VIRGINICUS(F)		
% ARISTIDA STRICTA(F)		
% AXONOPUS SP (F)		
5-10% BACCHARIS HALIMIFOLIA(F)		
% BIDENS PILOSA (F)		
% BUMELIA (F)		
% DIOSCOREA BULIFERIA (F?)		
% ERAGrostis SP (F)		
% ERIGERON OLERCIFOLIUS (F)		
% ERYNGIUM BALDWINII (F)		
5-10% % EUPATORIUM SP (F)		
% EUThAMIA SP (F)		
% FORESTIERA SEGREGATA(F)		
% ILEX OPACA V OPACA(F)		
% IMPERATR CYLINDRICA (COGON)		
% LACHNANTHES CAROLIANA(F)		
% LYGODIUM JAPONICUM (F)		
% LYONIA FERRUGinea (F)		
% MELCHIA CORCHORIFOLIA (F)		
5-10% % MIKANIA SCANDENS (F)		
% PHYLA SP (F)		
% PSYCHOTRIA SP.(F)		
% RUBUS SP (F)		
<5 % RUELLIA CAROLINENSIS(F)		
% SAMBUCUS CANADENSIS (F)		
% SESBANIA SP (F)		
% SETERIA GENICULATA (F)		
% SMILAX SP (F)		
% TOXICODENDRON RADicans(F)		
% VITIS ROTUNDIFOLIA(F)		
% WEDELIA TRLOBATA		
Other		Other

10-20%	OBL	% UPL
10-20%	TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)	% AMBROSIA ARTEMISIIFOLIA (U)
	ILEX CASSINE (O)	% BURSERA SIMARUBA (U) GUM LIMBO
	SALIX CAROLIANA(O)	% CALlicarpa AMERICANA (U)
	FRAXINUS CAROLINIANA(O)	% CENCHRUS SP (U)
	CEPHALANTHUS OCCIDENTALIS (O)	% CYDONIA DACTYLON (U) bermudagrass
	ANNONA GLABRA (O)	% DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
	BACOPA (O)	% DESMODIUM SP(U)
<5	GLADIUM JAMAICENSE(O)	% ILEX GLabra(U)
	DICROMENA LATIFOLIA (O)	% LANTANA CAMARA(FU)
	ELEOCHARIS SP (O)	% OXALIS STRICTA (U)
	ERIOCAULON SP(PIPEWORTHS) (O/FW)	% PANICUM MAXIMUM (U) guineagrass
	FIURENA SCIPODEA(O)	% PASPALUM NOTATUM(U)
	JUNCUS SP.(O)	% PILOBLEPHIS RIGIDA (U)
	LUDWIGIA SP (O)	% PITOPSYL (HETEROTHECA) GRAMINIFOLIA (U)
	NYMPHAEA SP (O)	% PTERIDIUM GLEDITSCH (U) BRACK FERN
	PANICUM HEMITOMON (O)	% PTEROCaulon PYCNOTACHYUM (U)
	POLYGONUM SP(O)	% QUERCUS CHAMANI(U)
	PONTEDERIA CORDATA (O)	% QUERCUS VIRGINIANA(U)
	PROSERPINACA SP (O)	% RHYNchospora (O)
	RHYNchospora (O)	% SAGITTaria LANCIFOLIA (O)
	SETARIA MAGNA (O)	% SETARIA MAGNA (O)
	THALIA GENICULATA (O)	% STENOTAPHRUM SECUNDATUM (U) FLORATAM
	TYPHA SP (O)	% URENA LOBATA(U)
	UTRICULARIA (O)	
Other		10-20 % BARE GROUND

Other Other Other Other

HYDROLOGIC INDICATORS:

XX	ALGAL MATS	ADVENTITIOUS ROOTS
	WATER MARKS	HYPERTROPHIC LENTICELS
	AUFWUCHS	
	RAFTING OF DEBRIS	ACTIVE CYPRESS KNEES

XX	1/2 INCH	AQUATIC PLANTS
	SURFACE WATER PRESENT	BUMMELING
	AQUATIC MOSES/LIVERWORTS	HYDROLOGIC DATA
	DRIFT LINES	SEDIMENT DEPOSITION
	VEGETATED TUSSOCKS/HUMMOCKS	XX AQUATIC FAUNA
	ELEVATED LICHEN LINES	

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED 100% OF THE CROWNS IN THIS AREA.
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
 2011 GROUND COVER STILL INCREASING, AREA INUNDATED, SURFACE WATER PRESENT

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
 2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 90-100% CROWN FIRE KILL IN THIS AREA.
 2007 GROUND COVER ERADICATED
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEuCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPouting FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
 2008 MELALEuCA INCR IN SUB CANOPY AND DEC IN GRD COVR; LG INCR IN AMPHICARPUM
 2009 TREATED IN JAN MAR 2009
 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEuCA SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 FEB 2010 1ST FOLLOW UP COMPLETED
 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: NS3

Original Density Code: HIGH

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 621 CYPRESS

CANOPY

% FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
% MELALEUCA QUINQUENERVIA(F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

20-30 %	OBL
20-30 %	TAXODIUM DISTICHIUM(O)
	PERSEA PALUSTRIS (BORBONEA) (O)
	ILEX CASSINE (O)
	SALIX CAROLIANA(O)
	FRAXINUS CAROLINIANA(O)
Other	Other

% UPL
% ALBIZIA JULIBRISIN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINIANA(FU)
% RHUS COPALLINUM (U)
Other

SUBCANOPY

% FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
% MELALEUCA QUINQUENERVIA(F)	CUT	
% SERENOA REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUIANENSIS (RAPENEA PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

10-20% %	OBL
10-20%	TAXODIUM DISTICHIUM(O)
	PERSEA PALUSTRIS (BORBONEA) (O)
	ILEX CASSINE (O)
	SALIX CAROLIANA(O)
	FRAXINUS CAROLINIANA(O)
	CEPHALANTHUS OCCIDENTALIS (O)
Other	Other

% UPL
% ALBIZIA JULIBRISIN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINIANA(FU)
% RHUS COPALLINUM (U)
Other

GROUNDCOVER

70-80 %	% FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)		%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)		%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)		%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)			
<5 % MELALEUCA QUINQUENERVIA(F)	CUT		
% SERENOA REPENS(F)			
% FICAS AUREA(F)			
% MYRSINE GUIANENSIS (RAPENEA PUNCTATA)(F)			
% DIOSPYROS VIRGINIANA (F)			
% EUGENIA CUMINI (F)			
% ACACIA AURICULIFORMES(F)			
40-50 % ANDROPONOGON VIRGINICUS(F)			
% ARISTIDA STRICTA(F)			
% AXONOPUS SP (F)			
% BACCHARIS HALIMIFOLIA(F)			
% BIDENS PILOSA (F)			
% BUMELIA (F)			
% DIOSCOREA BULIFERA (F?)			
% ERAGROSTIS SP (F)			
% ERIGERON OLERCIFOLIUS (F)			
% ERYNGIUM BALDWINII (F)			
5-10 % EUPATORIUM SP (F)			
% EUHTAMIA SP (F)			
% FORESTIERA SEGREGATA(F)			
% ILEX OPACA V OPACA(F)			
% IMPERATA CYLINDRICA (COGON)			
% LACHNANTHES CAROLIANA(F)			
% LYGDONIUM JAPONICUM (F)			
% LYONIA FERRUGinea (F)			
% MELCHIA CORCHORIFOLIA (F)			
20-30% % MIKANIA SCANDENS (F)			
% PHYLLA SP (F)			
% PSYCHOTRIA SP.(F)			
% RUBUS SP (F)			
% RUELLIA CAROLINENSIS(F)			
% SAMBUCUS CANADENSIS (F)			
% SESBANIA SP (F)			
% SETERIA GENICULATA (F)			
% SMILAX SP (F)			
% TOXICODENDRON RADICANS(F)			
% VITIS ROTUNDIFOLIA(F)			
% WEDELIA TRLOBATA			
Other		Other	Other

10-20% %	OBL
5-10% %	TAXODIUM DISTICHIUM(O)
	PERSEA PALUSTRIS (BORBONEA) (O)
	ILEX CASSINE (O)
	SALIX CAROLIANA(O)
	FRAXINUS CAROLINIANA(O)
	CEPHALANTHUS OCCIDENTALIS (O)
	ANONA GLABRA (O)
	BACOPA (O)
	CLADIUM JAMAICENSE(O)
	DICHROMENA LATIFOLIA (O)
	ELEOCHARIS SP (O)
	ERIOCAULON SP(PIPEWORTS) (O/FW)
	FUIRENA SCRIPODEA(O)
	JUNCUS SP.(O)
	LUDWIGIA SP (O)
	NYMPHEA SP (O)
	PANICUM HEMITOMON (O)
	POLYGONUM SP(O)
	PONTEDERIA CORDATA (O)
	PROSERPINACA SP (O)
	RHYNCHOSPORA (O)
	SAGITTARIA LANCIFOLIA (O)
	SETARIA MAGNA (O)
	THALIA GENICULATA (O)
	TYPHA SP (O)
	UTRICULARIA (O)
Other	Other

% UPL
% ALBIZIA JULIBRISIN
% AMBROSIA ARTEMISIIFOLIA (U)
% BURSERA SIMARUBA (U) GUM LIMBO
% CALICCARPA AMERICANA (U)
% CENCHRUS SP (U)
% CYDONIA DACTYLON (U) bermudagrass
% DACTYLOCTENIUM AEgyptium (U) crowfootgrass
% DESMODIUM SP(U)
% ILEX GLABRA(U)
% LANTANA CAMARA(U)
% OXALIS STRICTA (U)
% PANICUM MAXIMUM (U) guineagrass
% PASPALUM NOTATUM(U)
% PILOLEPHIS RIGIDA (U)
% PITOPHYSS (HETEROTHECA) GRAMINIFOLIA (U)
% PTERIDIUM GLEDITCH (U) BRACK FERN
% PTEROCaulon PYCNOSTACHYUM (U)
% QUERCUS CHAMANII(U)
% QUERCUS VIRGINIANA(U)
% RHUS COPALLINUM (U)
% RYNCHELYTRUM REPENS(U) (NATAL GRASS)
% SPERMACOPE SP. (U)
% STENOTAPHRUM SECUNDATUM (U) FLORATAM
% URENA LOBATA(U)
50-60 % BARE GROUND

HYDROLOGIC INDICATORS:

XX	ALGAL MATS	ADVENTITIOUS ROOTS
XX	WATER MARKS	HYPERTROPHIC LENTICELS
AUFWUCHS		
RAFTING OF DEBRIS		ACTIVE CYPRESS KNEES FLOW CHANNELS

XX	2 INCHES
	SURFACE WATER PRESENT
	AQUATIC MOSES/LIVERWORTS
	DRIFT LINES
	VEGETATED TUSSOCKS/HUMMOCKS
	ELEVATED LICHEN LINES

XX	AQUATIC PLANTS
	BUMMING
	HYDROLOGIC DATA
	SEDIMENT DEPOSITION
XX	AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP/OCT 2008
 2008 AREA AND PLANTS RECOVERING FROM BURN. SURVIVORS SARTING TO SPROUT, CENTER TREE KNOCKED OVER; HAD TO RESET SAMPLE POINT
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
 2011 GROUND COVER STILL INCREASING, AREA INUNDATED, SURFACE WATER PRESENT

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
 2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 90-100% CROWN FIRE KILL IN THIS AREA.
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2008 ANDROPONOGON RESPROUTING BETWEEN MELALEUCA IN GROUND COVER.
 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEUCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPOUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
 2008 FIRE DESTROYED MOST OF CANOPY AND SUBCANOPY MELALEUCA CAVING BACK IN GROUND COVER; DEVELOPING MONOCULTURE.
 2009 TREATMENT IN JAN MAR 2009
 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 FEB 2010 1ST FOLLOW UP COMPLETED
 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P1

Original Density Code: LOW

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

UNTREATED

CANOPY

5-10 %	FAC	%	FAC W
5-10%	PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
	SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
	MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
	SCHINUS TEREBINTHIFOLIUS(F)		
0	MELALEUCA QUINQUENERVIA(F)		
	ACACIA AURICULIFORMES(F)		
Other			Other

10-20 %	OBL
10-20%	TAXODIUM DISTICHIUM(O)
	PERSEA PALUSTRIS (BORBONEA) (O)
	ILEX CASSINE (O)
	SALIX CAROLIANA(O)
	FRAXINUS CAROLINIANA(O)
Other	Other

% UPL
ALBIZIA JULIBRISIN
BURSERA SIMARUBA (U) GUM LIMBO
QUERCUS VIRGINIANA(FU)
RHUS COPALLINUM (U)
Other

SUBCANOPY

0 %	FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)		%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)		%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)		%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)			
0 %	MELALEUCA QUINQUENERVIA(F)		
	ACACIA AURICULIFORMES(F)		
Other			Other

10-20 %	OBL
10-20%	TAXODIUM DISTICHIUM(O)
	PERSEA PALUSTRIS (BORBONEA) (O)
	ILEX CASSINE (O)
	SALIX CAROLIANA(O)
	FRAXINUS CAROLINIANA(O)
	CEPHALANTHUS OCCIDENTALIS (O)
Other	Other

% UPL
ALBIZIA JULIBRISIN
BURSERA SIMARUBA (U) GUM LIMBO
QUERCUS VIRGINIANA(FU)
RHUS COPALLINUM (U)
Other

GROUNDCOVER

80-90 %	FAC	5-10%	FAC W
% PINUS ELLOTTI V DENSA(F)		%	QUERCUS LAURIFOLIA(FW)
<5% % SABAL PALMETTO(F)		%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)		%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)		%	AMPHICARPUM MUHLENBERGANUM (FW)
20-30 % MELALEUCA QUINQUENERVIA(F)		<5%	BLECHNUM SERRULATUM(FW)
<5% % SERENOA REPENS(F)		%	CENTELLA ASIATICA (FW)
% FICAS AUREA(F)		%	CHRYSOBALANUS IACO (FW)
% MYRSINE GUIANENSIS (RAPENEA PUNCTATA)(F)		%	CIRSIMUM NUTTALLI (FW)
% DIOSPYROS VIRGINIANA (F)		%	COMMELINA SP (FW)
% EUGENIA CUMINI (F)		%	CONOCARPUIS ERECTUS (FW)
% ACACIA AURICULIFORMES(F)		%	COREOPSIS SP (FW)
% ANDROPONOGON VIRGINICUS(F)		%	CYPERUS LIGULARIS(FW)
% ARISTIDA STRICTA(F)		<5%	CYPERUS ODORATUS(FW)
% AXONOPUS SP (F)		%	DICHROMENA COLORATA (FW)
% BACCHARIS HALIMIFOLIA(F)		<5%	DIODIA VIRGINIANA (FW)
% BIDENS PILOSA (F)		%	EUSTACHYS GLAUCA (FW)
% BUMELIA (F)		<5%	FIMBRISTYLIS ANNUA (FW)
% DIOSCOREA BULIFERIA (F?)		%	GLEIDITIS IZICANTHOS (FW)
% ERAGROSTIS SP (F)		%	HELIANTHUS SP (FW)
% ERIGERON OLERCIFOLIUS (F)		%	HYDROCYTOTE SP (FW)
% ERYNGIUM BALDWINII (F)		%	HYPERICUM SP (FW)
% EUPATORIUM SP (F)		%	HYPHTIS ALATA (FW)
% EUHTAMIA SP (F)		%	JUNCUS MARGINATUS (FW)
% FORESTIERA SEGREGATA(F)		%	LACHNOCAULON SP(BOGBUTTON)(O/FW)
% ILEX OPACA V OPACA(F)		%	LINDERIA GRANDIFLORA (FW)
% IMPERATA CYLINDRICA (COGON)		%	MELANTHERA HASTATA (FW)
% LACHNANTHES CAROLIANA(F)		%	PANICUM REPENS (FW)
% LYGDONIUM JAPONICUM (F)		<5%	PASPALUM LIGULARIS (FW)
% LYONIA FERRUGinea (F)		%	PLUCHEA SP (FW)
% MELCHIA CORCHORIFOLIA (F)		%	RHEXIA SP (FW)
<5% % MIKANIA SCANDENS (F)		%	RUMEX VERTICILLATUS (FW)
% PHYLA SP (F)		%	SCLERIA SP (FW)
% PSYCHOTRIA SP.(F)		%	SOLIDAGO (FW)
% RUBUS SP (F)		%	SPARTINA BAKERI (FW)
<5 % RUELLIA CAROLINENSIS(F)		%	THELYPTERY SP (FW) SHELD FERN
% SAMBUCUS CANADENSIS (F)		%	WOODWARDIA VIRGINICA (FW) V CHN FERN
% SESBANIA SP (F)		%	XYRIS CAROLINANA (FW)
<5 % SETERIA GENICULATA (F)			
% SMILAX SP (F)			
% TOXCODENDRON RADICANS(F)			
% VITIS ROTUNDIFOLIA(F)			
% WEDELIA TRLOBATA			
Other			Other

