

Wetland Features

Part 1: Data Summary

Description

This coverage depicts Municipally-mapped land surfaces having wetland characteristics and includes both freshwater and intertidal features. Data for the MOAWetlnds coverage are stored in a geodatabase format and may be compiled for distribution in ArcInfo and ArcView formats.

Corporate Dataset Name:

MOAWetlands

Feature Class Name:

e04MWetlnds

Polygons:

- Wetlands



Data Creation Method

MOAWetlnds digital mapping includes 'freshwater' features, specifically delineated and updated through a cooperative mapping effort between the Municipality and the United States Army Corps of Engineers (USACOE), and 'intertidal' features, located by the Municipality in part using map information prepared by others and in part through interpretive mapping of coastal elevation data and manual stereoscopic inspection of aerial photography. Mapping data is transferred to digital format through heads-up screen digitizing using digital ortho-imagery as a background. Linework is imported to a geodatabase where polygon topology is then built in conformance with MOA hydrography mapping logic.

Data Availability	Extent of Data
Available as 'MOAWetlands' in shape file and ArcGIS file format. Features stored in WMS Geodatabase.	Municipality of Anchorage corporate area Suggested viewing scale 1:6,000 or smaller
Publication Information	Contact Information
<p>Revision: V4.0</p> <p>Published: January 2005</p> <p>Produced by: Municipality of Anchorage OPD & PW Watershed Management Services</p>	<p>Distribution: Charlie Barnwell (BarnwellCE@muni.org) Mike Kiker (KikerMR@muni.org) Phil Manke (MankePJ@muni.org)</p> <p>Content: Thede Tobish (TobishTG@muni.org) Scott Wheaton (WheatonSR@muni.org)</p>

Wetland Features

Part 2: Definitions and Mapping Method

Wetland Features

Ultimately identification and development of all wetland features are regulated by the federal government and are only in part administered by the Municipality under a cooperative agreement with the United States Army Corps of Engineers (USACOE). However, to support the Municipality's freshwater wetlands administrative functions and still provide a larger context for the value of all available wetland resources, the MOAWetlnds coverage archives data for a range of wetland features, classified by their regulatory purview. As a guide to the use of Municipal digital data, general definitions of wetland features represented by the data are provided below. Though the Municipality does apply rigorous criteria and standards to its hydrographic mapping and maintains detailed metadata for the geospatial data generated in its mapping programs, the definitions provided in this document are nevertheless synoptic, and the published mapping is inevitably dated, incomplete and locally in error. Users must access source documents and agencies to obtain the precise definitions, criteria and standards and current data that are used by the Municipality and the USCOE in mapping and regulating these features.

Wetland Feature Definitions

MOA wetlands mapping includes all wetland features as defined by the US Army Corps of Engineers. The MOA wetlands coverage categorizes features in this dataset as 'intertidal', 'freshwater' or 'open water' types. Open water-type features represent any open water body, saline or fresh, and include all features included in the MOALakes coverage. Freshwater-type features represent wetlands having water quality typical of inland locations. Intertidal-type features represent wetlands having saline environments reflective of their coastal locations. Intertidal wetland features are also mapped as 'coastlands' in the MOAMarine map coverage. All 'freshwater' wetland features are mapped and administered under the Anchorage Wetlands Management Plan. Anchorage freshwater wetlands are further categorized by their functional quality that, in part, determines their availability for development. Based on these qualities, Municipal freshwater wetlands are attributed as having an A, B or C 'designation'. These basic definitions are discussed in some detail in the following text but users should refer to the Anchorage Wetlands Management Plan for specific information about freshwater wetlands mapping definitions and methodology.

Lake Shoreline

A lake shoreline is the boundary between lake water and the land surface. For most lakes the water level is relatively constant and the shoreline can be reasonably represented by a line tracing the elevation of the average lake level. However for ephemeral lakes or reservoirs the lake level can change dramatically either seasonally or from year to year. Therefore for Municipal maps, a lake shoreline is represented by the line tracing the lake border at the mean annual high water level (MHWL) of the lake.

Wetland Identities

A primary function of the MOAWetlnds data is management of known freshwater wetlands administered by the Municipality under the 1996 Anchorage Wetlands Management Plan. To assist in this, these features have been labeled with the official identity codes assigned under the Plan as proposed by the Municipality and approved by the USACOE as well as a range of other identity codes useful in their management. The attribute AWMPid_96 records the exact site number used to identify the feature in the 1996 AWMP. The attributes GroupID and PartID pre-parse the AWMP site numbers into their alphabetic and numeric components to help ease selecting and mapping features based on legacy 1996 mapping. The GroupID also provides an important means of tracking the history of a wetland as it becomes further subdivided and for grouping of wetlands to reflect important common geographic and hydrologic connectivity. The attribute SubPartID provides opportunities to map important subdivisions within a single

wetland entity, for example to reflect significant differences in vegetative cover. Finally the WetlandID is a means of providing a unique identifier for each wetland polygon and will allow for establishment of simplified and consistent identity codes in later management plan updates.

AWMPid_96

This attribute specifies the “Site” identification code officially assigned each wetland considered under the 1996 Anchorage Wetlands Management Plan. This is not a unique feature identifier—under the Plan many individual wetland polygon features were assigned the same “Site” identification code. Intertidal wetlands and any wetlands mapped after implementation of the Plan are assigned a default ‘AWMPid_96’ code of ‘9999’.

