Nederland Terminal Buildout Project - iHGM Analysis

Wetland ID# WP1001_PFO_B

	INPUT		
	Pre-Project	**Post-Project**	**Comments**
Vdur[1]	0.50	0.00	Approximately 60% of the WAA floods or ponds for 7 to 14 days.
Vfreq[1]	1.00	0.00	WAA receive hydrology from direct runoff and possessed water stained leaves and water marks.
Vtopo[1]	0.70	0.00	WAA contains approximately 15% dips and hummocks
Vcwd[2]	0.30	0.00	2 pieces observed along 100' transect.
Vwood[2]	0.50	0.00	Averages 63% tree cover observed.
Vtree[2]	0.30	0.00	Predominantly tallow tree observed. Three other species observed spread throughout nine soil stations.
Vrich	0.40	0.00	Predominantly tallow tree observed. Three other species
Vbasal	0.40	0.00	Extrapilated to acre.
Vdensity	0.60	0.00	Extrapilated to acre.
Vmid	1.00	0.00	Average of 80% midstory cover observed in field
Vherb	0.30	0.00	Average of 62% herbaceous cover observed in field
Vdetritus	0.50	0.00	Approximately 82% of WAA possesses an A or O horizon
Vredox[1]	0.10	0.00	Based on data sheet
Vsorpt[1]	1.00	0.00	Based on data sheet
Vconnect[1]	0.75	0.00	based on data sheet, photos, aerial photography. Habitat types: PFO wetlands and upland; however, the area is immediately adjacent to industrial area.

Wetland acreage w/in construction footprint[3] **=** 61.51

Calculating Functional Capacity Unit (FCU) Impact - NO INPUTS NEEDED

	Pre-Project	**Post Project**	**FCI Difference**	**Pre-Project FCU's**	**Post Project FCU's**	**Difference in Pre- and Post- FCU's**
Temporary Storage & Detention of Storage Water	0.59	0.00	0.59	36.57	0.00	36.57
Maintain Plant & Animal Community	0.48	0.00	0.48	29.73	0.00	29.73
Removal & Sequestrian of Elements & Compounds	0.61	0.00	0.61	37.32	0.00	37.32
TOTALS						103.62

Nederland Terminal Buildout Project - iHGM Analysis

Wetland ID# WP1001_PFO_B

	INPUT Pre-Project	Post-Project	Comments
Vdur[1]	0.50	0.50	Approximately 60% of the WAA floods or ponds for 7 to 14 days.
Vfreq[1]	1.00	0.75	WAA receive hydrology from direct runoff and possessed water stained leaves and water marks.
Vtopo[1]	0.70	0.40	WAA contains approximately 15% dips and hummocks
Vcwd[2]	0.30	0.10	2 pieces observed along 100' transect.
Vwood[2]	0.50	0.10	Averages 63% tree cover observed.
Vtree[2]	0.30	0.10	Predominantly tallow tree observed. Three other species observed spread throughout nine soil stations.
Vrich	0.40	0.10	Predominantly tallow tree observed. Three other species
Vbasal	0.40	0.10	Extrapilated to acre.
Vdensity	0.60	0.10	Extrapilated to acre.
Vmid	1.00	0.10	Average of 80% midstory cover observed in field
Vherb	0.30	1.00	Average of 62% herbaceous cover observed in field
Vdetritus	0.50	0.30	Approximately 82% of WAA possesses an A or O horizon
Vredox[1]	0.10	0.10	Based on data sheet
Vsorpt[1]	1.00	1.00	Based on data sheet
Vconnect[1]	0.75	1.00	based on data sheet, photos, aerial photography. Habitat types: PFO wetlands and upland; however, the area is immediately adjacent to industrial area.

Wetland acreage w/in construction footprint[3] **=** 1.92

Calculating Functional Capacity Unit (FCU) Impact - NO INPUTS NEEDED

	Pre-Project	Post Project	FCI Difference	Pre-Project FCU's	Post Project FCU's	Difference in Pre- and Post- FCU's
Temporary Storage & Detention of Storage Water	0.59	0.35	0.24	1.14	0.67	0.47
Maintain Plant & Animal Community	0.48	0.33	0.16	0.93	0.62	0.30
Removal & Sequestrian of Elements & Compounds	0.61	0.40	0.20	1.16	0.77	0.39
TOTALS						1.16

Nederland Terminal Buildout Project - iHGM Analysis

Wetland ID# WP1006_PFO

	INPUT Pre-Project	INPUT Post-Project	Comments
Vdur[1]	0.75	0.00	Approximately 80% of the WAA floods or ponds for 7 to 14 days.
Vfreq[1]	0.75	0.00	WAA receive hydrology from direct runoff and possessed water stained leaves and saturation.
Vtopo[1]	0.70	0.00	WAA contains approximately 15% dips and hummocks
Vcwd[2]	0.30	0.00	0 pieces observed along 100' transect.
Vwood[2]	0.50	0.00	35% tree cover observed.
Vtree[2]	0.30	0.00	Only tallow tree observed.
Vrich	0.40	0.00	Only tallow tree observed.
Vbasal	0.40	0.00	Extrapilated to acre.
Vdensity	0.40	0.00	Extrapilated to acre.
Vmid	0.75	0.00	45% midstory cover observed in field
Vherb	0.30	0.00	75% herbaceous cover observed in field
Vdetritus	0.30	0.00	10% of WAA possesses an A or O horizon
Vredox[1]	0.10	0.00	Based on data sheet
Vsorpt[1]	1.00	0.00	Based on data sheet
Vconnect[1]	0.50	0.00	based on data sheet, photos, aerial photography. Habitat types: PFO wetlands and upland; however, the area is immediately adjacent to industrial area.

Wetland acreage w/in construction footprint[3] **=** 0.47

Calculating Functional Capacity Unit (FCU) Impact - NO INPUTS NEEDED

	Pre-Project	Post Project	FCI Difference	Pre-Project FCU's	Post Project FCU's	Difference in Pre- and Post- FCU's
Temporary Storage & Detention of Storage Water	0.61	0.00	0.61	0.29	0.00	0.29
Maintain Plant & Animal Community	0.40	0.00	0.40	0.19	0.00	0.19
Removal & Sequestrian of Elements & Compounds	0.59	0.00	0.59	0.28	0.00	0.28
TOTALS						0.76

Nederland Terminal Buildout Project - iHGM Analysis

Wetland ID# WP1009_PFO

	INPUT Pre-Project	INPUT Post-Project	Comments
Vdur[1]	0.50	0.00	Approximately 60% of the WAA floods or ponds for 7 to 14 days.
Vfreq[1]	0.25	0.00	WAA receive hydrology from direct runoff and possessed water stained leaves and saturation.
Vtopo[1]	0.70	0.00	WAA contains approximately 15% dips and hummocks
Vcwd[2]	0.30	0.00	1 pieces observed along 100' transect.
Vwood[2]	0.50	0.00	40% tree cover observed.
Vtree[2]	0.30	0.00	Only willow tree observed.
Vrich	0.40	0.00	Only willow tree observed.
Vbasal	0.40	0.00	Extrapilated to acre.
Vdensity	0.60	0.00	Extrapilated to acre.
Vmid	0.25	0.00	10% midstory cover observed in field
Vherb	1.00	0.00	10% herbaceous cover observed in field
Vdetritus	0.30	0.00	10% of WAA possesses an A or O horizon
Vredox[1]	0.10	0.00	Based on data sheet
Vsorpt[1]	1.00	0.00	Based on data sheet
Vconnect[1]	0.50	0.00	based on data sheet, photos, aerial photography. Habitat types: PFO wetlands and upland; however, the area is immediately adjacent to industrial area.

Wetland acreage w/in construction footprint[3] 0.52

Calculating Functional Capacity Unit (FCU) Impact - NO INPUTS NEEDED

	Pre-Project	Post Project	FCI Difference	Pre-Project FCU's	Post Project FCU's	Difference in Pre- and Post- FCU's
Temporary Storage & Detention of Storage Water	0.42	0.00	0.42	0.22	0.00	0.22
Maintain Plant & Animal Community	0.44	0.00	0.44	0.23	0.00	0.23
Removal & Sequestrian of Elements & Compounds	0.44	0.00	0.44	0.23	0.00	0.23
TOTALS						0.68

Nederland Terminal Buildout Project - iHGM Analysis

Wetland ID# WP1009_PFO_B

	INPUT Pre-Project	Post-Project	Comments
Vdur[1]	0.50	0.00	Approximately 60% of the WAA floods or ponds for 7 to 14 days.
Vfreq[1]	0.25	0.00	WAA receive hydrology from direct runoff and possessed water stained leaves and saturation.
Vtopo[1]	0.70	0.00	WAA contains approximately 15% dips and hummocks
Vcwd[2]	0.30	0.00	1 pieces observed along 100' transect.
Vwood[2]	0.75	0.00	70% tree cover observed.
Vtree[2]	0.30	0.00	Only tallow and willow trees observed.
Vrich	0.40	0.00	Only tallow and willow trees observed.
Vbasal	0.40	0.00	Extrapilated to acre.
Vdensity	0.60	0.00	Extrapilated to acre.
Vmid	0.25	0.00	0% midstory cover observed in field
Vherb	1.00	0.00	15% herbaceous cover observed in field
Vdetritus	0.30	0.00	5% of WAA possesses an A or O horizon
Vredox[1]	0.10	0.00	Based on data sheet
Vsorpt[1]	1.00	0.00	Based on data sheet
Vconnect[1]	0.50	0.00	based on data sheet, photos, aerial photography. Habitat types: PFO wetlands and upland; however, the area is immediately adjacent to industrial area.

Wetland acreage w/in construction footprint[3] **=** 0.00

Calculating Functional Capacity Unit (FCU) Impact - NO INPUTS NEEDED

	Pre-Project	Post Project	FCI Difference	Pre-Project FCU's	Post Project FCU's	Difference in Pre- and Post- FCU's
Temporary Storage & Detention of Storage Water	0.45	0.00	0.45	0.00	0.00	0.00
Maintain Plant & Animal Community	0.44	0.00	0.44	0.00	0.00	0.00
Removal & Sequestrian of Elements & Compounds	0.51	0.00	0.51	0.00	0.00	0.00
TOTALS						0.00

Nederland Terminal Buildout Project - iHGM Analysis

Wetland ID# WP1009_PFO_C

	INPUT		
	Pre-Project	**Post-Project**	**Comments**
Vdur[1]	0.50	0.00	Approximately 60% of the WAA floods or ponds for 7 to 14 days.
Vfreq[1]	0.25	0.00	WAA receive hydrology from direct runoff and possessed water stained leaves and saturation.
Vtopo[1]	0.70	0.00	WAA contains approximately 15% dips and hummocks
Vcwd[2]	0.30	0.00	1 pieces observed along 100' transect.
Vwood[2]	0.50	0.00	50% tree cover observed.
Vtree[2]	0.30	0.00	Only ash, sugarberry, and willow trees observed.
Vrich	0.60	0.00	Only ash, sugarberry, and willow trees observed.
Vbasal	1.00	0.00	Extrapilated to acre.
Vdensity	1.00	0.00	Extrapilated to acre.
Vmid	0.50	0.00	15% midstory cover observed in field
Vherb	1.00	0.00	8% herbaceous cover observed in field
Vdetritus	0.30	0.00	2% of WAA possesses an A or O horizon
Vredox[1]	0.10	0.00	Based on data sheet
Vsorpt[1]	1.00	0.00	Based on data sheet
Vconnect[1]	0.50	0.00	based on data sheet, photos, aerial photography. Habitat types: PFO wetlands and upland; however, the area is immediately adjacent to industrial area.

Wetland acreage w/in construction footprint[3] **=** 0.00

Calculating Functional Capacity Unit (FCU) Impact - NO INPUTS NEEDED

	Pre-Project	**Post Project**	**FCI Difference**	**Pre-Project FCU's**	**Post Project FCU's**	**Difference in Pre- and Post- FCU's**
Temporary Storage & Detention of Storage Water	0.42	0.00	0.42	0.00	0.00	0.00
Maintain Plant & Animal Community	0.58	0.00	0.58	0.00	0.00	0.00
Removal & Sequestrian of Elements & Compounds	0.44	0.00	0.44	0.00	0.00	0.00
TOTALS						0.01