

# Project Survey Results, Review, and Recommendation

**Project:** Support New Datum Requirements

**Applicant:** MCAMLIS Project Manager

**Organization:** Milwaukee County Land Information Office (MCLIO)

## Summary

The current NAD 27 datum standard limits the interoperability of certain web services and use of MCAMLIS data in certain applications. This project will design and implement automated transformation tools so MCAMLIS data can be made available to MCAMLIS Partners and other stakeholders who need to integrate MCAMLIS data with other data that is available using a modernized datum. This project will leverage the work accomplished in the SEWPRC studies and its commitment to finding a solution to datum modernization requirements.

## Survey and Review Results

<b>Project Score Evaluation Results</b>			
	Numeric Score	Max Percent	Percentage
<b>Survey Response Rate</b>	<b>7/12</b>	<b>10%</b>	<b>6%</b>
Percentage of responses, out of 12	58%	10%	6%
<b>Survey Questions</b>	<b>14/21</b>	<b>40%</b>	<b>27%</b>
a. Project Urgent Need for Your Org?	7/7	13.3%	13.3%
b. Does your org have a champion?	0/7	13.3%	0.0%
c. Benefit outside of your org?	7/7	13.3%	13.3%
<b>MCAMLIS Review</b>	<b>27/25</b>	<b>50%</b>	<b>50%</b>
a. Applicant has resources?	3/5	10%	6%
b. Project is a continuation or extension?	2/5	10%	4%
c. Additional funding is available?	4/5	10%	8%
d. Critical to MCAMLIS infrastructure?	5/5	10%	10%
e. Critical to foundational data?	3/5	10%	6%
f. Project is feasible and realistic?	5/5	10%	10%
g. No roadblocks, or mandated?	5/5	10%	10%
<b>Grand Total Score (Max Score 100%)</b>			<b>83%</b>

## Survey Response Summary

The survey responses clearly are in agreement with the mutual desire to successfully modernize the current SE Wisconsin datum. A few respondents expressed a more urgent need to modernize the current datum while others indicated that they have established work around procedures that address the immediate problem but would welcome a more permanent solution. Many noted that SE Wisconsin is among only a few areas that remain wedded to NAD27 while applications in use today utilized WGS84 which has origins in NAD83. Key among these remarks is that while there are opportunities to perform corrections and adjustments to the current spatial alignments embedded in the data that these are neither convenient to apply and there is a real possibility that misapplication of the transformation procedures cause many to misinterpret or perceive inaccuracies and loose trust in the data.

## Result

This project **passes** the 25% requirement for project consideration.

## Schedule

DAT-04: Support New Datum Needs, is planned for Q1 –Q3 2016 in the 5 Year Plan

## Cost

Implementation: DAT-04: Support New Datum Needs, \$25,000 in 2016

Project Resources: Management: 1/8 FTE, Analyst: 1/4 FTE, Professional Services: 200+ hrs.

Ongoing: Possible nominal storage space for data on ArcGIS Online

## Recommendation

Based on the results of the survey and staff review, MCAMLIS staff recommends that this project be **accepted** and incorporated into the MCAMLIS 5 Year Work Plan for Q1 – Q3 2016 DAT-04. While staff is fully aware that while finding a solution for a growing number of partner applications sooner rather than later would be expedient that more time is required so that MCAMLIS staff can work with the SE Wisconsin County Surveyors and LIOs to address the long-term costs and benefits associated with a more comprehensive and permanent solution.

## Organizational Representative Written Responses

**Is this project an urgent need or of great value/benefit to your organization or stakeholders?**

1	<p>This project is applicable due to the collection of ancillary data using traditional survey and mapping grade accurate collection devices. These devices generally best capture field data in a datum (WGS84) that is not easily transformable to the NAD27, nor without residual error. In preparation of a product, the referenced MCAMLIS data gives the appearance of a shift when overlaid with data of a differing datum, even when a transformation is applied. The resulting product yields questionable validity to the user or viewer.</p> <p>As our organization captures field data, this project would alleviate the need to capture numerous control points to further adjust our collected data to MCAMLIS data as/if needed. Also, viewers of the product would feel their products are more valid.</p>
2	<p>We are concerned about the NAD 27 datum. It's my understanding SE WI is one of the few remaining places using it. Potential issues with forthcoming external data will make it hard for users to have confidence in GIS if datasets don't align.</p>
3	<p>I consider this to be an important project for our organization as we continue to move forward with web application and service development.</p>
4	<p>While it's not an urgent need, we do find that we go back and forth between datums. Tools to convert/transfer data between the two would be useful.</p>
5	<p>NAD27 datum is antiquated and is not usable with current ESRI service resources used in today's business needs. Service resources consumed from Federal, State, other Counties and other Municipalities are always in a format that aligns with WGS84. Not having a compatible datum produces alignment issues that make the data questionable or unusable.</p>
6	<p>Many plans are coming in referenced to 83 and or the county coordinate system especially DOT projects so this would be helpful.</p>

**Does your organization have an individual that could be a champion for this project and act as the primary liaison to MCAMLIS Staff for the duration of the project?**

[No written responses]

**Do you foresee this project having benefit outside of your organization that would make of greater value to MCAMLIS constituents?**

1	<p>Yes, for the same reasons mentioned in response 1. The efforts performed in our organization are perceived to be similar in nature other organizations.</p>
2	<p>All MCAMLIS constituents involved in developing or consuming web-based data or applications have a stake in this issue.</p>
3	<p>For the same reasons it would be beneficial to us.</p>
4	<p>This would benefit every community. NAD27 is only used in SE Wisconsin. All other Counties or State agencies have upgraded their data to a new datum, not just creating conversion tools and being left to maintain the data in NAD27. To productively move forward, the data should be converted into a new datum that will align with other agencies data and publicly available services. Converting the data once eliminates the need to keep running conversion tools to provide useful data into a consumable format.</p>
5	<p>I think consulting firms would find this useful.</p>

# MCAMLIS Business Planning Process

## Staff Review - Final

**Project Name**

**Review Date**

Support New Datum Requirements

02/26/2015

Provide a descriptive evaluation of the proposed project as it pertains to the following factors:

**a. Project applicant/organization has additional resources dedicated to this project, whose participation can positively contribute to project completion.**

MCLIO staff will organize and manage the analysis of alternatives and develop the final methodologies required to publish and sustain delivery of data utilizing a new datum. This project was ranked high by MCAMLIS Partner Organizations in the 2013 Business Needs Assessment (BNA) and was originally scheduled for implementation in the 2015 - 2016 MCAMLIS Work Plan. The majority of efforts will be performed by MCAMLIS staff in combination with Professional Consulting Services.

**MCAMLIS Staff Score**

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

**b. Project is a natural extension or continuation of an existing or recently completed project, such that a considerable amount of project management effort can be saved.**

Data services supporting NAD27 are already implemented and include the underlying infrastructure and data required to meet the fundamental data requirements of the MCAMLIS program and those mandated by the State. A critical development necessitated by this project would be to interject processes that would transform and publish data using a new datum. This is possible using automated scripting e.g., PYTHON and other background processing capabilities.

**MCAMLIS Staff Score**

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**c. Additional funding is available (via grants, etc.) to complete this project by contracting a substantial amount of the work to consultants, which can increase efficiency by taking pressure off applicant/MCAMLIS staff.**

A WLIP grant of up to \$50,000 may be available once grant procedures are worked out and published by the state. Otherwise MCAMLIS would need to fund all or the majority of this project.

**MCAMLIS Staff Score**

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

**d. Project is of critical importance to the MCAMLIS technological infrastructure, such that delaying the project may endanger the operation of MCAMLIS applications, websites, and services.**

Although this project does not directly affect existing infrastructure at MCAMLIS, it has been identified as an important application to be developed. Essentially, it WILL be a vital function at the conclusion of this project.

**MCAMLIS Staff Score**

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**e. Project is a critical update to existing foundational MCAMLIS data, such that delaying the project may result in a lapse of collecting data in a periodic fashion (e.g., 5 year update cycles).**

This project will have no immediate impact on the delivery of foundational MCAMLIS data elements although the potential exists that without a clear accommodation of a modernized datum that MCAMLIS will not be in a position to directly support future technological opportunities e.g., Mobile Parcel Viewer

**MCAMLIS Staff Score**

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

**f. The project is technologically feasible and demonstrably realistic using today's technology, even if MCAMLIS does not currently use such technologies.**

All of the hardware and software necessary to complete this project exists. The data would need to be prepared and configured within our current architecture. However new processes and procedures will need to be developed and implemented and there will be on-going maintenance considerations as well. Notwithstanding, technological hindrances are not anticipated.

**MCAMLIS Staff Score**

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**g. There are no significant technological or policy roadblocks that prevent the implementation of the project, or conversely, the project is mandated through public policy or is considered as extremely favorable to public interests.**

This project is not subject to policy roadblocks, nor is it statutorily required. However, it is identified as being of great importance to promote technology for purposes of advancing local community use of MCAMLIS services.

**MCAMLIS Staff Score**

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

## MCAMLIS Staff Review - Score Summary

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Section a.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section b.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section c.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Section d.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Section e.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section f.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Section g.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

**Total Points (Add all responses)**

27

**Total Score Percent (Points x 2, max of 50)**

50