Missouri Spatial Data Information Service

1st Period Bi-Annual Report February 2015 – July 2015

Build or implement a survey to identify gaps in the statewide data inventory.

<u>Strategy</u>: Watch the development of the NSGIC initiative to build a national data survey / needs assessment. Once developed, implement within the Missouri Clearinghouse. <u>MEASURE:</u> Completion of NSGIC survey tool and implementation on the MSDIS. <u>MSDIS with MGISAC</u> participation. Participation of personnel from MSDIS. Possible NSGIC national model development.

Current Status: Active

2nd Period August, 2014 – January, 2015 comments – Ongoing.

1st Period February, 2015 – July, 2015 comments – There is ongoing harvesting of MSDIS data sets by the NSGIC GIS Inventory and Data.Gov.

Continue to develop an Internet mapping interface for MSDIS holdings.

<u>Strategy</u>: Increase utility of MSDIS Web site by continuing to developing the internet mapping user interface for interaction with the data elements compiled in MSDIS. This includes the development of new maps, evolution of mapping interface, maintenance, update, and upgrades to the Mapper. <u>MEASURE:</u> Continued evolution of the design and map services available on MSDIS-maps and MCDC-maps web site. <u>MSDIS with MGISAC participation in review</u> <u>Participation of personnel from MSDIS.</u>

Current Status: Ongoing

2nd Period August, 2014 – January, 2015 comments – Most of the staff time has been utilized to build out the new virtual servers – first at Rolla (MST) – and lately at the Telecom site (Imagery-TC and Web-TC). Servers have been configured and software is being loaded. There is still a period of housecleaning and then testing before the new TC servers will become available – hopefully by the March MGISAC monthly meeting.

1st Period February, 2015 – July, 2015 comments – The Web servers are already online after successful testing – but the imagery servers are still having assorted issues mostly regarding image services.

Develop and deploy a search interface for MSDIS holdings.

<u>Strategy</u>: Increase utility of MSDIS Web site for data discovery and query by thematically grouping data holdings.

MEASURE: Redesign of MSDIS Web site and development of milestones. This schedule will be developed jointly by MSDIS and MGISAC. <u>MSDIS with MGISAC participation in review</u> Participation of personnel from MSDIS.

Current Status:

2nd Period August, 2014 – January, 2015 comments – Portal files are at 836. Files are increasing rapidly temporarily – as the "Structures" Project data sets are imported. A new student staff member has been hired – Austin Gauthier – who replaces Chris Stephens who has gone back to school. Austin is being trained.

1st Period February, 2015 – July, 2015 comments –

There is a significant increase of the files available via the GeoPortal - which now serves 2,817 data sets. Most of the increase can be accounted for by the addition of all of the metadata records for the 2007-2009 2' Imagery. Unfortunately, Austin has moved on...

Duplicate existing coverage files as geodatabases for all MSDIS holdings.

<u>Strategy</u>: Migrate the entire MSDIS Clearinghouse to the geodatabase format and host both for a period of time. MSDIS will proactively evolve with changes in the software arena and make the site more usable to new start-ups <u>MEASURE:</u> Reformatting of MSDIS coverage holdings as zipped geodatabases.

<u>MEASURE:</u> Reformating of MSDIS coverage holdings as Zipped geodatabase: Requires participation of personnel from MSDIS.

Current Status: Ongoing.

2nd Period August, 2014 – January, 2015 comments – New student staff member will continue to add the imagery files after he is trained.

1st Period February, 2015 – July, 2015 comments – The MSDIS GDB continues to grow apace – see comment above. Shapefiles also continue to be served - where applicable – by FTP.

To promote interoperability and standardization among core data layers being developed by the state and local government agencies and organizations.

Objectives

Development and endorsement of geospatial standards for database development and attribution.

<u>Strategy:</u> Review existing state, federal and international geospatial standards. Create or add new components, modify components, or adopt reviewed standards. Release drafts through MSDIS, MGISAC, and subcommittees for peer review and comment. Revise as appropriate and publish final standards within MAEA.

Disseminate geospatial related standards for active review process.

Current Status: Ongoing

2nd Period August, 2014 – January, 2015 comments – There have been no new standards to disseminate – the state agencies led by OGI are currently working on standards but it is not clear just when those standards will be available for dissemination and review...

1st Period February, 2015 – July, 2015 comments – See comment for 2nd period above...

Homeland Security

Develop and maintain the data and infrastructure necessary to support Homeland Security Emergency Response.

<u>Strategy</u>: Coordinate with OIT, Office of Homeland Security, and MSDIS on the development of the communication infrastructure necessary to support Homeland Security efforts. Develop an action plan for the development of the databases and geospatial layers necessary to support homeland security planning, mitigation, risk assessment, and other operations.

<u>MEASURE:</u> Completion of data development plans for identified data layers based on priorities set jointly by MGISAC, Office of Homeland Security, and OIT. Completion of secure access and password/firewall

protected portal to homeland security data and related geospatial layers. <u>Homeland Security; Participation of</u> <u>personnel from MSDIS on data development and QA/QC.</u>

Current Status: Ongoing

2nd Period August, 2014 – January, 2015 comments – Structures data sets are now up and available for download on MSDIS FTP and through the Portal.

1st Period February, 2015 – July, 2015 comments – No activity beyond testing the new virtual servers in Rolla that will provide off-site functionality to MSDIS and the state in the event of an emergency declaration.

Other MSDIS quarterly activities that contribute to MGISAC Strategic Plan outcomes...

Outreach / Education / Training

Support the MGISAC to expand the visibility and understanding of the committee's work within Missouri.

2nd Period August, 2014 – January, 2015 comments – Attended and presented at the annual SEMO Symposium and later LiDAR Workshop. MSDIS staff presented and\or instructed at the 2014 MAGIC Clearinghouse Summit and the 2014 KAM Conference.

1st Period February, 2015 – July, 2015 comments – MSDIS\GRC played an active role in support of the MOGISCON2015 in Springfield – coordinating as Co-Chair, presenting at numerous sessions, sponsoring a vendor booth, and teaching a number of workshops. When opportunity presents MSDIS continues to be represented\presenting at regional workshops and user group meetings.

Encourage use of GIS technology and geographic data resources across all levels of state government by providing practical support to new and established users.

List server Users

2nd Period August, 2014 – January, 2015

GIS Vendors @ 20 KCAIUG-Announce @ 263 KCAIUG-L @ 63 KCCCGG-L @ 12 LGOV-L @ 46 MAGIC_Public @ 425 MAGIC_Steering @ 29 MAGIC_Consortium @ 48 MAGIC Executive @ 9 MGISAC @ 141 MGISDATADEV @11 MISSOURIMAPPERSASSOC-L @ 37 MMGUG-L @ 106 MOGIS ADVISORY COUNCIL-L @ 33 MSDIS-NEWS @ 197 PONYEXPRESSGUG@ 15 STCHGISUG-L @ 59 STLGIS-L @ 288 STLRIC-L @ 20

1st Period February, 2015 – July, 2015

GIS Vendors @ 18

KCAIUG-Announce @ 251 KCAIUG-L @ 63 KCCCGG-L @ 12 LGOV-L @ 46 MAGIC_Public @ 420 MAGIC_Steering @ 28 MAGIC_Consortium @ 51 MAGIC_Executive @ 9 **MGISAC @ 143 MGISDATADEV** @11 MISSOURIMAPPERSASSOC-L @ 38 **MMGUG-L** @ 101 MOGIS ADVISORY COUNCIL-L @ 32 MSDIS-NEWS @ 190 **PONYEXPRESSGUG@15** STCHGISUG-L @ 59 STLGIS-L @ 298 STLRIC-L @ 19

Conference / meeting Participation:

1st Period February, 2015 – July, 2015 comments – MSDIS staff members attended numerous meetings during this period on the following topics:

MOGISCON2015 meetings and phone conference (numerous) MOGISCON 2015 (several staff members coordinated, presented or taught workshops) Outreach & Education Committee (Regional Workshop Planning Conference calls) Mid-America Geographic Information Consortium (MAGIC) meetings & retreats (7) MU Infomatics Symposium 2015 MAGIC Clearinghouse Summit conference calls (planning X3) 2015 MAGIC Grants Committee (review and awardX3) FGDC Metadata Workgroup Conference calls (numerousX6) MU Data Analytics meeting Climate and Human Security – Boulder Colorado Missouri Mappers Executive Committee meetings (X2) May Tri-Lakes User Group Meeting 3DEP Workshop – NRCS MAGIC GitHub Webinar

Continue maintenance and publishing of an inventory of data holdings available at the MSDIS.

Thursday July 16th, 2015

The July 2015 MODOT data are available to all MSDIS users. Updates are provided to MSDIS by MODOT on a quarterly basis.

Click to download the "Raw" unparsed data in file geodatabase format.

Web map service: /ArcGIS/rest/services/MoDOT Roads Quarterly July 2015 WMS/MapServer

Tuesday June 30th, 2015

Missouri Department of Natural Resources has released one new data set. This data set includes locations from the Missouri Emissions Inventory System (MOEIS) database. Locational data was obtained using a variety of methods including but not limited to geocoding, global positioning system (GPS) receivers, and map interpolation.

MO 2015 Facility Air Locations Emissions Inventory System shp.zip

These data were formally named MO_2011_Facility_Air_Locations_Emissions_Inventory_System_shp.zip which have been removed from MSDIS at MoDNR request.

Tuesday June 30th, 2015

Missouri Department of Natural Resources has released one new data set. This data set depicts stream segments classified as either losing or gaining by the Missouri Department of Natural Resources (DNR), Missouri Geological Survey (MGS). Classification is dependent on the change in flow rate over a set distance at the time of the site visit.

MO 2015 Losing and Gaining Stream Segments shp.zip

These data were formally named MO_2014_Losing_and_Gaining_Stream_Segments_shp.zip which have been removed from MSDIS at MoDNR request.

Wednesday, May 20, 2015

Missouri Dept. of Natural Resources has released updated data depicting locations of samples on streams that were collected for aquatic invertebrate analysis.

These new data can be found here:

ftp://msdis.missouri.edu/pub/Environment Conservation/MO 2015 Aquatic Invertebrate Monitoring Sites shp.zip

NOTE: These data replace the older data MO_2014_Invertebrate_Monitoring_Locations_shp.zip which have been removed from MSDIS.

Friday March 19th, 2015

The March 2015 MODOT data are available to all MSDIS users. Updates are provided to MSDIS by MODOT on a quarterly basis.

Click to download the "Raw" unparsed data in file geodatabase format.

Web map service: /ArcGIS/rest/services/MoDOT Roads Quarterly March 2015 WMS/MapServer

Wednesday March 11th, 2015

The State of Missouri has released three updated datasets depicting (1) Public Land Survey System 1:24,000 scale geographic information systems (GIS) polygon layer based on the 7.5' United States Geological Survey (USGS) topographic maps (2) boundaries of Missouri's 114 counties plus the boundary of the City of St. Louis (3) boundaries of the State of Missouri.

These data can be found here:

<u>ftp://msdis.missouri.edu/pub/Administrative Political Boundaries/MO 2014 Public Land Survey System shp.zip</u> <u>ftp://msdis.missouri.edu/pub/Administrative Political Boundaries/MO 2014 County Boundaries shp.zip</u> <u>ftp://msdis.missouri.edu/pub/Administrative Political Boundaries/MO 2014 State Boundary shp.zip</u>

These data are replacements for MO_2010_Public_Land_Survey_System_shp, MO_2009_County_Boundaries_shp and MO_2009_State_Boundary_shp which have been removed from MSDIS

Monday February 23rd, 2015

This data set contains Missouri's 2014 Section 303(d) Listed Waters - Rivers and Streams and is a list of certain impaired waters in the State of Missouri. The list is a requirement of the Federal Clean Water Act and is developed biennially by the Missouri Department of Natural Resources. The list contains the names of impaired waters, their unique identification number and identification of specific pollutants and pollutant sources if they are known. This list has been modified by a state-wide public participation process and by review of the United States Environmental Protection Agency (EPA). Waters on the final EPA list must be the subject of a Total Maximum Daily Load (TMDL) study that stipulated the allowable amount of specific pollutants allowed in these waters. All waters are listed for their full size as given in 10 CSR 20-7.031 Water Quality Standards, Tables H.

<u>ftp://msdis.missouri.edu/pub/Inland Water Resources/MO 2014 Section 303d Listed Impaired Rivers and Strea</u> <u>ms_shp.zip</u>

These data were formally named MO_2012_Section_303d_Listed_Impaired_Rivers_and_Streams_shp.zip which have been removed from MSDIS at MoDNR request.

Monday February 23rd, 2015

This data set contains Missouri's 2014 Section 303(d) Listed Waters - Lakes and is a list of certain impaired waters in the State of Missouri. The list is a requirement of the Federal Clean Water Act and is developed biennially by the Missouri Department of Natural Resources. The list contains the names of impaired waters, their unique identification number and identification of specific pollutants and pollutant sources if they are known. This list has been modified by a state-wide public participation process and by review of the United States Environmental Protection Agency (EPA). Waters on the final EPA list must be the subject of a Total Maximum Daily Load (TMDL) study that stipulated the allowable amount of specific pollutants allowed in these waters. All waters are listed for their full size as given in 10 CSR 20-7.031 Water Quality Standards, Tables G.

ftp://msdis.missouri.edu/pub/Inland Water Resources/MO 2014 Section 303d Listed Impaired Lakes shp.zip

These data were formally named MO_2012_Section_303d_Listed_Impaired_Lakes_shp.zip which have been removed from MSDIS at MoDNR request.

Monday February 23rd, 2015

This data set contains those Missouri waters which have been assessed as impaired in 2014, including waters on Missouri's proposed 2014 Section 303(d) List, but also including waters not on that list, such as waters which have a Total Maximum Daily Load (TMDL) or other appropriate management plan in place, or waters which are not impaired by a discrete pollutant. Missouri's proposed 2014 303(d) List has not yet received approval from the Environmental Protection Agency (EPA). The data set contains the names of impaired waters, their unique identification numbers and locations, and identifies specific pollutants and pollutant sources if they are known. This data set is created in conjunction with the Missouri Water Quality Report, which is produced biennially as required by Section 305(b) of the Federal Clean Water Act, and correlates to Tables 14-15 of that report.

<u>ftp://msdis.missouri.edu/pub/Inland Water Resources/MO 2014 Section 305b Water Quality Report Complete Li</u> <u>sting of Impaired Lakes_shp.zip</u>

These data were formally named

MO_2012_Section_305b Water_Quality_Report_Complete_Listing_of_Impaired_Lakes_shp.zip which have been removed from MSDIS at MoDNR request.

Monday February 23rd, 2015

This data set contains those Missouri waters which have been assessed as impaired in 2014, including waters on Missouri's proposed 2014 Section 303(d) List, but also including waters not on that list, such as waters which have a Total Maximum Daily Load (TMDL) or other appropriate management plan in place, or waters which are not impaired by a discrete pollutant. Missouri's proposed 2014 303(d) List has not yet received approval from the Environmental Protection Agency (EPA). The data set contains the names of impaired waters, their unique identification numbers and locations, and identifies specific pollutants and pollutant sources if they are known. This data set is created in conjunction with the Missouri Water Quality Report, which is produced biennially as required by Section 305(b) of the Federal Clean Water Act, and correlates to Tables 14-15 of that report.

<u>ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_Section_305b_Water_Quality_Report_Complete_Li</u> <u>sting of Impaired Rivers and Streams_shp.zip</u>

These data were formally named

MO_2012_Section_305b_Water_Quality_Report_Complete_Listing_of_Impaired_Rivers_and_Streams_shp.zip which have been removed from MSDIS at MoDNR request.

Monday February 23rd, 2015

Missouri Department of Natural Resources has released one updated. This data set contains the boundaries of the public water supply districts (PWSD) in the State of Missouri.

MO 2015 Public Water Districts shp.zip

These data were formally named MO_2012_Public_Water_Districts_shp.zip which have been removed from MSDIS at MoDNR request.

To the extent possible increase the amount of MSDIS activities (data development, clearinghouse functionality, hardware costs, etc.) funded by alternative sources.

MOCAP / National Map and other projects...

 2^{nd} Period August, 2014 – January, 2015 comments – MSDIS staff have been partially subsidized by the Broadband Now stimulus project – as this reporting period comes to an end - so does the stimulus project.

1st Period February, 2015 – July, 2015 comments – There has been no new funding source for several of the core MSDIS staff during this period – some supporting staff assets are partially funded by CGI projects.

<u>Management</u>

Provide for review of MSDIS operations and budget.

2nd Period August, 2014 – January, 2015 comments – An annual MSDIS budget report will be available – as scheduled – with the next report in August.

1st Period February, 2015 – July, 2015 comments – The annual report is attached...

Maintenance and development of the MSDIS computing environment for the support of the clearinghouse function and provision of security and continuity for MSDIS functionality.

2nd Period August, 2014 – January, 2015 comments – Rolla tested out satisfactorily – staff are in the process of a virtualization of the TC Servers (both Imagery and Web) – North Node (NN) is still prime with Rolla (MST) as fail-over.

1st Period February, 2015 – July, 2015 comments –

Virtualization of the Web side is complete and has been tested and confirmed as available for operations Two servers are located at Telecom (MSDISWEB-TC-P and MSDISWEB-TC-S) another is located in Rolla (MSDISWEB-MST). GeoPortal customization in the form of compacted geodatabases and improved basemaps for the Search and Clip & Download pages are now available to users.

The virtual imagery servers are still experiencing various issues which we are chasing down one by one. We are also going through a period of staff transition on the imagery side with Tom Vaught picking up the imagery tasks since Jason Hinsen has moved to the CGI side of the GRC.