



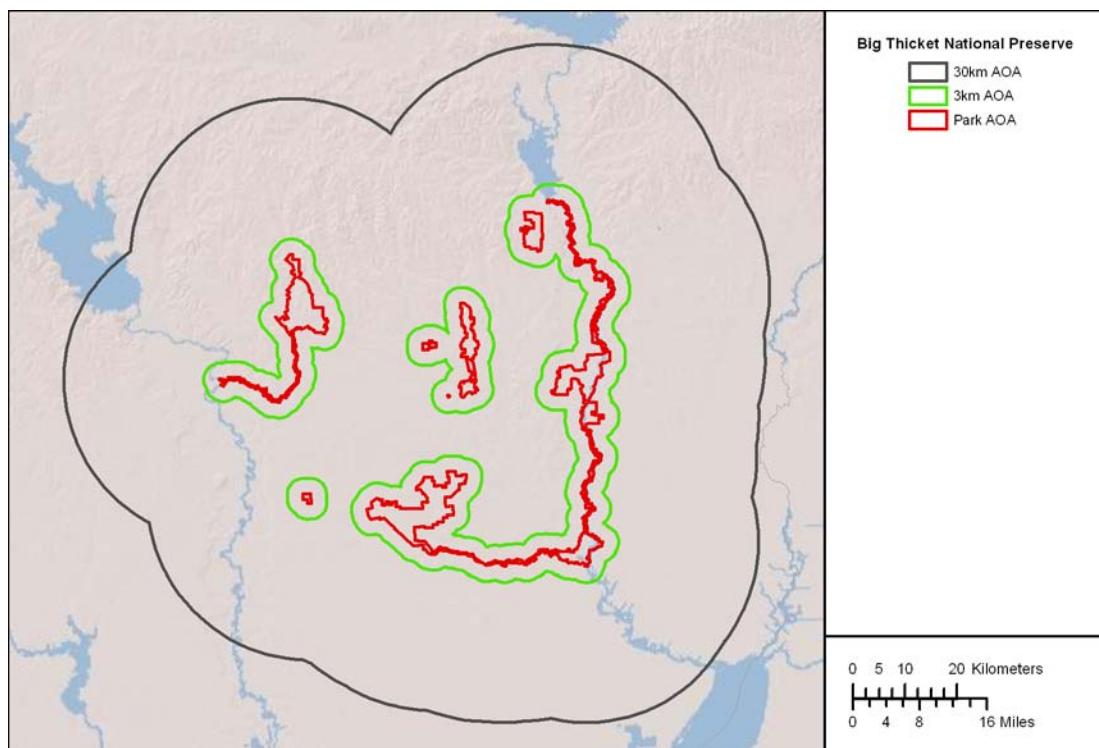
NOTE: This document reflects the processes used to generate the spring 2011 release of NPScape data. There may be revised processes and documentation available.

Check Reference Application (<http://nrinfo.nps.gov>) for most current version.

NPScape NPS Boundary-Derived Areas of Analysis SOP

Park, 3km, and 30km Areas of Analysis

Version: 20110413



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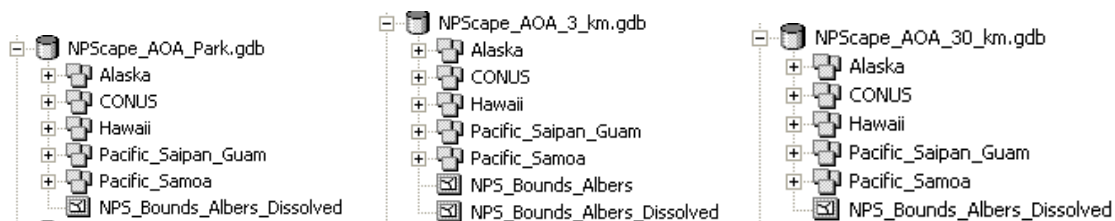
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1. Overview

This NPScape SOP documents how areas of analysis (AOAs) were derived from NPS park boundaries for use in NPScape analyses. Three park-based AOAs are used in NPScape: Park AOAs, 3km AOAs, and 30km AOAs. The three and 30 kilometer AOA polygons are derived by buffering dissolved park polygons by three or thirty kilometers. This processing produces AOAs for 291 NPScape parks. An area attribute (AREA_SQKM) is calculated for each AOA polygon. See Appendix 5.2 for details.

Python scripts are used to create these AOAs as feature classes within feature datasets in one of three standardized file geodatabases: NPScape_AOA_Park.gdb, NPScape_AOA_3km.gdb, and NPScape_AOA_30km.gdb.



These AOA file geodatabases, plus a lookup database for NPScape park lists, parks within ecoregions, park geospatial shape indexes, and other details may be downloaded from the NPScape web site:

<http://science.nature.nps.gov/im/monitor/npscape/>

The data sources and tools used are assumed to be compatible with ESRI ArcGIS™ format, version 9.3.1 Service Pack 1 or version 10 Service Pack 1.

2. Data Acquisition and Preprocessing

2.1. Source Data

Most area of analysis polygons are derived from the August 2010 version of the NPS Current Administrative Boundaries dataset. For some parks, some NPS Vital Signs Networks provided updated park boundaries.

- **Source 1:** NPS Current Administrative Boundaries

. <http://nrinfo.nps.gov> References → Reference Search:

Reference Search

Search Definition

Search Type: Quick

Reference Type Group: All

Search Text: current administrative boundaries

Unit(s):

Units Displayed: Park ☐ Include Linked Units

Available Units (drag)

Search

- Abraham Lincoln Birthplace National Hi
- Acadia National Park (ACAD)
- Adams National Historical Park (ADAM)
- Adams National Memorial (ADNM)
- African American Civil War Memorial N
- African Burial Ground National Monume
- Agate Fossil Beds National Monument

Selected Units (drop)

No units selected

Name	Code
------	------

Clear Search Search

- **Source 2: Network-Provided Park Polygons**

Some NPS Vital Sign Monitoring networks provided revised park polygons for use as AOA source features. See Appendix 5.2.1 for details.

2.2. Data Re-Projection

Each source dataset must be re-projected into a common spatial reference. For CONUS areas (including Puerto Rico and the Virgin Islands), the NPScape project uses USA Contiguous Albers Equal Area Conic USGS as its standard projection. For Alaska, Alaska Albers Equal Area Conic is used. NAD_83 is the datum for both projections. For Hawaii, UTM Zone 5N NAD83 is used while Guam data are projected to UTM Zone 55N WGS84. NAD_1983_HARN_UTM_Zone_2S is used for Samoa. The NPScape AOA polygons are available in feature datasets matching these projections in the respective file geodatabases.

The NPS boundary source data were re-projected into the above spatial references as part of the AOA processing.

2.3. Fix Geometry and Attribution Issues and Generalize Polygons

The NPS current administrative boundary dataset includes a mixture of features derived from corrected, updated tract information and features derived from legacy data collection activities. Additionally, some park polygon features are missing from this feature class. To produce a consistent set of park-based AOA polygons, the NPScape AOA processing scripts correct for these issues. See Appendix 5.3 for details.

3. AOA Processing

3.1. AOA Python Scripting

Following feature correction, a suite of Python scripts are used to generate AOA polygons from park boundaries.