20-30 %	OBL
20-30%	TAXODIUM DISTICHIUM(O)
	PERSEA PALUSTRIS (BORBONEA) (O)
	ILEX CASSINE (O)
	SALIX CAROLIANA(O)
	FRAXINUS CAROLINIANA(O)
	CEPHALANTHUS OCCIDENTALIS (O)
	BACOPA (O)
5-10 %	GLADIUM JAMAICENSE(O)
	DICHROMENA LATIFOLIA (O)
	ELEOCHARIS SP (O)
	ERIOCAULON SP(PIPEWORTS) (O/FW)
	FUIRENA SCIRPODEA(O)
	JUNCUS SP.(O)
	LUDWIGIA SP (O)
	NYMPHAEA SP (O)
	PANICUM HEMITOMON (O)
	POLYGONUM SP(O)
	PONTEDERIA CORDATA (O)
	PROSERPINACA SP (O)
	RHYNCOPOREA (O)
	SAGITTARIA LANCIFOLIA (O)
	SETARIA MAGNA (O)
	THALIA GENICULATA (O)
	TYPHA SP (O)
	UTRICULARIA (O)
Other	Other

<5 %	UPL
% ALBIZIA JULIBRISIN	
% AMBROSIA ARTEMISIIFOLIA (U)	
% BURSERA SIMARUBA (U) GUM LIMBO	
% CALICCARA AMERICANA (U)	
% CENCHRUS SP (U)	
% CYDONOD DACTYLON (I) bermudagrass	
% DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass	
% DESMODIUM SP(U)	
% ILEX GLABRA(U)	
% LANTANA CAMARA(FU)	
% OXALIS STRICTA (U)	
% PANICUM MAXIMUM (U) guineagrass	
% PASPALUM NOTATUM(U)	
% PILOBLEPHIS RIGIDA (U)	
% PITOPSYL (HETEROTHECA) GRAMINIFOLIA (U)	
% PTERIDIUM GLEDTISCH (U) BRACK FERN	
% PTEROCALON PYCNOTACHYUM (U)	
% QUERCUS CHAMANI(U)	
% QUERCUS VIRGINIANA(U)	
% RHUS COPALLINUM (U)	
% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)	
% SPERMACOCE SP. (U)	
% STENOTAPHRUM SECUNDATUM (U) FLORATAM	
% URENA LOBATA(U)	
10-20 % BARE GROUND	

HYDROLOGIC INDICATORS:

XX	ALGAL MATS		ADVENTITIOUS ROOTS
XX	WATER MARKS		HYPERTROPHIC LENTICELS
AUFWUCHS			ACTIVE CYPRESS KNEES
RAFTING OF DEBRIS			FLOW CHANNELS

XX	3 INCHES		SURFACE WATER PRESENT
			AQUATIC MOSSES/LIVERWORTS
			DRIFT LINES
			VEGETATED TUSSOCKS/HUMMOCKS
			ELEVATED LICHEN LINES

XX	AQUATIC PLANTS
	BUMMELING
	HYDROLOGIC DATA
	SEDIMENT DEPOSITION
XX	AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

- 2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
- 2007 PINE IN CANOPY DECREASED: APPEARS MORE DYING FROM MAY 2007 BLAZE
- 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
- 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
- 2010 INDICATORS AREA INUNDATED LAST WET SEASON
- 2011 GROUND COVER STILL INCREASING, AREA INUNDATED, SURFACE WATER PRESENT

NATIVE VEGETATION HEALTH & REPRODUCTION:

- 2007 NATIVE VEGETATION BEING CROWDED OUT BY MELALEUCA IN GROUND COVER
- 2007 SURVIVING SMALL CYPRESS TREES RESPROUTING IN GROUND COVER
- 2007 AREA HAD ABOUT 3-4 MONTH HYDOPERIOD 1 FOOT DEEP:: KNOCKING BACK FAC WET PLANTS
- 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
- 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2011 GROUND COVER INCREASING, INUNDATION HELPING.

EXOTIC VEGETATION HEALTH & REPRODUCTION:

- 2007 MELALEUCA SEEDLINGS AND EPICORMIC SPROUTING TAKING OVER GROUND COVER
- 2007 SMALL INCR MELALEUCA IN GROUND COVER
- 2007 LARGE INCREASE IN MELALEUCA IN GROUND COVER FROM EPICORMIC SPROUTING AND SEEDS FROM UNTREATED CANOPY TREES
- 2008 LG INCREASE IN MELALEUCA IN GRD COVER
- 2009 AREA NOT TREATED IN JAN MAR 2009 INITIAL TMT, SEEDLINGS NOW 3 FEET TALL
- 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER. MELAL. SEEDLINGS FROM 2007 6 FT TALL
- 2010 MELALEUCA SEEDLINGS APPROXIMATE 6 FOOT TALL
- 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P2 BROCIUS

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

UNTREATED

CANOPY

40-50 % FAC

- % PINUS ELLOTTI V DENSA(F)
- % SABAL PALMETTO(F)
- % MYRICA CERIFERA(F)
- % SCHINUS TEREBINTHIFOLIUS(F)
- 0%** % MELALEUCA QUINQUENERVIA(F)
- % ACACIA AURICULIFORMES(F)

Other

% FAC W

- % QUERCUS LAURIFOLIA(FW)
- % ACER RUBRUM(FW)
- % CELTIS LAEVIGATA

Other

% OBL

- % TAXODIUM DISTICHIUM(O)
- % PERSEA PALUSTRIS (BORBONEA) (O)
- % ILEX CASSINE (O)
- % SALIX CAROLIANA(O)
- % FRAXINUS CAROLINIANA(O)

Other

% UPL

- % ALBIZIA JULIBRISIN
- % BURSERA SIMARUBA (U) GUM LIMBO
- % QUERCUS VIRGINIANA(FU)

Other

SUBCANOPY

30-40 % FAC

- % PINUS ELLOTTI V DENSA(F)
- % SABAL PALMETTO(F)
- % MYRICA CERIFERA(F)
- % SCHINUS TEREBINTHIFOLIUS(F)
- 0%** % MELALEUCA QUINQUENERVIA(F)
- % SERENOA REPENS(F)
- % FICAS AUREA(F)
- % MYRSINE GUIANEensis (RAPENEA PUNCTATA)(F)
- % DIOSPYROS VIRGINIANA (F)
- % EUGENIA CUMINI (F)
- % ACACIA AURICULIFORMES(F)

Other

% FAC W

- % QUERCUS LAURIFOLIA(FW)
- % ACER RUBRUM(FW)
- % CELTIS LAEVIGATA
- % CORNUS FOEMINA (FW)

Other

% OBL

- 5-10** % TAXODIUM DISTICHIUM(O)
- % PERSEA PALUSTRIS (BORBONEA) (O)
- % ILEX CASSINE (O)
- % SALIX CAROLIANA(O)
- % FRAXINUS CAROLINIANA(O)
- % CEPHALANTHUS OCCIDENTALIS (O)

Other

% UPL

- % ALBIZIA JULIBRISIN
- % BURSERA SIMARUBA (U) GUM LIMBO
- % QUERCUS VIRGINIANA(FU)
- % RHUS COPALLINUM (U)

Other

GROUNDCOVER

50-60% FAC

- % PINUS ELLOTTI V DENSA(F)
- % SABAL PALMETTO(F)
- % MYRICA CERIFERA(F)
- % SCHINUS TEREBINTHIFOLIUS(F)
- 5-10%** % MELALEUCA QUINQUENERVIA(F)
- % SERENOA REPENS(F)
- % FICAS AUREA(F)
- % MYRSINE GUIANEensis (RAPENEA PUNCTATA)(F)
- % DIOSPYROS VIRGINIANA (F)
- % EUGENIA CUMINI (F)
- % ACACIA AURICULIFORMES(F)
- 40-50%** % ADROPOGON VIRGINICUS(F)
- % ARISTIDA STRICTA(F)
- % AXONOPUS SP (F)
- <5%** % BACCHARIS HALIMIFOLIA(F)
- % BIDENS PILOSA (F)
- % BUMELIA (F)
- % DIOSCOREA BULIFERIA (F?)
- % ERAGrostis SP (F)
- % ERIGERON OLERCIFOLIUS (F)
- % ERYNGIUM BALDWINII (F)
- 5-10%** % EUPATORIUM SP (F)
- % EUTHAMIA SP (F)
- % FORESTIERA SEGREGATA(F)
- % ILEX OPACA V OPACA(F)
- % IMPERATR CYLINDRICA (COGON)
- % LACHNANTHES CAROLIANA(F)
- % LYGODIUM JAPONICUM (F)
- % LYONIA FERRUGinea (F)
- % MELCHIA CORCHORIFOLIA (F)
- <5** % MIKANIA SCANDENS (F)
- % PHYLA SP (F)
- % PSYCHOTRIA SP.(F)
- % RUBUS SP (F)
- % RUELLIA CAROLINIENSIS(F)
- % SAMBUCUS CANADENSIS (F)
- % SESBANIA SP (F)
- % SETERIA GENICULATA (F)
- % SMILAX SP (F)
- % TOXICODENDRON RADicans(F)
- % VITIS ROTUNDIFOLIA(F)
- % WEDELIA TRLOBATA

Other

20-30 % FAC W

- % QUERCUS LAURIFOLIA(FW)
- % ACER RUBRUM(FW)
- % CORNUS FOEMINA (FW)
- 5-10** % AMPHICARPUM MUHLENBERGANUM (FW)
- % BLECHNUM SERRULATUM(FW)
- % CENTELLA ASIATICA (FW)
- % CHRYSOBALANUS IACO (FW)
- % CIRSIUM NUTTALLI (FW)
- % COMMELINA SP (FW)
- % CONOCARPU ERECTUS (FW)
- % COREOPSIS SP (FW)
- 5-10** % CYPERUS LIGULARIS(FW)
- 10-20%** % CYPERUS ODORATUS(FW)
- % DICHROMENA COLORATA (FW)
- % DIODIA VIRGINIANA (FW)
- % EUSTACHYS GLAUCA (FW)
- % FIMBRISTYLIS ANNUA (FW)
- % GLEDTISIA TRIACANTHOS (FW)
- % HELIANTHUS SP (FW)
- % HYDROCYTLE SP (FW)
- % HYPERICUM SP (FW)
- % HYPTIS ALATA (FW)
- % JUNCUS MARGINATUS (FW)
- % LACHNOCAULON SP(BOGBUTTON)(O/FW)
- % LINDEARIA GRANDIFLORA (FW)
- % MELANTHERA HASTATA (FW)
- % PANICUM REPENS (FW)
- % PASPALUM LIGULARIS (FW)
- % PLUCHEA SP (FW)
- % RHEXIA SP (FW)
- % RUMEX VERTICILLATUS (FW)
- % SCLERIA SP (FW)
- % SOLIDAGO (FW)
- % SPARTINA BAKERI (FW)
- % THELYPTERY SP (FW) SHELD FERN
- % WOODWARDIA VIRGINICA (FW) V CHN FERN
- % XYRIS CAROLINANA (FW)

Other

10-20 % OBL

- 10-20** % TAXODIUM DISTICHIUM(O)
- % PERSEA PALUSTRIS (BORBONEA) (O)
- % ILEX CASSINE (O)
- % SALIX CAROLIANA(O)
- % FRAXINUS CAROLINIANA(O)
- % ANNONA GLABRA (O)
- % BACOPA (O)
- % CLADIUM JAMAICENSE(O)
- % DICHROMENA LATIFOLIA (O)
- % ELEOCHARIS SP (O)
- % ERIOCaulon SP(PIPEWORTHS) (O/FW)
- % FUIRENA SCIPIOPEA(O)
- % JUNCUS SP.(O)
- % LUDWIGIA SP (O)
- % NYMPHAEA SP (O)
- % PANICUM HEMITOMON (O)
- % POLYGONUM SP(O)
- % PIROBLETIS RIGIDA (U)
- % PTERIDIUM GLEDTISCH (U) BRACK FERN
- % PTEROCaulon PYCNOTACHYUM (U)
- % QUERCUS CHAMANII(U)
- % QUERCUS VIRGINIANA(U)
- % RHUS COPALLINUM (U)
- % RHYNCHESYTRUM REPENS(U) (NATAL GRASS)
- % SPERMACOCE SP. (U)
- % STENOTAPHRUM SECUNDATUM (U) FLORATAM
- % URENA LOBATA(U)

Other

% UPL

- % ALBIZIA JULIBRISIN
- % AMBROSIA ARTEMISIIFOLIA (U)
- % BURSERA SIMARUBA (U) GUM LIMBO
- % CALCARPA AMERICANA (U)
- % CENCHRUS SP (U)
- % CYDONOD DACTYLON (U) bermudagrass
- % DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
- % DESMODIUM SP(U)
- % ILEX GLABRA(U)
- % LANTANA CAMARA(FU)
- % OXALIS STRICTA (U)
- % PANICUM MAXIMUM (U) guineagrass
- % PASPALUM NOTATUM(U)
- % PIROBLETIS RIGIDA (U)
- % PITOPSYL (HETEROTHECA) GRAMINIFOLIA (U)
- % PTERIDIUM GLEDTISCH (U) BRACK FERN
- % PTEROCaulon PYCNOTACHYUM (U)
- % QUERCUS CHAMANII(U)
- % QUERCUS VIRGINIANA(U)
- % RHUS COPALLINUM (U)
- % RHYNCHESYTRUM REPENS(U) (NATAL GRASS)
- % SPERMACOCE SP. (U)
- % STENOTAPHRUM SECUNDATUM (U) FLORATAM
- % URENA LOBATA(U)

20-30 % BARE GROUND

HYDROLOGIC INDICATORS:

XX ALGAL MATS
XX WATER MARKS
XX AUFWUCHS
XX RAFTING OF DEBRIS

XX ADVENTITIOUS ROOTS
XX HYPERTROPHIC LENTICELS
XX ACTIVE CYPRESS KNEES
XX FLOW CHANNELS

1 INCH
XX SURFACE WATER PRESENT
AQUATIC MOSES/LIVERWORTS
DRIFT LINES
VEGETATED TUSSOCKS/HUMMOCKS
ELEVATED LICHEN LINES

AQUATIC PLANTS
BUMMELING
HYDROLOGIC DATA
SEDIMENT DEPOSITION
XX AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
2007 AREA HAD ABOUT 3-4 MONTH HYDROPERIOD 1 FOOT DEEP: KNOCKING BACK FAC WET PLANTS
2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
2010 INDICATORS AREA INUNDATED LAST WET SEASON
2011 GROUND COVER STILL INCREASING, AREA INUNDATED, SURFACE WATER PRESENT

