

Exercise 3: Using Citrix to Access REA Data, Maps, Models & ArcGIS Desktop Software

BLM Personnel Access

By logging into Citrix you can access REA data, maps and models directly and use ArcMap, ArcCatalog, and Windows Explorer applications. Once you login into Citrix, you can connect to the REA folders and databases which give you can access to:

- Data (raster, vector and layer files)
- Metadata (.xml)
- Maps (.mxd)
- Models in Toolbox (.tbx) and/or Python Script (.py)
- Map Services (https), and
- Supporting documents for data, maps, and models (.pdf, .pptx, .docx, .xlsx).

Follow the directions below to log into Citrix and access these REA products and services.



NOTE: *BLM personnel must:*

- **have a *DOI Windows Active Directory* account and**
- **be a *member of the AK Citrix users group and AK GIS users group***
 - *When you signed up for the class, we had you added to these groups and you should have tested them before class (See Getting the most out of the CYR NOS REA workshop document).*

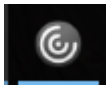
Learn how to:

1. [Log into Citrix](#)
2. [Open ArcCatalog & ArcMap](#)
3. [Connect to REA folders](#)
 - a. Access raster data, layer files, maps, and models

Resources to Help You Decipher REA File Names:

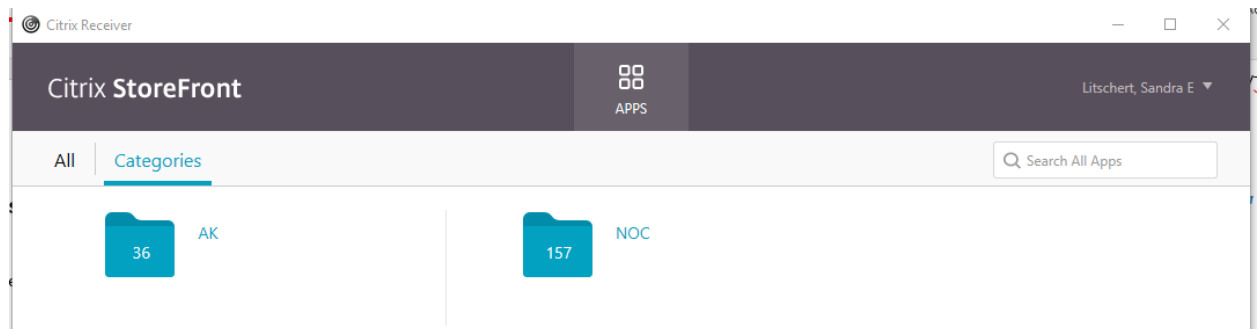
1. Review the list of REA acronyms in [Appendix A](#)
2. Review the REA file naming convention in [Appendix B](#)

Log into Citrix

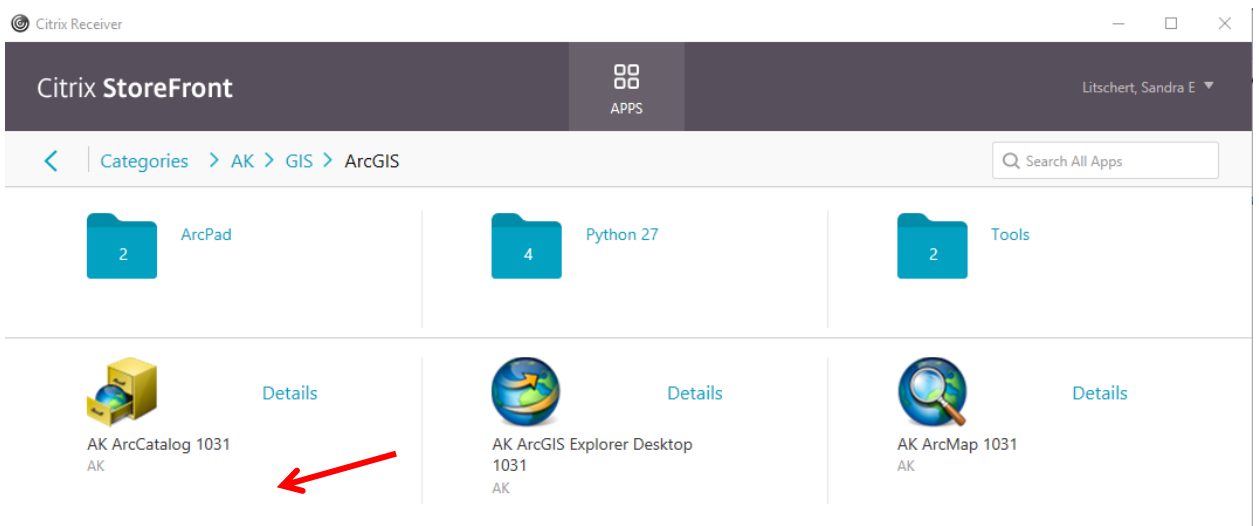
- Click on your Windows Start Button  and Click on the Citrix Receiver icon 
 - Log in with your Active Directory password.

Open ArcGIS Catalog & ArcMap

1. Once you are logged into Citrix, click the AK application folder (as seen below):
NOTE: You may see other folders such as NOC; there are other Citrix environments available to certain users.



2. Click on the folders GIS and ArcGIS
3. You should now see AK ArcMap 1031 and AK ArcCatalog 1031 icons.

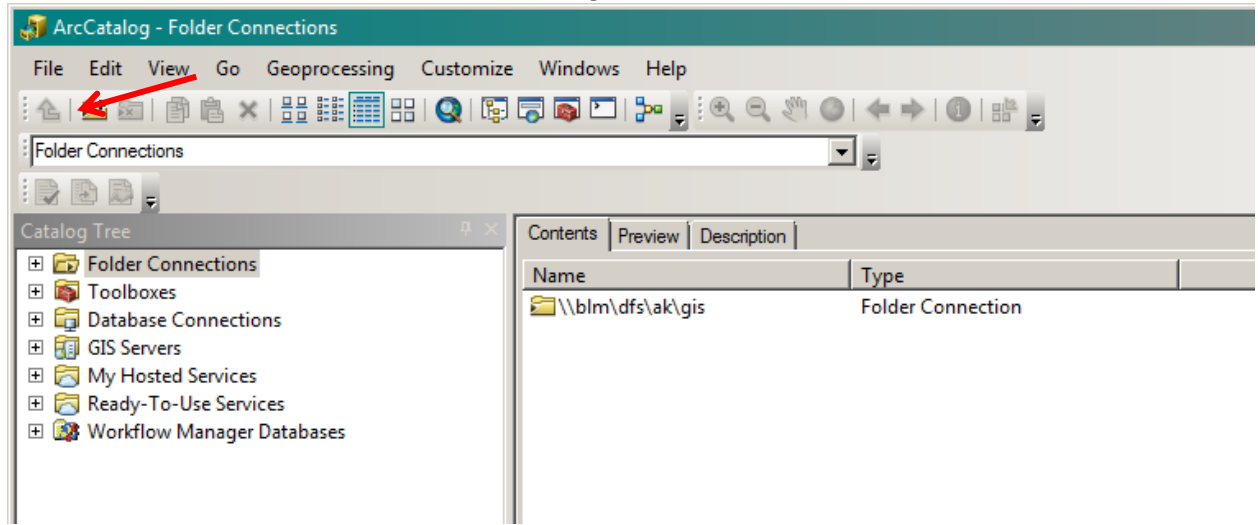


- a. Click on AK ArcCatalog 1031 to open it.
- b. Read the following sections on how to connect to REA data with ArcCatalog.

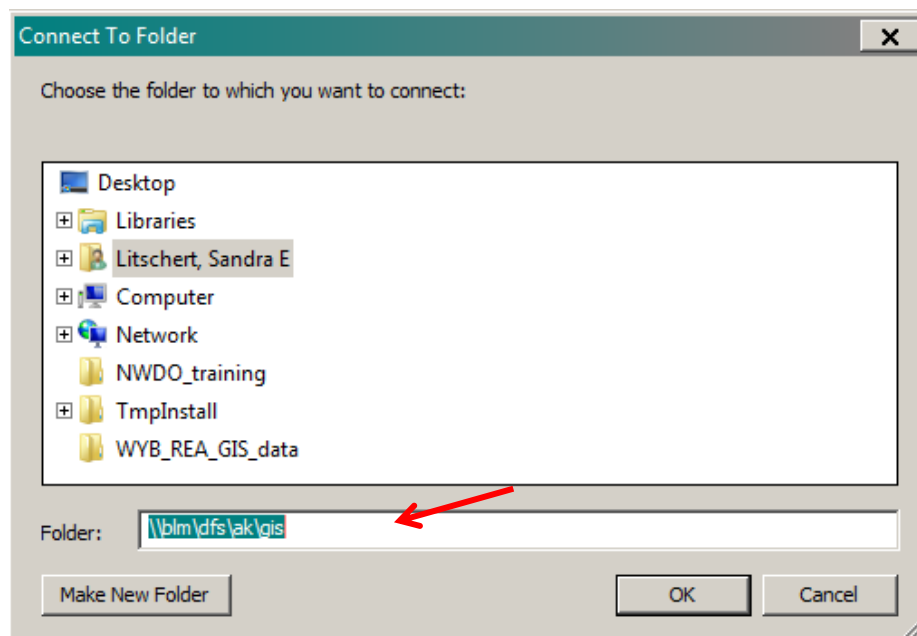
Note that Citrix apps will have a teal title bar. Don't mix Citrix and Desktop Applications

Connect to GIS Folders including the REAs

1. Click the **Connect to Folder icon** in the ArcCatalog toolbar.



2. You will see the **Connect to Folder dialog box** as shown below. In the Folder box, enter **\\blm\dfs\ak\gis** and click OK.



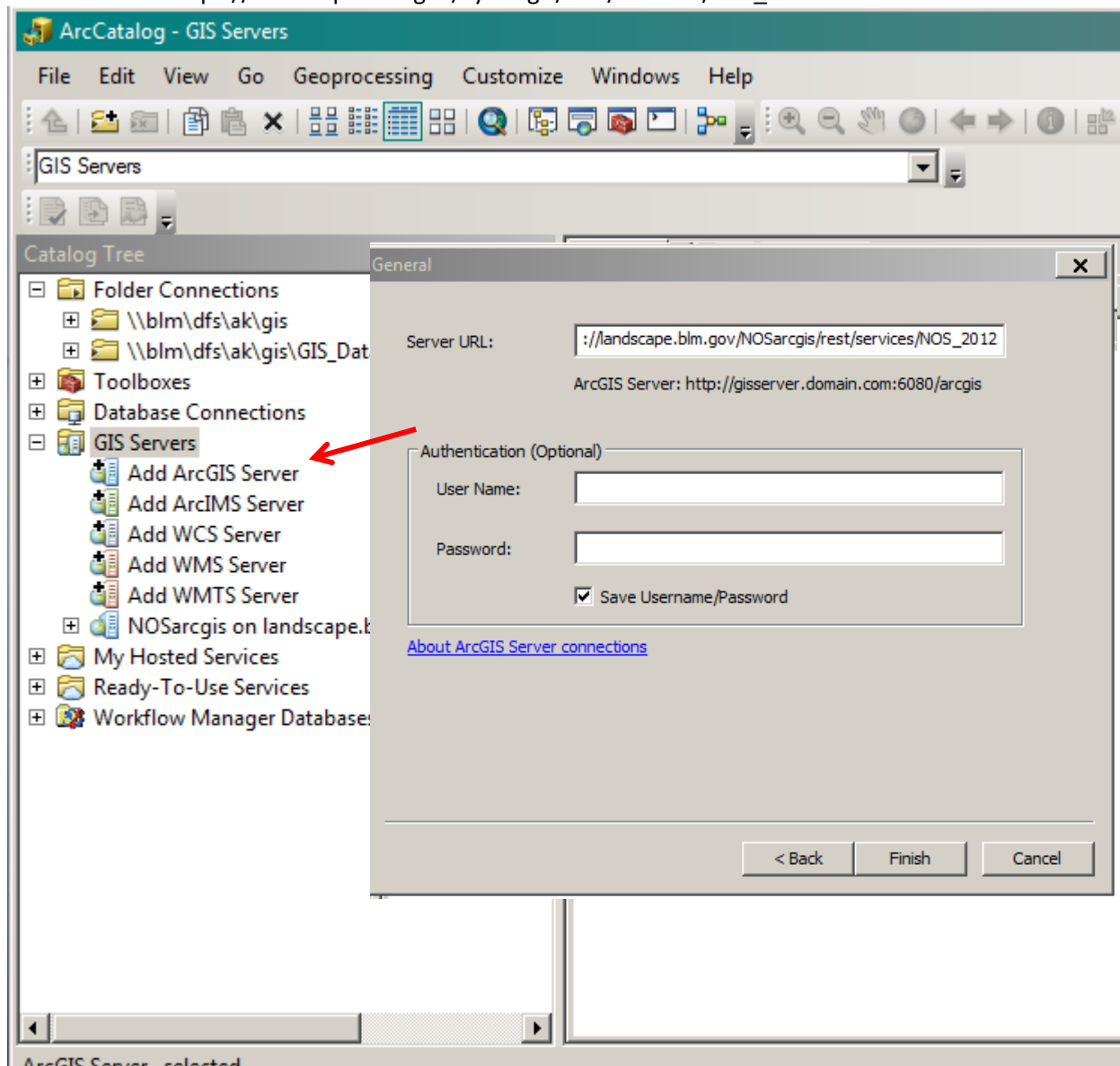
3. Repeat Connect To Folder and enter:
[\\blm\dfs\ak\gis\GIS_Data\Published\Federal\BLM\AKSO\REA\NOS_2012](#)
4. We hope to add other AK REAs to the REA folder eventually. Nos_2012 is a test!

5. At this point you have added a data resource to ArcCatalog. NOTE: The content of your Catalog Tree may have additional and different connections than shown below. You can now expand these folders (e.g., Datalayers) and navigate to NOS data (see next Step).
 - a. This folder connection gives you access to all GIS data in NOS.
 - b. To see non-spatial files such as Word documents or PDFs in the Docs folder, use AK Explorer applications.

Connect to REA Map Services in ArcCatalog

Besides viewing map documents directly in ArcMap, you can also view maps as map services using the following steps. Note that map services for all REAs are housed at the NOC, not at the AKSO.

1. Open ArcCatalog.
2. Click on **GIS Servers** in the Catalog Tree.
3. Double-click **Add ArcGIS Server**.
4. In the **Add ArcGIS Server dialog box**, select **Use GIS Services** radio button, click **Next**.
5. In the Server URL box, put: https://landscape.blm.gov/NOSarcgis/rest/services/NOS_2012
6. CYR is not published so map services are not yet available.
 - a. https://landscape.blm.gov/cyrcgis/rest/services/CYR_2013



7. Open an ArcMap session (by clicking on the ArcMap icon in ArcCatalog) and drag and drop a service from ArcCatalog.
8. Other AK REAs map services are here:
 - a. SNK: https://landscape.blm.gov/snkarctgis/rest/services/SNK_2010/
 - b. YKL: https://landscape.blm.gov/yklarctgis/rest/services/YKL_2011

Appendix A

List of REAs and Acronyms

Below is a list of REAs and their corresponding 3-letter codes which are used in naming files, folders, and databases. AK REAs in **bold**.

REA	3-Letter Code
Central Basin and Range	CBR
Chihuahuan Desert	CHD
Colorado Plateau	COP
Central Yukon Region	CYR
Madrean Archipelago	MAR
Middle Rockies	MIR
Mojave Basin and Range	MBR
North Slope	NOS
Northern Great Basin	NBB
Northwestern Great Plains	NWP
Seward Peninsula	SNK
Sonoran Desert	SOD
Southern Great Plains	SGP
Wyoming Basin	WYB
Yukon Kuskokwim	YKL

Appendix B

REA File Naming Conventions

There is a standard format used when naming REA files, including data, map, and model files. Understanding this format will help users decipher the content of the files. The following charts provide guidance on the REA file naming convention. Format varies with file type; however, all file names begin with a 3-letter code of an ecoregion (e.g., “COP” for the Colorado Plateau REA).

Format for file naming convention (based on file type)

File Type	File Naming Convention	Example	Description
Dataset	EC_Category_Status_Subject_Modifier_Type	NGB_TS_C_175855_GreaterSageGrouse	Dataset showing the current status of Greater Sage-Grouse in the NGB REA
Map	EC_Category_Description	NGB_TS_Greater_SageGrouse_C_N_L_Status.mxd	Map showing the current, near-term, and long-term status of Greater Sage-Grouse in the NGB REA
Model	EC_Category_ModelType_Description	NGB_TS_Geo_GreaterSageGrouse_C_Status.tbx	Geoprocessing model (Toolbox file) that analyzes the current status of Greater Sage-Grouse in the NGB REA

Examples of REA file names (and how to interpret them)

1. CBR_TS_C_175855_GRSG_Occ_Habitat_poly (CBR Terrestrial Species Greater Sagegrouse current occupied habitat polygons)
 2. MIR_TG_C_SensitiveSoils_HUC5 (MIR Terrestrial Group current sensitive soils by HUC)
 3. SOD_AE_C_303d_stream_DN_tbl (SOD Aquatic Ecosystem Current 303d stream density access database table)
 4. SOD_AE_C_ImpairedStream_density_huc5 (SOD aquatic ecosystem current impaired stream density by HUC)
 5. COP_DV_C_LCM (COP development current landscape condition model index)
 6. MIR_IV_N_40524_DN_poly (MIR near-term forecast density of invasive cheatgrass (*Bromus tectorum*) polygons)
 7. MIR_IV_C_ALL_HUC5 (MIR All Invasives current status by HUC poly)
 8. MIR_IV_C_ALLA_4km (MIR All aquatic Invasives current status 4km raster)
 9. CBR_CL_N_TM_AV (CBR climate change near-term forecasted average temperature)
 10. NGB_DV_C_ALL_DIST_4km (NGB all development current distribution 4km raster)
 11. NGB_DV_C_RDS_DN (NGB development current road network density)
-

REA codes used in file naming convention

File Naming Codes		
EC^r	CBR CHD COP MAR MIR MBR NOS NGB NWP SNK SOD SGP WYB YKL	Central Basin and Range Chihuahuan Desert Colorado Plateau Madrean Archipelago Middle Rockies Mojave Basin and Range North Slope Northern Great Basin Northwestern Great Plains Seward Peninsula Sonoran Desert Southern Great Plains Wyoming Basin Yukon Kuskokwim
CATEGORY^r		
Conservation Elements	AE AG AR AS EI NV PL TES TG TS	Aquatic/Riparian Ecosystem Aquatic/Riparian Group Avian Richness Aquatic/Riparian Species Ecological Integrity Native Vegetation Places Terrestrial Ecosystem Terrestrial Group Terrestrial Species
Change Agents	CL DV FI IV	Climate Development Fire Invasives
Attribute	AT	Attribute
Indicator	IN	Indicator
STATUS^r	C N L H	Current Near-Term Long-Term Historic

SUBJECT⁺	175855 AI Dust GR Gra IBA LCM MigratoryBirds MR NV OilGas PH Pop PPT RD Rds RESolar SA Soil SP TE TM or Temp TI Trans Urb Veg VI WQ	Species code: ITIS serial number for Greater Sage-grouse Aquatic intactness Dust Ecosystem name or abbreviation: Grassland Grazing Important bird areas Landscape condition model Species Group name or abbreviation Macro-invertebrate species richness Native vegetation Oil & Gas change agent pH Population Precipitation Renewable energy development Roads Solar renewable energy Species abundance Soil Solar potential Threatened & endangered species Temperature Terrestrial intactness Transportation Urbanization Veg code from LANDFIRE EVT, NLCD, SWReGAP, etc Vegetation intactness Water quality
MODIFIER⁺	Ann AV AVhigh AVlow Dif Dist DN Ext Fall Footprint FR Frag Ind MAX MIN OccHab Prct PriorityZone Sd Spr Summ Win YrRnd	Annual Average Average high Average low Difference Distribution Density Extent Fall Footprint, corridor, flyway Frequency Fragmentation Index Maximum Minimum Occupied Habitat Percent Priority zones for solar renewable energy Standard deviation Spring Summer Winter Year-round

TYPE⁺	30m 4km HUC Ln Poly Pt Tbl	30-meter raster 4km PRISM raster HUC polygon Line Polygon Point Table
ModelType⁺	Climate Conceptual Ecolnt Fragstats Geo Intact MaxEnt	Climate Conceptual Ecological integrity FRAGSTATS Geoprocessing Intactness MaxEnt

^r = You are required to use these codes (do not change or add new codes)
⁺ = You can add new/modify codes in these sections of the file name to better describe the file; these are some commonly used examples.

Abbreviations used in file naming convention

Abbreviation	Description
Lease	(current) leases
ALLA	all aquatic
ALLT	all terrestrial
TRANS	all transportation
AE	aquatic ecosystem CE
AG	aquatic group CE
AI	Aquatic Intactness
AS	aquatic species CE
AV	average
AvHigh	average high
AvLow	average low
AR	Avian richness
CL	climate CA
CV	Coefficient of Variance
COPMixedLowSagbrushShrublnd	Colorado Plateau Mixed Low Sagebrush Shrubland
CritHab	critical habitat
CryptogamicCrust	cryptogamic Crust
C	current status
std	data standard (BLM)
DN	density
DV	development CA
DSTNC	distance
DIST	distribution
EI	ecological integrity CE
CBR	ecoregion
COP	ecoregion
MBR	ecoregion
MIR	ecoregion

NGP	ecoregion
SOD	ecoregion
SPN	ecoregion
WYB	ecoregion
EmergentHerbaceousWetland	emergent herbaceous wetland
EXT	extent
FI	fire CA
ForestWoodland	Forest & Woodland
FR	frequency
FRQ	frequency
GR	grassland ecosystem
Grasslands	Grasslands
GRA	Grazing (development change agent)
GBFoothillLwerMontaneRiprnWdIndShrbIndStrm	Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland/Stream
GBLakeReservoir	Great Basin Lake/Reservoir
GBPinyonJuniperWoodInd	Great Basin Pinyon-Juniper Woodland
GBSemiDesertChaparral	Great Basin Semi-Desert Chaparral
GBSpringsSeeps	Great Basin Springs and Seeps
GBXericMixedSagebrushShrubInd	Great Basin Xeric Mixed Sagebrush Shrubland
IBA	Important Bird Areas
IND	index
INT	intactness
ITIS	integrated taxonomic information system
IMBDesertWash	Inter-Mountain Basin Desert Wash
IMBActiveStabilizedDune	Inter-Mountain Basins Active and Stabilized Dune
IMBAspenMixedConiferForestWoodInd	Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland
IMBBigSagebrushShrubInd	Inter-Mountain Basins Big Sagebrush Shrubland
IMBBigSagebrushSteppe	Inter-Mountain Basins Big Sagebrush Steppe
IMBCliffCanyon	Inter-Mountain Basins Cliff and Canyon

IMBCurlLeafMtnMahoganyWoodlandShrubland	Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland
IMBGreasewoodFlat	Inter-Mountain Basins Greasewood Flat
IMBMixedSaltDesertScrub	Inter-Mountain Basins Mixed Salt Desert Scrub
IMBMontaneSagebrushSteppe	Inter-Mountain Basins Montane Sagebrush Steppe
IMBPlaya	Inter-Mountain Basins Playa
IMBSemiDesertGrassland	Inter-Mountain Basins Semi-Desert Grassland
IMBSemiDesertShrubSteppe	Inter-Mountain Basins Semi-Desert Shrub-Steppe
IMBSubalpineLimberBristleconePineWoodlnd	Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland
IV	invasives CA
LCM	landscape condition model
L	long-term forecast status
MR	macro-invertebrate species richness
MJMidElevMixedDesertScrub	Mojave Mid-Elevation Mixed Desert Scrub
MogollonChaparral	Mogollon Chaparral
NV	native vegetation CE
N	near-term forecast status
NAS	Nonindigenous Aquatic species
NAAridWestEmergentMarshAndPond	North American Arid West Emergent Marsh and Pond
NAWarmDesertBedrockCliffAndOutcrop	North American Warm Desert Bedrock Cliff and Outcrop
NAWarmDesertPavement	North American Warm Desert Pavement
NAWarmDesertBadland	North American Warm Desert Badland
OccHab	occupied habitat
OpenWater	open water
PRCNT	percent
PH	ph
PinyonPine	Pinyon Pine
POP	population (human)
PRECIP	precipitation
RNG	range

REC	Recreation (development change agent)
RE	renewable energy
RDS	roads
RMAlpineMontaneWetMeadowAlpineLake	Rocky Mountain Alpine-Montane Wet Meadow/Alpine Lake
RMAspenForestWoodland	Rocky Mountain Aspen Forest and Woodland
RMSubAlpineMontaneRiprnWdIndShrblndStrm	Rocky Mountain Subalpine-Montane Riparian Woodland and Shrubland/Stream
RMAlpineTurf	Rocky Mountain Alpine Turf
ShrubScrub	Shrub/Scrub
ErodableSoils	Soils of Conservation Concern (high erodability)
SP	solar potential
SparseVegetatedBarren	sparsely vegetated/barren
SA	species abundance
SMSemiDesertChaparral	Sonora-Mojave Semi-Desert Chaparral
SMCreosotebushWhiteBursageDesertScrub	Sonora-Mojave Creosotebush-White Bursage Desert Scrub
SonoraMidElevDesertScrub	Sonoran Mid-Elevation Desert Scrub
SMMixedSaltDesertScrub	Sonora-Mojave Mixed Salt Desert Scrub
StdDev	Standard Deviation
TM	temperature
TES	terrestrial ecosystem CE
TG	terrestrial group CE
TI	Terrestrial Intactness
TS	terrestrial species CE
TE	threatened & endangered species richness
URB	urbanization
VI	vegetation intactness
WQ	water quality
WoodyWetlandRiparian	woody wetland & riparian
YrRnd	year-round