GroupID

The GroupID, or wetland group identification, is equivalent to the first, generally numeric, portion of the 1996 AWMP “Site” identification code, or to new code values assigned to other major groups of associated wetlands. The purpose of the GroupID, then, is to assign one or more wetland polygons to a common group of wetland features that are strongly associated through original contiguity or a common supporting hydrology. GroupID values specifically reflect 1996 Plan-designated grouping IDs, but are also intended to provide for grouping of newly mapped wetlands not characterized under the 1996 plan. GroupID numbers already assigned to 1996 AWMP wetlands (0 through 219, with zero assigned as a default value in the case of 1996 AWMP wetlands with no numeric site code) are not available for assignment to new group associations. However, newly mapped wetlands not originally assigned to a ‘96 AWMP group may be assigned to an existing ‘96 AWMP GroupID based on the newly mapped feature’s physical relationship to the 1996 wetlands. In any event, the GroupID transcends the 1996 mapping in that it provides continuing opportunity for identification and grouping of features that have or had a common geographic contiguity and have a common supporting surface and subsurface hydrology.

PartID

The PartID code, or wetland part identification, identifies sub-groups of wetland features as identified in the 1996 Wetlands Management Plan through assignment of a common second (alphabetic) part of the 1996 AWMP Site number. Part IDs from 1 to 26 are reserved for use in coding (in a one to one correspondence to the ascending order of the alphabet) any wetlands having an A through Z suffix in their AWMPid_96 code (reflecting their original Site number). The number ‘0’ is assigned as a default value to any 1996 AWMP wetland that did not have an alpha suffix in its Site number.

SubPartID

The SubPartID, or wetland subpart, reflects further subdivision of an individual wetland within wetland ‘groups’ or ‘parts’. Subpart identities may be used, for example, to partition wetlands into land areas having common plant community structure. This is the atomic mapping unit for wetland features.

WetlandID

The WetlandID attribute is a wetland identification code unique to each individual wetland polygon.

Wetland Type

Wetlands can be grouped by similar geomorphologic, hydrologic, chemical, and biological factors. The Municipality’s general permitting authority under the 1996 Plan is in part based on the distinction between ‘intertidal’ and ‘freshwater’ wetlands and is reflected in the “Type” attribute in the MOAWetlnds dataset:

Wetland Designation

Wetlands designations (referred to as ‘class’ under an earlier wetland management plan) identify the resource functional evaluation ranking of freshwater wetlands and open water features administered by the Municipality. Designation classes were established and assigned under the 1996 Anchorage Wetlands Management Plan based on the observed range of total functional performance of wetlands in Anchorage, assessed according to hydrologic, habitat, species, and socioeconomic performance categories. In order from the highest functional evaluation to the lowest, wetlands are designated as ‘A’, ‘B’, or ‘C’ wetlands. Freshwater wetlands that were not assigned designations under the 1996 Plan, freshwater wetland features mapped since implementation of the Plan, and all intertidal wetlands are given the designation value of ‘D’, or “not designated”.

Designation

There are four valid values for the designation attribute, ‘A’, ‘B’, ‘C’, and ‘D’. ‘A’ wetlands have been identified as having a high valuation for all functional categories. These wetlands have high priority for protection and preservation due to their ability to provide the highest ecologic, biologic, and hydrologic function. ‘B’ wetlands have been identified as having a moderate overall functional valuation, but still providing significant support to key watershed and drainage area functions. “B” wetlands usually contain a mixture of wetland features reflecting both higher and lower functional performance. ‘C’ wetlands have been identified as having a low overall functional valuation. These features may have moderate values for one or more functions, but generally have reduced or minimal overall functional or ecological value. ‘D’ wetlands have not been designated under the 1996 Anchorage Wetlands Management Plan.

Wetlands Feature Mapping

Ultimately identification and development of all wetland features are regulated by the federal government. Under a cooperative agreement with the USACOE the Municipality prepares and updates maps of freshwater wetlands within the Municipal corporate boundaries. Under that cooperative agreement the Municipality follows specific USACOE guidelines in delineating freshwater wetland features. Users are referred to those guidelines, and specifically the agreement documented in the 1996 Anchorage Wetlands Management Plan, as the basis for identifying and mapping these wetlands. Users should access these source documents and individual agencies involved to obtain the precise definitions, criteria and standards and current data that are used by the Municipality and the USCOE in mapping and regulating these features.

In creating digital representations of the delineated features, most MOA wetlands mapping, like other Municipal digital mapping of natural water resources features, locates wetlands generally with respect to select base digital imagery. That is, gross wetland features are identified in the field and from other mapping sources, and the map positions of their boundaries are then approximated through visual inspection of the select base digital imagery. MOA wetlands digital mapping is therefore representative and cannot supplant the need to perform delineation of wetlands boundaries on the ground for site-specific applications. The MOAWetlnds dataset depicts and labels wetland features identified in the 1996 Anchorage Wetlands Management Plan using feature identities and designations catalogued in the original Plan documents. Though features are mapped in the dataset generally as located in the 1996 Plan, the digital data does incorporate boundary adjustments and corrections to these wetland features where significant boundary changes have occurred since mapping was completed for the 1996 Plan. Digital data also shows wetland features (particularly intertidal wetlands) that are not administered under the Municipality’s general permitting authority.