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 NATIVE GRASSES TRYING TO COME BACK IN IN GROUND COVER
2007 SURVIVING SMALL CYPRESS TREES RESPROUTING IN GROUND COVER
2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH,
2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEUCA REMAINED RELATIVELY THE SAME ON THIS TRANSECT
2009 AREA NOT TREATED IN JAN MAR 2009 INITIAL TMT, SEEDLINGS NOW 3 FEET TALL
2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.
2010 INITIAL TREATMENT FOR THIS AREA, 10 AC BLOCK FEB 2010.
2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P3

Original Density Code: HIGH

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

UNTREATED

CANOPY

<5	% FAC	%	FAC W
	% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
<5	% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
	% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
	% SCHINUS TEREBINTHIFOLIUS(F)		
	% MELALEUCA QUINQUENERVIA(F)	CUT DOWN	
	% ACACIA AURICULIFORMES(F)		
Other		Other	

%	OBL	%	UPL
	TAXODIUM DISTICHIUM(O)	%	ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)	%	BURSERA SIMARUBA (U) GUM LIMBO
	ILEX CASSINE (O)	%	QUERCUS VIRGINIANA(FU)
	SALIX CAROLIANA(O)	%	
	FRAXINUS CAROLINIANA(O)		
Other		Other	

SUBCANOPY

<5	% FAC	%	FAC W
	% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
<5	% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
	% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
	% SCHINUS TEREBINTHIFOLIUS(F)	%	CORNUS FOEMINA (FW)
<5%	% MELALEUCA QUINQUENERVIA(F)		
	% SERENO REPENS(F)		
	% FICAS AUREA(F)		
	% MYRSINE GUIANEensis (RAPENEA PUNCTATA)(F)		
	% DIOSPYROS VIRGINIANA (F)		
	% EUGENIA CUMINI (F)		
	% ACACIA AURICULIFORMES(F)		
Other		Other	

5-10	%	OBL	%	UPL
5-10	%	TAXODIUM DISTICHIUM(O)	%	ALBIZIA JULIBRISIN
	%	PERSEA PALUSTRIS (BORBONEA) (O)	%	BURSERA SIMARUBA (U) GUM LIMBO
	%	ILEX CASSINE (O)	%	QUERCUS VIRGINIANA(FU)
	%	SALIX CAROLIANA(O)	%	RHUS COPALLINUM (U)
	%	FRAXINUS CAROLINIANA(O)		
	%	CEPHALANTHUS OCCIDENTALIS (O)		
Other		Other		Other

GROUNDCOVER

60-70% FAC		20-30% FAC		5-10% FAC		5-10% UPL	
	% PINUS ELLOTTI V DENSA(F)	% QUERCUS LAURIFOLIA(FW)		% TAXODIUM DISTICHIUM(O)		% ALBIZIA JULIBRISIN	
10-20	% SABAL PALMETTO(F)	% ACER RUBRUM(FW)		% PERSEA PALUSTRIS (BORBONEA) (O)		% AMBROSIA ARTEMISIIFOLIA (U)	
	% MYRICA CERIFERA(F)	% CORNUS FOEMINA (FW)		% ILEX CASSINE (O)		% BURSERA SIMARUBA (U) GUM LIMBO	
	% SCHINUS TEREBINTHIFOLIUS(F)	% AMPHICARPUM MUHLENBERGANUM (FW)		% SALIX CAROLIANA(O)		% CALCARIPA AMERICANA (U)	
10-20	% MELALEUCA QUINQUENERVIA(F)	% BLECHNUM SERRULATUM(FW)		% FRAXINUS CAROLINIANA(O)		% CENCHRUS SP (U)	
	% SERENO REPENS(F)	% CENTELLA ASIATICA (FW)		% CEPHALANTHUS OCCIDENTALIS (O)		% CYDONOD DACTYLON (L) bermudagrass	
	% FICAS AUREA(F)	% CHRYSOBALANUS IACO (FW)		% ANNONA GLABRA (O)		% DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass	
	% MYRSINE GUIANEensis (RAPENEA PUNCTATA)(F)	% CIRSIUM NUTTALLI (FW)		% BACOPA (O)		% DESMODIUM SP(U)	
	% DIOSPYROS VIRGINIANA (F)	% COMMELINA SP (FW)		% CLADIUM JAMAICENSE (O)		% ILEX GLABRA(U)	
	% EUGENIA CUMINI (F)	% CONOCARPUS ERECTUS (FW)		% DICROMENA LATIFOLIA (O)		% LANTANA CAMARA(FU)	
	% ACACIA AURICULIFORMES(F)	% COREOPSIS SP (FW)		% ELEOCHARIS SP (O)		% OXALIS STRICTA (U)	
30-40	% ANDROPONOGON VIRGINICUS(F)	% CYPERUS LIGULARIS(FW)		% ERIOCaulon SP(PIPEWORTS) (O/FW)		% PANICUM MAXIMUM (U) guineagrass	
	% ARISTIDA STRICTA(F)	% CYPERUS ODORATUS(FW)		% FUIRENA SCIRPODEA(O)		% PASPALUM NOTATUM(U)	
<5	% AXONOPUS SP (F)	% DICROMENA COLORATA (FW)		% JUNCUS SP.(O)		% PILOBLEPHIS RIGIDA (U)	
<5%	% BACCHARIS HALIMIFOLIA(F)	% DIODIA VIRGINIANA (FW)		% LUDwigia SP (O)		% PITOPSPIS (HETEROTHECA) GRAMINIFOLIA (U)	
	% BIDENS PILOSA (F)	% EUSTACHYS GLAUCA (FW)		% NYMPHAEA SP (O)		% PTERIDIUM GLEDTISCH (U) BRACK FERN	
	% BUMELIA (F)	% FIRMBRISTYLIS ANNUA (FW)		% PANICUM HEMITOMON (O)		% PTEROCaulon PYCNOTACHYUM (U)	
	% DIOSCOREA BULIFERA (F?)	% GLEDITIA TRICANTHOS (FW)		% POLYGONUM SP(O)		% QUERCUS CHAMANI(U)	
	% ERAGROSTIS SP (F)	% HELIANTHUS SP (FW)		% PONTEDERIA CORDATA (O)		% QUERCUS VIRGINIANA(U)	
	% ERIGERON OLERCIFOLIUS (F)	% HYDROCYTOTE SP (FW)		% PROSERPINACA SP (O)		% RHUS COPALLINUM (U)	
	% ERYNGIUM BALDWINII (F)	% HYPERICUM SP (FW)		% RHYNCOSPORA (O)		% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)	
5-10	% EUPATORIUM SP (F)	% HYPTIS ALATA (FW)		% SAGITTaria LANCIFOLIA (O)		5-10% SPERMACOCE SP. (U)	
	% EUThAMIA SP (F)	% JUNCUS MARGINATUS (FW)		% SETARIA MAGNA (O)		% STENOTAPHRUM SECUNDATUM (U) FLORATAM	
	% FORESTIERA SEGREGATA(F)	% LACHNOCAULON SP(BOGBUTTON)(O/FW)		% THALIA GENICULATA (O)		% URENA LOBATA(U)	
	% ILEX OPACA V OPACA(F)	% LINDERIA GRANDIFLORA (FW)		% TYPHA SP (O)			
	% IMPERATA CYLINDRICA (COGON)	% MELANTHERA HASTATA (FW)		% UTRICULARIA (O)			
	% LACHNANTHES CAROLIANA(F)	% PANICUM REPENS (FW)					
	% LYGODIUM JAPONICUM (F)	% PASPALUM LIGULARIS (FW)					
	% LYONIA FERRUGinea (F)	% PLUCHEA SP (FW)					
	% MELCHIA CORCHORIFOLIA (F)	% RHEIXIA SP (FW)					
5-10%	% MIKANIA SCANDENS (F)	% RUMEX VERTICILLATUS (FW)					
<5%	% PHYLLO SP (F)	% SCLERIA SP (FW)					
	% PSYCHOTRIA SP.(F)	% SOLIDAGO (FW)					
	% RUBUS SP (F)	% SPARTINA BAKERI (FW)					
<5	% RUellIA CAROLINENSIS(F)	% THelypteris SP (FW) SHIELD FERN					
	% SAMBucus CANADENSIS (F)	% WOODWARDIA VIRGINICA (FW) V CHN FERN					
	% SESBANIA SP (F)	% XYRIS CAROLINANA (FW)					
	% SETERIA GENICULATA (F)						
	% SMILAX SP (F)						
	% TOXICODENDRON RADicans(F)						
	% VITIS ROTUNDIFOLIA(F)						
	% WEDELIA TRLOBATA						
Other		Other		Other		Other	

5-10	%	OBL	%	UPL
5-10	%	TAXODIUM DISTICHIUM(O)	%	ALBIZIA JULIBRISIN
	%	PERSEA PALUSTRIS (BORBONEA) (O)	%	AMBROSIA ARTEMISIIFOLIA (U)
	%	ILEX CASSINE (O)	%	BURSERA SIMARUBA (U) GUM LIMBO
	%	SALIX CAROLIANA(O)	%	CALCARIPA AMERICANA (U)
	%	FRAXINUS CAROLINIANA(O)	%	CENCHRUS SP (U)
	%	CEPHALANTHUS OCCIDENTALIS (O)	%	CYDONOD DACTYLON (L) bermudagrass
	%	ANNONA GLABRA (O)	%	DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
	%	BACOPA (O)	%	DESMODIUM SP(U)
	%	DICROMENA LATIFOLIA (O)	%	ILEX GLABRA(U)
	%	ELEOCHARIS SP (O)	%	LANTANA CAMARA(FU)
	%	ERIOCAULON SP(PIPEWORTS) (O/FW)	%	OXALIS STRICTA (U)
	%	FUIRENA SCIRPODEA(O)	%	PANICUM MAXIMUM (U) guineagrass
	%	JUNCUS SP.(O)	%	PASPALUM NOTATUM(U)
	%	LUDwigia SP (O)	%	PILOBLEPHIS RIGIDA (U)
	%	NYMPHAEA SP (O)	%	PITYOPSPIS (HETEROTHECA) GRAMINIFOLIA (U)
	%	PANICUM HEMITOMON (O)	%	PTERIDIUM GLEDTISCH (U) BRACK FERN
	%	POLYGONUM SP(O)	%	PTEROCaulon PYCNOTACHYUM (U)
	%	PONTEDERIA CORDATA (O)	%	QUERCUS CHAMANI(U)
	%	PROSERPINACA SP (O)	%	QUERCUS VIRGINIANA(U)
	%	RHYNCOSPORA (O)	%	RHUS COPALLINUM (U)
	%	SAGITTaria LANCIFOLIA (O)	%	RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
	%	SETARIA MAGNA (O)	%	SPERMACOCE SP. (U)
	%	THALIA GENICULATA (O)	%	STENOTAPHRUM SECUNDATUM (U) FLORATAM
	%	TYPHA SP (O)	%	URENA LOBATA(U)
	%	UTRICULARIA (O)		

20-30 % BARE GROUND

HYDROLOGIC INDICATORS:

XX	ALGAL MATS	ADVENTITIOUS ROOTS
XX	WATER MARKS	HYPERTROPHIC LENTICELS
AUFWUCHS		
RAFTING OF DEBRIS	XX	ACTIVE CYPRESS KNEES
		FLOW CHANNELS

XX	1/2 INCH	AQUATIC PLANTS
		BUMMELING
		HYDROLOGIC DATA
		SEDIMENT DEPOSITION
XX		AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2007 AREA HAD ABOUT 3-4 MONTH HYDROPERIOD 1 FOOT DEEP: KNOCKING BACK FAC WET PLANTS
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP/OCT 2008
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 INUNDATION IN PRIOR WET SEASON, SURFACE WATER 4 INCHES DEEP AND RECEDING
 2011 GROUND COVER STILL INCREASING, AREA INUNDATED, SURFACE WATER PRESENT

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 THIS SAMPLE POINT TEST TREATED IN MARCH / APR SMALL AREAS OF NATIVE GRASSES TRYING TO BOUNCE BACK NOW THAT NOT COMPETING WITH MELALEuCA
 2007 AREA TREATED WITH TRICLOPYR AND GLYPHOSATE
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 THIS SAMPLE POINT WAS INCLUDED IN THE TEST TREATMENT AREA
 2007 AREA TEST TREATED IN MAR / APR 2008
 2007 CANOPY AND SUB CANOPY MELALEuCA ELIMINATED.
 2009 AREA NOT TREATED IN JAN/MAR 2009 INITIAL TMT, SEEDLINGS NOW 3 FEET TALL
 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEuCA SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 WET CONDITIONS INHIBITED EXOTIC GROWTH AND ESTABLISHMENT

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P4

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

CANOPY

10-20 % FAC	%	FAC W
5-10 % PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
10-20 % SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
% MELALEUCA QUINQUENERVIA(F)	GIRDLED	
% ACACIA AURICULIFORMES(F)		
Other		Other

5-10 % OBL	% UPL
5-10 % TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
% PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
% ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
% SALIX CAROLIANA(O)	
% FRAXINUS CAROLINIANA(O)	
Other	Other

SUBCANOPY

10-20 % FAC	%	FAC W
5-10 % PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
5-10 % SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
% MELALEUCA QUINQUENERVIA(F)	CUT	
% SERENOA REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

5-10 % OBL	% UPL
5-10 % TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
% PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
% ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
% SALIX CAROLIANA(O)	% RHUS COPALLINUM (U)
% FRAXINUS CAROLINIANA(O)	
% CEPHALANTHUS OCCIDENTALIS (O)	
Other	Other

GROUNDCOVER

60-70 % FAC	%	FAC W
5-10 % PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
5-10 % SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)		
0 % MELALEUCA QUINQUENERVIA(F)	CUT	
20-30 % SERENOA REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
% ADROPOGON VIRGINICUS(F)		
10-20 % ARISTIDA STRICTA(F)		
% AXONOPUS SP (F)		
% BACCHARIS HALIMIFOLIA(F)		
% BIDENS PILOSA (F)		
% BUMELIA (F)		
% DIOSCOREA BULIFERIA (F?)		
% ERAGrostis SP (F)		
% ERIGERON OLERCIFOLIUS (F)		
% ERYNGIUM BALDWINII (F)		
<5 % EUPATORIUM SP (F)		
% EUTHAMIA SP (F)		
% FORESTIERA SEGREGATA(F)		
% ILEX OPACA V OPACA(F)		
% IMPERATA CYLINDRICA (COGON)		
% LACHNANTHES CAROLIANA(F)		
% LYGODIUM JAPONICUM (F)		
% LYONIA FERRUGinea (F)		
% MELCHIA CORCHORIFOLIA (F)		
<5 % MIKANIA SCANDENS (F)		
% PHYLLO SP (F)		
% PSYCHOTRIA SP.(F)		
10-20 % RUBUS SP (F)		
<5 % RUELLIA CAROLINIENSIS(F)		
% SAMBUCUS CANADENSIS (F)		
% SESBANIA SP (F)		
% SETERIA GENICULATA (F)		
% SMILAX SP (F)		
% TOXICODENDRON RADicans(F)		
% VITIS ROTUNDIFOLIA(F)		
% WEDELIA TRLOBATA		
Other		Other