General processing steps of the tools are:

Create file geodatabase, create feature dataset with correct spatial reference; dissolve source NPS boundary feature class on UNIT_CODE; iterate through each dissolved park polygon, copying it into a new feature class in the relevant feature dataset and buffering to 3 or 30km as appropriate; add AREA_SQKM attribute and calculate the area in square kilometers; import metadata; merge individual AOA polygons into a merged AOA feature class

AOA feature class attribute table details: <UNIT_CODE>_AOA_<aoa type> where aoa type = Park, 3km, or 30km

UNIT_CODE = the park Unit Code

BUFF_DIST (if applicable) = the buffered distance in meters (3000m or 30000m)

AREA_SQKM: total area of the AOA polygon in square kilometers

4. Quality Control

4.1. Verify Values for Calculated Areas

Using ArcMap, the AREA_SQKM values are spot-checked for a selected set of park-based AOAs. Using Field Calculator, the AOA area in square kilometers is calculated and checked against the AREA_SQKM value in the AOA feature class.

4.2. Check Geometries

Using ArcMap, the merged AOA feature class is overlaid with the source NPS park boundary polygons to check for spatial congruency.

5. Appendices

5.1. Known Issues

Data Currency

NPS boundary data are continually updated by the NPS Land Resources Division (Lands). The current NPScape NPS boundary-derived AOAs are based on the NPS Current Administrative Boundary dataset generated by Lands in August 2010.

Source Data Quality

The NPS Land Resources Division notes which NPS boundary polygons are legacy (*i.e.*, not updated) by populating the GIS_NOTES and CREATED_BY attribute in the Current Administrative Boundaries shapefile. At the time of NPScape AOA processing, 264 of the 505 source NPS boundary polygons (prior to dissolving) were legacy versions.

5.2. Source Data Details

5.2.1. NPS Current Administrative Boundaries Source Data

NPS boundary data were obtained from the NRInfo Portal (<http://nrinfo.nps.gov>) by running the following search:

Reference Search

The screenshot shows the 'Search Definition' window in the NRInfo Portal. The 'Search Type' is set to 'Quick'. The 'Reference Type Group' is set to 'All'. The 'Search Text' is 'current administrative boundaries'. The 'Unit(s)' dropdown is set to 'Park'. The 'Units Displayed' section shows a list of available units with a search bar. The 'Selected Units (drop)' section is empty, showing 'No units selected'. The 'Clear Search' and 'Search' buttons are at the bottom right.

5.2.2. Network-Provided Boundaries Source Data

NPS boundary data were obtained from NPS Vital Signs Monitoring Networks and park GIS coordinators for the following nineteen parks:

UNIT_CODE	FULL_NAME	NETWORK_CODE
ACAD	Acadia National Park	NETN
ALPO	Allegheny Portage Railroad National Historic Site	ERMN
ARPO	Arkansas Post National Memorial	HTLN
CAGR	Casa Grande Ruins National Monument	SODN
CALO	Cape Lookout National Seashore	SECN
CHAT	Chattahoochee River National Recreation Area	SECN
CIRO	City Of Rocks National Reserve	UCBN
FOVA	Fort Vancouver National Historic Site	NCCN
GOGA	Golden Gate National Recreation Area	SFAN
GRSA	Great Sand Dunes National Park and Preserve	ROMN
GRSM	Great Smoky Mountains National Park	APHN
GUCO	Guilford Courthouse National Military Park	CUPN
JODA	John Day Fossil Beds National Monument	UCBN
KEFJ	Kenai Fjords National Park	SWAN
LAKE	Lake Mead National Recreation Area	MOJN
LEWI	Lewis and Clark National Historical Park	NCCN
NEPE	Nez Perce National Historical Park	UCBN
OBRI	Obed Wild and Scenic River National Wild And Scenic River	APHN
PEFO	Petrified Forest National Park	SCPN

5.2.1. Missing Park Boundaries Supplied by NPS Inventory and Monitoring Division

NPS boundary data missing from the NPS Current Administrative Boundaries dataset were obtained from NPS Inventory and Monitoring Division for the following fourteen parks:

UNIT_CODE	UNIT_NAME
ALKA	Ala Kahakai
AMME	American Memorial Park
APPA	Appalachian
CAHE	Capitol Hill Parks
FOMO	Fort Moultrie
HAVO	Hawaii Volcanoes
JEFF	Jefferson Expansion Memorial
NIMI	Niobrara and Missouri National Scenic and Recreational Rivers
POCH	Port Chicago Naval Magazine
RIGR	Rio Grande
ROVA	Roosevelt-Vanderbilt Headquarters
SEBE	Sewall-Belmont House
SEKI	Sequoia and Kings Canyon National Parks
VALR	World War II Valor in the Pacific

5.2.2. List of NPScape Parks

In Phase 2 of the NPScape project, 291 parks were used to generate park-based AOAs:

UNIT_CODE	FULL_NAME
ABLI	Abraham Lincoln Birthplace National Historical Park
ACAD	Acadia National Park
AGFO	Agate Fossil Beds National Monument
ALAG	Alagnak Wild River National Wild And Scenic River
ALFL	Alibates Flint Quarries National Monument
ALPO	Allegheny Portage Railroad National Historic Site
AMIS	Amistad National Recreation Area
AMME	American Memorial Park
ANAC	Anacostia Park
ANIA	Aniakchak National Monument and Preserve
ANTI	Antietam National Battlefield
APCO	Appomattox Court House National Historical Park
APIS	Apostle Islands National Lakeshore
APPA	Appalachian National Scenic Trail
ARCH	Arches National Park
ARPO	Arkansas Post National Memorial
ASIS	Assateague Island National Seashore
AZRU	Aztec Ruins National Monument

BADL	Badlands National Park
BAND	Bandelier National Monument
BAWA	Baltimore-Washington National Parkway
BELA	Bering Land Bridge National Preserve
BEOL	Bent's Old Fort National Historic Site
BIBE	Big Bend National Park
BICA	Bighorn Canyon National Recreation Area
BICY	Big Cypress National Preserve
BIHO	Big Hole National Battlefield
BISC	Biscayne National Park
BISO	Big South Fork National River and Recreation Area National River
BITH	Big Thicket National Preserve
BLCA	Black Canyon Of The Gunnison National Park
BLRI	Blue Ridge Parkway National Parkway
BLUE	Bluestone National Scenic River National Wild And Scenic River
BOHA	Boston Harbor Islands National Recreation Area
BOWA	Booker T. Washington National Monument
BRCA	Bryce Canyon National Park
BUFF	Buffalo National River
BUIS	Buck Island Reef National Monument
CABR	Cabrillo National Monument
CACH	Canyon De Chelly National Monument
CACO	Cape Cod National Seashore
CAGR	Casa Grande Ruins National Monument
CAHA	Cape Hatteras National Seashore
CAHE	Capitol Hill Parks
CAKR	Cape Krusenstern National Monument
CALO	Cape Lookout National Seashore
CANA	Canaveral National Seashore
CANY	Canyonlands National Park
CARE	Capitol Reef National Park
CARL	Carl Sandburg Home National Historic Site
CASA	Castillo De San Marcos National Monument
CATO	Catoctin Mountain Park
CAVE	Carlsbad Caverns National Park
CAVO	Capulin Volcano National Monument
CEBR	Cedar Breaks National Monument
CHAT	Chattahoochee River National Recreation Area
CHCH	Chickamauga and Chattanooga National Military Park
CHCU	Chaco Culture National Historical Park
CHIC	Chickasaw National Recreation Area
CHIR	Chiricahua National Monument
CHIS	Channel Islands National Park
CHOH	Chesapeake and Ohio Canal National Historical Park
CIRO	City Of Rocks National Reserve
COLM	Colorado National Monument
COLO	Colonial National Historical Park
CONG	Congaree National Park
CORO	Coronado National Memorial
COWP	Cowpens National Battlefield