Users are advised that MOAWetlnds mapping is not intended to be used or interpreted as a precise or complete representation of wetland conditions as they actually exist on the ground. MOAWetlnds data is locally incomplete, locations and spatial relationships of wetlands and other geographic features are

approximate, and map information reflects only that data available for use in map compilation at the time of publication of the current version. Similarly not all attributes are populated during mapping of individual wetland features. The completeness of feature attribute information reflects the level of mapping effort to date and does not necessarily reflect a management priority for that feature. Though MOAWetlnds data is expected to be useful in preliminary assessment of local wetland characteristics, it is not intended to supplant the need for project managers to confirm and map actual site conditions.

Wetland Features

Part 3: Data Dictionary

The following data dictionary contains basic attribute information about the MOAWetland polygons featureclass. For further information about these attributes, please see Part 2: Definitions and Mapping Methods. Attributes are not listed in the order that they appear in the featureclass attribute tables.

e04MWetInds Attributes:

ADJ_LENGTH

Total length of all streams marginal to the wetland feature. (Source: Data Dictionary)

ADJ_STREAM

Identity of primary stream transecting or marginal to the wetland feature. (Source: Data Dictionary)

AWMPID_96

"Site" identification code assigned each wetland polygon as published in the 1996 Anchorage Wetlands Management Plan (AWMP). (Source: Data Dictionary)

DESGNTION

Identifies the resource evaluation ranking or 'designation' of the wetland feature as established in the 1996 AWMP. (Source: Data Dictionary)

Value	Definition
A	Wetlands having a high valuation for all functional categories
B	Wetlands assigned a moderate valuation but providing significant support to key watershed and drainage area functions
C	Wetlands having a low functional valuation
D	Wetland features that have not been classified under the AWMP
U	'Interior' upland features; uplands entirely enclosed by wetland features

DRAINAGE

Code used to identify the predominant hydrographic drainage associated with the wetland. (Source: Data Dictionary)

GRIDID500

Identity of 500-scale grid map containing most of a wetland feature or that most closely occupying the wetland centroid. (Source: Data Dictionary)

GROUPID

Equivalent of the first numeric portion of the 1996 AWMP "Site" identification code assigned to groups of associated wetlands. (Source: Data Dictionary)

H2OPCTBYPA

Index value representing estimated percent reduction in all pre-development sources of surface and ground water to a wetland feature. (Source: Data Dictionary)

HABITAT

A numeric valuation given a wetland feature reflecting the wetlands functional performance relative to wildlife habitat. (Source: Data Dictionary)

HGM_CLASS

Predominant hydrogeomorphic character as described by Brinson, 1993, A Hydrogeomorphic Classification of Wetlands. (Source: Data Dictionary)

Value	Definition
1	Riverine (areas where periodic overbank flows from rivers and streams provide the dominant source of wetland water)
2	Depressional (areas where wetland hydrology is supported predominantly as a result for closed elevation contours)
3	Slope (areas where ground water discharge is the predominant source of wetland hydrology)
4	Mineral Soil Flats (areas where wetland hydrology is maintained predominantly as a result of very low slope and reduced vertical ground water movement through underlying low-permeability mineral soils)
5	Organic Soil Flats (areas where wetland hydrology is controlled predominantly by extensive accumulations of organic matter)
6	Estuarine Fringe (areas where wetland hydrology is predominantly supported by tidal waters)
7	Lacustrine Fringe (areas where lake waters maintain the ground water levels of adjacent wetlands)

HYDRO

A numeric valuation given a wetland feature reflecting the wetlands functional performance relative to hydrology. (Source: Data Dictionary)

LAKE_NAME

The commonly used or mapped name of a lake. (Source: Data Dictionary)

MAP_ACURCY

Accuracy of location of feature boundaries. (Source: Data Dictionary)

Value	Definition
1	Photo Interpretive Mapping (better than 25m, estimated)
2	Reconnaissance Mapping (better than 15m, estimated)
3	Base Map Survey (better than 11.5m, controlled survey confirmed)
4	Low Resolution GPS Survey (continuous controlled GPS survey)
5	High Resolution Land Survey (continuous controlled land survey)

MAP_DATE

Date of last mapping or survey activity. (Source: Data Dictionary)

MAP_EDITOR

Mapping science professional. (Source: Data Dictionary)

Value	Definition
MOA WMS	Municipality of Anchorage, Watershed Management Service

MAP_SOURCE

Source of feature location information. (Source: Data Dictionary)

Value	Definition
WMS	WMS standardized mapping
NETWORK	Modified WTR_WAY legacy digital mapping
WTR_WAY	MOA area-wide legacy digital mapping
USGS1:25K	Digitized 1:25K USGS DRG
USGS1:63K	1:63K USGS DLG
MAJDRN	MOA 1994 Hillside Drainage Study legacy digital mapping
TURNAGAIN	MOA Turnagain legacy digital mapping

MAPCOMPILR

Name of digital map developer. (Source: Data Dictionary)