30-40 % OBL	<5 % UPL
10-20 % TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
% PERSEA PALUSTRIS (BORBONEA) (O)	% AMBROSIA ARTEMISIIFOLIA (U)
% ILEX CASSINE (O)	% BURSERA SIMARUBA (U) GUM LIMBO
% SALIX CAROLIANA(O)	% CALCARPA AMERICANA (U)
% FRAXINUS CAROLINIANA(O)	% CENCHRUS SP (U)
% CEPHALANTHUS OCCIDENTALIS (O)	% CYDONIA DACTYLON (U) bermudagrass
% ANNONA GLABRA (O)	% DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
% BACOPA (O)	% DESMODIUM SP(U)
<5 % CLADIUM JAMAICENSE(O)	% ILEX GLabra(U)
% DICROMENA LATIFOLIA (O)	% LANTANA CAMARA(FU)
% ELEOCHARIS SP (O)	% OXALIS STRICTA (U)
% ERIOCAULON SP(PIPEWORTHS) (O/FW)	% PANICUM MAXIMUM (U) guineagrass
% FUIRENA SCIRPODEA(O)	% PASPALUM NOTATUM(U)
% JUNCUS SP.(O)	% PILOBLEPHIS RIGIDA (U)
% LUDWIGIA SP (O)	% PITOPSYL (HETEROTHECA) GRAMINIFOLIA (U)
% NYMPHAEA SP (O)	% PTERIDIUM GLEDTISCH (U) BRACK FERN
% PANICUM HEMITOMON (O)	% PTEROCaulon PYCNOTACHYUM (U)
% POLYGONUM SP(O)	% QUERCUS CHAMANI(U)
% PONTEDERIA CORDATA (O)	% QUERCUS VIRGINIANA(U)
% PROSERPINACA SP (O)	% RHUS COPALLINUM (U)
% RHYNCOSPORA (O)	% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
NE % SAGITTaria LANCIFOLIA (O)	<5 % SPERMACOCE SP. (U)
% SETARIA MAGNA (O)	% STENOTAPHRUM SECUNDATUM (U) FLORATAM
% THALIA GENICULATA (O)	% URENA LOBATA(U)
% TYPHA SP (O)	
% UTRICULARIA (O)	
Other	% BARE GROUND

HYDROLOGIC INDICATORS:

XX ALGAL MATS	XX ADVENTITIOUS ROOTS
XX WATER MARKS	XX HYPERTROPHIC LENTICELS
AUFWUCHS	XX ACTIVE CYPRESS KNEES
RAFTING OF DEBRIS	FLOW CHANNELS

SURFACE WATER PRESENT	AQUATIC PLANTS
AQUATIC MOSES/LIVERWORTS	BUMMELING
DRIFT LINES	HYDROLOGIC DATA
VEGETATED TUSSOCKS/HUMMOCKS	SEDIMENT DEPOSITION
ELEVATED LICHEN LINES	XX AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2007 PINE IN CANOPY DECREASED: APPAREARS MORE DYING FROM MAY 2007 BLAZE
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH. NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
 2011 GROUND COVER STILL INCREASING,

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 SLIGHT DECREASE IN FAC WET PLANTS
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2010 GROUND COVER STILL IMPROVING ; APPEARS A FEW OF THE CYPRESS TREES FINALLY DIED FROM THE 2007 FIRE
 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEUCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPOUTING FROM ADVENTIOUS BUDS NEAR THE BASE OF THE TREE
 2007 EPICORMIC SPROUTING NOTED IN LAST SURVEY GROWING QUICKLY
 2007 ALSO SOME SEEDING FROM ADJACENT SOURCES SPROUTING.
 2009 TREATED IN JAN MAR 2009
 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 FEB 2010 1ST FOLLOW UP COMPLETED
 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P5

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

CANOPY

%	% FAC	%	FAC W	%	OBL	%	UPL
—%	PINUS ELLOTTI V DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)	—%	TAXODIUM DISTICHUM(O)	—%	ALBIZIA JULIBRISIN
—%	SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)	—%	PERSEA PALUSTRIS (BORBONEA) (O)	—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA	—%	ILEX CASSINE (O)	—%	QUERCUS VIRGINIANA(FU)
—%	SCHINUS TEREBINTHIFOLIUS(F)	GIRDLED		—%	SALIX CAROLIANA(O)	—%	
—%	MELALEUCA QUINQUENERVIA(F)			—%	FRAXINUS CAROLINIANA(O)	—%	
—%	ACACIA AURICULIFORMES(F)			Other	Other	Other	Other

SUBCANOPY

% FAC	%	FAC W	10-20%	OBL	%	UPL		
—%	PINUS ELLOTTI V DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)	—%	TAXODIUM DISTICHUM(O)	—%	ALBIZIA JULIBRISIN	
—%	SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)	—%	PERSEA PALUSTRIS (BORBONEA) (O)	—%	BURSERA SIMARUBA (U) GUM LIMBO	
—%	MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA	—%	ILEX CASSINE (O)	—%	QUERCUS VIRGINIANA(FU)	
—%	SCHINUS TEREBINTHIFOLIUS(F)	CUT	—%	CORNUS FOEMINA (FW)	—%	SALIX CAROLIANA(O)	—%	RHUS COPALLINUM (U)
—%	MELALEUCA QUINQUENERVIA(F)		—%		—%	FRAXINUS CAROLINIANA(O)	—%	CEPHALANTHUS OCCIDENTALIS (O)
—%	SERENOEA REPENS(F)		—%		—%		Other	Other
—%	FICAS AUREAF		—%		—%			
—%	MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		—%		—%			
—%	DIOSPYROS VIRGINIANA (F)		—%		—%			
—%	EUGENA CUMINI (F)		—%		—%			
—%	ACACIA AURICULIFORMES(F)		—%		—%			
Other		Other	Other	Other	Other	Other	Other	

GROUNDCOVER

40-50% FAC	60-70%	FAC W	10-20%	OBL	<5	% UPL
—%	—%	QUERCUS LAURIFOLIA(FW)	—%	TAXODIUM DISTICHUM(O)	—%	ALBIZIA JULIBRISIN
<5	—%	SABAL PALMETTO(F)	—%	PERSEA PALUSTRIS (BORBONEA) (O)	—%	AMBROSIA ARTEMISIIFOLIA (U)
—%	—%	MYRICA CERIFERA(F)	—%	ILEX CASSINE (O)	—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	—%	SCHINUS TEREBINTHIFOLIUS(F)	—%	SALIX CAROLIANA(O)	—%	CALICCARPA AMERICANA (U)
0%	MELALEUCA QUINQUENERVIA(F)	CUT	—%	FRAXINUS CAROLINIANA(O)	—%	CENCHRUS SP (U)
—%	SERENOEA REPENS(F)		—%	CEPHALANTHUS OCCIDENTALIS (O)	—%	CYDONON DACTYLON (U) bermudagrass
—%	FICAS AUREAF		—%	ANNONA GLABRA (O)	—%	DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
—%	MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		—%	BACOPA (O)	—%	DESMODIUM SP(U)
—%	DIOSPYROS VIRGINIANA (F)		—%	CLADIUM JAMAICENSE(O)	—%	ILEX GLABRA(U)
—%	EUGENA CUMINI (F)		—%	DICHROMENA LATIFOLIA (O)	—%	LANTANA CAMARA(FU)
—%	ACACIA AURICULIFORMES(F)		—%	ELEOCHARIS SP (O)	—%	OXALIS STRICTA (U)
—%	ANDROPOGON VIRGINICUS(F)		—%	ERIOCAULON SP(PIPEWORTHS) (O/FW)	—%	PANICUM MAXIMUM (U) guineagrass
—%	ARISTIDA STRICTA(F)		—%	FIURENA SCROPODEA(O)	—%	PASPALUM NOTATUM(U)
—%	AXONOPUS SP (F)		—%	JUNCUS SP.(O)	—%	PILOBLEPHIS RIGIDA (U)
—%	BACCHARIS HALIMIFOLIA(F)		—%	LUDWIGIA SP (O)	—%	PITYOPSIS (HETEROTHECA) GRAMINIFOLIA (U)
—%	BIDENS PILOSA (F)		—%	NYMPHEA SP (O)	—%	PTERIDIUM GLEDTISCH (U) BRACK FERN
—%	BUMELIA (F)		—%	PANICUM HEMITOMON (O)	—%	PTEROCAULON PYCNOTACHYUM (U)
—%	DISCOREIA BULIFERA (F?)		—%	POLYGONUM SP(O)	—%	QUERCUS CHAMANII(U)
—%	ERAGrostis SP (F)		—%	PONTEDERIA CORDATA (O)	—%	QUERCUS VIRGINIANA(U)
—%	ERIGERON OLERICIFOLIUS (F)		—%	PROSERPINACA SP (O)	—%	RHUS COPALLINUM (U)
—%	ERYNGIUM BALDWINII (F)		—%	RHYNCOSPORA (O)	—%	RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
—%	EUPATORIUM SP (F)		—%	SAGITTaria LANCIFOLIA (O)	—%	SPERMACOCE SP. (U)
—%	EUTHAMIA SP (F)		—%	SETARIA MAGNA (O)	—%	STENOTAPHRUM SECUNDATUM (U) FLORATAM
—%	FORESTIERA SEGREGATA(F)		—%	THALIA GENICULATA (O)	—%	URENA LOBATA(U)
—%	ILEX OPACA V OPACA(F)		—%	TYPHA SP (O)	—%	
—%	IMPERATA CYLINDRICA (COGON)		—%	UTRICULARIA (O)	—%	
—%	LACHNANTHES CAROLIANA(F)		—%		5-10	% BARE GROUND
—%	LYGODIUM JAPONICUM (F)		—%			
—%	LYONIA FERRUGinea (F)		—%			
—%	MELCHORIA CORCHORIFOLIA (F)		—%			
30-40%	MIKANIA SCANDENS (F)		—%			
—%	PHYLA SP (F)		—%			
—%	PSYCHOTRIA SP.(F)		—%			
—%	RUBUS SP (F)		—%			
—%	SAMBUCUS CANADENSIS (F)		—%			
—%	SESBSANIA SP (F)		—%			
—%	SETERIA GENICULATA (F)		—%			
—%	SMILAX SP (F)		—%			
—%	TOXICODENDRON RADICANS(F)		—%			
—%	VITIS ROTUNDIFOLIA(F)		—%			
—%	WEDELIA TRLOBATA		—%			
Other		Other	Other	Other	Other	Other

HYDROLOGIC INDICATORS:

XX ALGAL MATS	XX ADVENTITIOUS ROOTS	SURFACE WATER PRESENT	AQUATIC PLANTS
WATER MARKS	HYPERTROPHIC LENTICILS	AQUATIC MOSSES/LIVERWORTS	BUMMELING
AUFWUCHS	XX ACTIVE CYPRESS KNEES	DRIFT LINES	HYDROLOGIC DATA
RAFTING OF DEBRIS	FLOW CHANNELS	VEGETATED TUSSOCKS/HUMMOCKS	SEDIMENT DEPOSITION
		ELEVATED LICHEN LINES	XX AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

- 2007 AREA SUBJECT TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
- 2007 AREA HAD ABOUT 3-4 MONTH HYDROPERIOD 1 FOOT DEEP:: KNOCKING BACK FAC WET PLANTS
- 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP/OCT 2008
- 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
- 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
- 2011 GROUND COVER STILL INCREASING,

NATIVE VEGETATION HEALTH & REPRODUCTION:

- 2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
- 2007 LARGE INCREASE IN AMPHICARPUM IN THIS AREA IN THE GROUND COVER.
- 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
- 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2011 GROUND COVER INCREASING, INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

- 2007 MELALEUCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPOUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
- 2007 SOME MELALEUCA STEMS IN CANOPY THAT LOOKED DEAD NOW SPROUTING
- 2007 SMALL INCREASE IN MELALEUCA COVERAGE IN SUB-CANOPY
- 2009 TREATED IN JAN/MAR 2009
- 2010 FEB 2010 1ST FOLLOW UP COMPLETED
- 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

- 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P6

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

CANOPY

5-10% % FAC	%	FAC W
5-10% % PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		GIRDLED
% MELALEUCA QUINQUENERVIA(F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

0 %	OBL	% UPL
	TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
	ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
	SALIX CAROLIANA(O)	
	FRAXINUS CAROLINIANA(O)	
Other	Other	Other

SUBCANOPY

% FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)	%	CORNUS FOEMINA (FW)
% MELALEUCA QUINQUENERVIA(F)	CUT	
% SERENOAE REPENS(F)		
% FICAS AUREAF		
% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

10-20% % OBL	% UPL
10-20% TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN
PERSEA PALUSTRIS (BORBONEA) (O)	% BURSERA SIMARUBA (U) GUM LIMBO
ILEX CASSINE (O)	% QUERCUS VIRGINIANA(FU)
SALIX CAROLIANA(O)	% RHUS COPALLINUM (U)
FRAXINUS CAROLINIANA(O)	
CEPHALANTHUS OCCIDENTALIS (O)	
Other	Other

GROUNDCOVER

50-60% % FAC	20-30 %	FAC W
<5 % PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
5-10% % SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)	5-10%	AMPHICARPUM MUHLENBERGANUM (FW)
0% % MELALEUCA QUINQUENERVIA(F)	CUT	BLECHNUM SERRULATUM(FW)
% SERENOAE REPENS(F)	%	CENTELLA ASIATICA (FW)
% FICAS AUREAF	%	CHRYSOBALANUS ICACO (FW)
% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)	%	CIRSIMUM NUTTALLI (FW)
% DIOSPYROS VIRGINIANA (F)	%	COMMELINA SP (FW)
% EUGENIA CUMINI (F)	%	CONOCARPOS ERECTUS (FW)
% ACACIA AURICULIFORMES(F)	%	COREOPSIS SP (FW)
30-40 % ANDROPOGON VIRGINICUS(F)	%	CYPERUS LIGULARIS(FW)
10-20 % ARISTIDA STRICKA(F)	5-10%	CYPERUS ODORATUS(FW)
% AXONOPUS SP (F)	%	DICHROMENA COLORATA (FW)
% BACCHARIS HALIMIFOLIA(F)	%	DIODIA VIRGINIANA (FW)
% BIDENS PILOSA (F)	%	EUSTACHYS GLAUCA (FW)
% BUMELIA (F)	5-10%	FIMBRISTYLIS ANNUA (FW)
% DISCOREA BULBIFERA (F?)	%	GLEDTIA TRIACANTHOS (FW)
% ERAGrostis SP (F)	%	HELIANTHUS SP (FW)
% ERIGERON QUERICIFOLIUS (F)	%	HYDROCOTYLE SP (FW)
% ERYNGIUM BALDWINII (F)	%	HYPERICUM SP (FW)
5-10% % EUPATORIUM SP (F)	%	HYPTIS ALATA (FW)
% EUTHAMIA SP (F)	%	JUNCUS MARGINATUS (FW)
% FORESTIERA SEGREGATA(F)	%	LACHNOCAULON SP(BOGGUTTON)(O/FW)
% ILEX OPACA V OPACA(F)	%	LINDERIA GRANDIFLORA (FW)
% IMPERATA CYLINDRICA (COGON)	%	MELANTHERA HASTATA (FW)
% LACHNANTHES CAROLIANA(F)	%	PANICUM REPENS (FW)
% LYGDONIUM JAPONICUM (F)	%	PASPALUM LIGULARIS (FW)
% LYONIA FERRUGinea (F)	%	PLUCHEA SP (FW)
% MELCOCHA CORCHORIFOLIA (F)	5-10%	RHEIXIA SP (FW)
20-30% % MIKANIA SCANDENS (F)	5-10%	RUMEX VERTICILLATUS (FW)
-5% % PHYLLO SP (F)	%	SCLERIA SP (FW)
% PSYCHOTRIA SP.(F)	%	SOLIDAGO (FW)
% RUBUS SP (F)	%	SPARTINA BAKERI (FW)
% SAMBUCUS CANADENSIS (F)	%	THELYPTERIS SP (FW) SHELD FERN
% SESBANIA SP (F)	%	WOODWARDIA VIRGINICA (FW) V CHN FERN
% SETERIA GENICULATA (F)	%	XYRIS CAROLINANA (FW)
% SMILAX SP (F)		
% TOXICODENDRON RADICANS(F)		
% VITIS ROTUNDIFOLIA(F)		
% WEDELIA TRLOBATA		
Other		Other

<5 %	OBL	% UPL
<5% % TAXODIUM DISTICHIUM(O)	% ALBIZIA JULIBRISIN	
% PERSEA PALUSTRIS (BORBONEA) (O)	% AMBROSIA ARTEMISIIFOLIA (U)	
% ILEX CASSINE (O)	% BURSERA SIMARUBA (U) GUM LIMBO	
% SALIX CAROLIANA(O)	% CALLICARPA AMERICANA (U)	
% FRAXINUS CAROLINIANA(O)	% CENCHRUS SP (U)	
% ANNONA GLABRA (O)	% CYDONIA DACTYLON (U) bermudagrass	
% BACOPA (O)	% DACTYLOCETIUM AEgyptium (U) crowfootgrass	
5-10% % CLADIUM JAMAICENSE(O)	% DESMODIUM SP(U)	
DICHROMENA LATIFOLIA (O)	% ILEX GLabra(U)	
ELEOCHARIS SP (O)	% LANTANA CAMARA(FU)	
ERIOCAULON SP(PIPEWORTS) (O/FW)	% OXALIS STRICTA (U)	
FUIRENA SCIRPODEA(O)	% PANICUM MAXIMUM (U) guineagrass	
JUNCUS SP.(O)	% PASPALUM NOTATUM(U)	
LUDWIGIA SP (O)	% PILOBLEPHIS RIGIDA (U)	
NYMPHAEA SP (O)	% PITOPSYSS (HETEROTHECA) GRAMINIFOLIA (U)	
PANICUM HEMITOMON (O)	% PTERIDIUM GLEDTISCH (U) BRACK FERN	
POLYGONUM SP(O)	% PTEROCaulon PYCNOTACHYUM (U)	
PONTEDERIA CORDATA (O)	% QUERCUS CHAMANII(U)	
PROSERPINACA SP (O)	% QUERCUS VIRGINIANA(U)	
RHYNCHOSPORE (O)	% RHUS COPALLINUM (U)	
SAGITTaria LANCIFOLIA (O)	% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)	
SETARIA MAGNA (O)	% SPERMACOCE SP. (U)	
THALIA GENICULATA (O)	% STENOTAPHRUM SECUNDATUM (U) FLORATAM	
TYPHA SP (O)	% URENA LOBATA(U)	
UTRICULARIA (O)		
Other	10-20 % BARE GROUND	

HYDROLOGIC INDICATORS:

XX ALGAL MATS	ADVENTITIOUS ROOTS
XX WATER MARKS	HYPERTROPHIC LENTICLES
AUFWUCHS	XX ACTIVE CYPRESS KNEES
RAFTING OF DEBRIS	FLOW CHANNELS

XX SURFACE WATER PRESENT	AQUATIC PLANTS
AQUATIC MOSSES/LIVERWORTS	BUMMELING
DRIFT LINES	HYDROLOGIC DATA
VEGETATED TUSSOCKS/HUMMOCKS	SEDIMENT DEPOSITION
ELEVATED LICHEN LINES	AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

- 2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
- 2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED 70% OF THE CROWNS IN THIS AREA.
- 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP/OCT 2008
- 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
- 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
- 2011 GROUND COVER STILL INCREASING.

NATIVE VEGETATION HEALTH & REPRODUCTION:

- 2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
- 2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 70-80% CROWN FIRE KILL IN THIS AREA.
- 2008 SOME SABAL PALM AND MELALEUCA THAT APPEARED DEAD RESPROUTING IN THIS AREA, MOST NOTICABLE IN THE CANOPY AND SUB CANOPY
- 2009 CYPRESS RE LEAVING DUE TO WARMER WEATHER
- 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH. CYPRESS IN SUB CANOPY APPEAR TO BE RECOVERING FROM 2007 FIRE
- 2011 CYPRESS IN CANOPY APPEAR TO HAVE FINALLY DIED FROM 2007 FIRE,

EXOTIC VEGETATION HEALTH & REPRODUCTION:

- 2007 MELALEucas OBSERVED IN EACH LEVEL APPEARS TO BE RESPouting FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
- 2008 MELALEucas IN THE GROUND COVER RESEEDING AND EPICORMIC SPROUTING INCREASING, ANDROPOGON, AMPHICARPUM INCREASING
- 2009 TREATED IN JAN/MAR 2009
- 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.
- 2010 FEB 2010 1ST FOLLOW UP COMPLETED
- 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

- 2010 RED HEADED WP

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P7

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 625 HYDRIC PINE

CANOPY

40-50 % FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
40-50 % SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
0% % MELALEUCA QUINQUENERVIA(F)	GIRDLED	
Other		Other

%	OBL
%	TAXODIUM DISTICHUM(O)
%	PERSEA PALUSTRIS (BORBONEA) (O)
%	ILEX CASSINE (O)
%	SALIX CAROLIANA(O)
%	FRAXINUS CAROLINIANA(O)
Other	Other

% UPL
% ALBIZIA JULIBRISIN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINIANA(FU)
Other

SUBCANOPY

30-40 % FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
30-40 % SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
0% % MELALEUCA QUINQUENERVIA(F)	CUT	
% SERENOAE REPENS(F)		
% FICAS AUREAF		
% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

%	OBL
%	TAXODIUM DISTICHUM(O)
%	PERSEA PALUSTRIS (BORBONEA) (O)
%	ILEX CASSINE (O)
%	SALIX CAROLIANA(O)
%	FRAXINUS CAROLINIANA(O)
%	CEPHALANTHUS OCCIDENTALIS (O)
Other	Other

% UPL
% ALBIZIA JULIBRISIN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINIANA(FU)
% RHUS COPALLINUM (U)
Other

GROUNDCOVER

40-50 % FAC		FAC W
% PINUS ELLOTTI V DENSA(F)		QUERCUS LAURIFOLIA(FW)
10-20% % SABAL PALMETTO(F)		ACER RUBRUM(FW)
10-20% % MYRICA CERIFERA(F)		CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)		AMPHICARPUM MUHLENBERGANIUM (FW)
<5% % MELALEUCA QUINQUENERVIA(F)	CUT	BLECHNUM SERRULATUM(FW)
10-20% % SERENOAE REPENS(F)		CENTELLA ASIATICA (FW)
% FICAS AUREAF		CHRYSOBALANUS ICACO (FW)
% MYRSINE GUIANENSIS (RAPENEAE PUNCTATA)(F)		CIRSIMUM NUTTALLI (FW)
% DIOSPYROS VIRGINIANA (F)		COMMELINA SP (FW)
% EUGENIA CUMINI (F)		CONOCARPA ERECTUS (FW)
% ACACIA AURICULIFORMES(F)		COREOPSIS SP (FW)
10-20% % ANDROPOGON VIRGINICUS(F)		CYPERUS LIGULARIS(FW)
<5% % ARISTIDA STRICTA(F)		CYPERUS ODORATUS(FW)
% AXONOPUS SP (F)		DICHROMENA COLORATA (FW)
% BACCHARIS HALIMIFOLIA(F)		DIODIA VIRGINIANA (FW)
% BIDENS PILOSA (F)		EUSTACHYS GLAICA (FW)
% BUMELIA (F)		FIMBRISTYLIS ANNUA (FW)
% DIOSCOREA BULIFERA (F?)		GLEIDITZIA TRIACANTHOS (FW)
% ERAGrostis SP (F)		HELIANTHUS SP (FW)
% ERIGERON OLERICIFOLIUS (F)		HYDROCYTOTE SP (FW)
% ERYNGIUM BALDWINII (F)		HYPERICUM SP (FW)
<5% % EUPATORIUM SP (F)		HYPITIS ALATA (FW)
% EUTHAMIA SP (F)		JUNCUS MARGINATUS (FW)
% FORESTIERA SEGREGATA(F)		LACHNOCAULON SP (BOGBUTTON)(O/FW)
% ILEX OPACA V OPACA(F)		LINDERIA GRANDIFLORA (FW)
% IMPERATA CYLINDRICA (COGON)		MELANTHERA HASTATA (FW)
% LACHNANTHES CAROLIANA(F)		PANICUM REPENS (FW)
% LYGDONIUM JAPONICUM (F)		PASPALUM LIGULARIS (FW)
% LYONIA FERRUGinea (F)		PLUCHEA SP (FW)
% MELCHIORIA CORCHORIFOLIA (F)		RHEXIA SP (FW)
5-10% % MIKANIA SCANDENS (F)		RUMEX VERTICILLATUS (FW)
% PHYLA SP (F)		SCLERIA SP (FW)
% PSYCHOTRIA SP.(F)		SOLIDAGO (FW)
5-10% % RUBUS SP (F)		SPARTINA BAKERI (FW)
% SAMBUCUS CANADENSIS (F)		THELYPTERYX SP (FW) SHELD FERN
% SESBANIA SP (F)		WOODWARDIA VIRGINICA (FW) V CHN FERN
% SETERIA GENICULATA (F)		XYRIS CAROLINANA (FW)
% SMILAX SP (F)		
% TOXICODENDRON RADicans(F)		
<5% % VITIS ROTUNDIFOLIA(F)		
% WEDELIA TRLOBATA		
Other		Other

20-30 %	%	OBL
%	%	TAXODIUM DISTICHUM(O)
%	%	PERSEA PALUSTRIS (BORBONEA) (O)
%	%	ILEX CASSINE (O)
%	%	SALIX CAROLIANA(O)
%	%	FRAXINUS CAROLINIANA(O)
%	%	ANNONA GLABRA (O)
%	%	BACOPA (O)
5-10%	%	CLADIUM JAMAICENSE(O)
%	%	DICHROMENA LATIFOLIA (O)
%	%	ELEOCHARIS SP (O)
%	%	ERIOCAULON SP(PIPEWORTHS) (O/FW)
%	%	FUIRENA SCIRPODEA(O)
%	%	JUNCUS SP.(O)
%	%	LUDWIGIA SP (O)
%	%	NYMPHEA SP (O)
%	%	PANICUM HEMITOMON (O)
%	%	POLYGONUM SP(O)
%	%	PONTEDERIA CORDATA (O)
%	%	PROSERPINACA SP (O)
%	%	RHYNCHOSPORA (O)
%	%	SAGITTaria LANCIFOLIA (O)
%	%	SETARIA MAGNA (O)
%	%	THALIA GENICULATA (O)
%	%	TYPHA SP (O)
%	%	UTRICULARIA (O)
5-10%	%	BARE GROUND

% UPL
% ALBIZIA JULIBRISIN
% AMBROSIA ARTEMISIIFOLIA (U)
% BURSERA SIMARUBA (U) GUM LIMBO
% CALICCARPA AMERICANA (U)
% CENCHRUS SP (U)
% CYDONON DACTYLYTRUM (U) bermudagrass
% DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
% DESMODIUM SP(U)
% ILEX GLabra(U)
% LANTANA CAMARA(FU)
% OXALIS STRICTA (U)
% PANICUM MAXIMUM (U) guineagrass
% PASPALUM NOTATUM(U)
% PILOBLEPHIS RIGIDA (U)
% PITYOPSIS (HETEROTHECA) GRAMINIFOLIA (U)
% PTERIDIUM GLEDTISCH (U) BRACK FERN
% PTEROCaulon PYCNOTACHYUM (U)
% QUERCUS CHAMANII(U)
% QUERCUS VIRGINIANA(U)
% RHUS COPALLINUM (U)
% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
% SPERMACOCE SP. (U)
% STENOTAPHRUM SECUNDATUM (U) FLORATAM
% URENA LOBATA(U)

HYDROLOGIC INDICATORS:

XX	ALGAL MATS	ADVENTITIOUS ROOTS
	WATER MARKS	HYPERTROPHIC LENTICILS
	AUFWUCHS	XX ACTIVE CYPRESS KNEES
	RAFTING OF DEBRIS	FLOW CHANNELS
Other		Other

SURFACE WATER PRESENT
AQUATIC MOSES/LIVERWORTS
DRIFT LINES
VEGETATED TUSSOCKS/HUMMOCKS
ELEVATED LICHEN LINES

AQUATIC PLANTS
BUMMELING
HYDROLOGIC DATA
SEDIMENT DEPOSITION
AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

- 2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
- 2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED 100% OF THE CROWNS IN THIS AREA.
- 2009 DROUGHT CONDITONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
- 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
- 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
- 2011 AREA REALITIVELY THE SAME, MORE RAIN THIS YEAR

NATIVE VEGETATION HEALTH & REPRODUCTION:

- 2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
- 2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 70-80% CROWN FIRE KILL IN THIS AREA.
- 2008 SOME SABAL PALM AND MELALEUCA THAT APPEARED DEAD RESPROUTING IN THIS AREA , MOST NOTICABLE IN THE CANOPY AND SUB CANOPY
- 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
- 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2011 AREA THE SAME , INDICATION OF SOME INUNDATION

EXOTIC VEGETATION HEALTH & REPRODUCTION:

- 2007 MELALEuCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPROUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
- 2008 SURVIVORS IN THE CANOPY AND SUBCANOPY FROM THE MAY 2007 WILDFIRES RESPROUTING NOW
- 2008 MELALEUCAS IN THE GROUND COVER RESEEDING AND EPICORMIC SPROUTING INCREASING, ANDROPOGON, AMPHICARPUM INCREASING
- 2009 TREATED IN JAN MAR 2009
- 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.
- 2010 FEB 2010 1ST FOLLOW UP COMPLETED
- 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P8

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 621 CYPRESS

CANOPY

%	% FAC	%	FAC W
—%	PINUS ELLOTTII V DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)
—%	SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)
—%	MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA
—%	SCHINUS TEREBINTHIFOLIUS(F)	GIRDLED	
—%	MELALEUCA QUINQUENERVIA(F)		
—%	ACACIA AURICULIFORMES(F)		
Other		Other	

%	OBL
—%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
Other	

%	UPL
—%	ALBIZIA JULIBRISSEN
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	QUERCUS VIRGINIANA(FU)
—%	RHUS COPALLINUM (U)
Other	

SUBCANOPY

% FAC	%	FAC W		
—%	PINUS ELLOTTII V DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)	
—%	SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)	
—%	MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA	
—%	SCHINUS TEREBINTHIFOLIUS(F)	CUT	—%	CORNUS FOEMINA (FW)
—%	MELALEUCA QUINQUENERVIA(F)			
—%	SERENOAE REPENS(F)			
—%	FICAS AUREA(F)			
—%	MYRSINE GUIANESENSIS (RAPENEAE PUNCTATA)(F)			
—%	DIOSPYROS VIRGINIANA (F)			
—%	EUGENIA CUMINI (F)			
—%	ACACIA AURICULIFORMES(F)			
Other		Other		

20-30%	OBL
20-30%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
—%	CEPHALANTHUS OCCIDENTALIS (O)
Other	

%	UPL
—%	ALBIZIA JULIBRISSEN
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	QUERCUS VIRGINIANA(FU)
—%	RHUS COPALLINUM (U)
Other	

GROUNDCOVER

30-40% FAC	10-20% FAC W
—%	PINUS ELLOTTII V DENSA(F)
—%	SABAL PALMETTO(F)
—%	MYRICA CERIFERA(F)
—%	SCHINUS TEREBINTHIFOLIUS(F)
—%	MELALEUCA QUINQUENERVIA(F)
CUT	
—%	SERENOAE REPENS(F)
—%	FICAS AUREA(F)
—%	MYRSINE GUIANESENSIS (RAPENEAE PUNCTATA)(F)
—%	DIOSPYROS VIRGINIANA (F)
—%	EUGENIA CUMINI (F)
—%	ACACIA AURICULIFORMES(F)
—%	ADALROPONIR VIRGINICUS(F)
—%	ARISTIDA STRICTA(F)
—%	AXONOPUS SP (F)
—%	BACCHARIS HALIMIFOLIA(F)
—%	BIDENS PILOSA (F)
—%	BUMELIA (F)
—%	DIOSCOREA BULIFERA (F?)
—%	ERAGROSTIS SP (F)
—%	ERIGERON OLERCIFOLIUS (F)
—%	ERYNGIUM BALDWINII (F)
—%	EUPATORIUM SP (F)
—%	EUTHAMIA SP (F)
—%	FORESTIERA SEGREGATA(F)
—%	ILEX OPACA V OPACA(F)
—%	IMPERATA CYLINDRICA (COGON)
—%	LACHNANTHES CAROLIANA(F)
—%	LYGODIUM JAPONICUM (F)
—%	LYONIA FERRUGinea (F)
—%	MELCHIA CORCHORIFOLIA (F)
—%	MIKANIA SCANDENS (F)
—%	PHYLA SP (F)
—%	PSYCHOTRIA SP.(F)
—%	RUBUS SP (F)
—%	RUELLIA CAROLINENSIS(F)
—%	SAMBUCUS CANADENSIS (F)
—%	SESBANIA SP (F)
—%	SETERIA GENICULATA (F)
—%	SMILAX SP (F)
—%	TOXICODENDRON RADicans(F)
—%	VITIS ROTUNDIFOLIA(F)
—%	WEDELIA TRLOBATA
Other	Other

40-50% FAC	40-50% OBL
10-20%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
—%	CEPHALANTHUS OCCIDENTALIS (O)
—%	ANNONA GLABRA (O)
—%	BACOPA (O)
10-20%	CLADIUM JAMAICENSE(O)
—%	DICHLOMENA COLORATA (FW)
—%	DIODIA VIRGINIANA (FW)
—%	EUSTACHYS GLAUCA (FW)
—%	FIMBRISTYLIS ANNUA (FW)
—%	GLEDTISIA TRIACANTHOS (FW)
—%	HELIANTHUS SP (FW)
—%	HYDROCYTOTE SP (FW)
—%	HYPERICUM SP (FW)
—%	HYPTIS ALATA (FW)
—%	JUNCUS MARGINATUS (FW)
—%	LACHNOCAULON SP(BOGGUTTON)(O/FW)
—%	LINDERIA GRANDIFLORA (FW)
—%	MELANTHERA HASTATA (FW)
—%	PANICUM REPENS (FW)
—%	PASPALUM LIGULARIS (FW)
—%	PLUCHEA SP (FW)
—%	RHEXIA SP (FW)
—%	RUMEX VERTICILLATUS (FW)
—%	SCLERIA SP (FW)
—%	SOLIDAGO (FW)
—%	SPARTINA BAKERI (FW)
—%	THELYPTERIS SP (FW) SHELD FERN
—%	WOODWARDIA VIRGINICA (FW) V CHN FERN
—%	XYRIS CAROLINANA (FW)
Other	

%	UPL
—%	ALBIZIA JULIBRISSEN
—%	AMBROSIA ARTEMISIIFOLIA (U)
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	CALLICARPA AMERICANA (U)
—%	CENCHRUS SP (U)
—%	CYNODON DACTYLON (U) bermudagrass
—%	DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
—%	DESMODIUM SP(U)
—%	ILEX GLABRA(U)
—%	LANTANA CAMARA(FU)
—%	OXALIS STRICTA (U)
—%	PANICUM MAXIMUM (U) guineagrass
—%	PASPALUM NOTATUM(U)
—%	PILOBLEPHIS RIGIDA (U)
—%	PITYOPHSIS (HETEROCHAEA) GRAMINIFOLIA (U)
—%	PTERIDIUM GLEDTISCH (U) BRACK FERN
—%	PTEROCAULON PYCNOTACHYUM (U)
—%	QUERCUS CHAMANI(U)
—%	QUERCUS VIRGINIANA(U)
—%	RHUS COPALLINUM (U)
—%	RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
—%	SPERMACOCE SP. (U)
—%	STENOTAPHRUM SECUNDATUM (U) FLORATAM
—%	URENA LOBATA(U)
20-30 % BARE GROUND	
WET/FLOODED	

HYDROLOGIC INDICATORS:

XX	ALGAL MATS	ADVENTITIOUS ROOTS
XX	WATER MARKS	HYPERTROPHIC LENTICELS
AUFWUCHS		
RAFTING OF DEBRIS	ACTIVE CYPRESS KNEES	FLOW CHANNELS

XX	6 INCHES	
	SURFACE WATER PRESENT	
	AQUATIC MOSES/LIVERWORTS	
	DRIFT LINES	
	VEGETATED TUSSOCKS/HUMMOCKS	
	ELEVATED LICHEN LINES	

AQUATIC PLANTS	
BUMMELING	
HYDROLOGIC DATA	
SEDIMENT DEPOSITION	
AQUATIC FAUNA	

SUMMARY:

GENERAL OBSERVATIONS:

- 2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
- 2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED 100% OF THE CROWNS IN THIS AREA.
- 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
- 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
- 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
- 2011 MORE RAIN THIS YEAR AREA HAS BEEN INUNDATED, REMAINED SAME AS LAST YEAR, LONGER HYDROPERIOD

NATIVE VEGETATION HEALTH & REPRODUCTION:

- 2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
- 2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 90-100% CROWN FIRE KILL IN THIS AREA.
- 2008 CYPRESS DECREASING IN CANOPY GRD COVER; INCREASE IN CLADIUM IN GRD COVER
- 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
- 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
- 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH. CYPRESS IN SUB CANOPY APPEAR TO BE RECOVERING FROM 2007 FIRE
- 2011 AREA SAME AS LAST YEAR , LONGER HYDROPERIOD.

EXOTIC VEGETATION HEALTH & REPRODUCTION:

- 2007 MELALEuCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPOUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
- 2008 MELALEuCA INCREASING IN ALL STRATA
- 2009 TREATED IN JAN MAR 2009
- 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEuCA SEEDS AND SEEDLINGS IN GROUND COVER.
- 2010 FEB 2010 1ST FOLLOW UP COMPLETED
- 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

- 2007 RED FLICKER

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P9

Original Density Code: LOW

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 621 CYPRESS

CANOPY

0%	% FAC	%	FAC W
—%	PINUS ELLOTTIV DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)
—%	SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)
—%	MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA
—%	SCHINUS TEREBINTHIFOLIUS(F)	GIRDLED	
—%	MELALEUCA QUINQUENERVIA(F)		
—%	ACACIA AURICULIFORMES(F)		
Other		Other	

%	FAC W
—%	QUERCUS LAURIFOLIA(FW)
—%	ACER RUBRUM(FW)
—%	CELTIS LAEVIGATA
Other	

30-40%	OBL
30-40%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
Other	

% UPL	
—%	ALBIZIA JULIBRISIN
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	QUERCUS VIRGINIANA(FU)
Other	

SUBCANOPY

% FAC	%	FAC W		
—%	PINUS ELLOTTIV DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)	
—%	SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)	
—%	MYRICA CERIFERA(F)	—%	CELTIS LAEVIGATA	
—%	SCHINUS TEREBINTHIFOLIUS(F)	CUT	—%	CORNUS FOEMINA (FW)
—%	MELALEUCA QUINQUENERVIA(F)			
—%	SERENOAA REPENS(F)			
—%	FICAS AUREA(F)			
—%	MYRSINE GUANENSIS (RAPNEA PUNCTATA)(F)			
—%	DIOSPYROS VIRGINIANA (F)			
—%	EUGENIA CUMINI (F)			
—%	ACACIA AURICULIFORMES(F)			
Other		Other		

%	FAC W
—%	QUERCUS LAURIFOLIA(FW)
—%	ACER RUBRUM(FW)
—%	CELTIS LAEVIGATA
—%	CORNUS FOEMINA (FW)
Other	

<5%	OBL
<5%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
—%	CEPHALANTHUS OCCIDENTALIS (O)
Other	

% UPL	
—%	ALBIZIA JULIBRISIN
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	QUERCUS VIRGINIANA(FU)
—%	RHUS COPALLINUM (U)
Other	

GROUNDCOVER

20-30%	% FAC	30-40%	FAC W
—%	PINUS ELLOTTIV DENSA(F)	—%	QUERCUS LAURIFOLIA(FW)
—%	SABAL PALMETTO(F)	—%	ACER RUBRUM(FW)
<5%	MYRICA CERIFERA(F)	—%	CORNUS FOEMINA (FW)
—%	SCHINUS TEREBINTHIFOLIUS(F)	—%	AMPHICARPUM MUHLENBERGANUM (FW)
<5%	MELALEUCA QUINQUENERVIA(F)	CUT	BLECHNUM SERRULATUM(FW)
—%	SERENOAA REPENS(F)	—%	CENTELLA ASIATICA (FW)
—%	FICAS AUREA(F)	—%	CHRYSOBALANUS IACO (FW)
—%	MYRSINE GUANENSIS (RAPNEA PUNCTATA)(F)	—%	CIRSIMUM NUTTALLI (FW)
—%	DIOSPYROS VIRGINIANA (F)	—%	COMMELINA SP (FW)
—%	EUGENIA CUMINI (F)	—%	CONOCARPUS ERECTUS (FW)
—%	ACACIA AURICULIFORMES(F)	—%	COREOPSIS SP (FW)
—%	ANDROPOGON VIRGINICUS(F)	—%	CYPERUS LIGULARIS(FW)
—%	ARISTIDA STRICTA(F)	—%	CYPERUS ODORATUS(FW)
—%	ANXOPONUS SP (F)	—%	DICHROMENA COLORATA (FW)
5-10%	BACCHARIS HALIMIFOLIA(F)	—%	DIODIA VIRGINIANA (FW)
—%	BIDENIA PILOSA (F)	—%	EUSTACHYS GLAUCA (FW)
—%	BUMELIA (F)	—%	FIMBRISTYLIS ANNUA (FW)
—%	MELISOREA BULIFERA (F)?	—%	GLEDTISIA TRIACANTHOS (FW)
—%	ERAGROSTIS SP (F)	—%	HELIANTHUS SP (FW)
—%	ERIGERON QUERICIFOLIUS (F)	—%	HYDROCYTOTE SP (FW)
—%	ERYNGIUM BALDWINII (F)	—%	HYPERICUM SP (FW)
10-20%	EUPATORIUM SP (F)	—%	HYPTIS ALATA (FW)
—%	EUTHAMIA SP (F)	—%	JUNCUS MARGINATUS (FW)
—%	FORESTIERA SEGREGATA(F)	—%	LACHNOCAULON SP(BOGBUTTON)(O/FW)
—%	ILEX OPACA V OPACA(F)	—%	LINDERIA GRANDIFLORA (FW)
—%	IMPERATA CYLINDRICA (COGON)	—%	MELANTHERA HASTATA (FW)
—%	LACHNANTHES CAROLIANA(F)	—%	PANICUM REPENS (FW)
—%	LYGODIUM JAPONICUM (F)	—%	PASPALUM LIGULARIS (FW)
—%	LYONIA FERRUGinea (F)	—%	PLUCHEA SP (FW)
—%	MELCOHIA CORCHORIFOLIA (F)	—%	RHEIXIA SP (FW)
20-30%	MIKANIA SCANDENS (F)	—%	RUMEX VERTICILLATUS (FW)
—%	PHYLLO SP (F)	—%	SCLERIA SP (FW)
—%	PSYCHOTRIA SP.(F)	—%	SOLIDAGO (FW)
—%	RUBUS SP (F)	—%	SPARTINA BAKERI (FW)
—%	SAMBucus CANADENSIS (F)	—%	THELYPTERIS SP (FW) SHELD FERN
—%	SESBSANIA SP (F)	—%	WOODWARDIA VIRGINICA (FW) V CHN FERN
—%	SETERIA GENICULATA (F)	—%	XYRIS CAROLINANA (FW)
—%	SMILAX SP (F)		
—%	TOXCODENDRON RADICANS(F)		
—%	VITIS ROTUNDIFOLIA(F)		
—%	WEDELIA TRLOBATA		
Other		Other	

30-40%	FAC W
—%	QUERCUS LAURIFOLIA(FW)
—%	ACER RUBRUM(FW)
—%	CORNUS FOEMINA (FW)
—%	AMPHICARPUM MUHLENBERGANUM (FW)
20-30%	BLECHNUM SERRULATUM(FW)
—%	CENTELLA ASIATICA (FW)
—%	CHRYSOBALANUS IACO (FW)
—%	CIRSIMUM NUTTALLI (FW)
—%	COMMELINA SP (FW)
—%	CONOCARPUS ERECTUS (FW)
—%	COREOPSIS SP (FW)
—%	CYPERUS LIGULARIS(FW)
—%	CYPERUS ODORATUS(FW)
—%	DICHROMENA COLORATA (FW)
—%	DIODIA VIRGINIANA (FW)
—%	EUSTACHYS GLAUCA (FW)
—%	FIMBRISTYLIS ANNUA (FW)
—%	GLEDTISIA TRIACANTHOS (FW)
—%	HELIANTHUS SP (FW)
—%	HYDROCYTOTE SP (FW)
—%	HYPERICUM SP (FW)
—%	HYPTIS ALATA (FW)
—%	JUNCUS MARGINATUS (FW)
—%	LACHNOCAULON SP(BOGBUTTON)(O/FW)
—%	LINDERIA GRANDIFLORA (FW)
—%	MELANTHERA HASTATA (FW)
—%	PANICUM REPENS (FW)
—%	PASPALUM LIGULARIS (FW)
—%	PLUCHEA SP (FW)
—%	RHEIXIA SP (FW)
—%	RUMEX VERTICILLATUS (FW)
—%	SCLERIA SP (FW)
—%	SOLIDAGO (FW)
—%	SPARTINA BAKERI (FW)
—%	THELYPTERIS SP (FW) SHELD FERN
—%	WOODWARDIA VIRGINICA (FW) V CHN FERN
—%	XYRIS CAROLINANA (FW)
Other	

40-50%	OBL
<5%	TAXODIUM DISTICHIUM(O)
—%	PERSEA PALUSTRIS (BORBONEA) (O)
—%	ILEX CASSINE (O)
—%	SALIX CAROLIANA(O)
—%	FRAXINUS CAROLINIANA(O)
—%	CEPHALANTHUS OCCIDENTALIS (O)
—%	ANNONA GLABRA (O)
—%	BACOPA (O)
5-10%	CLADIUM JAMAICENSE(O)
—%	DICHROMENA LATIFOLIA (O)
—%	ELEOCHARIS SP (O)
—%	ERIOCAULON SP(PIPEWORTS) (O/FW)
—%	FUIRENA SCIPODEA(O)
—%	JUNCUS SP.(O)
—%	LUDWIGIA SP (O)
—%	NYMPHAEA SP (O)
30-40%	PANICUM HEMITOMON (O)
5-10%	POLYGONUM SP(O)
—%	PONTEDERIA CORDATA (O)
—%	PROSERPINACA SP (O)
—%	RHYNCHOSPORE (O)
—%	SAGITTARIA LANCIFOLIA (O)
—%	SETARIA MAGNA (O)
—%	THALIA GENICULATA (O)
—%	TYPHA SP (O)
—%	UTRICULARIA (O)
Other	

% UPL	
—%	ALBIZIA JULIBRISIN
—%	AMBROSIA ARTEMISIIFOLIA (U)
—%	BURSERA SIMARUBA (U) GUM LIMBO
—%	CALLICARPA AMERICANA (U)
—%	CENCHRUS SP (U)
—%	CYDONOD DACTYLON (U) bermudagrass
—%	DACTYLOCETIUM AEGYPTIUM (U) crowfootgrass
—%	DESMODIUM SP(U)
—%	ILEX GLABRA(U)
—%	LANTANA CAMARA(FU)
—%	OXALIS STRICTA (U)
—%	PANICUM MAXIMUM (U) guineagrass
—%	PASPALUM NOTATUM(U)
—%	PILOBLEPHIS RIGIDA (U)
—%	PITYOPSY (HETEROTHECA) GRAMINIFOLIA (U)
—%	PTERIDIUM GLEITSCH (U) BRACK FERN
—%	PTEROCALON PYCNOTACHYUM (U)
—%	QUERCUS CHAMANI(U)
—%	QUERCUS VIRGINIANA(U)
—%	RHUS COPALLINUM (U)
—%	RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
—%	SPERMACOCE SP. (U)
—%	STENOTAPHRUM SECUNDATUM (U) FLORATAM
—%	URENA LOBATA(U)
5-10%	BARE GROUND
Other	

HYDROLOGIC INDICATORS:

XX	ADVENTITIOUS ROOTS
XX	HYPERTROPHIC LENTICELS
XX	ACTIVE CYPRESS KNEES
XX	FLOW CHANNELS

XX	SURFACE WATER PRESENT
XX	AQUATIC MOSSES/LIVERWORTS
XX	DRIFT LINES
XX	VEGETATED TUSSOCKS/HUMMOCKS
XX	ELEVATED LICHEN LINES

AQUATIC PLANTS
BUMMELING
HYDROLOGIC DATA
SEDIMENT DEPOSITION
AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.

2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED LESS THAN 10% OF THE CROWNS IN THIS AREA.

2008 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008

2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER, RAIN DECREASING

2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION

2011 MORE RAIN THIS YEAR AREA HAS BEEN INUNDATED, REMAINED SAME AS LAST YEAR, LONGER HYDROPERIOD.

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE

2007 PINE AND CYPRESS TREES APPEAR TO HAVE A LESS THAN 10% CROWN FIRE KILL IN THIS AREA.

2008 LG INCR IN PANICUM HEMITOM IN GRD COVER

2009 CYPRESS RE LEAVING DUE TO WARMER WEATHER

2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.

2011 AREA SAME AS LAST YEAR, LONGER HYDROPERIOD.

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEUCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPOUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE

2009 TREATED IN JAN MAR 2009

2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEUCA SEEDS AND SEEDLINGS IN GROUND COVER.

2010 FEB 2010 1ST FOLLOW UP COMPLETED

2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

2009 50-60 WADING BIRDS FEEDING AT LOWEST POINT ON ROMA; JUST SOUTH OF P9 MARSH AREA IN 621

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P10

Original Density Code: MEDIUM

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 621 CYPRESS

CANOPY

% 10%	% FAC	%	FAC W
5-10	% PINUS ELLOTTIV DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
	% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
	% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
	% SCHINUS TEREBINTHIFOLIUS(F)		
	% MELALEUCA QUINQUENERVIA(F)	GIRDLED	
Other		Other	

0	%	OBL
0	%	TAXODIUM DISTICHIUM(O)
	%	PERSEA PALUSTRIS (BORBONEA) (O)
	%	ILEX CASSINE (O)
	%	SALIX CAROLIANA(O)
	%	FRAXINUS CAROLINIANA(O)
Other		Other

% UPL
% ALBIZIA JULIBRISSEN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINIANA(FU)
Other

SUBCANOPY

% FAC	%	FAC W
% PINUS ELLOTTIV DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
% MELALEUCA QUINQUENERVIA(F)	CUT	CORNUS FOEMINA (FW)
% SERENOA REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUANENSIS (RAPNEA PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

5-10 %	OBL
5-10 %	TAXODIUM DISTICHIUM(O)
	PERSEA PALUSTRIS (BORBONEA) (O)
	ILEX CASSINE (O)
	SALIX CAROLIANA(O)
	FRAXINUS CAROLINIANA(O)
	CEPHALANTHUS OCCIDENTALIS (O)
Other	Other

% UPL
% ALBIZIA JULIBRISSEN
% BURSERA SIMARUBA (U) GUM LIMBO
% QUERCUS VIRGINIANA(FU)
% RHUS COPALLINUM (U)
Other

GROUNDCOVER

10-20% % FAC	40-50%	FAC W
<5 % PINUS ELLOTTIV DENSA(F)	%	QUERCUS LAURIFOLIA(FW)
% SABAL PALMETTO(F)	%	ACER RUBRUM(FW)
% MYRICA CERIFERA(F)	%	CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)		
0 % MELALEUCA QUINQUENERVIA(F)	CUT	AMPHICARPUM MUHLENBERGANUM (FW)
% SERENOA REPENS(F)		BLECHNUM SERRULATUM(FW)
% FICAS AUREA(F)		CENTELLA ASIATICA (FW)
% MYRSINE GUANENSIS (RAPNEA PUNCTATA)(F)		CHRYSOBALANUS ICACO (FW)
% DIOSPYROS VIRGINIANA (F)		CIRSIMUM NUTTALLI (FW)
% EUGENIA CUMINI (F)		COMMELINA SP (FW)
% ACACIA AURICULIFORMES(F)		CONOCARPUS ERECTUS (FW)
% ANDROPOGON VIRGINICUS(F)		COREOPSIS SP (FW)
% ARISTIDA STRICTA(F)		CYPERUS LIGULARIS(FW)
% AXONOPUS SP (F)		CYPERUS ODORATUS(FW)
% BACCHARIS HALIMIFOLIA(F)		DICHROMENA COLORATA (FW)
% BIDENS PILOSA (F)		DIODIA VIRGINIANA (FW)
% BUMELIA (F)		EUSTACHYS GLAUCA (FW)
% DIOCOREA BULIFERA (F?)		FIMBRISTYLIS ANNUA (FW)
% ERAGROSTIS SP (F)		GLEDITSIA TRIACANTHOS (FW)
<5 % ERIGERON QUERICIFOLIUS (F)		HELIANTHUS SP (FW)
% ERYNGIUM BALDWINII (F)		HYDROCOTYLE SP (FW)
5-10 % EUPATORIUM SP (F)		HYPERICUM SP (FW)
% EUTHAMIA SP (F)		HYPTIS ALATA (FW)
% FORESTIERA SEGREGATA(F)		JUNCUS MARGINATUS (FW)
% ILEX OPACA V OPACA(F)		LACHNOCALON SP (BOGBUTTON)(O/FW)
% IMPERATA CYLINDRICA (COGON)		LINDERNA GRANDIFLORA (FW)
% LACHNANTHES CAROLIANA(F)		MELANTHERA HASTATA (FW)
% LYGDONIUM JAPONICUM (F)		PANICUM REPENS (FW)
% LYONIA FERRUGinea (F)		PASPALUM LIGULARIS (FW)
% MELCOHIA CORCHORIFOLIA (F)		PLUCHEA SP (FW)
% MIKANIA SCANDENS (F)		RHEXIA SP (FW)
% PHYLLO SP (F)		RUMEX VERTICILLATUS (FW)
% PSYCHOTRIA SP.(F)		SCLERIA SP (FW)
% RUBUS SP (F)		SOLIDAGO (FW)
% RUELLIA CAROLINIENSIS(F)		SPARTINA BAKERI (FW)
% SAMBucus CANADENSIS (F)		THELYPTERIS SP (FW) SHELD FERN
% SESBANIA SP (F)		WOODWARDIA VIRGINICA (FW) V CHN FERN
% SETERIA GENICULATA (F)		XYRIS CAROLINANA (FW)
% SMILAX SP (F)		
% TOXICODENDRON RADICANS(F)		
% VITIS ROTUNDIFOLIA(F)		
% WEDELIA TROBATA		
Other		Other

5-10% % OBL	
5-10 % TAXODIUM DISTICHIUM(O)	
	PERSEA PALUSTRIS (BORBONEA) (O)
	ILEX CASSINE (O)
	SALIX CAROLIANA(O)
	FRAXINUS CAROLINIANA(O)
	CEPHALANTHUS OCCIDENTALIS (O)
	ANNONA GLABRA (O)
	BACOPA (O)
	CLADIUM JAMAICENSE(O)
	DICHROMENA LATIFOLIA (O)
	ELEOCHARIS SP (O)
	ERIOCAULON SP(PIPEWORTS) (O/FW)
	FUIRENA SCRPODEA(O)
	JUNCUS SP.(O)
	LUDWIGIA SP (O)
	NYMPHEA SP (O)
	PANICUM HEMITOMON (O)
	POLYGONUM SP(O)
	PONTEDERIA CORDATA (O)
	PROSERPINACA SP (O)
	RHYNCHOSPORA (O)
	SAGITTARIA LANCIFOLIA (O)
	SETARIA MAGNA (O)
	THALIA GENICULATA (O)
	TYPHA SP (O)
	UTRICULARIA (O)
Other	Other

10-20 % BARE GROUND

4 INCHES
XX SURFACE WATER PRESENT
AQUATIC MOSES/LIVERWORTS
DRIFT LINES
VEGETATED TUSSOCKS/HUMMOCKS
ELEVATED LICHEN LINES
AQUATIC PLANTS
BUMMING
HYDROLOGIC DATA
SEDIMENT DEPOSITION
XX AQUATIC FAUNA

HYDROLOGIC INDICATORS:

XX ALGAL MATS	ADVENTITIOUS ROOTS
XX WATER MARKS	HYPERTROPHIC LENTICELS
AUFWUCHS	
RAFTING OF DEBRIS	ACTIVE CYPRESS KNEES

XX FLOW CHANNELS

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED 100% OF THE CROWNS IN THIS AREA.
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 GROUND COVER STILL SHOWING SIGNS OF GROWTH, NO CHANGE CANOPY, SUB-CANOPY. SAMPLE POINT DRY, BUT INDICATORS OF PRIOR INUNDATION
 2011 MORE RAIN THIS YEAR AREA HAS BEEN INUNDATED, REMAINED SAME AS LAST YEAR, LONGER HYDROPERIOD

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
 2007 PINE AND CYPRESS TREES APPEAR TO HAVE A 90-100% CROWN FIRE KILL IN THIS AREA.
 2009 CYPRESS RE LEAVING DUE TO WARMER WEATHER
 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2011 GROUND COVER STILL INCREASING,

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEuca OBSERVED IN EACH LEVEL APPEARS TO BE RESPouting FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
 2008 MELALEuca INCREASING IN CANOPY AND GRD COVER; LG INCR IN GRD COVER
 2009 TREATED IN JAN MAR 2009
 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEuca SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 FEB 2010 1ST FOLLOW UP COMPLETED
 2011 AREA SAME AS LAST YEAR , LONGER HYDROPERIOD.

WILDLIFE:

2009 GRACKLE, GH, GBH, WI, SE

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P11

Original Density Code: HIGH

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 621 CYPRESS

CANOPY

0%	% FAC		%	FAC W
—%	PINUS ELLOTTI V DENSA(F)		—%	QUERCUS LAURIFOLIA(FW)
—%	SABAL PALMETTO(F)		—%	ACER RUBRUM(FW)
—%	MYRICA CERIFERA(F)		—%	CELTIS LAEVIGATA
—%	SCHINUS TEREBINTHIFOLIUS(F)	GIRDLED		
0%	MELALEUCA QUINQUENERVIA(F)			
	ACACIA AURICULIFORMES(F)			
Other		Other		

20-30%	OBL	% UPL
20-30%	TAXODIUM DISTICHIUM(O)	—% ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)	—% BURSERA SIMARUBA (U) GUM LIMBO
	ILEX CASSINE (O)	—% QUERCUS VIRGINIANA(FU)
	SALIX CAROLIANA(O)	
	FRAXINUS CAROLINIANA(O)	
Other		Other

SUBCANOPY

% FAC		%	FAC W
—% PINUS ELLOTTI V DENSA(F)		—%	QUERCUS LAURIFOLIA(FW)
—% SABAL PALMETTO(F)		—%	ACER RUBRUM(FW)
—% MYRICA CERIFERA(F)		—%	CELTIS LAEVIGATA
—% SCHINUS TEREBINTHIFOLIUS(F)	CUT	—%	CORNUS FOEMINA (FW)
—% MELALEUCA QUINQUENERVIA(F)			
—% SERENOAE REPENS(F)			
—% FICAS AUREA(F)			
—% MYRSINE GUIANESENSIS (RAPENEAE PUNCTATA)(F)			
—% DIOSPYROS VIRGINIANA (F)			
—% EUGENIA CUMINI (F)			
—% ACACIA AURICULIFORMES(F)			
Other		Other	

10-20%	OBL	% UPL
10-20%	TAXODIUM DISTICHIUM(O)	—% ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)	—% BURSERA SIMARUBA (U) GUM LIMBO
	ILEX CASSINE (O)	—% QUERCUS VIRGINIANA(FU)
	SALIX CAROLIANA(O)	—% RHUS COPALLINUM (U)
	FRAXINUS CAROLINIANA(O)	
	CEPHALANTHUS OCCIDENTALIS (O)	
Other		Other

GROUNDCOVER

60-70% FAC		10-20 %	% FAC W
—% PINUS ELLOTTI V DENSA(F)		—%	QUERCUS LAURIFOLIA(FW)
<5% —% SABAL PALMETTO(F)		—%	ACER RUBRUM(FW)
—% MYRICA CERIFERA(F)		—%	CORNUS FOEMINA (FW)
<5% —% SCHINUS TEREBINTHIFOLIUS(F)	CUT	—%	AMPHICARPUM MUHLENBERGANUM (FW)
<5% —% MELALEUCA QUINQUENERVIA(F)		—%	BLECHNUM SERRULATUM(FW)
<5% —% SERENOAE REPENS(F)		—%	CENTELLA ASIATICA (FW)
—% FICAS AUREA(F)		—%	CHRYSOBALANUS IACO (FW)
—% MYRSINE GUIANESENSIS (RAPENEAE PUNCTATA)(F)		—%	CIRSIMUM NUTTALLI (FW)
—% DIOSPYROS VIRGINIANA (F)		—%	COMMELINA SP (FW)
—% EUGENIA CUMINI (F)		—%	CONOCARPUS ERECTUS (FW)
—% ACACIA AURICULIFORMES(F)		—%	COREOPSIS SP (FW)
30-40% —% ANDROPOGON VIRGINICUS(F)		—%	CYPERUS LIGULARIS(FW)
—% ARISTIDA STRICTA(F)		—%	CYPERUS ODORATUS(FW)
—% AXONOPUS SP (F)		—%	DICHROMENA COLORATA (FW)
—% BACCHARIS HALIMIFOLIA(F)		—%	DIODIA VIRGINIANA (FW)
—% BIDENS PILOSA (F)		—%	EUSTACHYS GLAUCA (FW)
—% BUMELIA (F)		—%	FIMBRISTYLIS ANNUA (FW)
—% DISCOREA BULIFERA (F?)		—%	GLEDTISIA TRIACANTHOS (FW)
—% ERAGROSTIS SP (F)		—%	HELIANTHUS SP (FW)
—% ERIGERON OLERCIFOLIUS (F)		—%	HYDROCYTOTE SP (FW)
—% ERYNGIUM BALDWINII (F)		—%	HYPERICUM SP (FW)
5-10% —% EUPATORIUM SP (F)		—%	HYPTIS ALATA (FW)
—% EUHTAMIA SP (F)		—%	JUNCUS MARGINATUS (FW)
—% FORESTIERA SEGREGATA(F)		—%	LACHNOCAULON SP(BOGBUTTON)(O/FW)
—% ILEX OPACA V OPACA(F)		—%	LINDERIA GRANDIFLORA (FW)
—% IMPERATA CYLINDRICA (COGON)		—%	MELANTHERA HASTATA (FW)
—% LACHNANTHES CAROLIANA(F)		—%	PANICUM REPENS (FW)
—% LYGODIUM JAPONICUM (F)		—%	PASPALUM LIGULARIS (FW)
—% LYONIA FERRUGinea (F)		—%	PLUCHEA SP (FW)
—% MELCHIA CORCHORIFOLIA (F)		—%	RHEXIA SP (FW)
—% MIKANIA SCANDENS (F)		—%	RUMEX VERTICILLATUS (FW)
—% PHYLLA SP (F)		—%	SCLERIA SP (FW)
—% PSYCHOTRIA SP.(F)		—%	SOLIDAGO (FW)
—% RUBUS SP (F)		—%	SPARTINA BAKERI (FW)
—% RUELLIA CAROLINENSIS(F)		—%	THELYPTERIS SP (FW) SHELD FERN
—% SAMBUCUS CANADENSIS (F)		—%	WOODWARDIA VIRGINICA (FW) V CHN FERN
—% SESBARIA SP (F)		—%	XYRIS CAROLINANA (FW)
—% SETERIA GENICULATA (F)			
—% SMILAX SP (F)			
—% TOXICODENDRON RADicans(F)			
—% VITIS ROTUNDIFOLIA(F)			
—% WEDELIA TRLOBATA			
Other		Other	

20-30%	OBL	% UPL
20-30%	TAXODIUM DISTICHIUM(O)	—% ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)	—% AMBROSIA ARTEMISIIFOLIA (U)
	ILEX CASSINE (O)	—% BURSERA SIMARUBA (U) GUM LIMBO
	SALIX CAROLIANA(O)	—% CALICCARA AMERICANA (U)
	FRAXINUS CAROLINIANA(O)	—% CENCHRUS SP (U)
	CEPHALANTHUS OCCIDENTALIS (O)	—% CYNODON DACTYLON (L) bermudagrass
	ANNONA GLABRA (O)	—% DACTYLOCTENIUM AEGYPTIUM (U) crowfootgrass
	BACOPA (O)	—% DESMODIUM SP(U)
<5%	GLADIUM JAMAICENSE(O)	—% ILEX GLabra(U)
	DICHROMENA LATIFOLIA (O)	—% LANTANA CAMARA(FU)
	ELEOCHARIS SP (O)	—% OXALIS STRICTA (U)
	ERIOCAULON SP(PIPEWORTS) (O/FW)	—% PANICUM MAXIMUM (U) guineagrass
	FUIRENA SCIRPODEA(O)	—% PASPALUM NOTATUM(U)
<5%	JUNCUS SP.(O)	—% PILOBLEPHIS RIGIDA (U)
	NYMPHAEA SP (O)	—% PITOPSYA (HETEROTHECA) GRAMINIFOLIA (U)
	PANICUM HEMITOMON (O)	—% PTERIDIUM GLEDTICHS (U) BRACK FERN
	POLYGONUM SP(O)	—% PTEROCaulon PYCNOTACHYUM (U)
	PONTEDERIA CORDATA (O)	—% QUERCUS CHAMANI(U)
	PROSERPINACA SP (O)	—% QUERCUS VIRGINIANA(U)
	RHYNCHOSPORE (O)	—% RHUS COPALLINUM (U)
	SAGITTaria LANCIFOLIA (O)	—% RHYNCHELYTRUM REPENS(U) (NATAL GRASS)
	SETARIA MAGNA (O)	—% SPERMACOCE SP. (U)
	THALIA GENICULATA (O)	—% STENOTAPHRUM SECUNDATUM (U) FLORATAM
	TYPHA SP (O)	—% URENA LOBATA(U)
	UTRICULARIA (O)	

<5% % BARE GROUND
WET/FLOODED

HYDROLOGIC INDICATORS:

ALGAL MATS		ADVENTITIOUS ROOTS
XX WATER MARKS		HYPERTROPHIC LENTICELS
AUFWUCHS		ACTIVE CYPRESS KNEES
RAFTING OF DEBRIS		FLOW CHANNELS

5 INCHES	
XX SURFACE WATER PRESENT	AQUATIC PLANTS
	BUMMELING
	HYDROLOGIC DATA
	SEDIMENT DEPOSITION
	AQUATIC FAUNA

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2007 THIS AREA INDICATES IT HAD A FIRE THAT BURNED ABOUT 5 FEET HIGH. DID NOT BURN THE CROWNS IN THIS AREA.
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 INDICATORS AREA INUNDATED LAST WET SEASON. SURFACE WATER PRESENT 2" DEEP
 2011 MORE RAIN THIS YEAR AREA HAS BEEN INUNDATED. REMAINED SAME AS LAST YEAR, LONGER HYDROPERIOD

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
 2008 LARGE INCR IN ANDROPOGON IN GRD COVER; INCR IN TAXODIUM IN GRD COVER PROBABLY RESPROUTING
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2010 SHOWING GOOD REGROWTH OF NATIVES, BIOMASS INCREASE, WET CONDITIONS KNOCKING BACK COMPETITION
 2011 AREA SAME AS LAST YEAR, LONGER HYDROPERIOD.

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEuCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPouting FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
 2008 MELALEuCA INCR IN ALL 3 STRATA; LG INCR IN GRD COVER
 2009 TREATED IN JAN MAR 2009
 2009 GOOD GROWING CONDITIONS OVER THE SUMMER HELPING MELALEuCA SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 1ST FOLLOW UP RETREATMENT IN FEB 2010
 2011 EXOTICS BELOW 5%, INUNDATION HELPING.

WILDLIFE:

APPENDIX A.

North Golden Gate Regional Offsite Mitigation Area (ROMA)

Date: 11/29-30/2011

Collection Point: P12

Original Density Code: HIGH

Raw Data / Field Sheet

COLLIER SOIL & WATER CONSERVATION DISTRICT

2011

VEGETATION: 624 PINE CYPRESS PALM

UNTREATED

CANOPY

5-10 % FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)		QUERCUS LAURIFOLIA(FW)
5-10 % SABAL PALMETTO(F)		ACER RUBRUM(FW)
% MYRICA CERIFERA(F)		CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		
0% MELALEUCA QUINQUENERVIA(F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

%	OBL	%	UPL
	TAXODIUM DISTICHIUM(O)		ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)		BURSERA SIMARUBA (U) GUM LIMBO
	ILEX CASSINE (O)		QUERCUS VIRGINIANA(FU)
	SALIX CAROLIANA(O)		
	FRAXINUS CAROLINIANA(O)		
Other	Other	Other	Other

SUBCANOPY

40-50 % FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)		QUERCUS LAURIFOLIA(FW)
<5 % SABAL PALMETTO(F)		ACER RUBRUM(FW)
% MYRICA CERIFERA(F)		CELTIS LAEVIGATA
% SCHINUS TEREBINTHIFOLIUS(F)		CORNUS FOEMINA (FW)
0% MELALEUCA QUINQUENERVIA(F)		
% SERENOA REPENS(F)		
% FICAS AUREA(F)		
% MYRSINE GUIANEensis (RAPENEA PUNCTATA)(F)		
% DIOSPYROS VIRGINIANA (F)		
% EUGENIA CUMINI (F)		
% ACACIA AURICULIFORMES(F)		
Other		Other

10-20 %	OBL	%	UPL
10-20 %	TAXODIUM DISTICHIUM(O)		ALBIZIA JULIBRISIN
	PERSEA PALUSTRIS (BORBONEA) (O)		BURSERA SIMARUBA (U) GUM LIMBO
	ILEX CASSINE (O)		QUERCUS VIRGINIANA(FU)
	SALIX CAROLIANA(O)		RHUS COPALLINUM (U)
	FRAXINUS CAROLINIANA(O)		
	CEPHALANTHUS OCCIDENTALIS (O)		
Other	Other	Other	Other

GROUNDCOVER

50-60 % FAC	%	FAC W
% PINUS ELLOTTI V DENSA(F)		QUERCUS LAURIFOLIA(FW)
<5 % SABAL PALMETTO(F)		ACER RUBRUM(FW)
% MYRICA CERIFERA(F)		CORNUS FOEMINA (FW)
% SCHINUS TEREBINTHIFOLIUS(F)		AMPHICARPUM MUHLENBERGANUM (FW)
5-10 % MELALEUCA QUINQUENERVIA(F)		BLECHNUM SERRULATUM(FW)
% SERENOA REPENS(F)		CENTELLA ASIATICA (FW)
% FICAS AUREA(F)		CHRYSOBALANUS IACO (FW)
% MYRSINE GUIANEensis (RAPENEA PUNCTATA)(F)		CIRSium NUTTALLI (FW)
% DIOSPYROS VIRGINIANA (F)		COMMELINA SP (FW)
% EUGENIA CUMINI (F)		CONOCARPUm ERECTUS (FW)
% ACACIA AURICULIFORMES(F)		COREOPSIS SP (FW)
40-50 % ANDROPOGON VIRGINICUS(F)		CYPERUS LIGULARIS(FW)
5-10 % ARISTIDA STRICKTA(F)		CYPERUS ODORATUS(FW)
% AXONOPUS SP (F)		DICHROMENA COLORATA (FW)
% BACCHARIS HALIMIFOLIA(F)		DIODIA VIRGINIANA (FW)
% BIDENS PILOSA (F)		EUSTACHYS GLAUCA (FW)
% BUMELIA (F)		FIMBRISTYLIS ANNUA (FW)
% DIOSCOREA BULIFERA (F?)		GLEDITIA TRIACANTHOS (FW)
% ERAGROSTIS SP (F)		HELIANTHUS SP (FW)
% ERIGERON OLERCIFOLIUS (F)		HYDROCYTOTE SP (FW)
% ERYNGIUM BALDWINII (F)		HYPERICUM SP (FW)
<5 % EUPATORIUM SP (F)		HYPTIS ALATA (FW)
% EUTHAMIA SP (F)		JUNCUS MARGINATUS (FW)
% FORESTIERA SEGREGATA(F)		LACHNOCAULON SP(BOGBUTTON)(O/FW)
% ILEX OPACA V OPACA(F)		LINDERIA GRANDIFLORA (FW)
% IMPERATA CYLINDRICA (COGON)		MELANTHERA HASTATA (FW)
% LACHNANTHES CAROLIANA(F)		PANICUM REPENS (FW)
% LYGDONIUM JAPONICUM (F)		PASPALUM LIGULARIS (FW)
% LYONIA FERRUGinea (F)		PLUCHEA SP (FW)
% MELCHIA CORCHORIFOLIA (F)		RHEXIA SP (FW)
% MIKANIA SCANDENS (F)		RUMEX VERTICILLATUS (FW)
% PHYLLO SP (F)		SCLERIA SP (FW)
% PSYCHOTRIA SP.(F)		SOLIDAGO (FW)
% RUBUS SP (F)		SPARTINA BAKERI (FW)
<5 % RUELLIA CAROLINENSIS(F)		THELYPTERYIS SP (FW) SHELD FERN
% SAMBucus CANADENSIS (F)		WOODWARDIA VIRGINICA (FW) V CHN FERN
% SESBANIA SP (F)		XYRIS CAROLINANA (FW)
% SETERIA GENICULATA (F)		
% SMILAX SP (F)		
% TOXICODENDRON RADICANS(F)		
% VITIS ROTUNDIFOLIA(F)		
% WEDELIA TRLOBATA		
Other		Other

5-10 %	%	OBL	%	UPL
5-10 %		TAXODIUM DISTICHIUM(O)		ALBIZIA JULIBRISIN
		PERSEA PALUSTRIS (BORBONEA) (O)		AMBROSIA ARTEMISIIFOLIA (U)
		ILEX CASSINE (O)		BURSERA SIMARUBA (U) GUM LIMBO
		SALIX CAROLIANA(O)		CALLICARPA AMERICANA (U)
		FRAXINUS CAROLINIANA(O)		CENCHRUS SP (U)
		CEPHALANTHUS OCCIDENTALIS (O)		CYNODON DACTYLON (L) bermudagrass
		ANNONA GLABA (O)		DACTYLOCYTIUM AEGYPTIUM (U) crowfootgrass
		BACOPA (O)		DESMODIUM SP(U)
5-10 %		GLADIUM JAMAICENSE(O)		ILEX GLabra(U)
		DICHROMENA LATIFOLIA (O)		LANTANA CAMARA(FU)
		ELEOCHARIS SP (O)		OXALIS STRICTA (U)
		ERIOCAULON SP(PIPEWORTS) (O/FW)		PANICUM MAXIMUM (U) guineagrass
		FIURENA SCIRPODEA(O)		PASPALUM NOTATUM(U)
		JUNCUS SP.(O)		PILOBLEPHIS RIGIDA (U)
		LUDWIGIA SP (O)		PITYOPSYA (HETEROTHECA) GRAMINIFOLIA (U)
		NYMPHAEA SP (O)		PTERIDIUM GLEDTICHS (U) BRACK FERN
		PANICUM HEMITOMON (O)		PTEROCaulon PYCNOTACHYUM (U)
		POLYGONUM SP(O)		QUERCUS CHAMANI(U)
		PONTEDERIA CORDATA (O)		QUERCUS VIRGINIANA(U)
		PROSERPINACA SP (O)		RHUS COPALLINUM (U)
		RHYNchospora (O)		RHYNChelyTRUM REPENS(U) (NATAL GRASS)
		SAGITTaria LANCIFOLIA (O)		SPERMACOCE SP. (U)
		SETARIA MAGNA (O)		STENOTAPHRUM SECUNDATUM (U) FLORATAM
		THALIA GENICULATA (O)		URENA LOBATA(U)
		TYPHA SP (O)		
		UTRICULARIA (O)		

20-30 % BARE GROUND

2 INCHES				
XX	SURFACE WATER PRESENT	AQUATIC PLANTS		
	AQUATIC MOSES/LIVERWORTS	BUMMELING		
	DRIFT LINES	HYDROLOGIC DATA		
	VEGETATED TUSSOCKS/HUMMOCKS	SEDIMENT DEPOSITION		
	ELEVATED LICHEN LINES	XX AQUATIC FAUNA		

HYDROLOGIC INDICATORS:

XX	ADVENTITIOUS ROOTS
XX	HYPERTROPHIC LENTICELS
XX	ACTIVE CYPRESS KNEES
XX	FLOW CHANNELS

SUMMARY:

GENERAL OBSERVATIONS:

2007 AREA SUBJECTED TO AN INTENSE WILDFIRES IN MAY 2007. FIRE HEIGHT BASED ON BLACK LINES ON TREES APPEAR TO HAVE RANGED FROM A MINIMUM OF 5 FEET TO 100% CROWN FIRES.
 2009 DROUGHT CONDITIONS APPEAR TO BE BACK IN PLACE AFTER RAIN OCCURRING IN SEP OCT 2008
 2009 GROUND COVER SHOWING REGROWTH. GROUNDWATER DROPPING FAST IN NOVEMBER; RAIN DECREASING
 2010 INDICATORS AREA INUNDATED LAST WET SEASON
 2011 INITIAL TREATMENT JAN 2011

NATIVE VEGETATION HEALTH & REPRODUCTION:

2007 ALTHOUGH PINE TREES AND CYPRESS TREE STEMS PRESENT THERE WERE NOT COUNTED BECAUSE THEY APPEAR TO BE DEAD FROM THE 100% CROWN FIRE
 2007 AREA HAD ABOUT 3-4 MONTH HYDROPERIOD 1 FOOT DEEP; KNOCKING BACK FAC WET PLANTS
 2007 SOME SMALL CYPRESS STUMPS STARTING TO RESPROUT IN GROUND COVER
 2009 CYPRESS RE LEAFING DUE TO WARMER WEATHER
 2009 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH.
 2010 GROUND COVER SHOWING GOOD BIOMASS AND REGROWTH. APPEARS SOME PINE TREES IN CANOPY FINALLY DIED FORM 2007 FIRE
 2011 GROUND COVER RECOVERING FROM INITIAL TREATMENT IN JAN 2011

EXOTIC VEGETATION HEALTH & REPRODUCTION:

2007 MELALEuCA OBSERVED IN EACH LEVEL APPEARS TO BE RESPROUTING FROM ADVENTITIOUS BUDS NEAR THE BASE OF THE TREE
 2007 SOME MELALEuCA STEMS IN CANOPY THAT LOOKED DEAD NOW SPROUTING
 2009 AREA NOT TREATED IN JAN MAR 2009 INITIAL TMT, SEEDLINGS NOW 3 FEET TALL
 2009 GOOD GRWING CONDITIONS OVER THE SUMMER HELPING MELALEuCA SEEDS AND SEEDLINGS IN GROUND COVER.
 2010 INITIAL TREATMENT FOR THIS AREA, 10 AC BLOCK FEB 2010.
 2011 AREA WAS VERY HEAVILY INFESTED AFTER THE 2007 FIRE

WILDLIFE:







