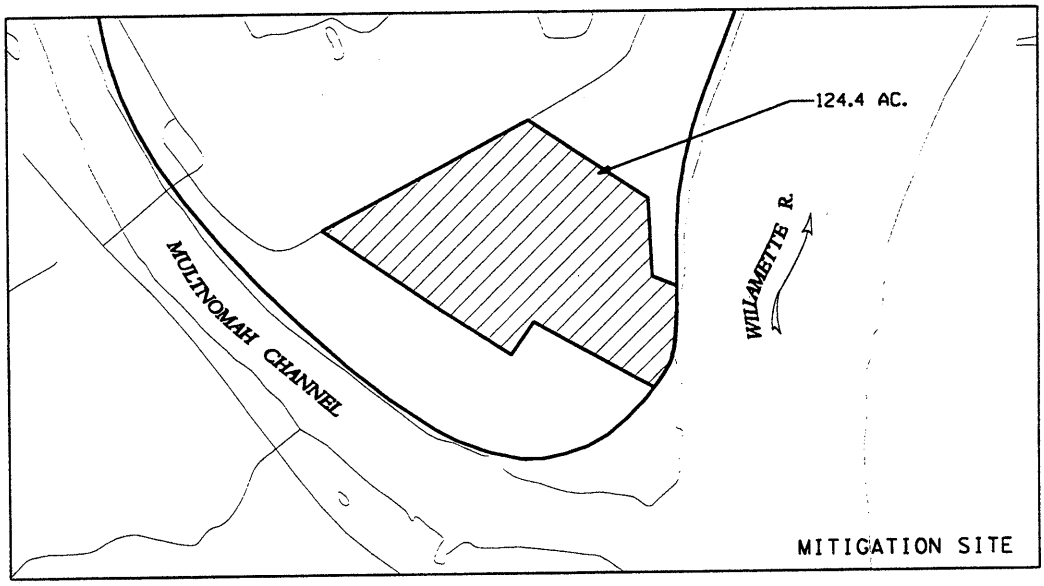
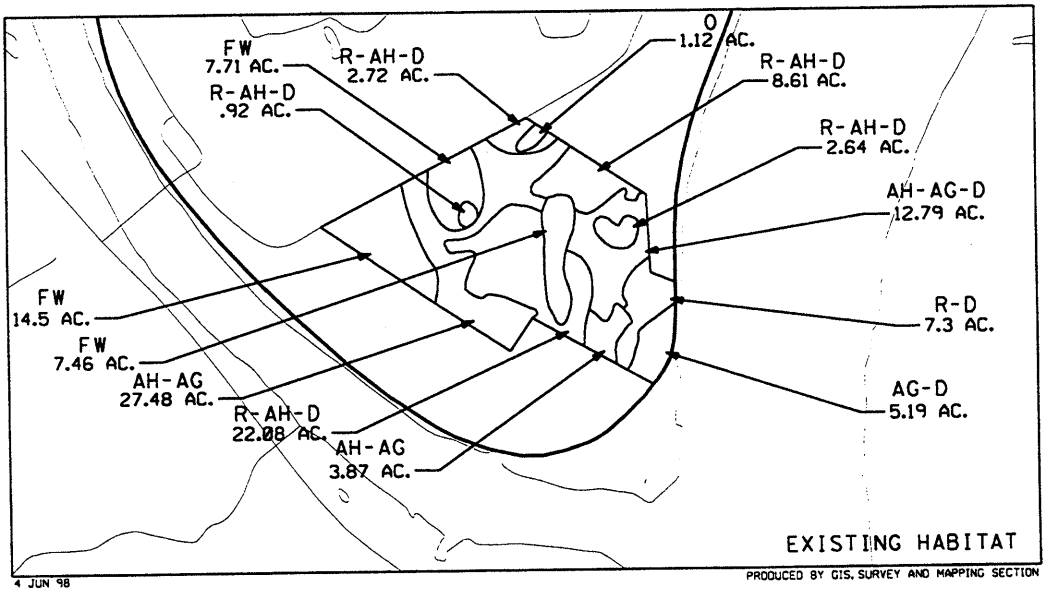
Exhibit C: Habitat Maps for with and without project conditions at proposed mitigation sites, Columbia River Channel Improvement Study

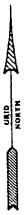
JOSLIN PROPERTY
124.4 AC.

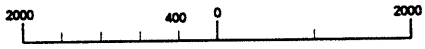




4 JUN 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION





	LEVEE
FW	FARMED WETLANDS = 29.67 AC.
R-D	RIPARIAN-DEGRADED = 7.3 AC.
R-AH-D	RIPARIAN-ASSOCIATED HABITAT-DEGRADED = 36.99 AC.
AG-D	AGRICULTURE-DEGRADED = 5.19 AC.
AH-AG	ASSOCIATED HABITAT-AGRICULTURE = 31.35 AC.
AH-AG-D	ASSOCIATED HABITAT-AGRICULTURE-DEGRADED = 12.79 AC.
O	OTHER (DWELLINGS) = 1.12 AC.

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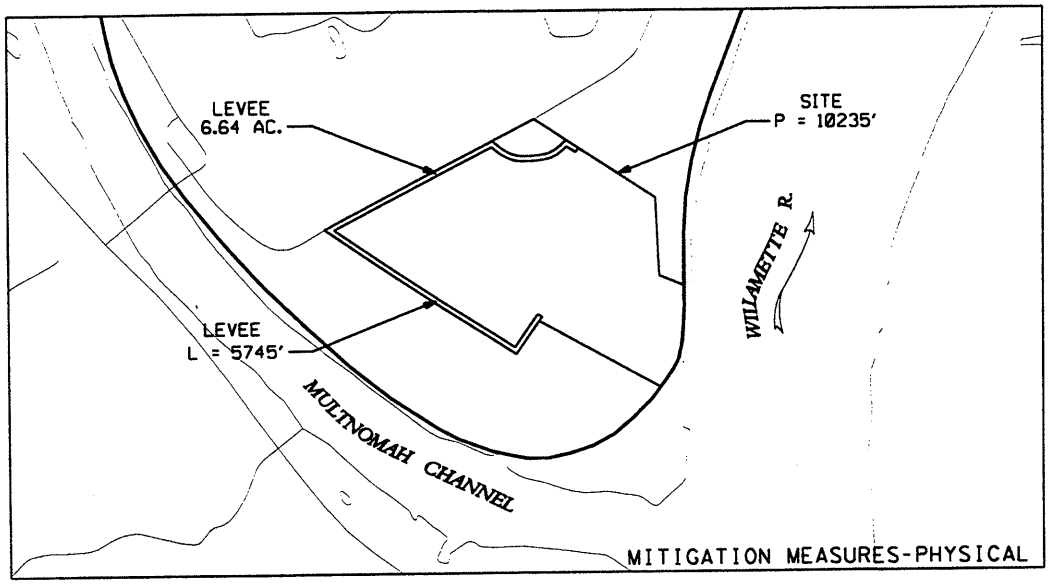
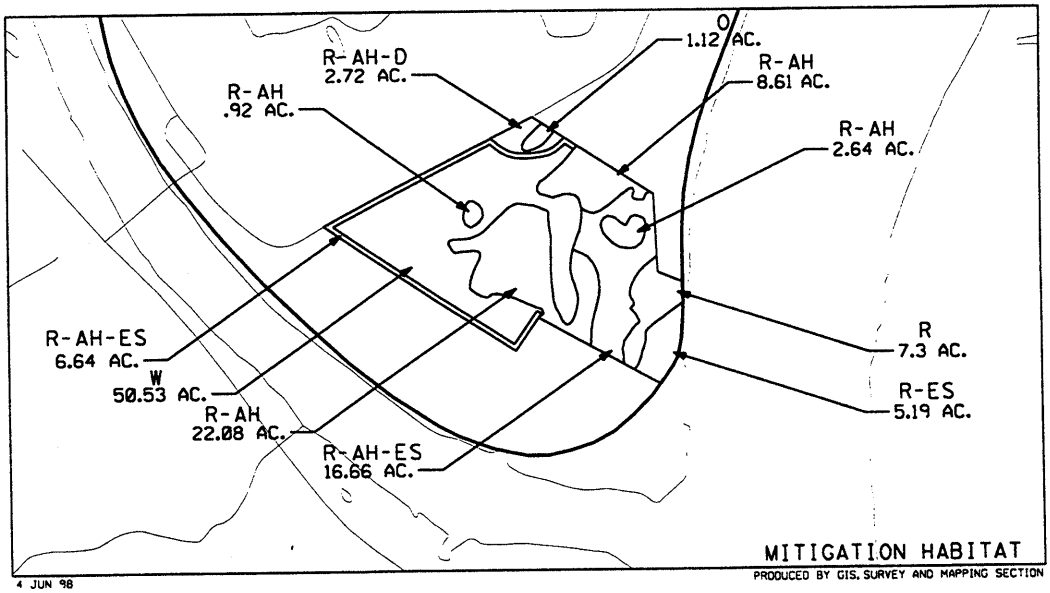
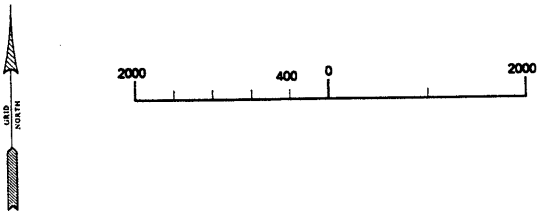
JOSLIN PROPERTY
124.4 AC.





4 JUN 98



	LEVEE
W	WETLANDS = 50.53 AC.
R-AH	RIPARIAN-ASSOCIATED HABITAT = 34.25 AC.
R-AH-ES	RIPARIAN-ASSOCIATED HABITAT-EARLY SUCCESSIONAL = 23.3 AC.
R-AH-D	RIPARIAN-ASSOCIATED HABITAT-DEGRADED = 2.72 AC.
R-ES	RIPARIAN-EARLY SUCCESSIONAL = 5.19 AC.
R	RIPARIAN = 7.3 AC.
O	OTHER (DWELLINGS) = 1.12 AC.

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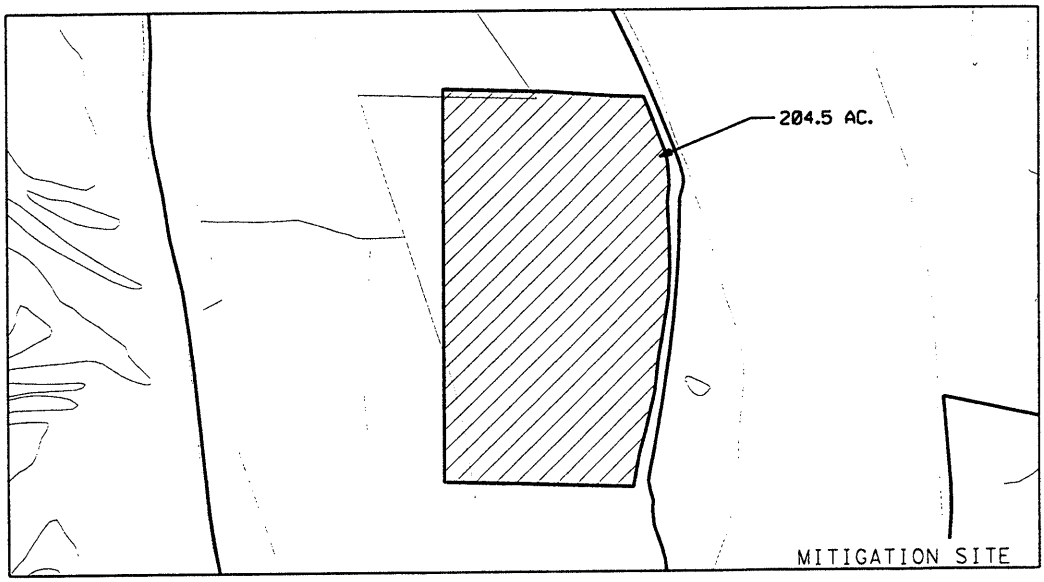
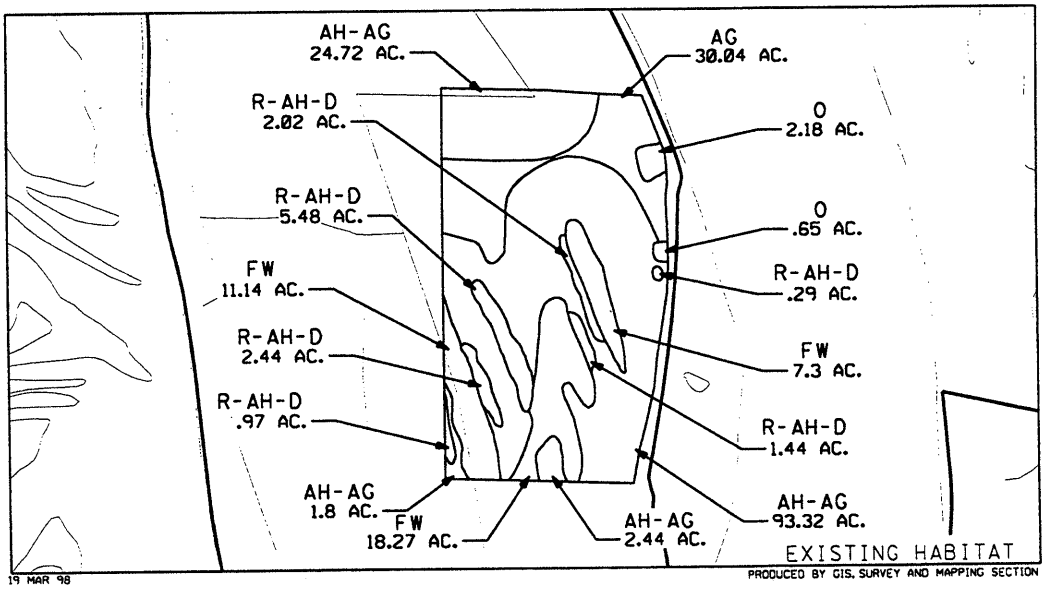
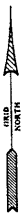
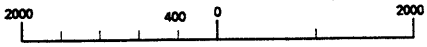
SAUVIE 94
204.5 AC.









	HABITAT
	LEVEE
R-AH-D	RIPARIAN-ASSOCIATED HABITAT = 12.64 AC.
AG	AGRICULTURE
AH-AG	ASSOCIATED HABITAT-AGRICULTURE = 122.28 AC.
FW	FARMED WETLANDS = 36.71 AC.
O	OTHER (DWELLINGS) = 2.83 AC.

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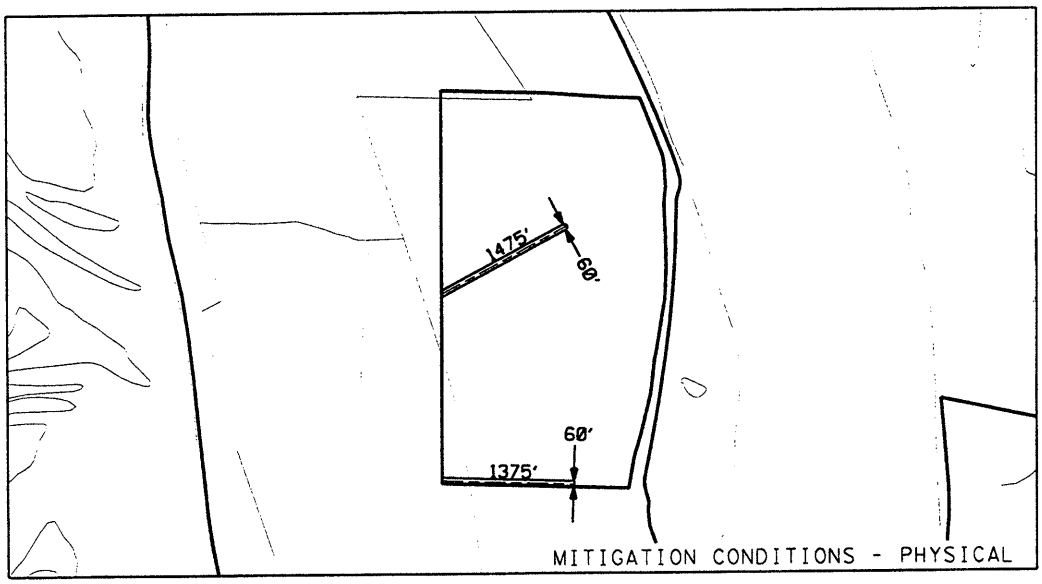
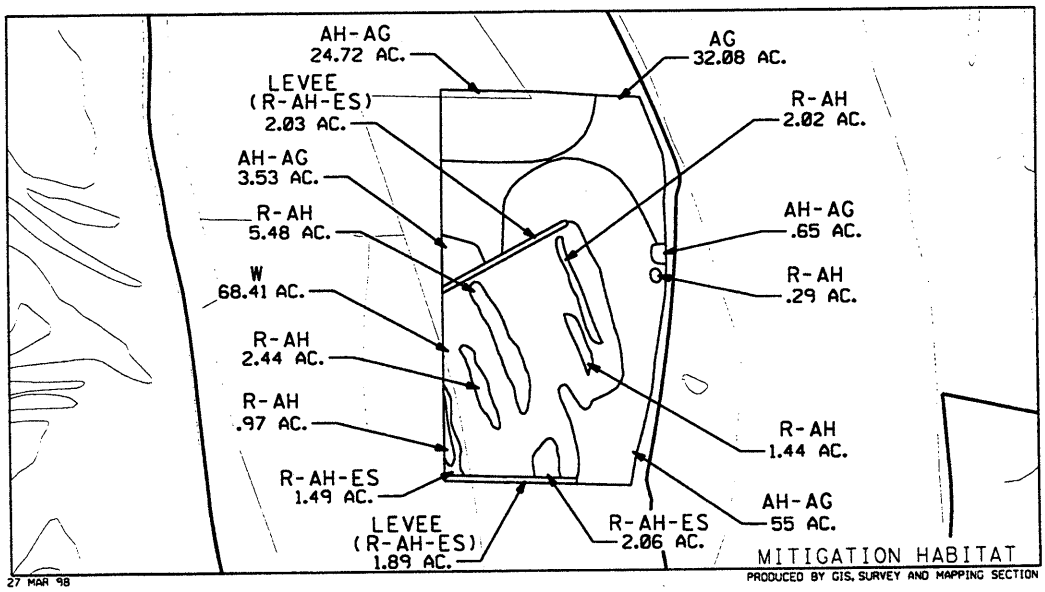
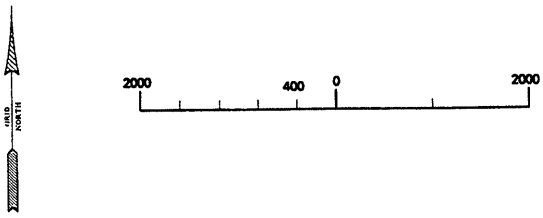
SAUVIE 94
204.5 AC.







	HABITAT
	LEVEE
R-AH	RIPARIAN-ASSOCIATED HABITAT = 12.64 AC.
AG	AGRICULTURE
AH-AG	ASSOCIATED HABITAT-AGRICULTURE = 83.9 AC.
W	WETLANDS
R-AH-ES	RIPARIAN-ASSOCIATED HABITAT-EARLY SUCCESSIONAL = 3.55 AC.
LEVEE (R-AH-ES)	LEVEE W/ HABITAT TYPE = 3.92 AC.

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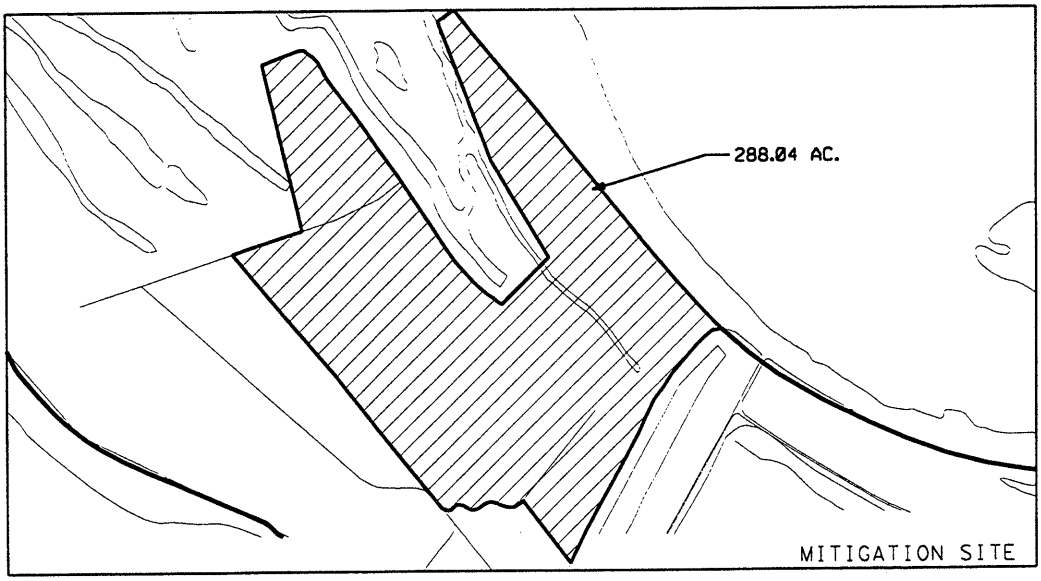
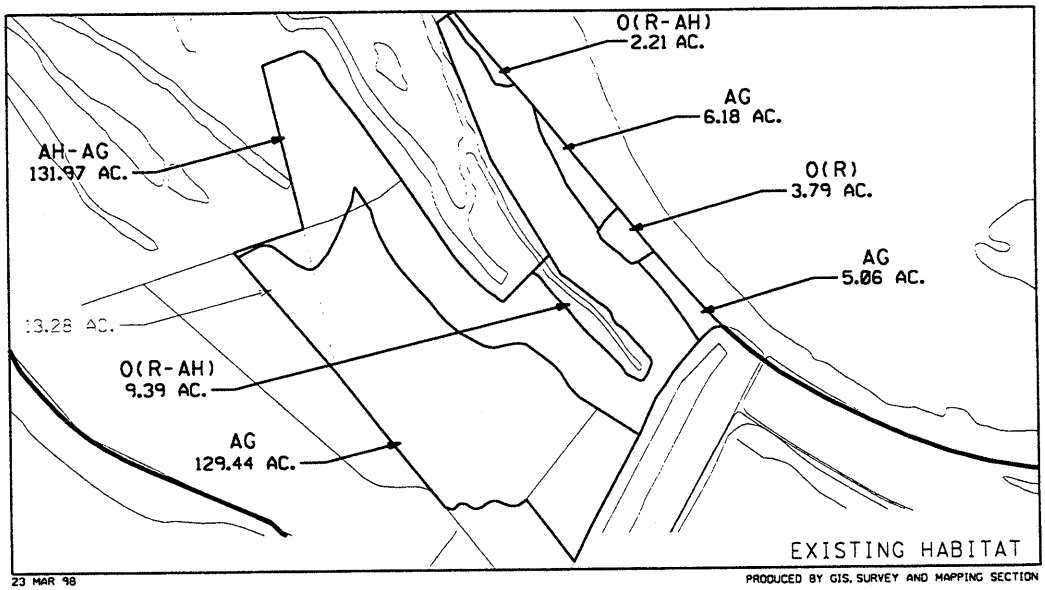
VANCOUVER
288.04 AC.





23 MAR 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION

GRID NORTH

2000 400 0 2000

NOTE:
A HABITAT TYPE THAT DOES NOT REQUIRE MANAGEMENT WILL BE ASSIGNED A HABITAT CODE OF 'OTHER' WITH A HABITAT DESCRIPTION FOLLOWING IN PARENTHESES

	HABITAT
	LEVEE
AG	AGRICULTURE = 140.68 AC.
AH-AG	ASSOCIATED HABITAT-AGRICULTURE
O(..)	OTHER (NON-MANAGED RIPARIAN-ASSOCIATED HABITAT)=15.39 AC.

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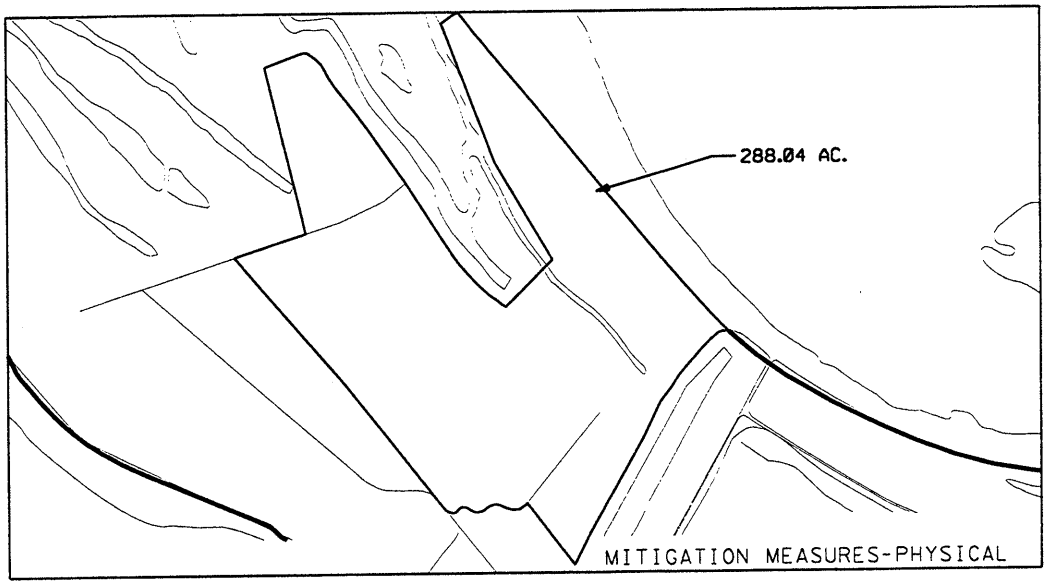
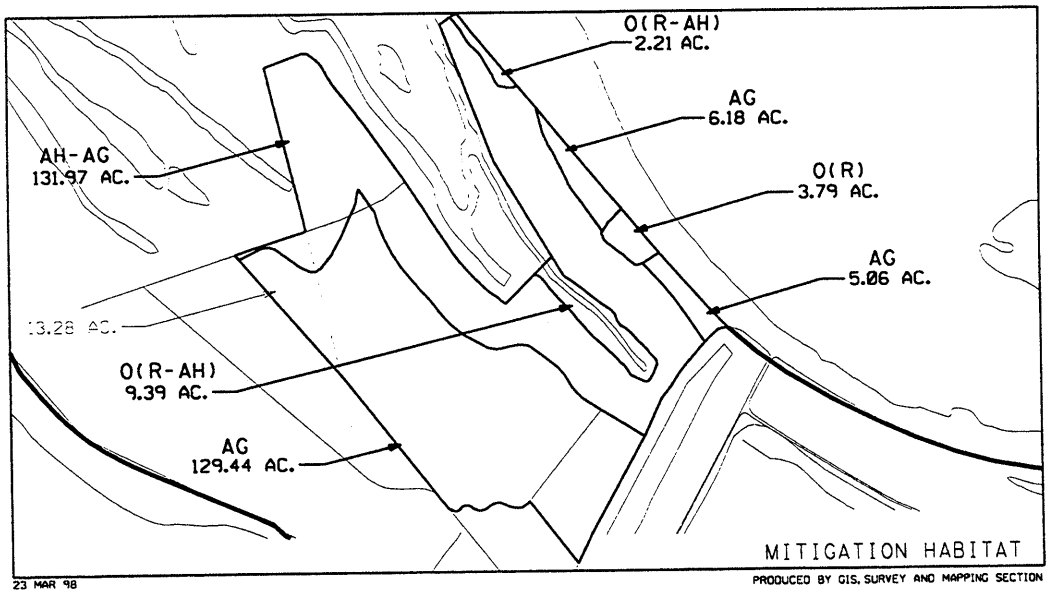
VANCOUVER
288.04 AC.





23 MAR 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION

GRID NORTH

2000 400 0 2000

NOTE:
A HABITAT TYPE THAT DOES NOT REQUIRE MANAGEMENT WILL BE ASSIGNED A HABITAT CODE OF "OTHER" WITH A HABITAT DESCRIPTION FOLLOWING IN PARENTHESES

	HABITAT
	LEVEE
AG	AGRICULTURE = 140.68 AC.
AH-AG	ASSOCIATED HABITAT-AGRICULTURE
O(..)	OTHER (NON-MANAGED RIPARIAN-ASSOCIATED HABITAT)=15.39 AC.

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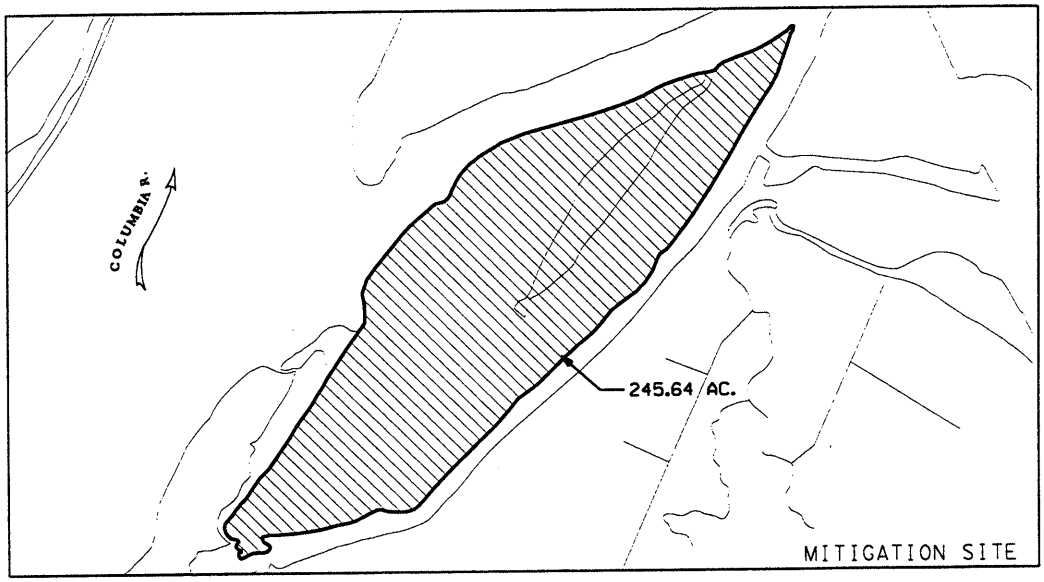
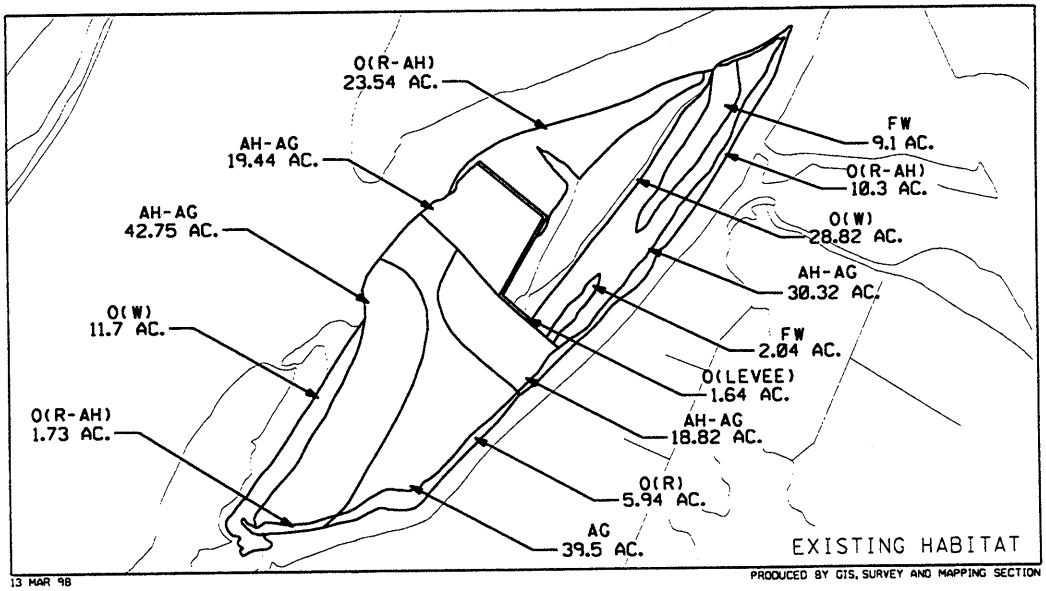
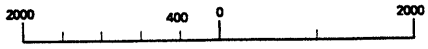
BURKE ISLAND
245.64 AC.





13 MAR 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION



	EXISTING HABITAT
	MITIGATION SITE
FW	FARMED WETLANDS = 11.14 AC.
AG	AGRICULTURE
AH-AG	ASSOCIATED HABITAT AGRICULTURE = 111.33 AC.
O(..)	OTHER (NON-MANAGED HABITAT) = 83.67 AC.

NOTE:

A HABITAT TYPE THAT DOES NOT REQUIRE MANAGEMENT WILL BE ASSIGNED A HABITAT CODE OF "OTHER" WITH A HABITAT DESCRIPTION FOLLOWING IN PARENTHESES

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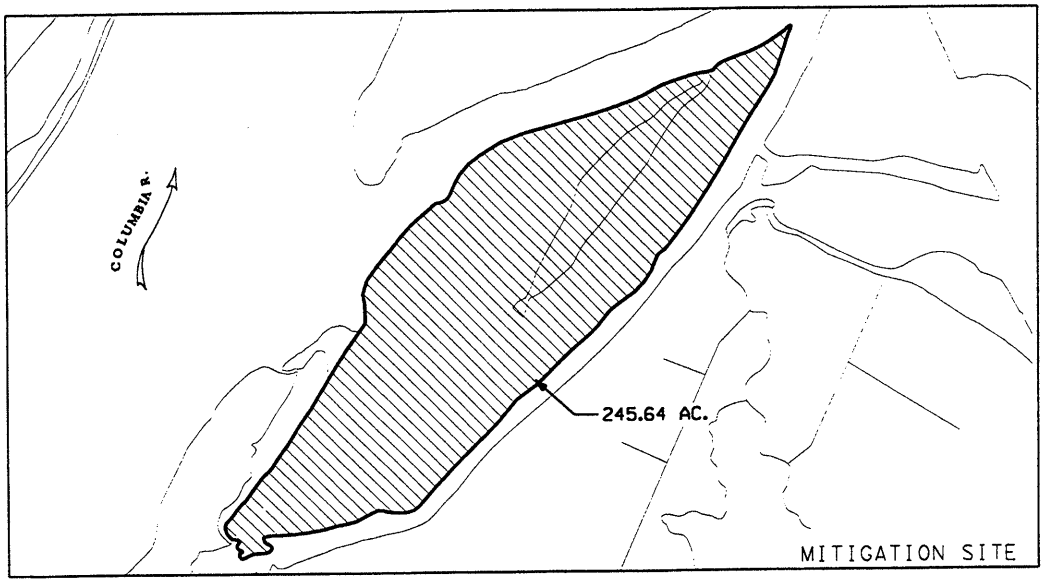
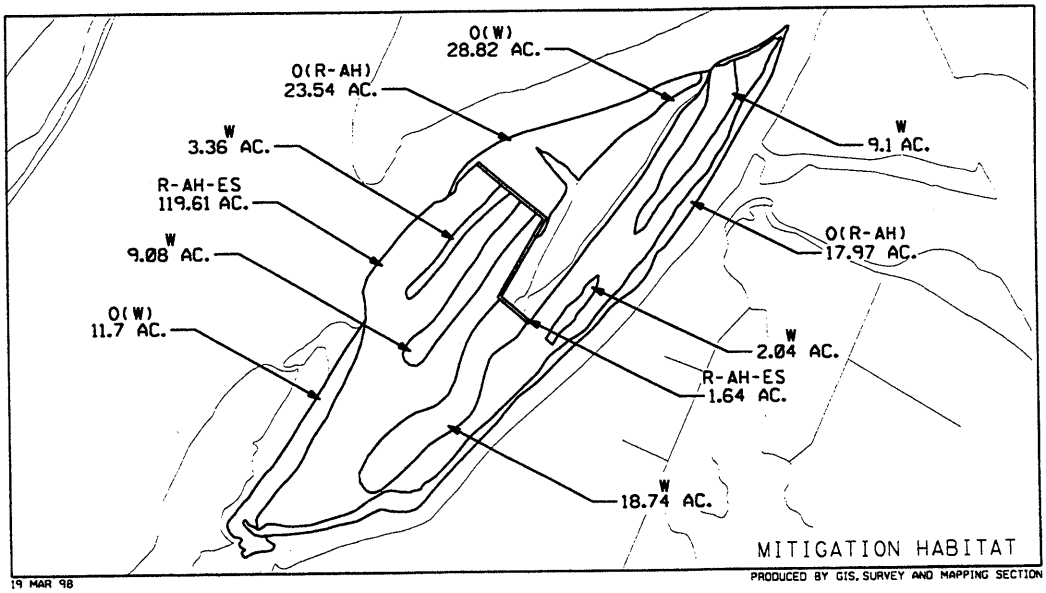
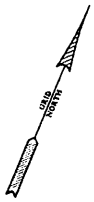
BURKE ISLAND
245.64 AC.

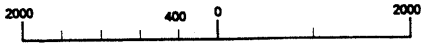




19 MAR 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION





NOTE:
A HABITAT TYPE THAT DOES NOT REQUIRE MANAGEMENT WILL BE ASSIGNED A HABITAT CODE OF "OTHER" WITH A HABITAT DESCRIPTION FOLLOWING IN PARENTHESES

	POST MITIGATION HABITAT
	MITIGATION SITE
W	WETLANDS = 71.14 AC.
R-AH-ES	RIPARIAN-ASSOCIATED HABITAT-EARLY SUCCESSIONAL = 121.25 AC.
O(..)	OTHER (NON-MANAGED HABITATS) =53.21 AC.

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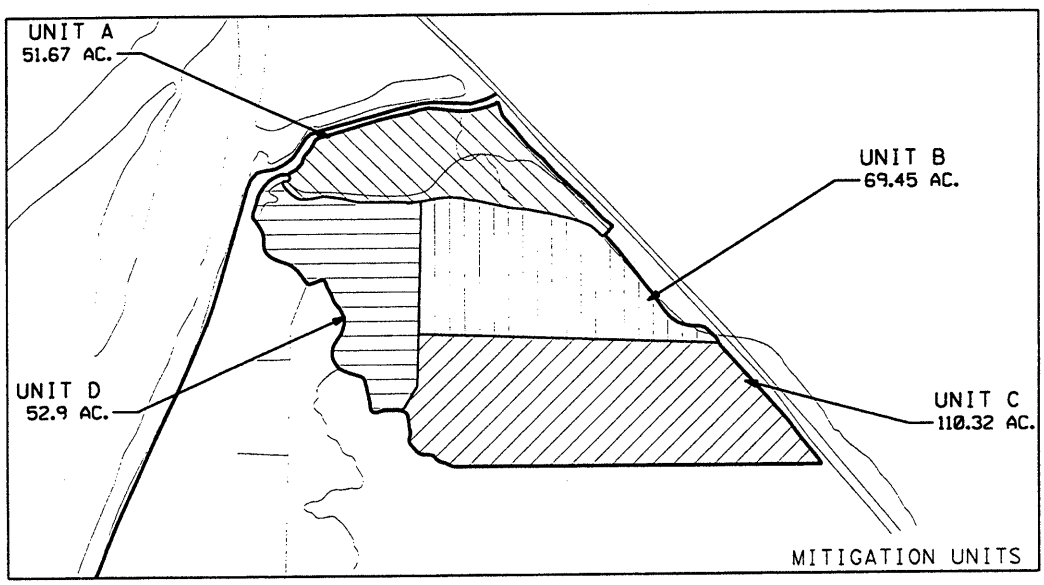
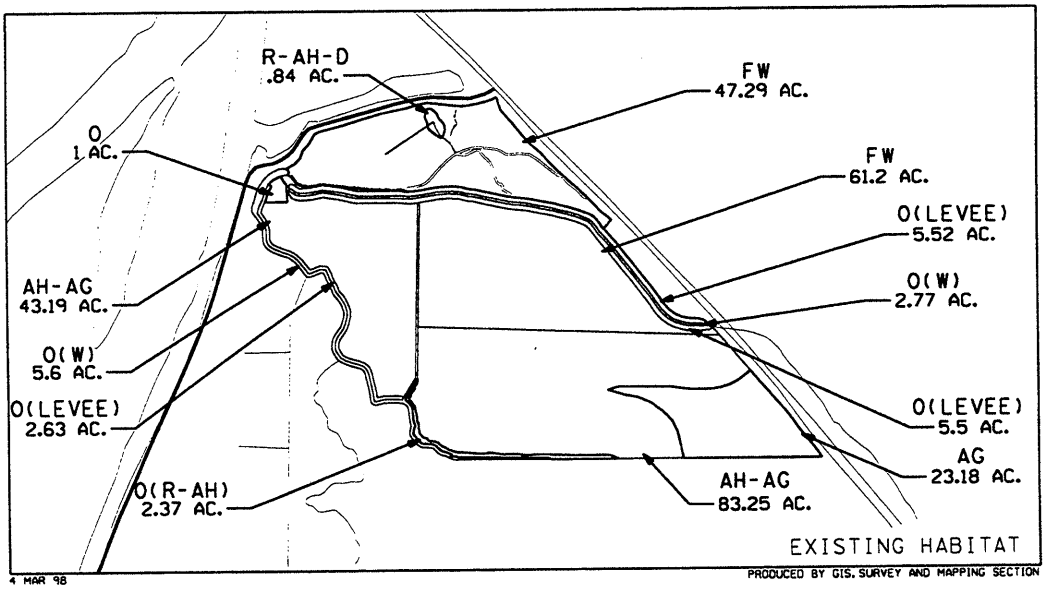
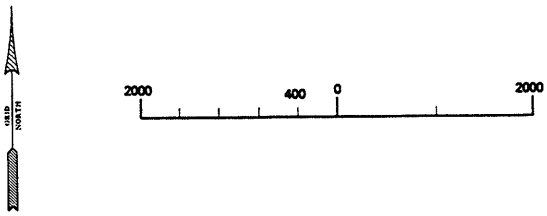
WOODLAND BOTTOMS
284.34 AC.







	EXISTING HABITAT
	MITIGATION SITE W/ UNIT DELINEATION
	OFF-SITE LEVEE
W	WETLANDS = 8.37 AC.
R-AH-D	RIPARIAN-ASSOCIATED HABITAT
AH-AG	ASSOCIATED HABITAT/ AGRICULTURE = 126.44 AC.
FW	FARMED WETLANDS = 108.49 AC.
O	OTHER (LEVEE) = 13.67 AC.

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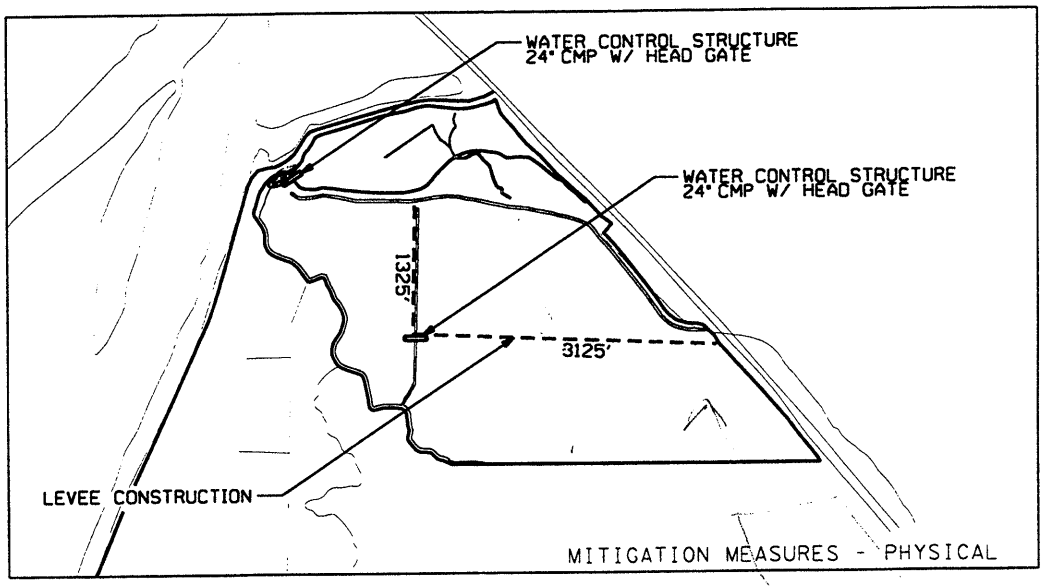
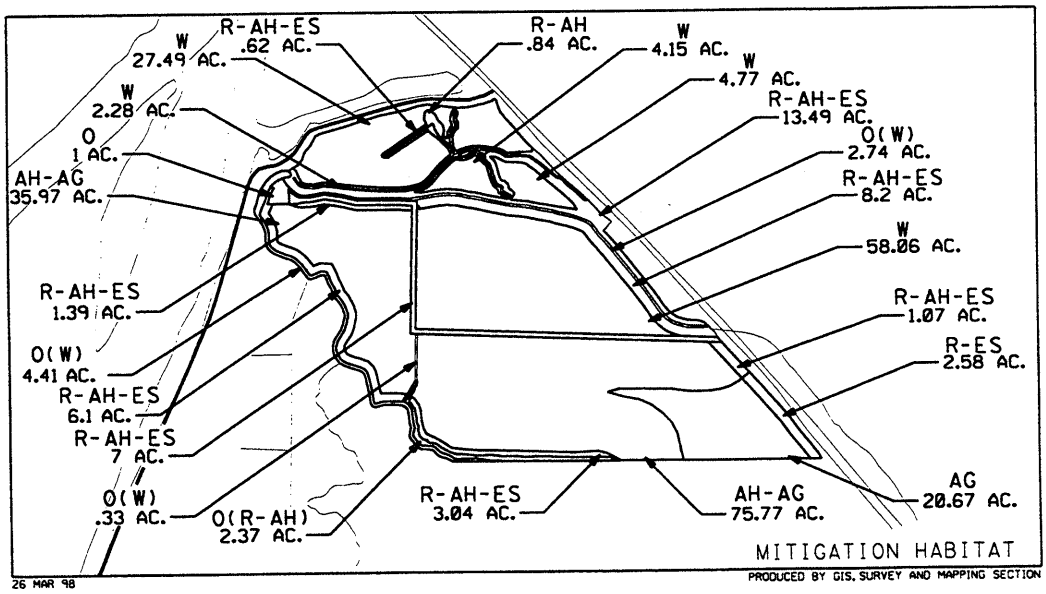
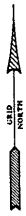
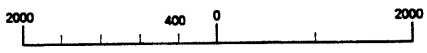
WOODLAND BOTTOMS
284.34 AC.









NOTE:

A HABITAT TYPE THAT DOES NOT REQUIRE MANAGEMENT WILL BE ASSIGNED A HABITAT CODE OF 'OTHER' WITH A HABITAT DESCRIPTION FOLLOWING IN PARENTHESES

W	WETLANDS = 96.75 AC.
R-AH	RIPARIAN-ASSOCIATED HABITAT
R-ES	RIPARIAN-EARLY SUCCESSIONAL
R-AH-ES	RIPARIAN-ASSOCIATED HABITAT-EARLY SUCCESSIONAL = 40.91 AC.
AG	AGRICULTURE
AH-AG	ASSOCIATED HABITAT-AGRICULTURE = 111.74 AC.
O(..)	OTHER (DWELLINGS OR NON-MANAGED HABITAT) = 10.85 AC.

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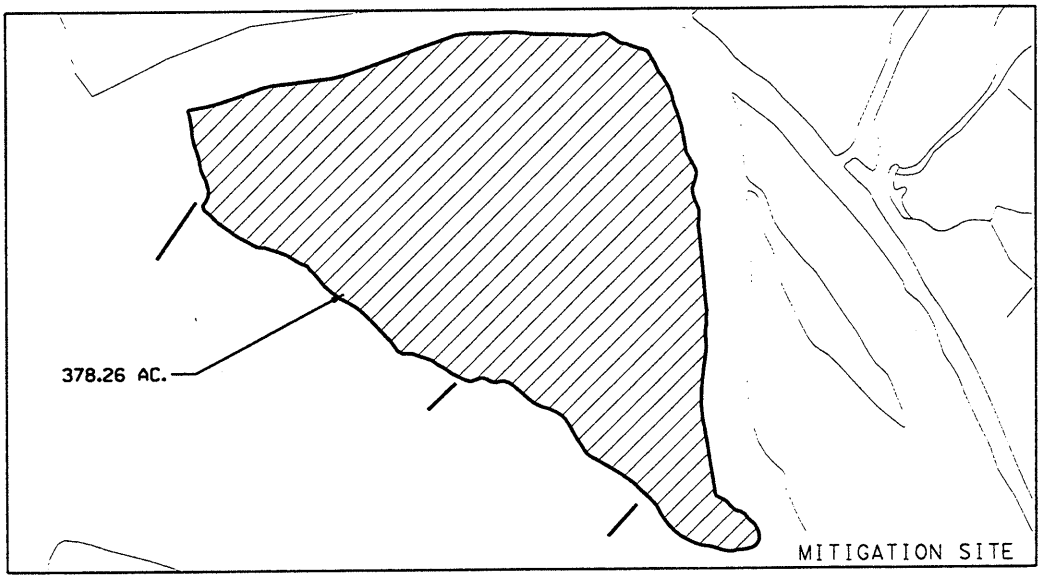
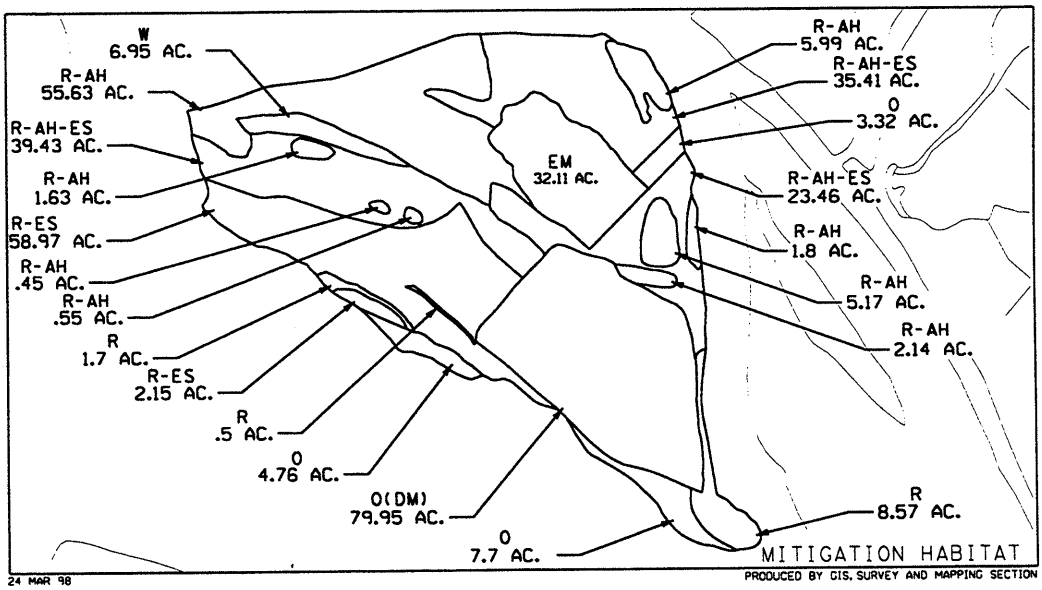
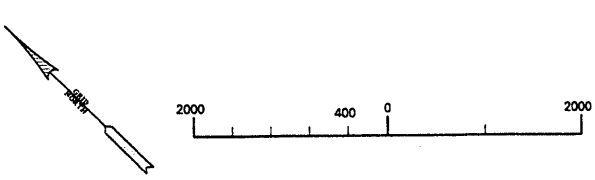
MARTIN ISLAND
378.26 AC.





24 MAR 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION



NOTE:
A HABITAT TYPE THAT DOES NOT REQUIRE MANAGEMENT WILL BE ASSIGNED A HABITAT CODE OF "OTHER" WITH A HABITAT DESCRIPTION FOLLOWING IN PARENTHESES

R	RIPARIAN = 10.77 AC.
R-ES	RIPARIAN-EARLY SUCCESSIONAL = 61.12 AC.
R-AH	RIPARIAN-ASSOCIATED HABITAT = 73.36 AC.
R-AH-ES	RIPARIAN-ASSOCIATED HABITAT-EARLY SUCCESSIONAL = 98.3 AC.
W	WETLANDS
EM	EMERGENT MARSH
O(..)	OTHER (INTER-TIDAL BEACH OR DREDGED MATERIAL) = 95.73 AC.

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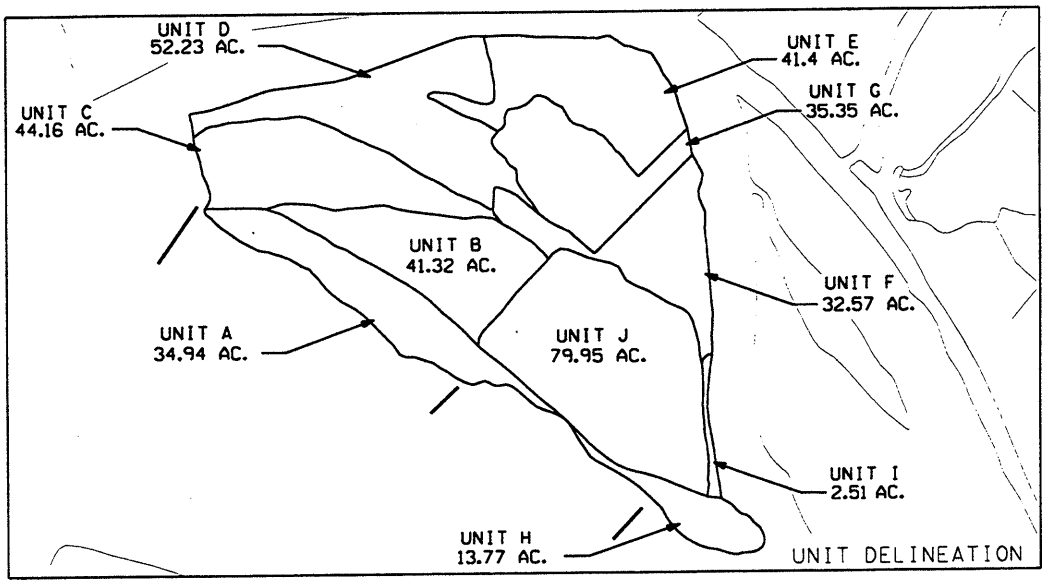
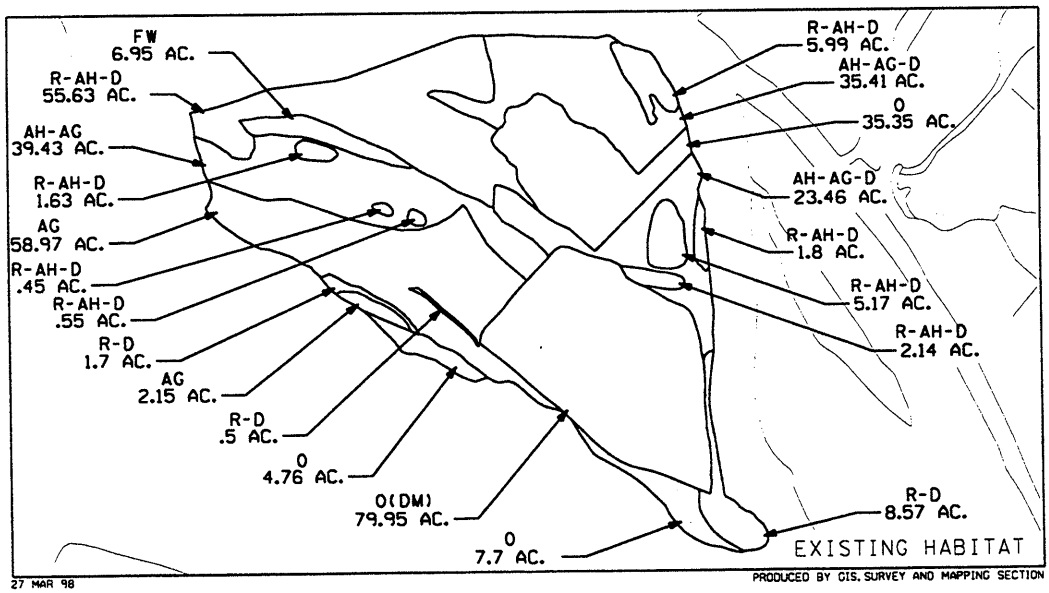
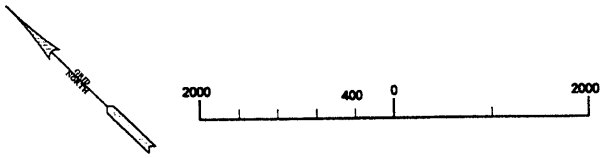
MARTIN ISLAND
378.26 AC.





27 MAR 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION



NOTE:
A HABITAT TYPE THAT DOES NOT REQUIRE MANAGEMENT WILL BE ASSIGNED A HABITAT CODE OF "OTHER" WITH A HABITAT DESCRIPTION FOLLOWING IN PARENTHESES

AG	AGRICULTURE = 61.12 AC.
AH-AG	ASSOCIATED HABITAT AGRICULTURE
AH-AG-D	ASSOCIATED HABITAT AGRICULTURE-DEGRADED = 58.87 AC.
FW	FARMED WETLANDS
R-D	RIPARIAN-DEGRADED = 10.78 AC.
R-AH-D	ASSOCIATED HABITAT RIPARIAN-DEGRADED = 73.36 AC.
O(..)	OTHER (INTER-TIDAL BEACH, WATER OR DREDGED MATERIAL) = 127.76 AC.

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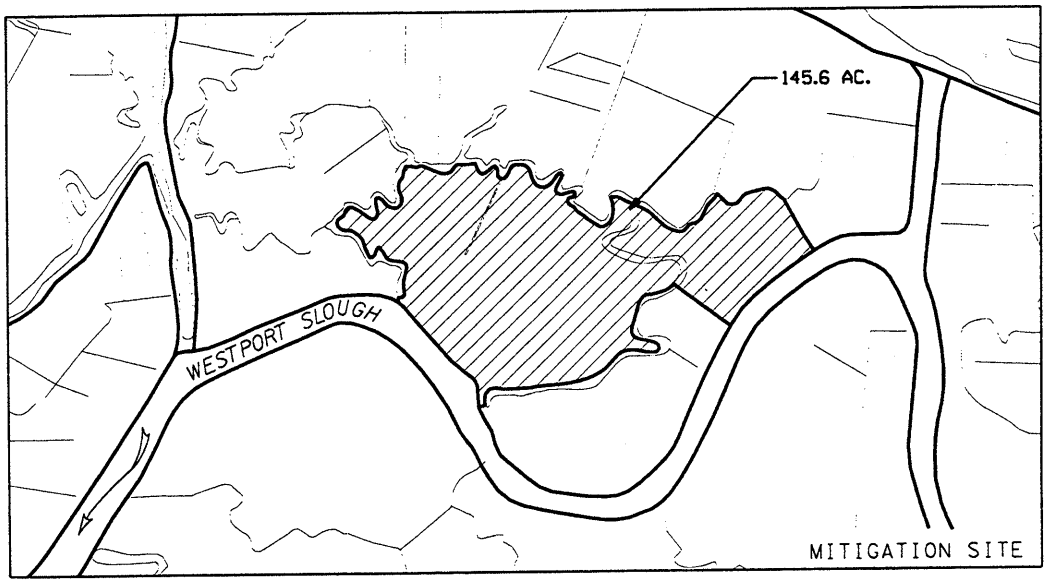
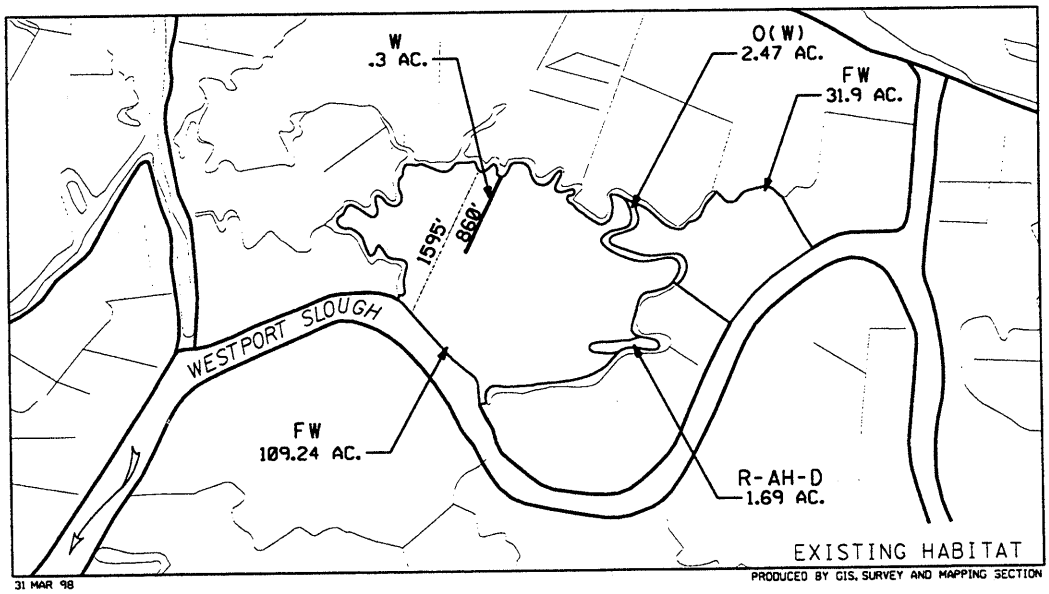
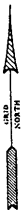
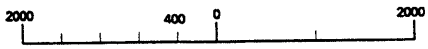
WEBB
145.6 AC.









NOTE:
A HABITAT TYPE THAT DOES NOT REQUIRE MANAGEMENT WILL BE ASSIGNED A HABITAT CODE OF "OTHER" WITH A HABITAT DESCRIPTION FOLLOWING IN PARENTHESES

	HABITAT
	MITIGATION SITE
	LEVEE
W	WETLANDS
FW	FARMED WETLANDS = 141.14 AC.
R-AH-D	RIPARIAN-ASSOCIATED HABITAT-DEGRADED
O(W)	OTHER (WETLANDS)

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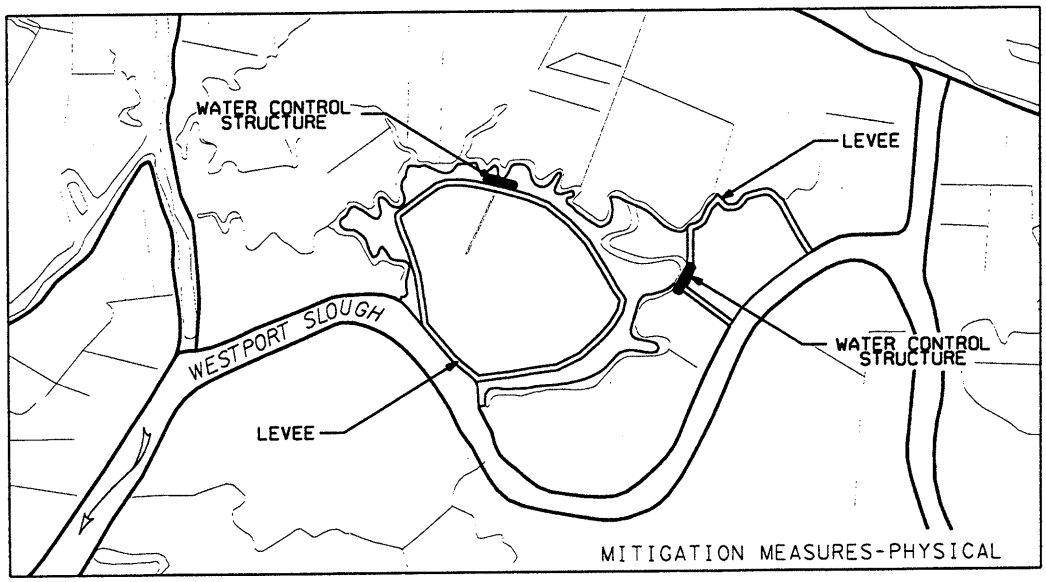
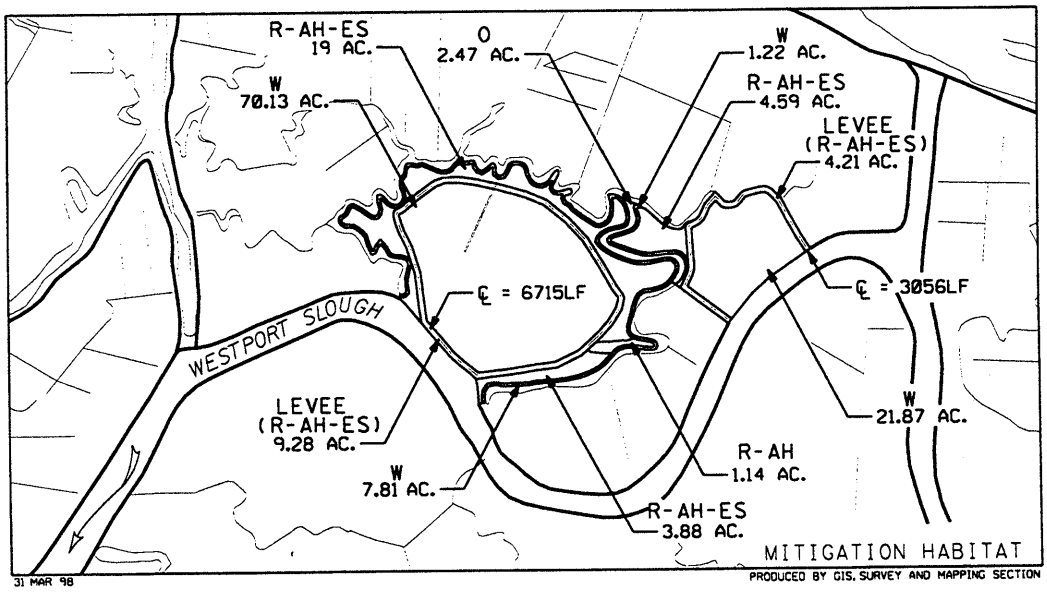
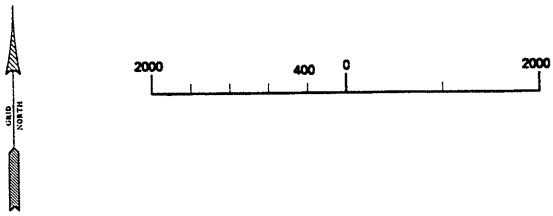
WEBB
145.6 AC.







	POST MITIGATION HABITAT
	OFF-SITE LEVEE
W	WETLANDS = 100.99 AC.
R-AH	RIPARIAN-ASSOCIATED HABITAT
R-AH-ES	RIPARIAN-ASSOCIATED HABITAT-EARLY SUCCESSIONAL = 28.56 AC.
LEVEE (R-AH-ES)	LEVEE W/ RIPARIAN-ASSOCIATED HABITAT-EARLY SUCCESSIONAL = 13.49 AC.
O	OTHER (SLOUGH)

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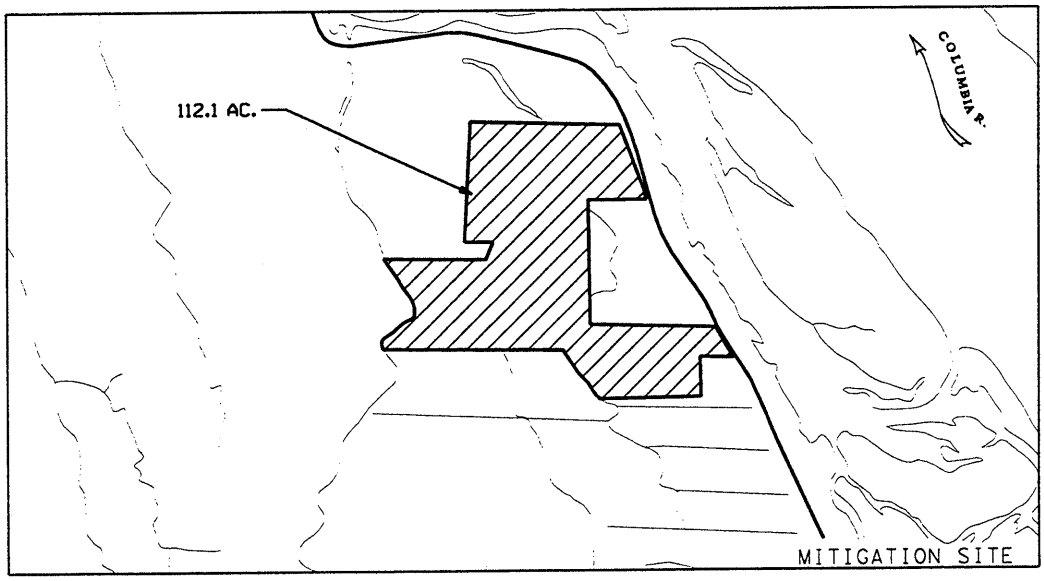
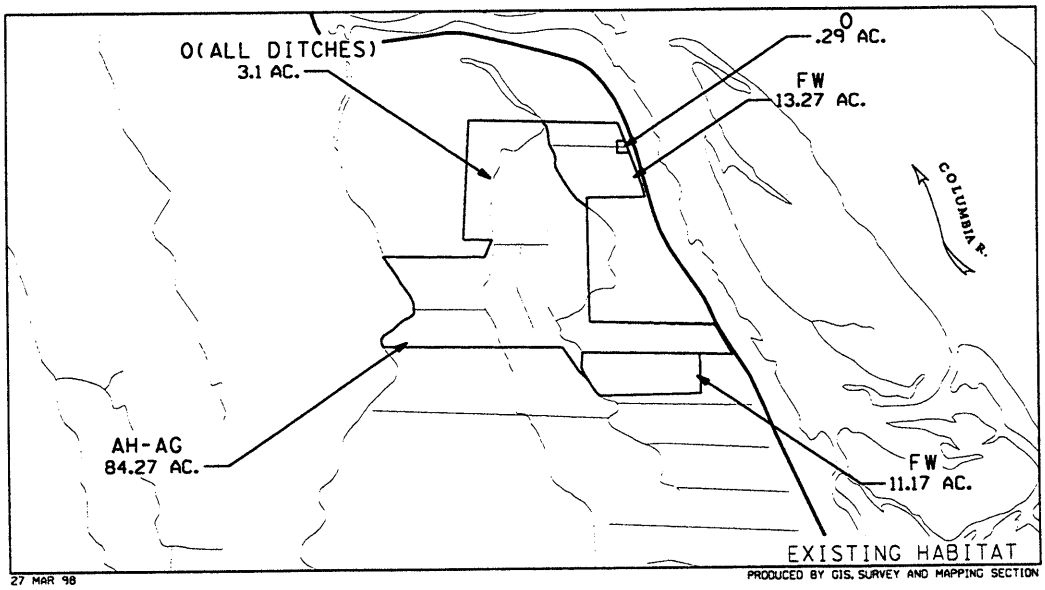
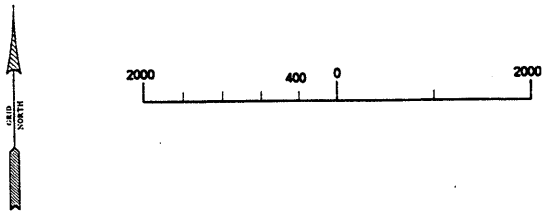
PUGET ISLAND
112.1 AC.





27 MAR 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION



	MITIGATION SITE
	EXISTING HABITAT
	LEVEE
AH-AG	ASSOCIATED HABITAT-AGRICULTURE
FW	FARMED WETLANDS = 24.44 AC.
O	OTHER (DWELLINGS AND ALL DITCHES) = 3.39 AC.

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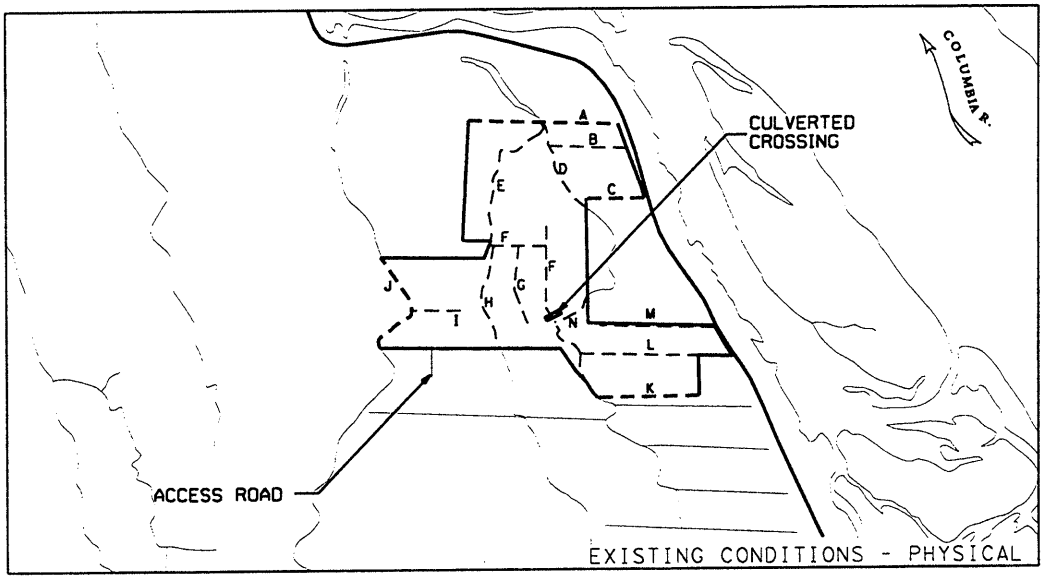
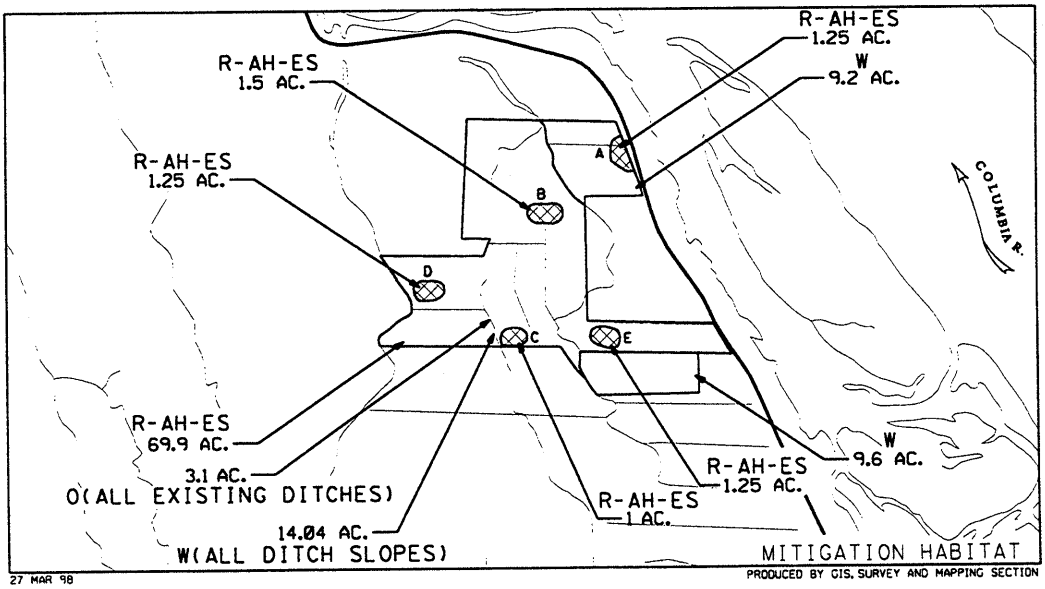
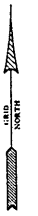
PUGET ISLAND
112.1 AC.

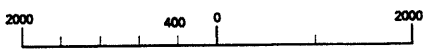




27 MAR 98

PRODUCED BY GIS, SURVEY AND MAPPING SECTION





NOTE:
DITCHES TAKE AN ESTIMATED 3.1 ACRES OF AREA AND ARE ASSIGNED HABITAT CODE "OTHER" BECAUSE NO MANAGEMENT ACTIONS WILL BE IMPLEMENTED

E	BORROW DISPOSAL W/ LABEL = 6.25 AC.
	POST MITIGATION HABITAT
	LEVEE
A	DITCHES W/ LABELS
W	WETLANDS = 32.84 AC.
R-AH-ES	RIPARIAN-ASSOCIATED HABITAT EARLY SUCCESSIONAL = 76.15 AC.
O(..)	OTHER (ALL DITCHES)

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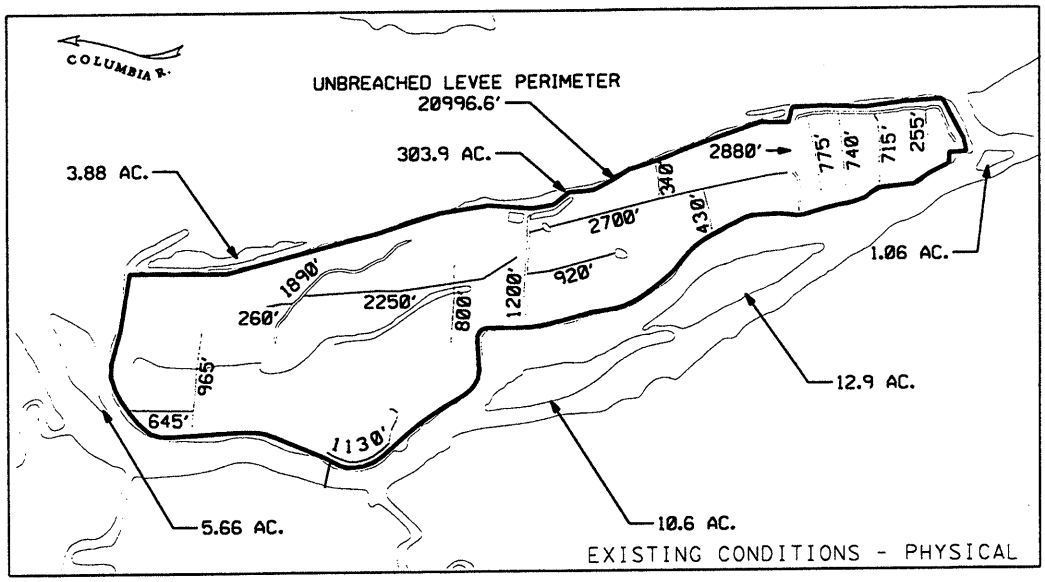
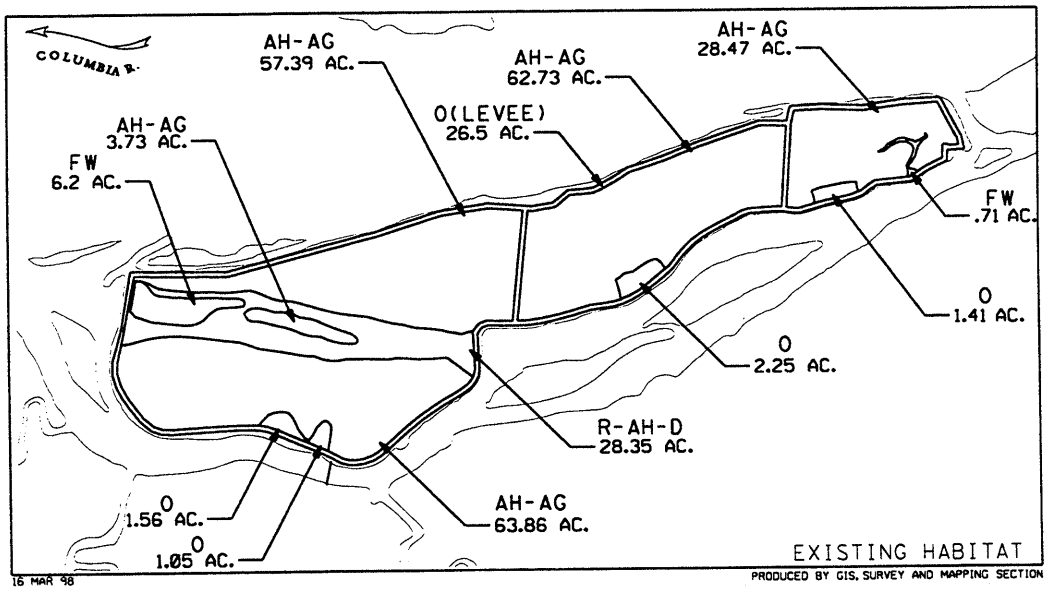
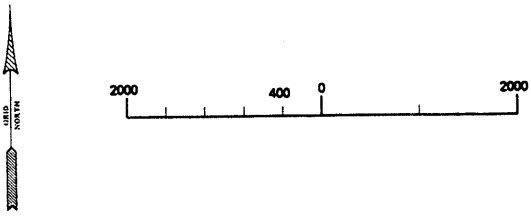
SVENSEN IS.
DISTRICT IMPROVEMENT CO.
284 AC.







	EXISTING HABITAT
	DITCHES - APPROX. 10' WIDE = 4 AC. WETLAND HABITAT
	DITCHES - APPROX. 25' WIDE = 3.4 AC. WETLAND HABITAT
	LEVEE
AH-AG	ASSOCIATED HABITAT-AGRICULTURE = 216.18 AC.
R-AH-D	RIPARIAN-ASSOCIATED HABITAT-DEGRADED
FW	FARMED WETLANDS = 6.91 AC.
O	OTHER (DWELLINGS & LEVEE) = 32.77 AC.

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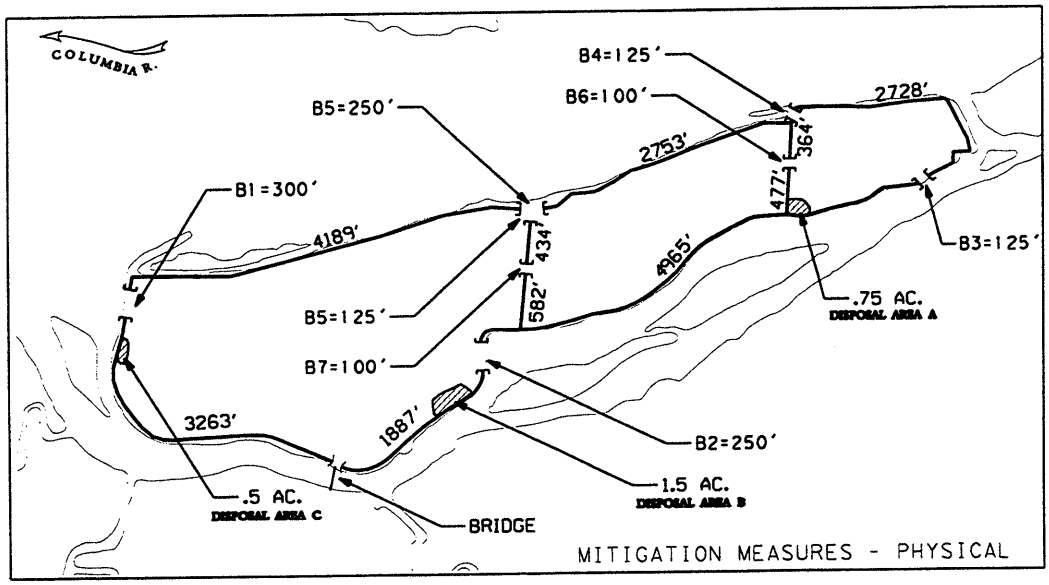
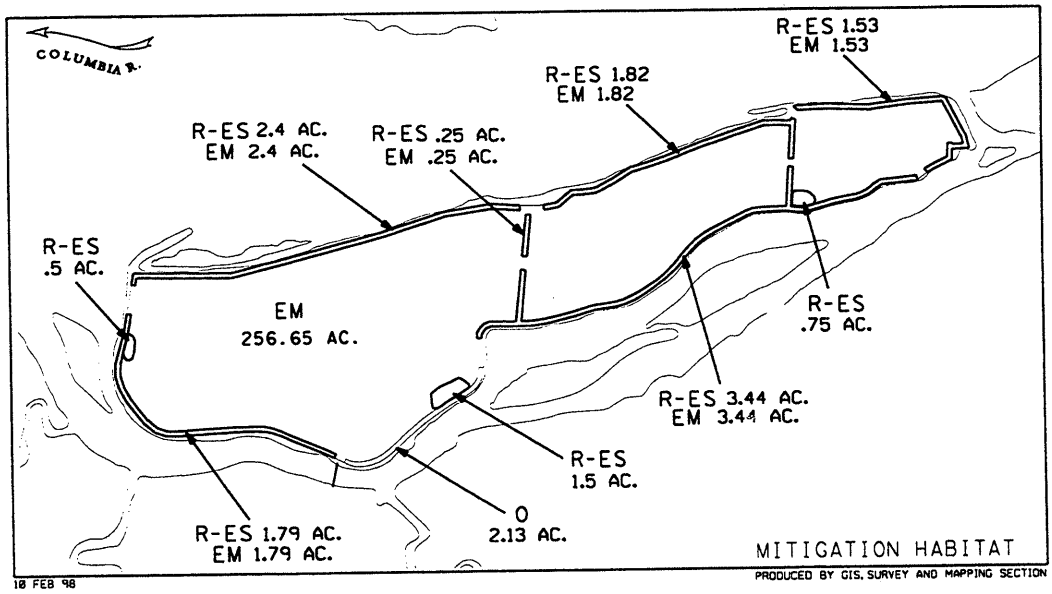
SVENSEN IS.
DISTRICT IMPROVEMENT CO.
284 AC.





10 FEB 98

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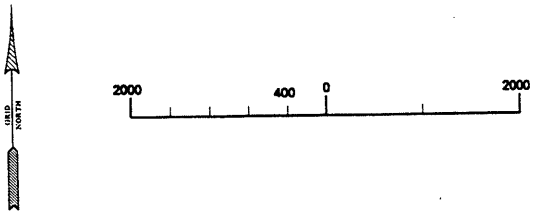

POST-MITIGATION HABITAT

LEVEE

LEVEE BREECH LOCATION W/ BREECH NUMBER AND SIZE

R-ES RIPARIAN-EARLY SUCCESSIONAL = 14 AC.

EM EMERGENT MARSH = 267.9 AC.

O OTHER (COUNTY ROAD)

BORROW DISPOSAL = 2.75 AC.

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