Value	Definition
GeoNorth	Mapping Professional organization

OBJECTID

Internal feature number. (Source: ESRI)

OBJECTID_1

Internal feature number. (Source: ESRI)

PARTID

An identity value for individual wetlands or sub-groups of wetland features as identified in the 1996 AWMP. (Source: Data Dictionary)

PCTPOND

Percent of the total wetland polygon area in ponded water. A value of 100 % describes a pond-covered wetland feature. (Source: Data Dictionary)

PUB_DATE

Date of map completion/publication. (Source: Data Dictionary)

REVISIONNO

Revision. version information for published mapping data. (Source: Data Dictionary)

Value	Definition
1.11	[not provided]
1.12	Prior to Year 2001 Edits
1.13	Year 2001 Edits
2.0	Year 2002 Edits
3.0	Year 2003 Edits
4.0	Year 2004 Edits

SHAPE

Feature geometry. (Source: ESRI)

SHAPE_Area

Area of feature in internal units squared. (Source: ESRI)

SHAPE_Length

Length of feature in internal units. (Source: ESRI)

SECTIONID

Identity of US Public Land Survey township, section and range containing most of the wetland feature. (Source: Data Dictionary)

SOCIAL

A numeric valuation given a wetland feature reflection the wetlands functional performance relative to socioeconomic services. (Source: Data Dictionary)

SPECIES

A numeric valuation given a wetland feature reflection the wetlands functional performance relative to support for select species. (Source: Data Dictionary)

SUBPARTID

A unique identity value for a wetland feature that reflects further subdivision of an individual wetland within wetland 'groups' or 'parts'. (Source: Data Dictionary)

SUBSHED

Name of the associated MOA subwatershed feature. (Source: Data Dictionary)

SWCONVYNCE

Type of hydraulic connectivity of storm water runoff to wetland feature. (Source: Data Dictionary)

Value	Definition
1	Overland (storm waters cross wetlands as a non-integrated-overland-flow)
2	Channel (storm waters cross wetlands through an open channel or ditch)
3	Pipe (storm waters cross wetlands through a pipe or other closed conduit)
9	Isolated (no surface storm waters enter the wetland feature)

SWPCTBYPAS

Percent of pre-development surface water flows bypassing a wetland feature. (Source: Data Dictionary)

SWSLOPE

Reflects an estimated representative ground surface slope measured along the fall line from an upgradient wetland margin to an intersecting stream or lake feature or to a discharge point along a downgradient margin of the wetland. (Source: Data Dictionary)

TYPE

Wetland groups sharing similar geomorphologic, hydrologic, chemical, or biological factors. (Source: Data Dictionary)

Value	Definition
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Intertidal	Includes generally coastal saline wetland features (predominantly estuarine in character)
Freshwater	Includes generally inland freshwater wetland features (predominantly palustrine or riverine in character)
Open Water	Standing bodies of water with a permanent minimum surface area at ordinary high water greater than 2,500 square feet or as identified in the 1996 AWMP wetlands dataset. 'Open Water includes all lake (stillwater) features mapped within the Municipality and thus includes as a subset all lake features mapped in 'MLakes'

VEGGROUP

Predominant plant community structure as generally based on the first hierarchical level of Viereck et. Al., 1992, Alaska Vegetation Classification. (Source: Data Dictionary)

Value	Definition
1	Forested (10 % or more tree canopy at 10 feet or taller)
2	Scrub (trees less than 10 feet and 25 % or more shrub canopy)
3	Herbaceous (less than 25 % shrub canopy and dominated by grasses; forbs-herbs, ferns, horsetails; bryophytes-mosses, lichens; or aquatic plants-sedges, rushes, and aquatic plants)
4	Wet Herbaceous (less than 25 % shrub canopy and dominated by ponded herbaceous wetlands; standing water is prominent for a significant part of the year)
5	Barren (unvegetated - less than 2 % vegetative cover; may include natural or modified wetland surfaces)
8	Complex (reserved for larger or complex wetland features where size and distribution of local variations in plant communities significantly influence the overall functional character of the wetland)
9	Water (standing open water surface)

VEGSNSTVTY

Sensitivity of wetland vegetation to storm water discharge based on qualitative assessment of potential degree of impact to wildlife and environmental functional value. (Source: Data Dictionary)

Value	Definition
1	Sensitive (important wetland plant communities are highly sensitive to changes in hydroperiod and pollutant loading associated with storm water discharges)
2	Marginal (important wetland plant communities require special storm water pre-treatment to tolerate changes in hydroperiod and pollutant loading associated with storm water discharges)
3	Tolerant (wetland plant communities have a low environmental functional value or plant communities require only normal storm water pre-treatment to tolerate changes in hydroperiod and pollutant loading associated with storm water discharges)

VEGTREND

Apparent overall response of wetland vegetation as an indicator of the trend in hydrologic regime relative to predevelopment conditions. (Source: Data Dictionary)

Value	Definition
1	Dry Impacted (wetland vegetation reflects a marked longterm response to a lowered ground water elevation or to a reduction in surface water input or both)
2	Drying (cumulative evidence indicates vegetation is responding to a decreasing (lowering) ground water elevation or to a reduction in surface water input)
3	Flood Impacted (wetland vegetation reflects a marked longterm response to rising ground water elevation or to an increase in surface water input or both)
4	Flooding (cumulative evidence indicates vegetation is responding to an increase in (raising of) ground water elevation or to increased surface flooding or both)
9	Predevelopment (the hydrologic regime generally reflects conditions similar to those prior to any development within the contribution watershed)