CRLA	Crater Lake National Park
CRMO	Craters Of The Moon National Monument and Preserve
CUGA	Cumberland Gap National Historical Park
CUIS	Cumberland Island National Seashore
CURE	Curecanti National Recreation Area
CUVA	Cuyahoga Valley National Park
DENA	Denali National Park and Preserve
DEPO	Devils Postpile National Monument
DETO	Devils Tower National Monument
DEVA	Death Valley National Park
DEWA	Delaware Water Gap National Recreation Area
DINO	Dinosaur National Monument
DRTO	Dry Tortugas National Park
EBLA	Ebey's Landing NH Reserve National Reserve
EFMO	Effigy Mounds National Monument
EISE	Eisenhower National Historic Site
ELMA	El Malpais National Monument
ELMO	El Morro National Monument
EVER	Everglades National Park
FIIS	Fire Island National Seashore
FLFO	Florissant Fossil Beds National Monument
FOBO	Fort Bowie National Historic Site
FOBU	Fossil Butte National Monument
FOCA	Fort Caroline National Memorial
ALKA	Ala Kahakai National Historic Trail
FODA	Fort Davis National Historic Site
FODO	Fort Donelson National Battlefield
FOFR	Fort Frederica National Monument
FOLA	Fort Laramie National Historic Site
FOLS	Fort Larned National Historic Site
FOMA	Fort Matanzas National Monument
FONE	Fort Necessity National Battlefield
FOPO	Fort Point National Historic Site
FOPU	Fort Pulaski National Monument
FOSU	Fort Sumter National Monument
FOUN	Fort Union National Monument
FOUS	Fort Union Trading Post National Historic Site
FOVA	Fort Vancouver National Historic Site
FOWA	Fort Washington Park
FRDO	Frederick Douglass National Historic Site
FRHI	Friendship Hill National Historic Site
FRSP	Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park
GAAR	Gates Of The Arctic National Park and Preserve
GARI	Gauley River National Recreation Area
GATE	Gateway National Recreation Area
GETT	Gettysburg National Military Park
GEWA	George Washington Birthplace National Monument
GICL	Gila Cliff Dwellings National Monument
GLAC	Glacier National Park
GLBA	Glacier Bay National Park and Preserve

GLCA	Glen Canyon National Recreation Area
GOGA	Golden Gate National Recreation Area
GOSP	Golden Spike National Historic Site
GRBA	Great Basin National Park
GRCA	Grand Canyon National Park
GREE	Greenbelt Park
GRKO	Grant-Kohrs Ranch National Historic Site
GRPO	Grand Portage National Monument
GRSA	Great Sand Dunes National Park and Preserve
GRSM	Great Smoky Mountains National Park
GRTE	Grand Teton National Park
GUCO	Guilford Courthouse National Military Park
GUIS	Gulf Islands National Seashore
GUMO	Guadalupe Mountains National Park
GWCA	George Washington Carver National Monument
GWMP	George Washington Memorial Parkway National Parkway
HAFE	Harpers Ferry National Historical Park
HAFO	Hagerman Fossil Beds National Monument
HAHA	Harmony Hall
HALE	Haleakala National Park
HAVO	Hawaii Volcanoes National Park
HEHO	Herbert Hoover National Historic Site
HOBE	Horseshoe Bend National Military Park
HOCU	Hopewell Culture National Historical Park
HOFU	Hopewell Furnace National Historic Site
HOME	Homestead NM of America National Monument
HOSP	Hot Springs National Park
HOVE	Hovenweep National Monument
HUTR	Hubbell Trading Post National Historic Site
INDU	Indiana Dunes National Lakeshore
ISRO	Isle Royale National Park
JECA	Jewel Cave National Monument
JELA	Jean Lafitte National Historical Park and Preserve
JODA	John Day Fossil Beds National Monument
JOFL	Johnstown Flood National Memorial
JOMU	John Muir National Historic Site
JOTR	Joshua Tree National Park
KAHO	Kaloko-Honokohau National Historical Park
KALA	Kalaupapa National Historical Park
KATM	Katmai National Park and Preserve
KEFJ	Kenai Fjords National Park
KEMO	Kennesaw Mountain National Battlefield Park
KIMO	Kings Mountain National Military Park
KLGO	Klondike Gold Rush National Historical Park
KNRI	Knife River Indian Villages National Historic Site
KOVA	Kobuk Valley National Park
LABE	Lava Beds National Monument
LACL	Lake Clark National Park and Preserve
LAKE	Lake Mead National Recreation Area
LAMR	Lake Meredith National Recreation Area

LARO	Lake Roosevelt National Recreation Area
LAVO	Lassen Volcanic National Park
LEWI	Lewis and Clark National Historical Park
LIBI	Little Bighorn Battlefield National Monument
LIBO	Lincoln Boyhood National Memorial
LIRI	Little River Canyon National Preserve
LYJO	Lyndon B. Johnson National Historical Park
MABE	Mary McLeod Bethune Council House National Historic Site
MABI	Marsh-Billings-Rockefeller National Historical Park
MACA	Mammoth Cave National Park
MANA	Manassas National Battlefield Park
CHPI	Charles Pinckney National Historic Site
MANZ	Manzanar National Historic Site
MEVE	Mesa Verde National Park
MIMA	Minute Man National Historical Park
MISS	Mississippi National River and Recreation Areas National River
MNRR	Missouri National Recreational River National Wild And Scenic River
MOCA	Montezuma Castle National Monument
MOCR	Moore's Creek National Battlefield
MOJA	Mojave National Preserve
MONO	Monocacy National Battlefield
MORA	Mount Rainier National Park
MORR	Morristown National Historical Park
MORU	Mount Rushmore National Memorial
MUWO	Muir Woods National Monument
NABR	Natural Bridges National Monument
NACE	National Capital Parks-East
NATR	Natchez Trace Parkway National Parkway
NAVA	Navajo National Monument
NEPE	Nez Perce National Historical Park
NERI	New River Gorge National River
NIOB	Niobrara National Scenic River National Wild And Scenic River
NISI	Ninety Six National Historic Site
NOAT	Noatak National Preserve
NOCA	North Cascades National Park
NPSA	National Park of American Samoa National Park
OBRI	Obed Wild and Scenic River National Wild And Scenic River
OCMU	Ocmulgee National Monument
OLYM	Olympic National Park
ORCA	Oregon Caves National Monument
ORPI	Organ Pipe Cactus National Monument
OZAR	Ozark National Scenic Riverways National River
PAAL	Palo Alto Battlefield National Historical Park
PAIS	Padre Island National Seashore
PECO	Pecos National Historical Park
PEFO	Petrified Forest National Park
PERI	Pea Ridge National Military Park
PETE	Petersburg National Battlefield
PETR	Petroglyph National Monument
PINN	Pinnacles National Monument

PIPE	Pipestone National Monument
PIRO	Pictured Rocks National Lakeshore
PISC	Piscataway Park
PISP	Pipe Spring National Monument
PORE	Point Reyes National Seashore
PRWI	Prince William Forest Park
PUHE	Puukohola Heiau National Historic Site
PUHO	Pu'uhonua o Honaunau National Historical Park
RABR	Rainbow Bridge National Monument
REDW	Redwood National Park
RICH	Richmond National Battlefield Park
ROCR	Rock Creek Park
ROMO	Rocky Mountain National Park
ROVA	Roosevelt-Vanderbilt Headquarters
RUCA	Russell Cave National Monument
SAAN	San Antonio Missions National Historical Park
SACN	Saint Croix National Scenic River National Wild And Scenic River
SAGA	Saint-Gaudens National Historic Site
SAGU	Saguaro National Park
SAHI	Sagamore Hill National Historic Site
SAIR	Saugus Iron Works National Historic Site
SAJH	San Juan Island National Historical Park
SAMO	Santa Monica Mountains National Recreation Area
SAPU	Salinas Pueblo Missions National Monument
SARA	Saratoga National Historical Park
SCBL	Scotts Bluff National Monument
SEBE	Sewall-Belmont House National Historic Site
SEKI	Sequoia and Kings Canyon National Parks
SHEN	Shenandoah National Park
SHIL	Shiloh National Military Park
SITK	Sitka National Historical Park
SLBE	Sleeping Bear Dunes National Lakeshore
STRI	Stones River National Battlefield
SUCR	Sunset Crater Volcano National Monument
TAPR	Tallgrass Prairie National Preserve
THRO	Theodore Roosevelt National Park
THST	Thomas Stone National Historic Site
TICA	Timpanogos Cave National Monument
TIMU	Timucuan Ecological and Historic Preserve
TONT	Tonto National Monument
TUMA	Tumacacori National Historical Park
TUZI	Tuzigoot National Monument
UPDE	Upper Delaware National Scenic and Recreation River National Wild And Scenic River
VAFO	Valley Forge National Historical Park
VICK	Vicksburg National Military Park
VIIS	Virgin Islands National Park
VOYA	Voyageurs National Park
WABA	Washita Battlefield National Historic Site
WACA	Walnut Canyon National Monument
WAPA	War In The Pacific National Historical Park

WEFA	Weir Farm National Historic Site
EUON	Eugene O'Neill National Historic Site
WHIS	Whiskeytown National Recreation Area
WHMI	Whitman Mission National Historic Site
WHS	White Sands National Monument
WICA	Wind Cave National Park
WICR	Wilson's Creek National Battlefield
WOTR	Wolf Trap National Park for the Performing Arts
WRST	Wrangell - St Elias National Park and Preserve
WUPA	Wupatki National Monument
YELL	Yellowstone National Park
YOSE	Yosemite National Park
YUCH	Yukon-Charley Rivers National Preserve
YUHO	Yucca House National Monument
ZION	Zion National Park
FOMO	Fort Moultrie National Monument
FORA	Fort Raleigh National Historic Site
POCH	Port Chicago Naval Magazine National Memorial
PRSF	Presidio of San Francisco
RIGR	Rio Grande Wild and Scenic River National Wild And Scenic River
SAND	Sand Creek Massacre National Historic Site
WRBR	Wright Brothers National Memorial
VALR	Valor in the Pacific National Monument USS Arizona Memorial National Memorial

5.3. Corrections made to NPS Current Administrative Boundary polygons

As noted in Appendix 5.1, several geometric and attribution errors existed in the NPS Current Administrative Boundary dataset as of August 2010. These general steps are used to correct these errors:

Import source boundary shapefile into personal geodatabase feature class; re-project to WGS84; remove donut polygons; repair geometry; dissolve on Unit_Code, correct Unit_Name values; dissolve on all attributes; merge with missing boundaries feature class; calculate Full_Name attribute; repair geometry; delete extraneous attributes

5.4. NPScape Lookups Database

Bundled with the park-derived AOA geodatabases is an Access 2003 database containing lookup tables and feature classes used in NPScape processing: NPScape_Lookups.mdb. Lookup tables include:

tlu_IM_Units, tlu_NR_Units, tlu_NPScape_Units, tlu_NPScape_NW_Provided_Bounds, tlu_Parks_with_Funded_Landscape_VitalSigns, tlu_Border_Units, tlu_NALC_Level1, tlu_NALC_Level2, tlu_NALC_NaturalConverted, tlu_NPS_Units_Area_Shape, tlu_LAC_Level2, tlu_CCAP_Level2, tlu_CCAP_Units, tlu_Coastal_Parks, tlu_Bounding_Coordinates, tlu_CEC_Marine_Ecoregions, tlu_CEC_Terrestrial_Ecoregions, tlu_PDEN, tlu_PDEN_Grouped, tlu_NLCD2006_Level1, tlu_NLCD2006_NaturalConverted, tlu_NLCD2006_Level2, tlu_PAD_cow, Bounding_Coordinates

Cross-reference tables include:

```
xref_Parks_Networks, xref_Parks_NPS_Regions, xref_NPS_FWS_LCC,  
xref_NPS_CEC_Ecoregions, xref_FWS_Names
```

Queries include:

```
qry_Append_Missing_NPScape_Units, qry_CCAP_Parks_By_Area,  
qry_Create_CCAP_Park_Lookup_Array,  
qry_Create_CEC_Marine_Lookup_Array, qry_Create_CEC_Terrestrial_Lookup_Array,  
qry_Create_Prototype_Park_Lookup_Array, qry_Create_Unit_Lookup_Array,  
qry_Create_UnitNames_Lookup_Array, qry_FWSAreas_ParkCodes, qry_IM_vs_NR_Units,  
qry_Make_tlu_Bounding_Coordinates, qry_NPScape_Missing_CEC,  
qry_NPScape_Missing_FWS, qry_NPScape_NetworkProvided_AOAs,  
qry_NPScape_vs_NR_Units, qry_Parks_FWS_Areas, qry_Parks_NPS_Regions,  
qry_PhaseII_Prototype_Parks
```

Feature classes include:

```
CEC_NPS_Albers_SpatialJoin, FWS_LCC_NPS_Albers_SpatialJoin, NPS_Area_Shape (contains  
shape index attributes)
```

5.5. Processing Script

Create_NewNPScape_AOAs.py

```
try:  
    # Import system modules  
    import sys, string, os, glob, datetime, arcgisscripting  
    from datetime import datetime  
    message = ""  
  
    # Create the Geoprocessor object  
    gp = arcgisscripting.create(9.3)  
  
    gp.OverwriteOutput = 1  
  
    # Load required toolboxes...  
    if gp.Exists("C:/arcgis/ArcToolbox/Toolboxes/Data Management Tools.tbx"):  
        gp.AddToolbox("C:/arcgis/ArcToolbox/Toolboxes/Spatial Analyst Tools.tbx")  
        gp.AddToolbox("C:/arcgis/ArcToolbox/Toolboxes/Conversion Tools.tbx")  
        gp.AddToolbox("C:/arcgis/ArcToolbox/Toolboxes/Data Management Tools.tbx")  
    elif gp.Exists("C:/Program Files/arcgis/ArcToolbox/Toolboxes/Data Management Tools.tbx"):  
        gp.AddToolbox("C:/Program Files/arcgis/ArcToolbox/Toolboxes/Spatial Analyst Tools.tbx")  
        gp.AddToolbox("C:/Program Files/arcgis/ArcToolbox/Toolboxes/Conversion Tools.tbx")  
        gp.AddToolbox("C:/Program Files/arcgis/ArcToolbox/Toolboxes/Data Management Tools.tbx")  
    else:  
        message = "ERROR: Cannot find required ArcToolboxes in standard locations."  
        gp.AddMessage(message) # This does absolutely nothing!  
        raise Exception, message  
  
    # Local variables...  
    today=datetime.now()  
    datestamp = str(today.isoformat()).replace('-',')[0:8]
```

```

print timestamp

NPScape_Workspace = "F:\\NPScape\\Scratch"

Source_Folder = "F:\\NPScape\\SourceData\\USData\\Boundary\\NPS_Boundaries.gdb"
Source_FeatureClass_Root = "NPS_Bounds_Albers"
Source_FeatureClass = Source_Folder + "\\\" + Source_FeatureClass_Root
Dissolved_FeatureClass_Root = "NPS_Bounds_Albers_Dissolved"

Output_TargetRoot = "NPScape_AOA"
Output_TargetGDB_30km = NPScape_Workspace + "\\\" + Output_TargetRoot + "_30_km.gdb"
Versioned_Output_TargetGDB_30km = NPScape_Workspace + "\\\" + Output_TargetRoot + "_30_km_" +
timestamp + ".gdb"
Output_TargetGDB_3km = NPScape_Workspace + "\\\" + Output_TargetRoot + "_3_km.gdb"
Versioned_Output_TargetGDB_3km = NPScape_Workspace + "\\\" + Output_TargetRoot + "_3_km_" +
timestamp + ".gdb"
Output_TargetGDB_Park = NPScape_Workspace + "\\\" + Output_TargetRoot + "_Park.gdb"
Versioned_Output_TargetGDB_Park = NPScape_Workspace + "\\\" + Output_TargetRoot + "_Park_" +
timestamp + ".gdb"
Output_FeatureClass_30km = "AOA_30km"
Output_FeatureClass_3km = "AOA_3km"
Output_FeatureClass_Park = "AOA_Park"

BufferDistance = "30 Kilometers"
BufferDistance_3km = "3 Kilometers"

Unit_Lookups = "F:\\NPScape\\SourceData\\Lookups\\NPScape_Lookups.mdb\\tlu_NPScape_Units"
Metadata_Template = "F:\\NPScape\\Templates\\Metadata\\NPScape_AOA_Template.xml"

ConusSRSource =
"F:\\NPScape\\SourceData\\USData\\Boundary\\Network_Provided_Bounds.gdb\\Standardized_Bounds_A
lbers"
ConusSRDesc = gp.Describe(ConusSRSource)
ConusSpatialRef = ConusSRDesc.SpatialReference
AKSRSource = "F:\\NPScape\\SourceData\\USData\\Boundary\\AK_NPS_Boundary.gdb\\AK_Albers"
AKSRDesc = gp.Describe(AKSRSource)
AKSpatialRef = AKSRDesc.SpatialReference
HawaiiSRSource =
"F:\\NPScape\\SourceData\\USData\\Boundary\\Pacific_Templates\\Hawaii\\HAVO\\NAD83\\coast.shp"
HawaiiSRDesc = gp.Describe(HawaiiSRSource)
HawaiiSpatialRef = HawaiiSRDesc.SpatialReference
# TODO: Use custom PacP00 transform/custom projection to change to NAD83 datum:
WGS_1984_To_NAD_1983_PACP00.gtf
PacificSaipanSRSource =
"F:\\NPScape\\SourceData\\USData\\Boundary\\Pacific_Templates\\Guam\\wapa_parkbndry_ply.shp"
PacificSaipanSRDesc = gp.Describe(PacificSaipanSRSource)
PacificSaipanSpatialRef = PacificSaipanSRDesc.SpatialReference
PacificSamoaSRSource =
"F:\\NPScape\\SourceData\\USData\\Boundary\\Pacific_Templates\\Samoa\\caddata\\ofu\\coast.shp"
PacificSamoaSRDesc = gp.Describe(PacificSamoaSRSource)
PacificSamoaSpatialRef = PacificSamoaSRDesc.SpatialReference
Conus_FeatureDataset = "CONUS"
AK_FeatureDataset = "Alaska"
Hawaii_FeatureDataset = "Hawaii"
PacificSaipan_FeatureDataset = "Pacific_Saipan_Guam"
PacificSamoa_FeatureDataset = "Pacific_Samoa"
AK_FeatureClass = "NPS_Alaska_Dissolved"
Hawaii_FeatureClass = "NPS_Hawaii_Dissolved"

```

```
PacificSaipan_FeatureClass = "NPS_Pacific_Saipan_Guam_Dissolved"
PacificSamoa_FeatureClass = "NPS_Pacific_Samoa_Dissolved"
Conus_FeatureClass = "NPS_CONUS_Dissolved"
```

```
AllUnits = [
    'ABLI', 'ACAD', 'AGFO', 'ALAG', 'ALFL', 'ALKA', 'ALPO', 'AMIS', 'AMME', 'ANAC', 'ANIA', 'ANTI', 'APPA',
    'APCO', 'APIS', 'ARCH', 'ARPO', 'ASIS', 'AZRU',
    'BADL', 'BAND', 'BAWA', 'BELA', 'BEOL', 'BIBE', 'BICA', 'BICY', 'BIHO', 'BISC', 'BISO', 'BITH', 'BLCA', 'BLRI',
    'BLUE', 'BOHA', 'BOWA',
    'BRCA', 'BUFF', 'CABR', 'CACH', 'CACO', 'CAGR', 'CAHA', 'CAHE', 'CAKR', 'CALO', 'CANA', 'CANY', 'CARE',
    'CARL', 'CASA', 'CATO',
    'CAVE', 'CAVO', 'CEBR', 'CHAT', 'CHCH', 'CHCU', 'CHIC', 'CHIR', 'CHIS', 'CHOH', 'CHPI', 'CIRO', 'COLM',
    'COLO', 'CORO', 'CONG', 'COWP',
    'CRLA', 'CRMO', 'CUGA', 'CUIS', 'CURE', 'CUVA', 'DENA', 'DEPO', 'DETO', 'DEVA', 'DEWA', 'DINO', 'DRTO',
    'EBLA', 'EFMO', 'EISE', 'ELMA',
    'ELMO', 'EUON', 'EVER', 'FIIS', 'FLFO', 'FOBO', 'FOBU', 'FOCA', 'FODA', 'FODO', 'FOFR', 'FOLA', 'FOLS',
    'FOMA', 'FOMO', 'FONE',
    'FOPO', 'FOPU', 'FORA', 'FOSU', 'FOUN', 'FOUS', 'FOVA', 'FOWA', 'FRDO', 'FRHI', 'FRSP', 'GAAR', 'GARI',
    'GATE', 'GETT', 'GEWA', 'GICL',
    'GLAC', 'GLBA', 'GLCA', 'GOGA', 'GOSP', 'GRBA', 'GRCA', 'GREE', 'GRKO', 'GRPO', 'GRSA', 'GRSM', 'GRTE',
    'GUCO', 'GUIS', 'GUMO', 'GWCA',
    'GWMP', 'HAFE', 'HAFO', 'HALE', 'HAVO', 'HEHO', 'HOBE', 'HOCU', 'HOFU', 'HOME', 'HOSP', 'HOVE',
    'HUTR', 'INDU', 'ISRO',
    'JECA', 'JELA', 'JODA', 'JOFL', 'JOMU', 'JOTR', 'KAHO', 'KALA', 'KATM', 'KEFJ', 'KEMO', 'KIMO', 'KLGO',
    'KNRI', 'KOVA', 'LABE',
    'LACL', 'LAKE', 'LAMR', 'LARO', 'LAVO', 'LEWI', 'LIBI', 'LIBO', 'LIRI', 'LYJO', 'MABE', 'MABI', 'MACA', 'MANA',
    'MANZ', 'MEVE', 'MIMA',
    'MISS', 'MNRR', 'MOCA', 'MOCR', 'MOJA', 'MONO', 'MORA', 'MORR', 'MORU', 'MUWO', 'NABR', 'NACE',
    'NATR', 'NAVA', 'NEPE', 'NERI', 'NIOB',
    'NISI', 'NOAT', 'NOCA', 'NPSA', 'OBRI', 'OCMU', 'OLYM', 'ORCA', 'ORPI', 'OZAR', 'PAAL', 'PAIS', 'PECO',
    'PEFO', 'PERI', 'PETE', 'PETR',
    'PINN', 'PIPE', 'PIRO', 'PISC', 'PISP', 'POCH', 'PORE', 'PRSF', 'PRWI', 'PUHE', 'PUHO', 'RABR', 'REDW', 'RICH',
    'RIGR', 'ROCR', 'ROMO',
    'ROVA', 'RUCA', 'SAAN', 'SACN', 'SAGA', 'SAGU', 'SAHI', 'SAIR', 'SAJH', 'SAMO', 'SAND', 'SAPU', 'SARA',
    'SCBL', 'SEKI',
    'SHEN', 'SHIL', 'SITK', 'SLBE', 'STRI', 'SUCR', 'TAPR', 'THRO', 'THST', 'TICA', 'TIMU', 'TONT', 'TUMA', 'TUZI',
    'UPDE', 'USAR', 'VAFO',
    'VICK', 'VOYA', 'WABA', 'WACA', 'WAPA', 'WEFA', 'WHIS', 'WHMI', 'WHSa', 'WICA', 'WICR', 'WOTR',
    'WRBR', 'WRST', 'WUPA',
    'YELL', 'YOSE', 'YUCH', 'YUHO', 'ZION']
```

```
Alaska_Parks =
""'ALAG','ANIA','BELA','CAKR','DENA','GAAR','GLBA','KATM','KEFJ','KOVA','KLGO','LACL','NOAT','SITK','YUCH','
WRST'"
```

```
Alaska_Parks_Array =
['ALAG','ANIA','BELA','CAKR','DENA','GAAR','GLBA','KATM','KEFJ','KOVA','KLGO','LACL','NOAT','SITK','YUCH','
WRST']
```

```
Hawaii_Parks = ""'ALKA','HALE','KALA','KAHO','HAVO','PUHE','PUHO','USAR'"
```

```
Hawaii_Parks_Array = ['ALKA','HALE','KALA','KAHO','HAVO','PUHE','PUHO','USAR']
```

```
PacificSaipan_Parks = ""'AMME','WAPA'"
```

```
PacificSaipan_Parks_Array = ['AMME','WAPA']
```

```
PacificSamoa_Parks=""'NPSA'"
```

```
PacificSamoa_Parks_Array = ['NPSA']
```

```
Conus_Select_Array0 =
```

```
[Alaska_Parks_Array,Hawaii_Parks_Array,PacificSaipan_Parks_Array,PacificSamoa_Parks_Array]
```

```
Conus_Select_Array = [ y for x in Conus_Select_Array0 for y in x]
```

```
for unit in Conus_Select_Array:
```

```
    AllUnits.remove(unit)
```

```

Output_Layer = "AOABounds_Layer"
Output_Select = "AOABounds_Select"

OutputsToDelete = [Output_Layer, Output_Select]
##OutputsToDelete = [Output_TargetGDB_30km, Output_TargetGDB_Park, Output_Layer,
Output_Select]

for output in OutputsToDelete:
    if gp.Exists(output):
        gp.Delete(output)

try:
    if gp.Exists(Versioned_Output_TargetGDB_30km):
        gp.Delete(Versioned_Output_TargetGDB_30km)
    if gp.Exists(Output_TargetGDB_30km):
        gp.Rename(Output_TargetGDB_30km, Versioned_Output_TargetGDB_30km)
    if gp.Exists(Versioned_Output_TargetGDB_3km):
        gp.Delete(Versioned_Output_TargetGDB_3km)
    if gp.Exists(Output_TargetGDB_3km):
        gp.Rename(Output_TargetGDB_3km, Versioned_Output_TargetGDB_3km)
    if gp.Exists(Versioned_Output_TargetGDB_Park):
        gp.Delete(Versioned_Output_TargetGDB_Park)
    if gp.Exists(Output_TargetGDB_Park):
        gp.Rename(Output_TargetGDB_Park, Versioned_Output_TargetGDB_Park)

    gp.CreateFileGDB(NPScape_Workspace, Output_TargetRoot + "_30_km.gdb")
    gp.CreateFileGDB(NPScape_Workspace, Output_TargetRoot + "_3_km.gdb")
    gp.CreateFileGDB(NPScape_Workspace, Output_TargetRoot + "_Park.gdb")

    # Copy NPS boundary feature class into new file geodatabases
    gp.MakeFeatureLayer(Source_FeatureClass, Output_Layer)
    gp.CopyFeatures(Output_Layer, Output_TargetGDB_30km + "\\" + Source_FeatureClass_Root)
    gp.CopyFeatures(Output_Layer, Output_TargetGDB_3km + "\\" + Source_FeatureClass_Root)
    gp.Delete(Output_Layer)

    gp.RepairGeometry(Output_TargetGDB_30km + "\\" + Source_FeatureClass_Root)
    gp.MetadataImporter(Metadata_Template, Output_TargetGDB_30km + "\\" +
Source_FeatureClass_Root)
    gp.MetadataImporter(Metadata_Template, Output_TargetGDB_3km + "\\" +
Source_FeatureClass_Root)
    print 'Created 3km and 30km AOA GDB and source feature class'

    # Dissolve NPS boundary feature class on UNIT_CODE
    gp.MakeFeatureLayer(Output_TargetGDB_30km + "\\" + Source_FeatureClass_Root, Output_Layer)
    gp.Dissolve_management(Output_Layer, Output_TargetGDB_30km + "\\" +
Dissolved_FeatureClass_Root, "UNIT_CODE")
    gp.RepairGeometry(Output_TargetGDB_30km + "\\" + Dissolved_FeatureClass_Root)
    gp.CopyFeatures(Output_TargetGDB_30km + "\\" + Dissolved_FeatureClass_Root,
Output_TargetGDB_Park + "\\" + Dissolved_FeatureClass_Root)
    gp.CopyFeatures(Output_TargetGDB_30km + "\\" + Dissolved_FeatureClass_Root,
Output_TargetGDB_3km + "\\" + Dissolved_FeatureClass_Root)
    gp.Delete(Output_Layer)
    gp.Delete(Output_TargetGDB_30km + "\\" + Source_FeatureClass_Root)
    gp.MetadataImporter(Metadata_Template, Output_TargetGDB_Park + "\\" +
Dissolved_FeatureClass_Root)
    gp.MetadataImporter(Metadata_Template, Output_TargetGDB_3km + "\\" +
Dissolved_FeatureClass_Root)

```

```

print 'Created Park AOA GDB and source feature class'

# For park-based GDBs, add and populate Feature Datasets for CONUS (includes PR and VI), Alaska and
Pacific Islands
gp.CreateFeatureDataset(Output_TargetGDB_30km,Conus_FeatureDataset,ConusSpatialRef)
gp.CreateFeatureDataset(Output_TargetGDB_30km,AK_FeatureDataset,AKSpatialRef)
gp.CreateFeatureDataset(Output_TargetGDB_30km,Hawaii_FeatureDataset,HawaiiSpatialRef)

gp.CreateFeatureDataset(Output_TargetGDB_30km,PacificSaipan_FeatureDataset,PacificSaipanSpatialRef)

gp.CreateFeatureDataset(Output_TargetGDB_30km,PacificSamoa_FeatureDataset,PacificSamoaSpatialRef)

gp.CreateFeatureDataset(Output_TargetGDB_3km,Conus_FeatureDataset,ConusSpatialRef)
gp.CreateFeatureDataset(Output_TargetGDB_3km,AK_FeatureDataset,AKSpatialRef)
gp.CreateFeatureDataset(Output_TargetGDB_3km,Hawaii_FeatureDataset,HawaiiSpatialRef)

gp.CreateFeatureDataset(Output_TargetGDB_3km,PacificSaipan_FeatureDataset,PacificSaipanSpatialRef)

gp.CreateFeatureDataset(Output_TargetGDB_3km,PacificSamoa_FeatureDataset,PacificSamoaSpatialRef)

gp.CreateFeatureDataset(Output_TargetGDB_Park,Conus_FeatureDataset,ConusSpatialRef)
gp.CreateFeatureDataset(Output_TargetGDB_Park,AK_FeatureDataset,AKSpatialRef)
gp.CreateFeatureDataset(Output_TargetGDB_Park,Hawaii_FeatureDataset,HawaiiSpatialRef)

gp.CreateFeatureDataset(Output_TargetGDB_Park,PacificSaipan_FeatureDataset,PacificSaipanSpatialRef)

gp.CreateFeatureDataset(Output_TargetGDB_Park,PacificSamoa_FeatureDataset,PacificSamoaSpatialRef)
print 'Created feature datasets'

gp.MakeFeatureLayer(Output_TargetGDB_30km + "\\\" + Dissolved_FeatureClass_Root, Output_Select)

gp.SelectLayerByAttribute(Output_Select, "NEW_SELECTION", "UNIT_CODE IN (" + Alaska_Parks + ")")
gp.CopyFeatures(Output_Select, Output_TargetGDB_30km + "\\\" + AK_FeatureDataset + "\\\" +
AK_FeatureClass)
gp.SelectLayerByAttribute(Output_Select, "CLEAR_SELECTION", "")
gp.RepairGeometry(Output_TargetGDB_30km + "\\\" + AK_FeatureDataset + "\\\" + AK_FeatureClass)
gp.JoinField_management(Output_TargetGDB_30km + "\\\" + AK_FeatureDataset + "\\\" +
AK_FeatureClass, "UNIT_CODE", Unit_Lookups, "UNIT_CODE", "FULL_NAME")
gp.MetadataImporter(Metadata_Template, Output_TargetGDB_30km + "\\\" + AK_FeatureDataset + "\\\" +
+ AK_FeatureClass)
gp.CopyFeatures(Output_TargetGDB_30km + "\\\" + AK_FeatureDataset + "\\\" + AK_FeatureClass,
Output_TargetGDB_3km + "\\\" + AK_FeatureDataset + "\\\" + AK_FeatureClass)
print 'Created Alaska 3km and 30km source feature class'

gp.SelectLayerByAttribute(Output_Select, "NEW_SELECTION", "UNIT_CODE IN (" + Hawaii_Parks + ")")
gp.CopyFeatures(Output_Select, Output_TargetGDB_30km + "\\\" + Hawaii_FeatureDataset + "\\\" +
Hawaii_FeatureClass)
gp.SelectLayerByAttribute(Output_Select, "CLEAR_SELECTION", "")
gp.RepairGeometry(Output_TargetGDB_30km + "\\\" + Hawaii_FeatureDataset + "\\\" +
Hawaii_FeatureClass)
gp.JoinField_management(Output_TargetGDB_30km + "\\\" + Hawaii_FeatureDataset + "\\\" +
Hawaii_FeatureClass, "UNIT_CODE", Unit_Lookups, "UNIT_CODE", "FULL_NAME")
gp.MetadataImporter(Metadata_Template, Output_TargetGDB_30km +
 "\\\" + Hawaii_FeatureDataset + "\\\" + Hawaii_FeatureClass)
gp.CopyFeatures(Output_TargetGDB_30km + "\\\" + Hawaii_FeatureDataset + "\\\" + Hawaii_FeatureClass,
Output_TargetGDB_3km + "\\\" + Hawaii_FeatureDataset + "\\\" + Hawaii_FeatureClass)
print 'Created Hawaii 3km and 30km source feature class'

```

```

gp.SelectLayerByAttribute(Output_Select, "NEW_SELECTION", "UNIT_CODE IN
("+PacificSaipan_Parks+")")
gp.CopyFeatures(Output_Select, Output_TargetGDB_30km + "\\\"+PacificSaipan_FeatureDataset+\"\\\" +
PacificSaipan_FeatureClass)
gp.SelectLayerByAttribute(Output_Select, "CLEAR_SELECTION", "")
gp.RepairGeometry(Output_TargetGDB_30km + "\\\"+PacificSaipan_FeatureDataset+\"\\\" +
PacificSaipan_FeatureClass)
gp.JoinField_management(Output_TargetGDB_30km + "\\\"+PacificSaipan_FeatureDataset+\"\\\" +
PacificSaipan_FeatureClass,"UNIT_CODE",Unit_Lookups,"UNIT_CODE","FULL_NAME")
gp.MetadataImporter(Metadata_Template, Output_TargetGDB_30km +
"\\\"+PacificSaipan_FeatureDataset+\"\\\" + PacificSaipan_FeatureClass)
gp.CopyFeatures(Output_TargetGDB_30km + "\\\"+PacificSaipan_FeatureDataset+\"\\\" +
PacificSaipan_FeatureClass, Output_TargetGDB_3km + "\\\"+PacificSaipan_FeatureDataset+\"\\\" +
PacificSaipan_FeatureClass)
print 'Created Pacific_Saipan 3km and 30km source feature class'

gp.SelectLayerByAttribute(Output_Select, "NEW_SELECTION", "UNIT_CODE IN
("+PacificSamoa_Parks+")")
gp.CopyFeatures(Output_Select, Output_TargetGDB_30km + "\\\"+PacificSamoa_FeatureDataset+\"\\\" +
PacificSamoa_FeatureClass)
gp.SelectLayerByAttribute(Output_Select, "CLEAR_SELECTION", "")
gp.RepairGeometry(Output_TargetGDB_30km + "\\\"+PacificSamoa_FeatureDataset+\"\\\" +
PacificSamoa_FeatureClass)
gp.JoinField_management(Output_TargetGDB_30km + "\\\"+PacificSamoa_FeatureDataset+\"\\\" +
PacificSamoa_FeatureClass,"UNIT_CODE",Unit_Lookups,"UNIT_CODE","FULL_NAME")
gp.MetadataImporter(Metadata_Template, Output_TargetGDB_30km +
"\\\"+PacificSamoa_FeatureDataset+\"\\\" + PacificSamoa_FeatureClass)
gp.CopyFeatures(Output_TargetGDB_30km + "\\\"+PacificSamoa_FeatureDataset+\"\\\" +
PacificSamoa_FeatureClass, Output_TargetGDB_3km + "\\\"+PacificSamoa_FeatureDataset+\"\\\" +
PacificSamoa_FeatureClass)
print 'Created Pacific_Samoa 3km and 30km source feature class'

gp.SelectLayerByAttribute(Output_Select, "NEW_SELECTION", "UNIT_CODE IN ("+Alaska_Parks+")")
gp.SelectLayerByAttribute(Output_Select, "ADD_TO_SELECTION", "UNIT_CODE IN
("+PacificSaipan_Parks+")")
gp.SelectLayerByAttribute(Output_Select, "ADD_TO_SELECTION", "UNIT_CODE IN
("+PacificSamoa_Parks+")")
gp.SelectLayerByAttribute(Output_Select, "ADD_TO_SELECTION", "UNIT_CODE IN ("+Hawaii_Parks+")")
gp.SelectLayerByAttribute(Output_Select, "SWITCH_SELECTION")
gp.CopyFeatures(Output_Select, Output_TargetGDB_30km + "\\\"+Conus_FeatureDataset+\"\\\" +
Conus_FeatureClass)
gp.SelectLayerByAttribute(Output_Select, "CLEAR_SELECTION", "")
gp.RepairGeometry(Output_TargetGDB_30km + "\\\"+Conus_FeatureDataset+\"\\\" +
Conus_FeatureClass)
gp.JoinField_management(Output_TargetGDB_30km + "\\\"+Conus_FeatureDataset+\"\\\" +
Conus_FeatureClass,"UNIT_CODE",Unit_Lookups,"UNIT_CODE","FULL_NAME")
gp.MetadataImporter(Metadata_Template, Output_TargetGDB_30km +
"\\\"+Conus_FeatureDataset+\"\\\" + Conus_FeatureClass)
gp.CopyFeatures(Output_TargetGDB_30km + "\\\"+Conus_FeatureDataset+\"\\\" + Conus_FeatureClass,
Output_TargetGDB_3km + "\\\"+Conus_FeatureDataset+\"\\\" + Conus_FeatureClass)
print 'Created CONUS 3km and 30km source feature class'

# For each feature class by UNIT_CODE, select feature, copy to Output_TargetGDB_Park, then buffer to
30km for Output_TargetGDB_30km
gp.workspace = Output_TargetGDB_30km

fds = gp.ListDatasets("", "Feature")

```

```

for fd in fds:
    if fd == 'Alaska': park_List = Alaska_Parks_Array
    elif fd == 'Hawaii': park_List = Hawaii_Parks_Array
    elif fd == 'Pacific_Saipan_Guam': park_List = PacificSaipan_Parks_Array
    elif fd == 'Pacific_Samoa': park_List = PacificSamoa_Parks_Array
    else: park_List = AllUnits
    gp.SelectLayerByAttribute(Output_Select, "CLEAR_SELECTION", "")

    try:
        print "Buffering " +fd+ " Parks"
        #if fd != 'CONUS':
        for park in park_List:
            buffered_FeatureClass = park + "_" + Output_FeatureClass_30km
            buffered_FeatureClass_3km = park + "_" + Output_FeatureClass_3km
            park_FeatureClass = park + "_" + Output_FeatureClass_Park
            gp.SelectLayerByAttribute(Output_Select,"NEW_SELECTION","UNIT_CODE = \"'+park+'\"")
            gp.CopyFeatures(Output_Select,Output_TargetGDB_Park + "\" + fd + "\" + park_FeatureClass)
            gp.AddField_management(Output_TargetGDB_Park + "\" + fd + "\" + park_FeatureClass,
"AREA_SQKM", "FLOAT", "11", "3", "", "", "NULLABLE", "NON_REQUIRED", "")
            gp.CalculateField_management(Output_TargetGDB_Park + "\" + fd + "\" + park_FeatureClass,
"AREA_SQKM", "!shape.area! / 1000000", "PYTHON", "")
            gp.MetadataImporter(Metadata_Template, Output_TargetGDB_Park + "\" + fd + "\" +
park_FeatureClass)
            gp.Buffer_analysis(Output_Select, Output_TargetGDB_30km + "\" + fd + "\" +
buffered_FeatureClass, BufferDistance, "FULL", "ROUND", "NONE")
            gp.Buffer_analysis(Output_Select, Output_TargetGDB_3km + "\" + fd + "\" +
buffered_FeatureClass_3km, BufferDistance_3km, "FULL", "ROUND", "NONE")
            gp.RepairGeometry(Output_TargetGDB_30km + "\" + fd + "\" + buffered_FeatureClass)
            gp.RepairGeometry(Output_TargetGDB_3km + "\" + fd + "\" + buffered_FeatureClass_3km)
            gp.AddField_management(Output_TargetGDB_30km + "\" + fd + "\" + buffered_FeatureClass,
"AREA_SQKM", "FLOAT", "11", "3", "", "", "NULLABLE", "NON_REQUIRED", "")
            gp.AddField_management(Output_TargetGDB_3km + "\" + fd + "\" +
buffered_FeatureClass_3km, "AREA_SQKM", "FLOAT", "11", "3", "", "", "NULLABLE", "NON_REQUIRED", "")
            gp.CalculateField_management(Output_TargetGDB_30km + "\" + fd + "\" +
buffered_FeatureClass, "AREA_SQKM", "!shape.area! / 1000000", "PYTHON", "")
            gp.CalculateField_management(Output_TargetGDB_3km + "\" + fd + "\" +
buffered_FeatureClass_3km, "AREA_SQKM", "!shape.area! / 1000000", "PYTHON", "")
            gp.SelectLayerByAttribute(Output_Select, "CLEAR_SELECTION", "")
            gp.MetadataImporter(Metadata_Template, Output_TargetGDB_30km + "\" + fd + "\" +
buffered_FeatureClass)
            gp.MetadataImporter(Metadata_Template, Output_TargetGDB_3km + "\" + fd + "\" +
buffered_FeatureClass_3km)
            print "Buffered " + park
            print 'Finished ' +fd+ ' Parks'
        except:
            print gp.getMessages()
            message = "\n\nERROR: Cannot extract or buffer features in: " + park_List
            raise Exception, message

    try:
        gp.workspace = fd
        merged_FeatureClass = fd + "_AOAs"
        fcList0 = ""
        fcs = gp.ListFeatureClasses("*_AOA_*", "POLYGON")
        for fc in fcs:
            fcList0 += Output_TargetGDB_30km + "\" + fd + "\" + fc + ","
        fcList = fcList0[0:-1] + "\""

```

```

        gp.CreateFeatureClass(Output_TargetGDB_30km + "\\\" +
fd,merged_FeatureClass,"POLYGON",buffered_FeatureClass)
        gp.Append_management(fcList,Output_TargetGDB_30km + "\\\" + fd + "\\\" +
merged_FeatureClass,"TEST")
        gp.RepairGeometry_management(Output_TargetGDB_30km + "\\\" + fd + "\\\" +
merged_FeatureClass)
        gp.JoinField_management(Output_TargetGDB_30km + "\\\" + fd + "\\\" +
merged_FeatureClass,"UNIT_CODE",Unit_Lookups,"UNIT_CODE","FULL_NAME")
        print 'Created merged feature class ' + merged_FeatureClass
    except:
        print gp.getMessages()
        message = "\\n\\nERROR: Cannot create merged feature class for " + fd
        raise Exception, message

except:
    print gp.GetMessages()
    message = "\\n\\nERROR: Cannot create AOA feature classes correctly."
    raise Exception, message

message = "Finished creating new NPScape AOA geodatabases."
#del gp
print message
except:
    error = gp.GetMessages() + ' ' + message
    #del gp
    print error

```