WETLNDID

A unique wetland polygon identification used for feature cataloguing purposes. (Source: Data Dictionary)

WSHED

Name of the associated MOA watershed feature. (Source: Data Dictionary)

Wetland Features

Part 4: FGDC Metadata

Identification_Information:

Citation:

Citation_Information:

Originator: MOA Watershed Management Section

Publication_Date: 01/15/2005

Title: e04MWetlnds

Geospatial_Data_Presentation_Form: vector digital data

Online_Linkage: \\Zim\Data\wms\031016_sde_selected\SDEDevelopment031024updates.mdb

Description:

Abstract: MOAWetlands depicts wetland features within the Municipality of Anchorage corporate area. Data are stored in a geodatabase format and are compiled for distribution in ArcInfo and ArcView formats. All features can be derived from single ArcInfo or ArcView Shape files. MOAWetlands digital mapping includes 'freshwater' features specifically delineated and updated through a cooperative mapping effort between the Municipality and the United States Army Corps of Engineers (USACOE), and 'intertidal' features, located by the Municipality in part using map information prepared by others and in part through interpretive mapping of coastal elevation data and manual stereoscopic inspection of aerial photography. Mapping data is transferred to digital format through heads up screen digitizing using digital ortho-imagery as a background. Linework is imported to a geodatabase where polygon topology is then built in conformance with MOA hydrography mapping logic.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20010905

Currentness_Reference: ground condition

Status:

Progress: REQUIRED: The state of the data set.

Maintenance_and_Update_Frequency: Annually

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -150.286523

East_Bounding_Coordinate: -148.465179

North_Bounding_Coordinate: 61.482332

South_Bounding_Coordinate: 60.748169

Keywords:

Theme:

Theme_Keyword_Thesaurus: hydrology, lakes, wetland, streams

Theme_Keyword: hydrology, lakes, wetland, streams

Place:

Place_Keyword: Anchorage, Alaska

Access_Constraints:

Refer to Municipality of Anchorage GIS Web page

(<http://www.ci.anchorage.ak.us/gis/gisinternet/htmls/gishome.htm>)

for official policy on use of MOA GIS data.

Use_Constraints:

Refer to Municipality of Anchorage GIS Web page

(<http://www.ci.anchorage.ak.us/gis/gisinternet/htmls/gishome.htm>)

for official policy on use of MOA GIS data. Point_of_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Phil Manke

Contact_Organization: MOA-DPW-Technical Services

Contact_Position: IT Supervisor

Contact_Address:

Address_Type: mailing address

Address: Department of Public Works, P.O. Box 196650

City: Anchorage

State_or_Province: AK

Postal_Code: 99519-6650

Country: USA
 Contact_Voice_Telephone: (907) 343-8220
 Contact_Electronic_Mail_Address: MankePJ@muni.org
 Hours_of_Service: 8-5
 Contact_Instructions: Please use phone as primary contact interface
 Data_Set_Credit: MOA WMS
 Native_Data_Set_Environment: Microsoft Windows 2000 Version 5.1 (Build 2600) Service Pack 1; ESRI ArcCatalog 8.3.0.800
 Data_Quality_Information:
 Process_Step:
 Process_Description: Dataset copied.
 Source_Used_Citation_Abbreviation: \\JUGGERNAUT\Data\WMS\WETLANDS\WETLANDS_FINAL.mdb
 Process_Step:
 Process_Description: Dataset copied.
 Source_Used_Citation_Abbreviation: \\JUGGERNAUT\Data\WMS\WETLANDS\WETLANDS_FINAL.mdb
 Process_Step:
 Process_Description: Dataset copied.
 Source_Used_Citation_Abbreviation:
 Process_Step:
 Process_Description: Dataset copied.
 Source_Used_Citation_Abbreviation: \\BOOMHAUER\Data\Projects\WMS\WMS
 GEODATABASE\WMS_PILOT_GDB.mdb
 Process_Step:
 Process_Description: Metadata imported.
 Source_Used_Citation_Abbreviation: C:\Documents and Settings\vmartin\Desktop\mlakes_metadata.xml
 Process_Step:
 Process_Description: Dataset copied.
 Source_Used_Citation_Abbreviation:
 \\ZIM\Data\wms\031016_sde_selected\SDEDevelopment031023updates.mdb
 Process_Step:
 Process_Description: Metadata imported.
 Source_Used_Citation_Abbreviation: C:\DOCUME~1\vmartin\LOCALS~1\Temp\xml2E.tmp
 Spatial_Data_Organization_Information:
 Direct_Spatial_Reference_Method: Vector
 Point_and_Vector_Object_Information:
 SDTS_Terms_Description:
 SDTS_Point_and_Vector_Object_Type: G-polygon
 Point_and_Vector_Object_Count: 1146
 Spatial_Reference_Information:
 Horizontal_Coordinate_System_Definition:
 Planar:
 Grid_Coordinate_System:
 Grid_Coordinate_System_Name: State Plane Coordinate System 1983
 State_Plane_Coordinate_System:
 SPCS_Zone_Identifier: 5004
 Transverse_Mercator:
 Scale_Factor_at_Central_Meridian: 0.999900
 Longitude_of_Central_Meridian: -150.000000
 Latitude_of_Projection_Origin: 54.000000
 False_Easting: 500000.000000
 False_Northing: 0.000000
 Planar_Coordinate_Information:
 Planar_Coordinate_Encoding_Method: coordinate pair
 Coordinate_Representation:
 Abscissa_Resolution: 0.000512
 Ordinate_Resolution: 0.000512
 Planar_Distance_Units: survey feet
 Geodetic_Model:
 Horizontal_Datum_Name: North American Datum of 1983
 Ellipsoid_Name: Clarke 1866
 Semi-major_Axis: 6378206.400000
 Denominator_of_Flattening_Ratio: 294.978698

Vertical_Coordinate_System_Definition:
 Altitude_System_Definition:
 Altitude_Resolution: 0.000010
 Altitude_Encoding_Method: Explicit elevation coordinate included with horizontal coordinates

Entity_and_Attribute_Information:
 Detailed_Description:
 Entity_Type:
 Entity_Type_Label: b0623MWetlnds
 Attribute:
 Attribute_Label: OBJECTID_1
 Attribute_Definition: Internal feature number.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:
 Attribute_Label: OBJECTID
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.

Attribute:
 Attribute_Label: MAP_ACURCY
 Attribute_Definition: Mapping method and associated stream centerline location accuracy.
 Attribute_Definition_Source: Data Dictionary

Attribute:
 Attribute_Label: MAP_SOURCE
 Attribute_Definition: Revision.version information for published mapping data.
 Attribute_Definition_Source: Data Dictionary
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: WMS
 Enumerated_Domain_Value_Definition: WMS standardized mapping
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: NETWORK
 Enumerated_Domain_Value_Definition: Modified WTR_WAY legacy digital mapping
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: WTR_WAY
 Enumerated_Domain_Value_Definition: MOA area-wide legacy digital mapping
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: USGS1:25K
 Enumerated_Domain_Value_Definition: Digitized 1:25K USGS DRG
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: USGS1:63K
 Enumerated_Domain_Value_Definition: 1:63K USGS DLG
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: MAJDRN
 Enumerated_Domain_Value_Definition: MOA 1994 Hillside Drainage Study legacy digital mapping
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: TURNAGAIN
 Enumerated_Domain_Value_Definition: MOA Turnagain legacy digital mapping
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Attribute_Definition_Source: Data Dictionary

Attribute:
 Attribute_Label: MAP_EDITOR
 Attribute_Definition: Source of feature location information
 Attribute_Definition_Source: Data Dictionary

Enumerated_Domain:
Enumerated_Domain_Value: MOA WMS
Enumerated_Domain_Value_Definition: Municipality of Anchorage, Watershed Management Service

Attribute:
Attribute_Label: MAP_DATE
Attribute_Definition: Date of last mapping or survey activity
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: PUB_DATE
Attribute_Definition: Date of map completion/publication
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: AWMPID_96
Attribute_Definition: Unique code assigned to individual wetland features
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: GROUPID
Attribute_Definition: Identical to first numeric portion of AWMPID_96
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: PARTID
Attribute_Definition: An identity value for individual wetlands or sub-groups of wetland features as identified in the 1996 AWMP.
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: SUBPARTID
Attribute_Definition: Name of the associated MOA watershed feature.
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: WETLNDID
Attribute_Definition: A unique wetland polygon identification used for feature cataloguing purposes.
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: WSHED
Attribute_Definition: Name of the associated MOA watershed feature.
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: SUBSHED
Attribute_Definition: Name of the associated MOA watershed feature.
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: ADJ_STREAM
Attribute_Definition: Identity of primary stream transecting or marginal to the wetland feature
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: ADJ_LENGTH
Attribute_Definition: Total length of all streams marginal to the wetland feature.
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: DRAINAGE
Attribute_Definition: Code used to identify the predominant hydrographic drainage associated with the wetland.
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: GRIDID500
Attribute_Definition: Identity of 500-scale grid map containing most of a wetland feature or that most closely occupying the wetland centroid
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: SECTIONID
Attribute_Definition: Identity of US Public Land Survey township, section and range containing most of the wetland feature
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: TYPE
Attribute_Definition: Wetland groups sharing similar geomorphologic, hydrologic, chemical, or biological factors.
Attribute_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: Open Water
Enumerated_Domain_Value_Definition: Standing bodies of water with a permanent minimum surface area at ordinary high water greater than 2,500ft² or as identified in the 1996 AWMP wetlands dataset.
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: Intertidal
Enumerated_Domain_Value_Definition: Includes generally coastal saline wetland features (predominantly estuarine in character)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: Freshwater
Enumerated_Domain_Value_Definition: Includes generally inland freshwater wetland features (predominantly palustrine or riverine in character)
Enumerated_Domain_Value_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: DESGNTION
Attribute_Definition: Identifies the resource evaluation ranking or 'designation' of the wetland feature as established in the 1996 AWMP
Attribute_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: A
Enumerated_Domain_Value_Definition: Wetlands having a high valuation for all functional categories
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: B
Enumerated_Domain_Value_Definition: Wetlands assigned a moderate valuation but providing significant support to key watershed and drainage area functions
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: C
Enumerated_Domain_Value_Definition: Wetlands having a low functional valuation
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: D
Enumerated_Domain_Value_Definition: Wetland features that have not been classified under the AWMP
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: U
Enumerated_Domain_Value_Definition: 'Interior' upland features; uplands entirely enclosed by wetland features
Enumerated_Domain_Value_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: HYDRO
Attribute_Definition: A numeric valuation given a wetland feature reflecting the wetlands functional performance relative to hydrology
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: HABITAT
Attribute_Definition: A numeric valuation given a wetland feature reflecting the wetlands functional performance relative to wildlife habitat
Attribute_Definition_Source: Data Dictionary

Attribute:
Attribute_Label: SPECIES
Attribute_Definition: A numeric valuation given a wetland feature reflection the wetlands functional performance relative to support for select species
Attribute_Definition_Source: Data Dictionary

Attribute:

Attribute_Label: SOCIAL
 Attribute_Definition: A numeric valuation given a wetland feature reflection the wetlands functional performance relative to socioeconomic services
 Attribute_Definition_Source: Data Dictionary
 Attribute:
 Attribute_Label: SWSLOPE
 Attribute_Definition: Reflects an estimated representative ground surface slope measured along the fall line from an upgradient wetland margin to an intersecting stream or lake feature or to a discharge point along a downgradient margin of the wetland
 Attribute_Definition_Source: Data Dictionary
 Attribute:
 Attribute_Label: PCTPOND
 Attribute_Definition: Percent of the total wetland polygon area in ponded water. A value of 100 % describes a pond-covered wetland feature
 Attribute_Definition_Source: Data Dictionary
 Attribute:
 Attribute_Label: HGM_CLASS
 Attribute_Definition: Predominant hydrogeomorphic character as described by Brinson, 1993, A Hydrogeomorphic Classification of Wetlands
 Attribute_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 1
 Enumerated_Domain_Value_Definition: Riverine (areas where periodic overbank flows from rivers and streams provide the dominant source of wetland water)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 2
 Enumerated_Domain_Value_Definition: Depressional (areas where wetland hydrology is supported predominantly as a result for closed elevation contours)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 3
 Enumerated_Domain_Value_Definition: Slope (areas where ground water discharge is the predominant source of wetland hydrology)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 4
 Enumerated_Domain_Value_Definition: Mineral Soil Flats (areas where wetland hydrology is maintained predominantly as a result of very low slope and reduced vertical ground water movement through underlying low-permeability mineral soils)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 5
 Enumerated_Domain_Value_Definition: Organic Soil Flats (areas where wetland hydrology is controlled predominantly by extensive accumulations of organic matter)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 6
 Enumerated_Domain_Value_Definition: Estuarine Fringe (areas where wetland hydrology is predominantly supported by tidal waters)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 7
 Enumerated_Domain_Value_Definition: Lacustrine Fringe (areas where lake waters maintain the ground water levels of adjacent wetlands)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Attribute:
 Attribute_Label: VEGGROUP
 Attribute_Definition: Predominant plant community structure as generally based on the first hierarchical level of Viereck et. Al., 1992, Alaska Vegetation Classification
 Attribute_Definition_Source: Data Dictionary
 Enumerated_Domain:

Enumerated_Domain_Value: 1
Enumerated_Domain_Value_Definition: Forested (10 % or more tree canopy at 10 feet or taller)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 2
Enumerated_Domain_Value_Definition: Scrub (trees less than 10 feet and 25 % or more shrub canopy)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 3
Enumerated_Domain_Value_Definition: Herbaceous (less than 25 % shrub canopy and dominated by grasses; forbs-herbs, ferns, horsetails; bryophytes-mosses, lichens; or aquatic plants-sedges, rushes, and aquatic plants)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 4
Enumerated_Domain_Value_Definition: Wet Herbaceous (less than 25 % shrub canopy and dominated by ponded herbaceous wetlands; standing water is prominent for a significant part of the year)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 5
Enumerated_Domain_Value_Definition: Barren (unvegetated - less than 2 % vegetative cover; may include natural or modified wetland surfaces)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 8
Enumerated_Domain_Value_Definition: Complex (reserved for larger or complex wetland features where size and distribution of local variations in plant communities significantly influence the overall functional character of the wetland)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 9
Enumerated_Domain_Value_Definition: Water (standing open water surface)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Attribute:
Attribute_Label: VEGSNSTVTY
Attribute_Definition: Name of the associated MOA watershed feature.
Attribute_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 1
Enumerated_Domain_Value_Definition: Sensitive (important wetland plant communities are highly sensitive to changes in hydroperiod and pollutant loading associated with storm water discharges)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 2
Enumerated_Domain_Value_Definition: Marginal (important wetland plant communities require special storm water pre-treatment to tolerate changes in hydroperiod and pollutant loading associated with storm water discharges)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 3
Enumerated_Domain_Value_Definition: Tolerant (wetland plant communities have a low environmental functional value or plant communities require only normal storm water pre-treatment to tolerate changes in hydroperiod and pollutant loading associated with storm water discharges)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Attribute:
Attribute_Label: VEGTREND
Attribute_Definition: Name of the associated MOA watershed feature.
Attribute_Definition_Source: Data Dictionary
Enumerated_Domain:
Enumerated_Domain_Value: 1
Enumerated_Domain_Value_Definition: Dry Impacted (wetland vegetation reflects a marked longterm response to a lowered ground water elevation or to a reduction in surface water input or both)
Enumerated_Domain_Value_Definition_Source: Data Dictionary
Enumerated_Domain:

Enumerated_Domain_Value: 2
 Enumerated_Domain_Value_Definition: Drying (cumulative evidence indicates vegetation is responding to a decreasing (lowering) ground water elevation or to a reduction in surface water input)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 3
 Enumerated_Domain_Value_Definition: Flood Impacted (wetland vegetation reflects a marked longterm response to rising ground water elevation or to an increase in surface water input or both)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 4
 Enumerated_Domain_Value_Definition: Flooding (cumulative evidence indicates vegetation is responding to an increase in (raising of) ground water elevation or to increased surface flooding or both)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 9
 Enumerated_Domain_Value_Definition: Predevelopment (the hydrologic regime generally reflects conditions similar to those prior to any development within the contribution watershed)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Attribute:
 Attribute_Label: SWPCTBYPAS
 Attribute_Definition: Percent of pre-development surface water flows bypassing a wetland feature
 Attribute_Definition_Source: Data Dictionary
 Attribute:
 Attribute_Label: H2OPCTBYPA
 Attribute_Definition: Index value representing estimated percent reduction in all pre-development sources of surface and ground water to a wetland feature
 Attribute_Definition_Source: Data Dictionary
 Attribute:
 Attribute_Label: SWCONVYNCE
 Attribute_Definition: Type of hydraulic connectivity of storm water runoff to wetland feature
 Attribute_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 1
 Enumerated_Domain_Value_Definition: Overland (storm waters cross wetlands as a non-integrated-overland-flow)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 2
 Enumerated_Domain_Value_Definition: Channel (storm waters cross wetlands through an open channel or ditch)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 3
 Enumerated_Domain_Value_Definition: Pipe (storm waters cross wetlands through a pipe or other closed conduit)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Enumerated_Domain:
 Enumerated_Domain_Value: 9
 Enumerated_Domain_Value_Definition: Isolated (no surface storm waters enter the wetland feature)
 Enumerated_Domain_Value_Definition_Source: Data Dictionary
 Attribute:
 Attribute_Label: SHAPE
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:
 Unrepresentable_Domain: Coordinates defining the features.
 Attribute:
 Attribute_Label: MAPCOMPILR
 Attribute_Definition: Feature geometry.
 Attribute_Definition_Source: ESRI
 Attribute_Domain_Values:

Unrepresentable_Domain: Coordinates defining the features.
Attribute:
Attribute_Label: SHAPE_Length
Attribute_Definition: Length of feature in internal units.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Positive real numbers that are automatically generated.
Attribute:
Attribute_Label: SHAPE_Area
Attribute_Definition: Area of feature in internal units squared.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Positive real numbers that are automatically generated.
Attribute:
Attribute_Label: REVISIONNO
Attribute_Definition: Area of feature in internal units squared.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Positive real numbers that are automatically generated.
Attribute:
Attribute_Label: LAKE_NAME
Attribute_Definition: Length of feature in internal units.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Positive real numbers that are automatically generated.
Attribute:
Attribute_Label: SHAPE_Length
Attribute_Definition: Length of feature in internal units.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Positive real numbers that are automatically generated.
Attribute:
Attribute_Label: SHAPE_Area
Attribute_Definition: Area of feature in internal units squared.
Attribute_Definition_Source: ESRI
Attribute_Domain_Values:
Unrepresentable_Domain: Positive real numbers that are automatically generated.
Distribution_Information:
Distributor:
Contact_Information:
Contact_Person_Primary:
Contact_Person: Phil Manke
Contact_Organization: MOA-DPW-Technical Services
Contact_Position: IT Supervisor
Contact_Address:
Address_Type: Dept of Public Works, PO Box 196650
City: Anchorage
State_or_Province: AK
Postal_Code: 99519-6650
Country: USA
Contact_Voice_Telephone: (907) 343-8220
Contact_Electronic_Mail_Address: MankePJ@muni.org
Hours_of_Service: 8-5
Contact_Instructions: Please use phone as primary contact interface
Resource_Description: Downloadable Data
Metadata_Reference_Information:
Metadata_Date: 20031029
Metadata_Contact:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: MOA-DPW-WMS
Contact_Person: Scott Wheaton

Contact_Position: Watershed Scientist
Contact_Address:
Address_Type: mailing address
Address: Department of Public Works, P.O. Box 196650
City: Anchorage
State_or_Province: AK
Postal_Code: 99519-6650
Country: USA
Contact_Voice_Telephone: (907) 343-8117
Contact_Electronic_Mail_Address: WheatonSR@muni.org
Hours_of_Service: 8-5
Contact_Instructions: Please use telephone as primary contact interface
Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata
Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Extensions:
Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>
Profile_Name: ESRI Metadata ProfileAttribute: