



**DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF ECONOMIC DEVELOPMENT
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: File

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 24, 2015

SUBJECT: MCAMLIS 98th Steering Committee Meeting Materials

Enclosed please find a set of materials that the steering committee will take up at its scheduled March 24th Meeting.

- I. Meeting Agenda
- II. Special Order of Business – Nominating Committee recommendations
- III. Meeting Minutes of the 97th Steering Committee meeting held December 16rd 2014
- IV. Reports
 - A. **2014 Work Plan Status**
 1. Report materials related to Interactive Map Viewer
 2. Report materials related to Interactive Mobile technology
 3. Report materials related to Interactive Collaboration
 4. Report materials related to Interactive Website
 5. Report materials related to Interactive Data
 - B. **Maintain Core Foundational Elements**
 1. Report materials regarding progress on 2015 Regional Orthophotography Project
 2. Report materials regarding progress on 2015 Regional Elevation Data Project
 - C. **Promote the Integration of Parcel Based Land Information**
 1. Report materials related to the status of MCAMLIS street address and Cadastral map maintenance operations.
 - D. **Educational Outreach**
 1. Report materials related to the status of work performed on behalf of MCAMLIS in support of local community GIS efforts

D. **Countywide Initiatives**

1. Report materials related to the status of work performed regarding Countywide Program Initiatives
2. Report materials related to the status of work performed regarding the Milwaukee County Floodplain Mapping Program.
3. Report materials related to the status of work performed regarding the status of 2014 Surveyor activities.
4. Report materials related to the status of work performed regarding 2014 Accomplishments

E. **Fiscal**

1. Report materials related to the MCAMLIS Program 2014 Year End and Current 2015 Year Fiscal status

IV. Old Business

- A. Report materials regarding status of the State of Wisconsin efforts to develop a Statewide Parcel Map as part of Act 20 initiatives related to the Wisconsin Land Information Program (WLIP);

V. New Business

- A. Report materials regarding MCAMLIS Program Status Report prepared by the outgoing MCAMLIS Project Manager.
- B. Report materials regarding consideration of a MCAMLIS Staff recommendation to the MCAMLIS Steering Committee on the distribution of digital copyright protected materials.
- C. Report materials regarding consideration of a MCAMLIS Staff recommendation to the MCAMLIS Steering Committee on acceptance of the revised MCAMLIS Five Year Work Program Implementation Plan.
- D. Report materials regarding consideration of a MCAMLIS Staff recommendation to the MCAMLIS Steering Committee for inclusion in the MCAMLIS 2015-2016 Work Program.

VII. Correspondence

- A. NA

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**MILWAUKEE COUNTY AUTOMATED MAPPING
AND LAND INFORMATION SYSTEM**

Ninety-Eighth Steering Committee Meeting

AGENDA

Date: March 24th 2015
Time: 9:00 a.m.
Place: Milwaukee Metropolitan Sewerage District
MMSD Hdqtrs, Room 401
260 W Seeboth St.
Milwaukee, WI. 53204

- I. Roll Call
- II. Special Order of Business
 - Election of 2015 MCAMLIS Steering Committee Officers
- III. Meeting Minutes
 - Consideration of the minutes of the 97th Steering Committee meeting held December 16th, 2014
- IV. Reports
 - A. **2014 – 2015 Work Plan Status**
 - 1. Interactive Map Viewer
 - VWR.01 – Improve the MCLIO Interactive Mapping Service
 - VWR.02 – Implement MCAMLIS Data Extract Service
 - 2. Mobile Technology
 - MBL.01 – Deploy Mobile Property Locator
 - 3. Collaboration
 - COL.01 – Education and Training
 - COL.02 – MCAMLIS Business Planning
 - 4. Website
 - MOL.01 – MCAMLIS on-line Presence
 - 5. Data
 - DAT.01.1 – Historical Aerial Photo Collection
 - DAT.02.1 – Planimetric Polygon Maintenance
 - B. **Maintain Core Foundational Elements**
 - 1. Report by MCAMLIS Staff regarding progress on 2015 Regional Orthophotography Project.

98th MCAMLIS STEERING COMMITTEE MEETING SIGN-UP SHEET

Name	Title	Organization	Member (M) Alternate (A) Staff/Guest	Email Address
K W BAUER	COURSE SUPERVISOR	SEWRIC	M	-
Donc Seymour		ICC	M	dseymour@doorkreekwi.org
Nancy A. Olson	CIO	CITY OF M.LW	M	nancy.olson@milwaukee.gov
DANA KATHLE	WE ENERGIES SURV	WE ENERGIES	M	dana.kathle@we-energies.com
John LaFare	Reg. of Deeds	Milw, CA	M	✓
PHIL PROCOZKOWSKI	ENGR. DEPT. TECH.	CITY OF MILW	GUEST	pmrocz@milwaukee.gov
Peter Herreid	WIIP Grant Administrator	WI DOA	Guest	peter.herreid@wi.gov
Hardy Meikhsner	President	SDS	G.	mpikhsner@wi.r.r.com
JERREL KRUSCHKE	CENTRAL DEAFNESS & RECORDS Manager	City of Milwaukee	G	Jkrusc@milwaukee.gov
Stephen Appel	UW - Milwaukee Student	Student	G	SRAPPEL930@gmail.com
ELZA Bettinger	Digital Geospatial Specialist	AGS Library, UW-Milw.	G	bettinge@uwm.edu
Kathleen Buch	GIS ANALYST	MILW CNTY	G	Kathleen.Buch@milwaukeecounty.gov
Brad Blumes	GIS Analyst	Milw Cnty	G	bradley.blumes@milwaukeecounty.gov
Tommy Bronson	GIS Analyst	City of Milwaukee	G	tommy.bronson@milwaukee.gov

2. Report by MCAMLIS Staff regarding progress on 2015 Regional Elevation Data Project.

C. Promote the Integration of Parcel Based Land Information

1. Report by Milwaukee County Register of Deeds staff on MCAMLIS street address and cadastral map maintenance operations.
2. Report by City of Milwaukee staff on MCAMLIS street address and cadastral map maintenance operations.

D. Educational Outreach

1. Report by MCAMLIS Staff on the status of work performance on behalf of MCAMLIS in support of local community GIS efforts.

E. Countywide Initiatives

1. Report by MCAMLIS Staff regarding Countywide Initiatives and program activity status.
2. Report by SEWRPC Staff regarding the Milwaukee County Floodplain Mapping Program.
3. Report by the Milwaukee County Surveyor on the status of 2014 Surveyor activities.
4. Report by MCAMLIS Staff regarding 2014 Accomplishments.

F. Financial

Report by Milwaukee County DAS staff on MCAMLIS Fiscal status

V. Old Business

- A. Report by Wisconsin Land Information Program Staff regarding status of the State of Wisconsin efforts to develop a Statewide Parcel Map as part of Act 20 initiatives related to the Wisconsin Land Information Program (WLIP).

VI. New Business

- A. Review of MCAMLIS Program Status Report prepared by the outgoing MCAMLIS Project Manager.
- B. Consideration of a MCAMLIS Staff recommendation to the MCAMLIS Steering Committee regarding digital copyright protected materials.
- C. Consideration of a MCAMLIS Staff recommendation to the MCAMLIS Steering Committee regarding acceptance of the revised Five Year Work Program Implementation Plan.

- D. Consideration of a MCAMLIS Staff recommendation to the MCAMLIS Steering Committee for inclusion in the MCAMLIS 2015-2016 Work Program.

VII. Correspondence

- A. None

VIII. Date, time, and place of next meeting

IX. Adjournment

DEPARTMENT OF ADMINISTRATIVE SERVICES

Milwaukee County



March 2, 2015

**Milwaukee County Automated Mapping and Land Information System (MCAMLIS)
Steering Committee**

c/o

Mr. William C. Shaw

GIS Supervisor / MCAMLIS Project Manager

Milwaukee County Department of Administrative Services

633 W. Wisconsin Ave., Suite 903

Milwaukee, WI 53203

Subject: Nominating Sub-Committee Report

Dear Mr. Shaw:

Pursuant to the direction of Mr. Donald Nehmer, Chairman of the MCAMLIS Steering Committee and his selection of a Nominating Sub-committee consisting of Greg High, please be advised that via telephone and e-mail communications the sub-committee has selected the following nominations for officers for the 2015 MCAMLIS Steering Committee:

Chairperson: Mr. Donald Nehmer

Vice-Chairperson: Ms. Nancy Olson

Both candidates have agreed to serve as officers for the calendar year of 2015. It is recommended that the Chair appoint Milwaukee County staff as Secretary.

Respectfully submitted,

A handwritten signature in blue ink that reads "Greg High".

Greg High, P.E.

Director, AE&ES Section

Facilities Management Division

Milwaukee County Dept of Administrative Services

GGH:

MINUTES OF THE 97th MEETING
MILWAUKEE COUNTY AUTOMATED MAPPING AND LAND INFORMATION SYSTEM
STEERING COMMITTEE

Date: December 16th 2014
Time: 9:00 a.m.
Place: Milwaukee Metropolitan Sewerage District
MMSD Hdqtrs
260 W Seeboth St.
Milwaukee, WI. 53204

Members Present

Kurt W. Bauer	Milwaukee County Surveyor
Donald R. Nehmer, Chair	Capital Program Business Manager, Milwaukee Metropolitan Sewerage District
Doug Seymour	Director of Community Development, City of Oak Creek representing the Intergovernmental Coordinating Council of Milwaukee County
Greg High	Director, Architecture, Engineering and Environmental Services Division, representing Milwaukee County Department of Administrative Services Facilities Management
Dana Kahle	GIS Supervisor, EDAM Support, We Energies
Erica Horton	Fiscal Analyst, Milwaukee County DAS, representing Director of Milwaukee County Department of Administrative Services
Nancy Olson	Chief Information Officer, City of Milwaukee
John LaFave, LIO	Milwaukee County Register of Deeds

Members Absent

Guest and Staff Present

William C. Shaw	MCAMLIS Project Manager, Milwaukee County DAS/ECD-MCAMLIS
Kevin Bruhn	Senior GIS Analyst, Milwaukee County DAS/ECD- MCAMLIS
Brad Blumer	GIS Analyst, Milwaukee County DAS/ECD-MCAMLIS
Katheen Bach	GIS Analyst, Milwaukee County Register of Deeds Office
Teig Whaley-Smith	Director, Milwaukee County Department of Administrative Services

Tammy Bronson	GIS Analyst, City of Milwaukee, ITMD
Phil Mroczkowski	Engineering Drafting Tech, City of Milwaukee
Jerrel Kruschke	Central Drafting Records Manager, City of Milwaukee
Emily Champagne	GIS Supervisor, Milwaukee Metropolitan Sewerage District
Hardy Meihnsner	Consultant, Spatial Data Systems

I. ROLL CALL

Chairman Nehmer, called the Ninety-Seventh meeting of the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee to order at 9:00a.m. Roll Call was taken by circulating an attendance signature sheet and a quorum was declared present.

II. MEETING MINUTES

CONSIDERATION OF THE MINUTES OF THE 96TH STEERING COMMITTEE MEETING HELD SEPTEMBER 23RD, 2014

Bauer: noted that on pg. 7, IV. Reports, A. 2014 Work Plan Status (continued), Item 5: Data, par 2, sentence '....to produce the 1st large-scale topographic digital maps in Milwaukee County', corrected to read '....to produce the 1st large-scale topographic ~~digital~~ maps in Milwaukee County'. Striking the word digital.

Bauer: also noted an error on pg. 12, VI. New Business, B. MCAMLIS Staff Report & Recommendation Regarding the SE Wisconsin 2015 LiDAR Elevation Project, par 4, sentence '....vertical datum which varies by 22 feet from the 1929 vertical datum....' Corrected to read '....vertical datum which varies by .22 feet from the 1929 vertical datum....'. Adding a decimal point.

Nehmer: requested removal of the duplicate entry on pg. 9, IV. Reports, E. Countywide Initiatives, 1. Report by MCAMLIS Staff regarding 2013 Countywide Initiatives and Program Activity Status, par 2.

Secretary's Note: sub-section title on pg. 9, IV. Reports, E. Countywide Initiatives, 1. Report by MCAMLIS Staff regarding 2013 Countywide Initiatives and Program Activity Status corrected to read 'Report by MCAMLIS Staff regarding 2014 Countywide Initiatives and Program Activity Status'. Reflecting the current year 2014.

Motion: Olson moved approval of the minutes as amended

Second: Bauer, motion carried unanimously

III. REPORTS

A. 2014 WORK PLAN STATUS

1. INTERACTIVE MAP VIEWER

Shaw: directed the Committee to the report included with the meeting materials. He noted that the web-site was launched at the end of June. He further noted and highlighted newly deployed web-site capabilities. He stated that the viewer upgrade portion of the project has been completed but that further work was required to finalize the data extraction capabilities that were envisioned as part of this project would be completed 1st quarter of next year. He then described the envisioned extraction method as using preselected areas that would be prepared in advance and downloaded by the user via an interactive selection tool.

Olson: commented that she had difficulty accessing the MCLIO [YouTube](#) Tutorial.

Shaw: provided instructions on accessing the training video and noted that the current method of locating training materials on the MCLIO website was being reviewed to determine how this may be improved.

Olson: asked what the predetermined extent of the files that would be used in the planned data extraction utility

Shaw: replied that square mile extraction windows based upon PLSS Sections would be used as the file extents.

Seymour: inquired whether a more ad hoc method of selecting a extraction geography would still be under consideration.

Shaw: noted that this approach was originally considered and hasn't been abandoned but that this approach was no longer the current deployment focus.

2. MOBILE TECHNOLOGY

Shaw: directed the Committee to the report included with the meeting materials. He further noted the mobile parcel viewer had not moved forward although MMSD had expressed an interest in assisting with the development of user requirements leading to completion of this project no sooner than mid-year 2015.

Nehmer: asked if this project would be put before the Steering Committee for approval.

Shaw: noted that this project had been approved as part of the 2014 Workplan and that he intended to carry over the approved funding into the 2015.

Olson: asked if this application would be available to the public and only accessed via a secure login.

Shaw: replied that there would be both a public facing and a secure restricted capability included with the Parcel Viewer. He added that the development of specifications would be open to MCAMLIS partners once the initial MMSD specifications were drafted.

3. COLLABORATION

Shaw: directed the Committee to the report regarding procedures leading to a formalized project evaluation and selection procedure. Adding that these were included with the meeting materials. He then requested that Hardy Meishner - Spatial Data

Solutions introduce the draft materials followed by Brad Blumer – MCAMLIS staff to present the staff recommendation to the members of the Steering Committee.

Shaw: at the conclusion of the presentation added that it is with some difficulty that staff approached the idea of scoring projects in a manner that allowed that certain projects would garner enough support to qualify for consideration. He further noted that the recommended approach is significantly different than past practice and that there were concerns that certain projects that were deemed necessary by staff to maintain MCAMLIS operations may require special consideration. He concluded by stating that this recommendation was the first attempt by MCAMLIS to conduct Business Planning activities using a scoring mechanism and that as such may need to be revisited if problems arise.

Olson: complimented staff efforts and further inquired as to what parts of each proposed project would be presented to the Committee for approval i.e., would the Committee receive staff comments along with the proposed project.

Shaw: replied that the Committee would be presented with each project summary along with staff comments regarding their evaluation of the proposed project including a score.

Olson: stated that the Committee would need to be presented with an assessment of ongoing costs and staff resource estimates that would be part of a MCAMLIS commitment to a proposed project.

Shaw: replied that costs and resources would be acknowledged as part of the staff evaluation presented in the proposal assessment. He further stated that the Committee acceptance of a project would further direct staff to include the project in a current/future Work Plan but does not authorize funding for the project. He continued that once the project was accepted to be included in the Work Plan that it was up to staff to then estimate the costs and resources and recommend where/when the project could be best fit into the Work Plan. The final staff recommendation would be presented to the Committee for funding approval when either directed to do so by the Committee or when scheduled in the current/future Work Plan by the MCAMLIS Project Manager.

Nehmer: summarized Mr. Shaw's remarks stating that the recommended procedure was envisioned as a two-step process whereby the first step would allow for the project to be considered for inclusion in the overall MCAMLIS Work Plan and that the second step would be a staff recommendation regarding full project cost(s) and where the project fit in the plan. This second step would then fully commit funding for the project and allow for staff to proceed as approved by the Committee.

Shaw: noted that the proposed Business Planning Process follows an earlier approach taken by the Committee when it addressed the results of the 2013 Business Needs Assessment (BNA) project. In that case the BNA recommended a Five-Year Plan that included a range of initiatives spread over a five year period. This Five-Year Plan was

first accepted by the Committee without funding any of the initiatives. The Committee then authorized funding for only those elements included in the proposed 2014-2015 Work Plan.

Bauer: commented that this approach was similar to that of capital projects undertaken by a Public Works agency. He further stated that he understood that this would be the approach taken for project requests coming from outside the MCAMLIS staff initiated project approval procedures.

Shaw: replied that it was envisioned that all projects would follow this procedure – not only those proposals coming from external sources.

Olson: suggested that staff consider preparing an annual report to the Committee and include all – even rejected projects that were submitted for staff review.

Seymour: concurred with Ms. Olson and further asked if there was consideration of how a project that didn't meet the minimum staff ranking threshold may be appealed.

Shaw: agreed with having staff prepare an annual report and further submitted that there was an appeal process built into the procedures whereby a feedback loop allowed that projects that did not initially meet a minimum standard would be allowed to re-enter the process upon revision.

Kahle: inquired whether or not there was a mechanism to remove an accepted project from the natural flow if and when staff could not find an opportunity to promote it to the Committee for insertion in a current/future Work Plan.

Shaw: indicated that there was not such a mechanism per se but that it may be possible that a project could languish and perhaps never be promoted to a stage whereby it would be executed.

Nehmer: noted that a project could be accepted and placed in the Five Year plan. Further questioning why this would then not allow that the work would eventually be undertaken.

Shaw: agreed that placement in the overall Work Plan afforded a project some level of assurance that it would be promoted but that he reserved that up and until it was placed in the current year plan that there was a possibility that it could be moved in a future schedule. He submitted that at this point he could not predict when a future planned initiative may be actualized and that each year's scheduled work was contingent on a number of factors that may impact whether or not it was advisable to take up any or all the proposed work before the committee.

Nehmer: stated that he considered the proposed approach to Business Planning and approving projects was sound and that it presented the Committee with a mechanism that formalized its future project selection process. He further commended Hardy Meishner and MCAMLIS staff on their efforts. He then requested a motion from the Committee to adopt the proposed process and procedures given that staff would include

a regular report to the Committee regarding requests that were being evaluated, that project cost estimates would include ongoing commitment costs and that the adopted process would include the two step procedure discussed earlier whereby the final project approval would be advanced as the second step of the procedure.

High: confirmed that all projects, even MCAMLIS staff initiated projects would be subject to this approval process and that this needed to be clearly stated in the procedures.

Shaw: agreed to include such a statement in the procedures

Motion: Bauer moved to approve the proposed 'Business Planning Process' subject to the following amendment(s) that:

- **staff would include a regular report to the Committee regarding requests that were being evaluated,**
- **project estimates would include ongoing commitment of staff resources as well as costs, and;**
- **the adopted process would include a two step procedure whereby as discussed the final funding approval would be advanced as the second step of the procedure.**

Second: Olson, motion carried unanimously

4. WEBSITE

Shaw: directed the Committee to the report included with the meeting materials. He then described various methods that are now available through the re-architected website used to access data and information regarding MCAMLIS and the Milwaukee County Land Information Office (MCLIO).

Shaw: stated that there would be no further reporting on this project as it is now considered completed.

5. DATA

Shaw: directed the Committee to the report included with the meeting materials. He then reported the completion of Non-Vector data acquisitions including the addition of 1985, 1980 and 1975 into the historical aerial photo series and explained how staff continued to acquire and index historical imagery dating back to 1963. He noted that the SEWRPC series flights are expected to be completed through the end of March '15

Shaw: continued describing Vector data improvements and noted that all planimetric polygon production 5 delivery areas have been initially delivered by the vendor and that final delivery was expected through January '15.

Nehmer: stated for the minutes that the report was accepted by consensus and is to be placed on file.

B. MAINTAIN CORE FOUNDATIONAL ELEMENTS

1. 2015 REGIONAL ORTHOPHOTOGRAPHY PROJECT

Shaw: reminded the Committee that they had approved the 2015 Pictometry flight at its last meeting and that staff has proceeded in acquiring County Board approvals to execute the last flight of a three (3) flight contract with Pictometry.

Nehmer: requested a notification of the County Board's decision on this project scheduled on the for Thursday 12/18/14

Secretaries Note: the Milwaukee County Board approved the Pictometry Contract request and a notification message was sent to Committee members via email on 12/19/14 as requested.

2. 2015 REGIONAL ELEVATION DATA PROJECT

Shaw: noted that the Committee approved the 2015 Elevation Data collection project at its last meeting held on September 23rd 2014. He further added that the project was approved as part of a five county regional effort being coordinated by SEWRPC and involved the possibility of a USGS grant to help offset a portion of the cost.

Shaw: continued by stating that the original USGS grant procedures have become 'onerous' and that he had little expectation that the grant when/if it becomes available would be worth pursuing due to cost and other requirements that USGS would impose on the delivery. Adding that, the additional cost of these products would not allow for the any savings to the county and would likely impinge on our ability to receive desired products that were to be included in the original proposal prior to USGS participation.

Nehmer: inquired as to how the other counties felt about the USGS participation and whether they would continue with their projects separately with or without the grant funding.

Shaw: replied that the each county project will go forward with or without USGS participation.

Nehmer: stated for the minutes that the report was accepted by consensus and is to be placed on file.

Secretary's note: Whaley-Smith: introduced himself to the Committee and stated that he was working with Mr. Nehmer and Mr. Shaw regarding recruitment of Mr. Shaw's position pending his retirement.

C. PROMOTE THE INTEGRATION OF PARCEL BASED LAND INFORMATION

1. REPORT BY MILWAUKEE COUNTY REGISTER OF DEEDS STAFF ON MCAMLIS STREET ADDRESS AND CADASTRAL MAP MAINTENANCE OPERATIONS

Bach: directed the Committee to the report included with the meeting materials.

Nehmer: stated for the minutes that the report was accepted by consensus and is to be placed on file.

2. REPORT BY CITY OF MILWAUKEE STAFF ON MCAMLIS STREET ADDRESS AND CADASTRAL MAP MAINTENANCE OPERATIONS

Bronson: directed the Committee to the report included with the meeting materials. Further reporting that for the year 2014 there were 201 parcel additions with an additional 70 updates pending January 2015.

Nehmer: stated for the minutes that the report was accepted by consensus and is to be placed on file.

D. EDUCATIONAL OUTREACH

1. REPORT BY MCAMLIS STAFF ON THE STATUS OF WORK PERFORMANCE ON BEHALF OF MCAMLIS IN SUPPORT OF LOCAL COMMUNITY GIS EFFORTS

Shaw: directed the Committee to the report included with the meeting materials, noting that staff had facilitated the 11th meeting of the Metro Milwaukee GIS Users Group (MMGUG) held on 10/28/14 at the Lincoln Park - Blatz Pavilion further noting that the next meeting is scheduled to be held at MMSD Headquarters on 1/13/2015.

Shaw: reported continued maintenance of the website to include new materials and data. Further noting the quarterly update of Sheriff Sale Foreclosure's occurring countywide. Mr. Shaw continued that ongoing maintenance of the foreclosure data required 2 days of effort each quarter and that perhaps it may perform less frequent updates.

Secretary's Note: the City of West Allis notified the MCLIO that it has integrated the foreclosure data into daily operations and requested that the MCLIO continue maintenance of this data on the current schedule. To the degree necessary MCLIO staff will continue to maintain and post foreclosure data quarterly but will make further inquiries via the newly established Business Planning Process regarding overall partner interests in determining the long-term commitment to this project.

Nehmer: stated for the minutes that the report was accepted by consensus and is to be placed on file.

E. COUNTYWIDE INITIATIVES

1. REPORT BY MCAMLIS STAFF REGARDING COUNTYWIDE INITIATIVES AND PROGRAM ACTIVITY STATUS

Shaw: directed the Committee to the report included with the meeting materials. Noting the deployment of the 3rd Quarter consolidated City of Milwaukee and County Cadastral Data and the importance of address information and related accomplishments

e.g., Historical Aerial photo, street centerline, plat of survey and Community Basemap Projects among others.

Nehmer: stated for the minutes that the report was accepted by consensus and is to be placed on file.

F. REPORT BY MILWAUKEE COUNTY DAS STAFF ON MCAMLIS FISCAL STATUS

Horton: directed the Committee to the fiscal report provided with the meeting materials. She briefly summarized the contents of the report for the Committee -noting that revenues through December 8th, 2014 were just over \$690,000 and by adding 2013 carryover encumbrances of over \$300,000 resulted in to-date actual revenue balance of just over \$1 million . She continued her report stating that current expenditures are \$1.01 million with projected YE expenditures estimated to be \$1.06 million leaving a projected YE deficit of less than \$1,000.

Nehmer: commended staff on managing expenditures through the year noting that there was considerable concern earlier in the year that there would be a shortfall based on projected project expenditures.

Horton: continued her report regarding fund balances noting that the current estimated unrestricted Reserve Fund balance was \$1.37 million with a YE estimate of \$1.38 million. She stated that she anticipated the need to encumber \$141k to cover the 2015 Regional Orthophotography project and that this would draw against the unrestricted fund balance although this was not included in her report.

Shaw: remarked that the \$141k encumbrance was required to approve the contract but that the actual expenditure would be closer to \$127k (the authorized amount) given the receipt of a grant from SEWRPC for \$15K.

Horton: added that the Register of Deeds Office charges of \$79k would also be applied later this month.

Nehmer: stated for the minutes that the report was accepted by consensus and is to be placed on file

IV. OLD BUSINESS

A. REPORT BY WISCONSIN LAND INFORMATION PROGRAM STAFF REGARDING STATUS OF THE STATE OF WISCONSIN EFFORTS TO DEVELOP A STATEWIDE PARCEL MAP AS PART OF ACT 20 INITIATIVES RELATED TO THE WISCONSIN LAND INFORMATION PROGRAM (WLIP)

Shaw: informed members of the Committee that Peter Herreid from the State WLIP Office was expected at this meeting and was to provide the Committee with a status report but was unable to attend today. He further explained that Mr. Herreid would be

able to attend the next Steering Committee meeting and that he would hold this item over for the next meeting. Mr. Shaw then proceeded to describe a report included in the materials related to the LinkWisconsin Address Point and Parcel Project that MCAMLIS had contributed parcel data. He further described the report which summarized and scored various conditions related to the data contributed.

High: asked if there was a comprehensive score regarding the data MCAMLIS contributed.

Shaw: replied that there was not a single score but that the scores included for Address Point and Parcel Polygon were made up of certain qualities of the data e.g. the presence of metadata would contribute to a score for each type of feature e.g., Address Point or Parcel Polygon data set.

Olson: asked why there were 2300 address points that were flagged because there was not a house number included as part of the address and the 543 addresses without a street name

Shaw: replied that staff had not yet evaluated the remarks but felt that these problems were possibly attributable to the SCO not fully interpreting internal flags that would have been included with the data signifying the condition of the address e.g., retired

Nehmer: stated for the minutes that the report was accepted by consensus and is to be placed on file.

V. NEW BUSINESS

A. CONSIDERATION OF A REGISTER OF DEEDS RECOMMENDATION TO APPOINT THE MCAMLIS PROJECT MANAGER TO THE TITLE OF MILWAUKEE COUNTY LAND INFORMATION OFFICER

LaFave: reported that originally the Land Information Office was designated to be in the Register of Deeds Office by the Milwaukee County Board and that there was no specific reference to the Land Information Officer. Further stating that the elected Register of Deeds has since carried the title of Land Information Officer but that the day to day work of the LIO is carried out by the MCAMLIS Project Manager. Mr. La Fave further submitted that he supports the idea of transferring the title of Land Information Officer to the person holding the position of MCAMLIS Project Manager in order to minimize any confusion of responsibilities and to enhance recruitment opportunities regarding the position. Further noting that the Register of Deeds would continue to serve on the Steering Committee due to his office's close ties with land information.

LaFave: continued by stating that he had chosen the method of transferring the title via a letter to the Steering Committee rather than involving the County Board in the form of a resolution.

Olson: inquired regarding how other counties may handle this position and where it resides.

Nehmer: referred to the membership role included in the Land Information Officer Network (LION) organization and noted that there was significant variation across the counties e.g., GIS Managers, Register of Deeds.

LaFave: noted that he must notify the State regarding the title transfer to Mr. Shaw and he will requesting that Mr. Shaw sign any forms requiring the LIO's signature in the future.

Motion: Olson moved to approve the request to transfer the title of Land Information Officer from the Register of Deeds to the position in the MCLIO holding the title of MCAMLIS Project Manager

Second: LaFave, motion carried unanimously

**B. CONSIDERATION OF A MCAMLIS & FISCAL STAFF
RECOMMENDATION REGARDING MCAMLIS RESERVE TRUST
ACCOUNT UTILIZATION**

Shaw: reported that the staff recommendation included in the materials addresses a request by the Steering Committee to examine how the MCAMLIS Reserve Trust account is to be managed in the future especially given current fee revenue shortfalls.

Nehmer: further noted that fiscal staff had first agreed to examine the effects of current management of Reserve Trust Balances and in addition to this the Committee requested that fiscal and program staff would recommend alternatives to the current management practice in place since 2009.

Horton: explained that there were two recommendations before the Committee. The first recommendation 1) the balance should not fall below 20% of current revenue and the second recommendation 2) the balance should not fall below a fixed amount of \$250k. Ms. Horton continued, stating that the purpose of either option was to allow administrative functions to continue in the event of a drastic revenue shortfall. The basic assumptions built into the recommendation considered that administrative costs would rise no more than 10% annually and that revenue would not fall to \$0 i.e., there would always be a revenue stream.

Nehmer: stated that he understood recommendation #1 would amount to the same management policy in use today e.g., holding 10% of current year revenue in reserve but instead using 20%.

Shaw: noted that recommendation #1 differed from the current policy in that it would hold 20% of the current year revenue as the amount targeted but instead of restricting current year expenditure this amount would be held against the unrestricted balance in the Reserve Trust account. He further explained that this would allow full expenditure of current operating funds plus any unrestricted funds up to the floor amount set by this proposal in a given year.

Horton: added that the recommended amount constitutes a third category attributed to the Reserve Trust Balance i.e., Allocation Restricted (those funds set aside as a floor).

Project Restricted (those funds already allocated to projects) and Unrestricted (unallocated funds eligible for projects)

LaFave: referring to the table included in the materials asserted that it may be easier to track the Allocation Restricted balance if it were a fixed amount e.g., \$200,000 rather than a percentage of the current year projected revenue

Horton: explained that that was the thinking behind the second recommendation proposed by staff

Nehmer: summarized that he saw three possible options: 1) remain with the current policy of restricting expenditures to operating year budget minus 10% of the budgeted revenue, 2) restricting expenditures to the total balance maintained in the Unrestricted Fund Balance minus 20% of current year budgeted revenue or 3) restricting current year expenditures to the total balance maintained in the Unrestricted Fund Balance minus a fixed amount e.g., \$250,000

Motion: LaFave moved to approve restricting current expenditures to the total balance maintained in the Unrestricted Fund Balance minus a fixed amount of \$200,000

Second: Bauer

Bauer: stated his understanding of the motion to essentially reserve a balance large enough to maintain operations for a full calendar year in the event of a disaster that would befall a total loss of revenue.

Nehmer: stated that the motion would not support Mr. Bauer's understanding and that it would offset only 40% of a year's operations. He further stated that the motion is intended to offset possible variability in the revenue stream and is not designed to cover all expenditures in a given year.

LaFave: predicted that recordings would never fall to zero, that he felt that the current volume had hit the lowest in 22 years and that this appears to be the bottom.

Nehmer: noted that the reserve amount of \$200,000 exceeds the amount previously held using the Committee's current fund management policy.

Olson: suggested that there is more likelihood that the fee schedule could change in a way that would jeopardize ongoing funding of operations before recordings would drop so low that current fee revenue would not be adequate.

LaFave: addressed Ms. Olson stating that he did not see the recently changed fee structure currently in the statutes changing any time soon.

Nehmer: offered that there are many opportunities for variables to change and that the Committee may need to revisit this issue in the future.

Nehmer: asked if the motion had a second.

Bauer: stated that he had seconded the motion as he understood it but that he was now considering withdrawing his second.

Motion: Seconded by Olson, carried unanimously

C. CONSIDERATION OF A 2015 AGREEMENT FOR MILWAUKEE COUNTY SURVEYOR SERVICES BETWEEN MCAMLIS AND SEWRPC

Shaw: referred the Committee to an agreement for County Surveyor services is included with the materials. He further noted that the proposed agreement increases the payment for these service from approximately \$79,000 to \$83,000. He then asked Mr. Bauer, Milwaukee County Surveyor to describe the services his office provides.

Bauer: enumerated the services provided under State Statute regarding preservation and re-monumentation of PLSS corners throughout the county including benchmark elevations on each monument.

Motion: Seymour moved to approve the 2015 Surveyor Services Agreement for a total cost of \$82,916

Seconded by Olson, carried unanimously

D. CONSIDERATION OF A 2015 AGREEMENT FOR MAP MAINTENANCE SERVICES BETWEEN MCAMLIS AND THE CITY OF MILWAUKEE

Motion: Bauer moved to approve the 2015 City of Milwaukee Map Maintenance Services Agreement for a total cost of \$91,780

Seconded by LaFave, carried unanimously

E. APPOINTMENT OF A NOMINATION COMMITTEE TO RECOMMEND OFFICERS TO BE SEATED AT THE STEERING COMMITTEE'S NEXT REGULAR MEETING

Nehmer: stated that Mr. High had offered to chair the Nomination Committee and asked for volunteers to assist Mr. High. Mr. LaFave agreed to assist.

VII. CORRESPONDENCE

Shaw: stated that he had two pieces of correspondence that he wanted to make the Committee aware. One item was a letter from the North Shore Fire Department commending MCAMLIS Staff on providing technical assistance to their efforts leading to special accreditation. A second item referred to work performed by the Planning Commission regarding a draft flood plain delineation of Fish Creek located in the northeast corner of the county. Mr. Shaw further noted that he has asked that Mr. Hahn, SEWRPC to come to the next scheduled Steering Committee meeting to report status toward completion of the long awaited Floodplain Mapping Project.

VIII. DATE, TIME, AND PLACE OF NEXT MEETING

Bauer: inquired about the status and procedure to be used to replace Mr. Shaw who will be retiring as the MCAMLIS Project Manager and noted that his understanding was that the Steering Committee would somehow be involved in the selection process.

Nehmer: replied that Mr. Whaley-Smith, County DAS Director was involved in establishing the recruitment for the position through the county's hiring process. He further informed the Committee that he and Ms. Olson would be included in the interview process for the positions replacement.

Mr. Nehmer opened the discussion of the next meeting by offering March 24th, 2015 @ 9:00 am, MMSD (next regular meeting)

IX. ADJOURNMENT

Motion: Olson, moved to adjourn

Second: Kahle, motion carried unanimously

Respectfully submitted,
William Shaw



**DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF ECONOMIC DEVELOPMENT
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: March 12, 2015
SUBJECT: INTERACTIVE MAPPING & DATA EXTRACT SERVICES

BACKGROUND

This work effort will deploy multiple improvements to the MCLIO Interactive Mapping and Data Extract services. The new viewer will offer improved responsiveness (timeliness of data rendering and tool functions), accessibility (map printing, Pictometry, CSM retrieval), usability (GUI), and availability of data.

Specific improvements include the following: improved usability and GUI experience; faster response times; enhanced search capabilities – locate by feature, address or intersection; data extraction service – ability to clip and ship data sets for a defined geographic location; support services and documentation on how to run certain functions such as CSM, Plats of Survey, and document retrieval; online user guide and training materials.

The viewer will provide access to the Pictometry viewer via a web service (Pictometry Online). Users will also have access to Pictometry Online (POL) as a stand-alone viewer. In addition to supplying the plug-in or web service, MCAMLIS will offer information on the availability of these tools and training on how to use them.

The viewer extract service will allow them to select one or more MCAMLIS reference data layers to be extracted for a user-specified geographic area, which will result in downloadable datasets in one of a predetermined set of data formats e.g., AutoCAD (.dxf or .dwg) and MicroStation (.dgn) formats.

DELIVERABLES

- Geocortex Silverlight Viewer
- Online Viewer-specific user guide and training materials.
- Provide MCLIO web viewer training.
- Acquire and deploy Pictometry Desktop Plug-in Extensions.
- Pictometry Desktop Plug-in Training and documentation on tool use.
- Operational data extract service for Milwaukee County Reference Data available on the MCLIO interactive mapping service for partner access.
- Documentation / how-to materials for applying the data extract service.

PROJECT SPECIFICATIONS

VWR.01 & 02– Improve the MCLIO Interactive Mapping & Data Extract Services

- Adopt new web viewer architectures utilizing Silverlight and HTML based technology. The current version of the GeoCortex Silverlight Viewer replaces to be released for both public and secure access.
- Pictometry Viewer integration
- Extract Utility Workflow development integrated within the new Silverlight & HTML Viewers

STATUS:

The Silverlight Viewer replacement has been in production for 9 months. Feedback on the new viewer has been generally positive. The new viewer has reached an acceptable level of parity with the 'Legacy Viewer' so that we now plan to abandon the earlier site. A removal from service date for the 'Legacy Viewer' has been set for 6/30/2015.

Work continues on the 'Extract' Services functionality. As reported earlier we have taken a different path to perform extractions. Rather than having the extraction completed in a live environment controlled by the user we now prefer a method that allows users to download a set of fixed files compiled to section boundaries. This method will be easier to use and support as technologies change in the future. Although we expected to have this capability released in the 1st quarter of 2015 a fully functioning version will be delayed due to problems we encountered with ESRI's extraction services.

In the mean time we have implemented a rudimentary data download service using DropBox where users enter a request via an on-line form and receive a link to the data that can be downloaded directly to their computer.

ACTIVITIES THIS PERIOD: 12/14 – 3/15

- A GoToMeeting training 'Introduction to the Interactive Mapping Website' is scheduled for 3/26

NEXT

- Decommission the 'Legacy Viewer'
- Prepare for the next generation deployment of the HTML5 Viewer that will replace the Silverlight viewer later this year or early 2016
- Continue deployment of Silverlight Viewer enhancements
- Develop and deploy Extract capability in the 1st quarter of 2015
- Continue to prepare and deploy help and training videos

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DIVISION OF ECONOMIC DEVELOPMENT
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 12, 2015

SUBJECT: MOBILE PROPERTY LOCATOR APPLICATION

BACKGROUND

The mobile property mapping application provides organizations with the ability to view property ownership information in the field via a mobile application for phone or tablet. Core capabilities include the ability to retrieve property and owner information at or near the user's current location, or to retrieve property information based on a user-supplied address. This activity includes the development of a feature data service for parcels. The Web feature service will expose the parcel data layer for use by MCAMLIS Partners to support the acquisition of parcel data directly into desktop applications or enterprise solutions for publishing along with any partner's own business data.

DELIVERABLES

- Deploy property locator mobile application.
- Deploy mobile address retriever tool.
- Deploy online how-to materials; limited number of webinars and/or podcasts.

PROJECT SPECIFICATIONS

MBL.01, .02 – Deploy Mobile Property Locator & Feature Data Service for Parcels

- Users will be able to:
 - Query and retrieve parcel attribution and symbology,
 - Control access to features using ownership-based access control, and
 - Prevent users from editing feature geometry.
- The feature service will allow MCAMLIS to serve parcel features over the Internet, and will provide the symbology to use when displaying the features. Partners can execute queries to get features that can be used in client applications. Partners can consume feature services using either a web client (e.g., Geocortex), desktop applications (e.g., ArcGIS for Desktop), or Mobile applications.

STATUS:

This project shows great potential to demonstrate opportunities for deploying mobile applications however there are many scoping concerns that need to be resolved before development can be initiated. The BNA ranked this activity high enough to be included in the 2014 Work Plan but there are no identified partner(s) who have explicitly engaged MCAMLIS to jointly explore deployment of a Property Locator Application.

Since applications of this type are not within the normal boundaries of MCAMLIS product development - pursuit of this project is currently on hold until a user/partner is solicited and a Mobile Property Locator Application can be meaningfully scoped.

In the mean time staff plans are to continue to engage partners and others to better understand mobile application and the service needs of our user community and report progress in this arena as these continue to evolve.

ACTIVITIES THIS PERIOD: 12/14 – 3/15

- Project reassessed in using methods developed in the Business Planning Process (BPP)

NEXT

- Consider for implementation as part of the in 2016 MCAMLIS Work Plan

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2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 12, 2015

SUBJECT: COLLABORATIVE EDUCATION AND TRAINING

BACKGROUND

This task establishes and executes an education and training program sponsored by MCAMLIS for Partners and MCAMLIS support staff, and includes two key components:

- 1) Developing and deploying a set of guidelines, criteria, and procedures for how to create online how-to materials for MCAMLIS-provided capabilities (e.g., MCLIO Viewer and the Property Locator); this will allow materials to be inventoried and searchable via the MCAMLIS portal for Just-In-Time (JIT) training.
- 2) Coordinating and executing commonly needed training or education among Partners, in the form of webinars or short in-room or virtual classroom settings focused on particular subjects that do not require full days. This will focus initially on responding to immediate needs of MCAMLIS to support current work practice.

DELIVERABLES

- Guidelines, criteria, and MCAMLIS procedures for producing and deploying online user and training how-to materials for MCAMLIS-provided capabilities and data.
- Commonly needed Partner-driven JIT Training:
 - Two to three key topic sessions (webinar-like or part of MMGUG).
 - Two to three formal training sessions (formal in-room or virtual classrooms, or may be an extended MMGUG day).
- External support on guidelines and JIT training coordination.
- Plan for training program, including costs

PROJECT SPECIFICATIONS

COL.01 – Education and Training

COLLABORATION

- Establish methods to introduce technology architectures that are new to MCAMLIS/Partners, such as feature services and mobile LBDT.
- Apply LBDT-based technologies (e.g., Geocortex Essentials, Pictometry tools, and if relevant, core applications that are based on LBDT, e.g., ProPhoenix).
- Provide consulting support services: consensus building, collaborative decision-making, and business analysis associated with these new technology architectures.

STATUS:

While the BNA identified training and education to be critical for partner success there continues to be limited consensus on how MCAMLIS can effectively address this need. For now staff efforts have concentrated on growing training opportunities organically through sponsorship of on-line training via GoTo Meeting, YouTube, promotion of training support of the ESRI Virtual Classroom and local events e.g., WGITA sponsored luncheons and MMGUG meetings.

ACTIVITIES THIS PERIOD: 12/14 – 3/15

- Included a LiDAR Introduction at the MMGUG Meeting 10/28/2014.
- MCLIO Newsletter and website announcements
- MCLIO website calendar events: MMGUG 12 January 13th, 2015
- MCLIO website improvements

NEXT

- This project is considered complete and now ongoing

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MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 12, 2015

SUBJECT: MCAMLIS BUSINESS PLANNING

BACKGROUND

This task establishes the process and procedure to make certain that Partner requirements and priorities are included in MCAMLIS Programming and planning activities. This will include involvement in strategic planning, as well as tactical planning: the process needs to include how to adjust to opportunities or key demands (e.g. natural disaster) as they surface. The process will need to be able to balance providing solutions for countywide needs with those that might be more specialized (smaller area, select set of Partners). This task will result in a detailed process – including criteria used to select and prioritize projects - and a first run-through of the process for tactical planning.

DELIVERABLES

- Documented Strategic and Tactical MCAMLIS Business Planning Process and procedures.
- Adjustments to MCAMLIS Program for Year 2015 through 2019.

PROJECT SPECIFICATIONS

COL.02 – MCAMLIS Business Planning

- Task will assess the process, tools, and lessons learned from the BNA Project.
- Partner staff will participate in the process.
- Task will be executed immediately preceding the need for tactical planning (~a few months preceding budget planning for new operating year).

STATUS:

This project was presented and recommended Policy and Procedures were approved by the MCAMLIS Steering Committee at its 12/16/2014 meeting.

ACTIVITIES THIS PERIOD: 12/14 – 3/15

COLLABORATION

- Finalized the Business Planning and procedures document incorporating changes required by the MCAMLIS Steering Committee at its 12/16/2014 meeting.
- MCAMLIS Staff prepared and evaluated 7 projects for consideration in the 2015-2019 Work Plan

NEXT

- Present results of staff efforts to implement the MCAMLIS Business Planning Procedure and Guidelines to the Steering Committee for consideration to be included in the 2015-2019 Work Plan
- This project is now complete

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2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 12, 2015

SUBJECT: MCAMLIS WEBSITE IMPROVEMENTS

BACKGROUND

This task will make it easier for MCAMLIS Partners and other stakeholders to obtain information about MCAMLIS data, data services, and the MCAMLIS Program.

Most importantly, it will provide an online, easily searchable and filtered list of the MCAMLIS data and map/data services available through MCAMLIS. Online how-to materials will be created.

In addition, this task will load material for online presence that more clearly defines the MCAMLIS organization and its Partners, and the MCAMLIS Program components (Portal, Data, Capabilities, Collaboration, and Program Management).

These improvements will be done either to the existing MCAMLIS website or a new site, whichever is more effective for short-term value.

DELIVERABLES

- Refinements to existing Site or a new stand-alone site (MCAMLIS.com).
- Improved online, searchable list of MCAMLIS Data, Data Services, and their currency.
- Online how-to materials for the searchable list.
- Improved online, searchable content regarding MCAMLIS: who, what, Work Plan.
- Preliminary findings for a new MCAMLIS brand.

PROJECT SPECIFICATIONS

MOL.01 – MCAMLIS Website Improvements

- Efficiently distributes MCAMLIS-related information, in particular, information regarding the currency and update plans of MCAMLIS data and data services.
- Increase use of MCAMLIS services and applicability of the data.
- Improve exposure to the MCAMLIS Program.

STATUS: 

Considerable effort has been put toward the development of a completely redesigned and architected website. Refinements were applied to the existing site e.g., feature data is now listed and searchable. The new website was deployed on 6/30.

ACTIVITIES THIS PERIOD: 12/14 – 3/15

- New features are continually added and updated

NEXT

- This project is considered completed
- Continue development of web training tools and enhance and maintain web pages

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2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 12, 2015

SUBJECT: MCAMLIS NON-VECTOR DATA IMPROVEMENTS

BACKGROUND

This work effort will improve data management practices technologies that provide MCAMLIS **non-vector** reference data into the MCAMLIS data repository and prepare it for efficient access. MCAMLIS non-vector reference data refers to the following: geo-referenced imagery (Imagery: Ortho, Oblique, LiDAR, Caches), documents and photos, and potentially, video and audio. This does not include Partner-shared or Partner-hosted data, and does not include MCAMLIS vector reference data.

In particular, this effort will focus on providing the following: apply Esri Image Server; finalize historical aerial work; and explore the value of using OnBase, the County's document management solution, for MCAMLIS.

DELIVERABLES

- Generate and deploy Historical Aerials

PROJECT SPECIFICATIONS

DAT.01.1 – Historical Aerial Photo Collection

- Complete the historical aerial project; enhances the ability to analyze current imagery and data e.g., historical drainage patterns across the county.
- Promotes the function and benefit of what MCAMLIS provides and how it goes about providing it, resulting in increased use.
- Improves MCAMLIS Program Category: Data Products and Services.

STATUS:

- The State Cartographers Office (SCO) delivered a complete set of scanned image files representing 199 images covering Milwaukee County taken in 1937. These images were transferred electronically to Milwaukee County and are suitable to be processed MCAMLIS Staff for distribution via web services.

- The Southeast Regional Planning Commission agreed to allow Milwaukee County to scan and geo-reference aerial images located in the Commissions image library. The source aerial photography is black and white, 9" X 9" format aerial negatives that reside in the SEWRPC archives and are stored as individual negatives in plastic sleeves. The archive includes a complete set of images for each of seven (7) years (approximately 462 image negatives). The SIDWELL Company has been contracted by Milwaukee County to scan each negative and deliver the image data to Milwaukee County to be processed by MCAMLIS Staff for distribution via web services.

ACTIVITIES THIS PERIOD: 12/14 – 3/14

- MCAMLIS staff has completed geo-referencing all the SEWRPC image data excepting a small portion of both 1967 & 1963 and has posted this via the MCLIO website.

DAT.01.1 –Historical Aerial Photo Collection Status								
% # of polygons	1937	1990	1985	1980	1975	1970	1967	1963
Scan Image Step 1	100%	100%	100%	100%	100%	100%	100%	100%
Geo-Reference Step 2	100%	100%	100%	100%	100%	100%	98.5%	76.5%
Web Service Step 3	yes	yes	yes	yes	yes	yes	no	no

NEXT

- The 2014 deliverables are to be completed through 3/15
- Prepare image data to be compacted by SIDWELL into .zip file format as a final step
- Continue geo-referencing and posting image data via MCLIO services

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2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 12, 2015

SUBJECT: MCAMLIS VECTOR DATA IMPROVEMENTS

BACKGROUND

This work effort will improve data offerings, management practices, and automation that get MCAMLIS vector reference data into the MCAMLIS data repository and prepare it for efficient access. MCAMLIS vector reference data refers to the following: Topographic / Planimetric Mapping, Enterprise Address System, and the Routable Street Centerline. This does not include Partner-shared or Partner-hosted data, and does not include non-vector data (imagery, video, audio).

In particular, this task will focus on providing the following: complete the polygonization of key planimetric data; provide map and data services associated with these planimetric features; and if priority is confirmed by Partners, improve enterprise address system (EAS) data maintenance (streamline coordination and prototype upcoming Esri product) and expedite routable street centerline (SCL) data maintenance.

DELIVERABLES

- 2014 Deploy completed planimetric polygons
- 2014/15 Deploy map/data services for planimetric polygons.

PROJECT SPECIFICATIONS

DAT.02.1 –Planimetric Polygon Maintenance

- Partners will see benefits in the vector information by having better knowledge about the currency and quality of the information being provided by MCAMLIS.
- Polygonization of planimetric objects will assist with data analysis e.g., impermeable surface run-off analysis and improve cartographic flexibility.
- Promotes the function and benefit of what MCAMLIS provides and how it goes about providing it, resulting in increased use.
- Improves MCAMLIS Program Category: Data Products and Services.

STATUS:

- Polygonization includes the following planimetric objects: building footprints, bridges, traveled ROW, sidewalks, surface parking, paved trails, and unpaved driveways.
- Polygon processing will be completed on 6 defined areas making up Milwaukee County. Areas will be delivered in successive months with the 1st area delivered EOM July - subsequent deliveries through December.
- MCAMLIS Staff will perform QA/QC on each delivery followed by acceptance of each area once changes have been performed on the data by the contractor leading to a successful review by MCAMLIS staff.
- Final QA and acceptance will be completed through February 2015

ACTIVITIES THIS PERIOD: 12/14 – 3/15

- All areas were delivered through February
- All areas have been accepted excepting minor quality adjustments that will be redelivered prior to final payment

DAT.02.1 –Planimetric Polygon Maintenance - Delivery Status						
% # of polygons	Area 1	Area 2	Area 3	Area 4A	Area 4B	Area 5
5%	20%	23%	20%	15%	17%	
Production Step 1	14-Jul	26-Aug	2-Oct	3-Nov	12-Nov	20-Nov
QA/QC Step 2	20-Aug	12-Nov	12-Nov	5-Dec	5-Jan	2-Feb
Acceptance Step 3	yes	yes	yes	yes	yes	yes

NEXT

- Receive final delivery and complete acceptance

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DIVISION OF ECONOMIC DEVELOPMENT

MILWAUKEE COUNTY LAND INFORMATION OFFICE

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 13, 2015

SUBJECT: 2015 ORTHOPHOTOGRAPHY PROJECT STATUS

BACKGROUND

At its meeting held September 23rd, 2014, the MCAMLIS Steering Committee approved a staff recommendation to proceed with the acquisition of Pictometry International Inc. AccuPLUS certified orthophotography.

Beginning with the 2005 Regional Orthophotography Project, Milwaukee County has acquired digital orthophotography every two or three years e.g., 2005, 2007, 2010, 2013.... The next scheduled orthophotography covering Milwaukee County is in spring of 2015. As in past five year cycles beginning in 1995, digital orthophotography acquired for Milwaukee County is eligible for partial funding by SEWRPC in support of regional planning efforts.

PROJECT

2015 Regional Orthophotography Project - the Southeastern Wisconsin Regional Planning Commission, in partnership with the Counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha, solicited project and cost proposals from selected qualified vendors for a 2015 imagery and elevation mapping project in Southeastern Wisconsin.

The 2015 Orthophotography Project conducted by SEWRPC solicited project proposals to acquire digital orthophotography for the seven-county Southeastern Wisconsin Region. The Commission project also included the possibility of acquiring oblique aerial photography, LiDAR data, and elevation mapping in the form of digital terrain model (DTM) files and contour and depression line files for all or portions of the Region.

2015 MCAMLIS Orthophotography Project - in cooperation with the Regional Orthophotography Project efforts, MCAMLIS staff pursued the evaluation of products included in the regional solicitation in addition to more specific products tailored to Milwaukee County needs. These products included 4" resolution imagery (1st available in 2013) and 3" resolution imagery both from Pictometry International.

The MCAMLIS project is intended to complete the third of three flights as part of a six-year contract with Pictometry International Inc. The original contract entered into in spring of 2010 specified a six-year agreement for imagery to be acquired in years 2010, 2012 and 2014 assuming that funds are available and authorized for this purpose.

This project includes acquisition of Pictometry International AccuPLUS 3-inch pixel, color, digital orthophotography and oblique image photography as a package costing a total of \$137,286. A portion of the 2015 flight cost will be offset by regional planning funds available for this purpose. The SEWRPC contribution of \$15,366 will be used to offset a portion of the total project cost of \$137,286 leaving a required Steering Committee contribution of \$121,950.

SPECIFICATIONS

Services to be performed by the Steering Committee:

The Steering Committee shall contract with Pictometry International Corporation of Rochester, New York to acquire aerial orthophotography covering Milwaukee County. The orthophotography will be obtained to support the 2015 Regional Orthophotography Project administered by the Commission and covering seven counties in Southeastern Wisconsin.

Pictometry will also prepare oblique aerial photography to complement the orthophotography to be acquired by the Steering Committee.

The orthophotography shall have the following minimum specifications:

- a. Color imagery collected in the spring of 2015 under leaf-off conditions.
- b. Three-inch (3") pixel resolution orthophotography prepared to meet National Map Accuracy Standards at one-inch-equals-50-feet (1"=50') scale.
- c. The area of orthophotography to be acquired consists of the entirety of Milwaukee County, including a 1,000 foot buffer around the County and additional imagery covering the Milwaukee Bay area of Lake Michigan.
- d. Orthophotography will be delivered in GeoTIFF file format. Each GeoTIFF file will cover a 5,000 by 5,000 feet area or "tile" on the Wisconsin State Plane Coordinate System. There are 323 image tiles in the project area. An accompanying reference or "world" file will be prepared for each GeoTIFF file. The GeoTIFF files will follow a file naming convention that indicates the year, tiling scheme, resolution, and tile location by northing and easting of the orthophoto file. The tiling scheme and naming convention information shall be provided to the contractor upon request.
- e. The horizontal datum to be used is the North American Datum of 1927 (NAD27).

STATUS:

MCAMLIS Staff is preparing materials required to execute the final year of the 3 flight agreement with Pictometry International Corp. The contract authority request was approved by the County Board on 12/18/2014. MCAMLIS Staff concluded its work with the Commission to develop an agreement between the Commission and MCAMLIS. The Agreement with the

Commission allows partial subsidy of the 2015 Orthophotography project and meets SEWRPC 5-year planning objectives.

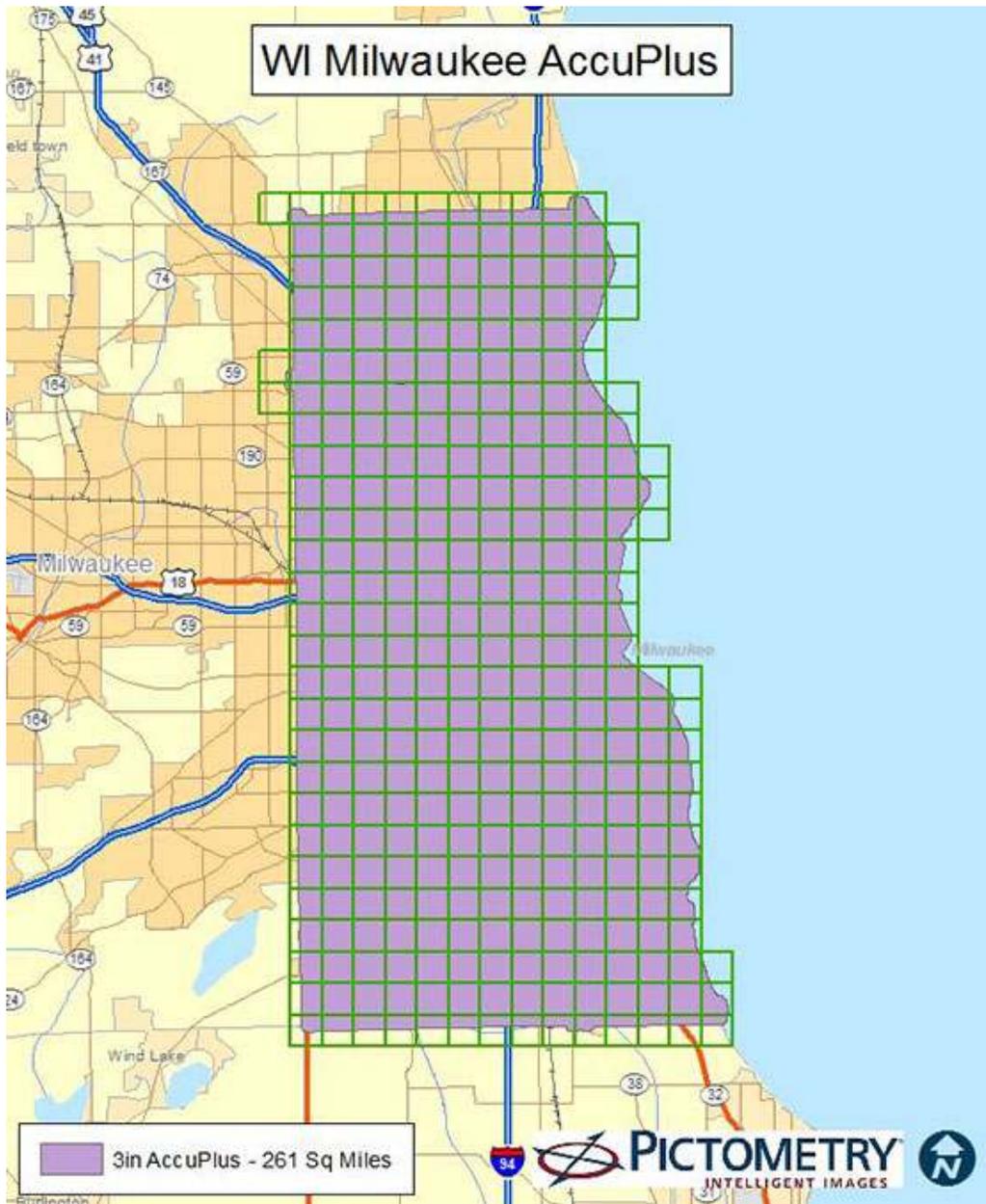
ACTIVITIES THIS PERIOD: 12/14 – 3/15

- Pictometry Contract approved by the Milwaukee County Finance, Personnel, and Audit (FPA) Committee (12/11) and full County Board (12/18)
- Fully Executed Pictometry Contract 1/30/2015
- MCAMLIS Staff prepared packet materials requesting FPA passive review (3/19) of the 2015 Orthophotography Agreement with SEWRPC

NEXT

- FPA Committee (3/19) passive approval of contracts greater than \$100,000 and less than \$300,000
- Execute 2015 Orthophotography Agreement with SEWRPC
- Confirm flight schedule with Pictometry (Exhibit flight boundary attached)

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DEPARTMENT OF ADMINISTRATIVE SERVICES

DIVISION OF ECONOMIC DEVELOPMENT

MILWAUKEE COUNTY LAND INFORMATION OFFICE

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William C. Shaw, MCAMLIS Project Manager

DATE: March 13, 2015

SUBJECT: 2015 ELEVATION DATA PROJECT STATUS

BACKGROUND

At its meeting held September 23rd, 2014, the MCAMLIS Steering Committee approved a staff recommendation to proceed with a joint project with SEWRPC and five counties located in southeastern Wisconsin to acquire updated Elevation Data for Milwaukee County. The approval of the Elevation Data Project authorizes an expenditure of no more than \$62,343 to collect LiDAR derived elevation data.

PROJECT

2015 Regional Elevation Data Project - The Southeastern Wisconsin 2015 Regional Elevation Data Project, under the technical guidance of approved vendor and with the administrative assistance of SEWRPC, will result in the preparation of deliverable products that meet or exceed all minimum specifications as outlined in the USGS *Lidar Base Specification Version 1.1*, and deliverable products that meet the current definition of Quality Level 2 (QL2) as specified by the USGS. Five of the seven SEWRPC counties have agreed to participate including Milwaukee, Ozaukee, Washington, Waukesha and Walworth.

STATUS:

The Southeastern Wisconsin Regional Planning Commission and the Milwaukee County Automated Mapping and Land Information System Steering Committee are set to execute an agreement whereby SEWRPC will contract with Quantum Spatial to acquire, prepare and deliver specific LiDAR products to Milwaukee County.

ACTIVITIES THIS PERIOD: 12/14 – 3/15

- Each of the five county LIO's evaluated a USGS cost share proposal and determined that the requirements placed on the project by USGS did not warrant further consideration.
- MCAMLIS Staff negotiated final agreement language with SEWRPC staff and prepared SEWRPC Agreement for execution (attached)

NEXT

- Execute SEWRPC Agreement

- Schedule for the Southeastern Wisconsin 2015 LiDAR and Elevation Data Project is as follows:

January 2015	LiDAR project begins; flight planning and resource allocation for LiDAR data acquisition initiated and completed within four weeks
March 15 - May 15, 2015	LiDAR data collection initiated and completed within eight weeks, weather permitting; LiDAR processing and derived elevation data preparation begins; quality control of digital files and field survey
September 15 - December 20, 2015	Preparation and review of LiDAR and elevation files completed; all deliverable products provided to USGS and participating counties

Attach: 2015 LiDAR Agreement

* * * * *

2015 LIDAR AGREEMENT

THIS AGREEMENT, entered into this ____ day of _____, 2015, by and between the Southeastern Wisconsin Regional Planning Commission (hereinafter referred to as the “Commission”); and the Milwaukee County Automated Mapping and Land Information System Steering Committee (hereinafter referred to as the “Steering Committee”).

WITNESSETH:

WHEREAS, the Commission is authorized by Section 66.0309 of the Wisconsin Statutes to make studies and prepare plans for, and to provide advisory services to, local governments, and act as a coordinating agency for planning activities within its jurisdictional area; and

WHEREAS, the Steering Committee has requested that the Commission provide assistance in the acquisition of 2015 lidar data, digital terrain model data, and digital contour line files covering the entirety of Milwaukee County in the spring of 2015; and

WHEREAS, These data sets will be acquired as part of the 2015 Lidar and Elevation Data Project in Southeastern Wisconsin; and

WHEREAS, Sections 66.0309(12) (b) and 66.0301 of the Wisconsin Statutes authorize the Commission to enter into contracts with local units of government to make studies and plans and to provide advice.

NOW, THEREFORE, in consideration of these premises and of their mutual and dependent promises and agreements, the parties hereto contract and agree as follows:

1. Services to be performed by the Commission

The Commission shall act as agent for the Steering Committee to acquire lidar and accompanying elevation data in the spring of 2015. The digital elevation files will be prepared to meet U.S. Geological Survey Quality Level 2 (QL2) specifications, comparable to National Map Accuracy Standards for one-inch-equals-100-foot scale mapping. The primary data sets will be provided in the NAD27 horizontal datum and NGVD29 vertical datum. A secondary set of lidar files will be provided in the NAD83-2011 horizontal datum and the NAVD88-2012 vertical datum. The elevation data sets to be prepared will cover the entirety of Milwaukee County as shown on the attached maps and will consist of the following four deliverable products:

- a. Lidar data** – Lidar in both unclassified and bare-earth classified form. One set of unclassified lidar files in “.las” format and one set of bare-earth classified lidar files in “.las” format will be delivered. The lidar data will be collected at 0.7-meter nominal pulse spacing and greater than or equal to 2.0 points per square meter, consistent with USGS QL2 specifications. The lidar files will be organized into 10,000 by 10,000 foot “tiles” on the Wisconsin State Plane Coordinate System NAD27 grid used for this project.
- b. Digital Terrain Model (DTM) files** – Mass point and breakline features depicting the three-dimensional terrain. The files will be prepared in ESRI file geodatabase format. The files will

be organized to cover 10,000 foot “tiles”, or quadrants of U.S. Public Land Survey System survey townships, depending on file size limitations.

- c. **Contour and Depression Line files** – Elevation line features with accompanying contour interval elevation text. Contour and depression lines will be created at one-foot intervals. The contour line files will be prepared in ESRI file geodatabase format and will be organized to cover entire USPLSS survey townships.
- d. **Additional Lidar Files** – One additional set of lidar files—consisting of unclassified lidar files and bare-earth classified lidar files in “.las” format covering the entire County—in the NAD83-2011 and NAVD88-2012 datums.

2. Time Schedule

The raw lidar data will be acquired in the spring of 2015. The Commission will deliver the lidar data sets, digital terrain model files, and digital contour line files to the Steering Committee no later than December 1, 2015.

3. Compensation

The costs for the four deliverable products are as follows:

Lidar data sets	26,015
Digital Terrain Model (DTM) files	34,485
Contour line files	1,843
Additional Lidar Files (NAD83-2011 / NAVD88-2012 datums)	0
Total	\$62,343

The MCAMLIS Steering Committee agrees to pay to the Commission the amount of \$62,343 for the services rendered under the terms of this agreement. The Commission will submit invoices to the Steering Committee on a work progress basis. A final invoice will be provided upon delivery of all digital elevation files to the Steering Committee.

4. Indemnity

Except for acts done or taken at the direction of or pursuant to the Steering Committee policy or procedures, the Commission agrees to the fullest extent permitted by law, to indemnify, defend and hold harmless, the Steering Committee, and its agents, officers, and employees from and against all loss or expense including costs and attorney’s fees by reason of statutory benefits under Worker Compensation Laws, and/or liability for damages including suits at law or in equity, caused by any wrongful, intentional, or negligent act or omission of the Commission, or its agents which may arise out of or are connected with the activities covered by this agreement.

5. Insurance

The Commission, as an agency of the State, is self-funded for liability under Section 893.82 and Section 895.46(1) of the *Statutes*. As a result, such protection as is afforded under respective *Wisconsin Statutes*, is applicable to officers, employees, and agents while acting within the scope of their employment or agency. Since this is statutory indemnification, there is no liability policy as such that can extend protection to any other.

6. Records and Audits

The Commission shall allow Milwaukee County, the Milwaukee County Department of Audit, or any other party that Milwaukee County may name, when and as they demand, to audit, examine, and make copies of, excerpts or transcripts from, any records or other information directly relating to matters under this agreement. Any subcontracting by the Commission in performing the duties described under this contract shall subject the subcontractor and/or associates to the same audit terms and conditions as the Commission. The Commission (or any subcontractor) shall maintain and make available to Milwaukee County the aforementioned audit information for no less than three years after the conclusion of each contract term.

7. Independent Contractor

Nothing contained in the Agreement shall constitute or be construed to create a partnership or joint venture between Milwaukee County or its successors or assigns; the Steering Committee or its successors or assigns; and the Commission or its successors or assigns. In entering into this Agreement, and in acting in compliance herewith, the Commission is at all times acting and performing as an independent contractor, duly authorized to perform the acts required of it hereunder.

8. Authorization

The Steering Committee approved the execution of this Agreement by action taken on September 23rd, 2014.

IN WITNESS WHEREOF, the Commission and the Steering Committee have executed this Agreement, as of the date and year first above written.

ATTESTING WITNESS

By _____
Kenneth R. Yunker
Deputy Secretary

**SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION**

By _____
David L. Stroik
Chairman

ATTESTING WITNESS

By _____
William C. Shaw
MCAMLIS Project Manager

MILWAUKEE COUNTY

By _____
Teig Whaley-Smith Director
Department of Administrative Services
Division of Economic Development

**MILWAUKEE COUNTY AUTOMATED MAPPING AND
LAND INFORMATION SYSTEM STEERING COMMITTEE**

By _____ Date: _____
Don Nehmer
MCAMLIS Steering Committee Chairman

Approved with regards to County Ordinance Chapter 42:

By: _____ Date: _____
Community Business Development Partners

Reviewed by:

Approved for execution:

By: _____ Date: _____
Risk Management

By: _____ Date: _____
Corporation Counsel

Approved:

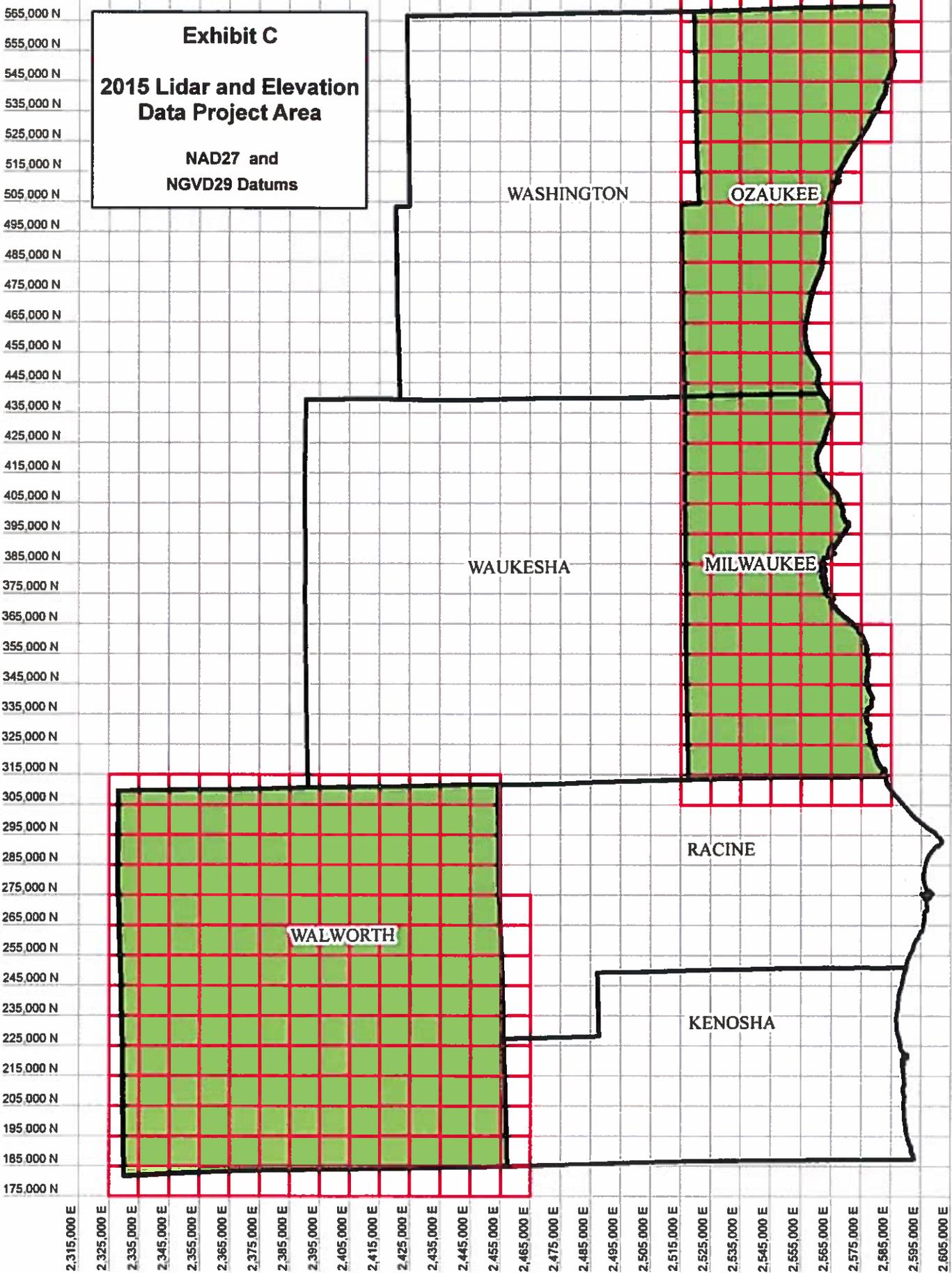
Approved:

By: _____ Date: _____
Comptroller

By: _____ Date: _____
County Executive

Approved as to Wis. Stats. 59.42:

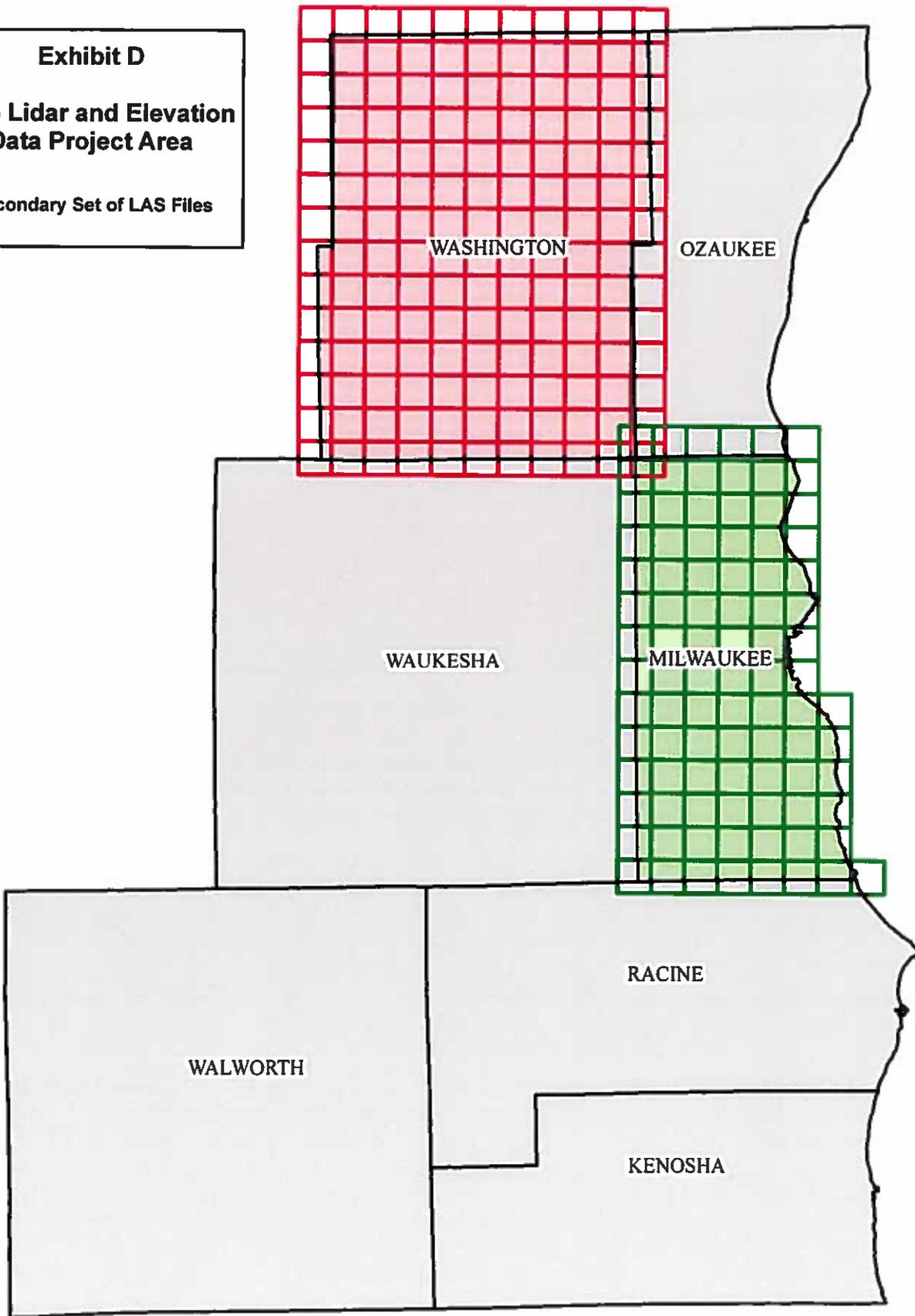
By: _____ Date: _____
Corporation Counsel



 Area Where Lidar and Elevation Data on NAD27 and NGVD29 Datums Will Be Prepared (Approximately 1054 square miles)

 10,000 x 10,000 Foot Tile Boundaries (361 tiles with Data)

Exhibit D
2015 Lidar and Elevation
Data Project Area
Secondary Set of LAS Files

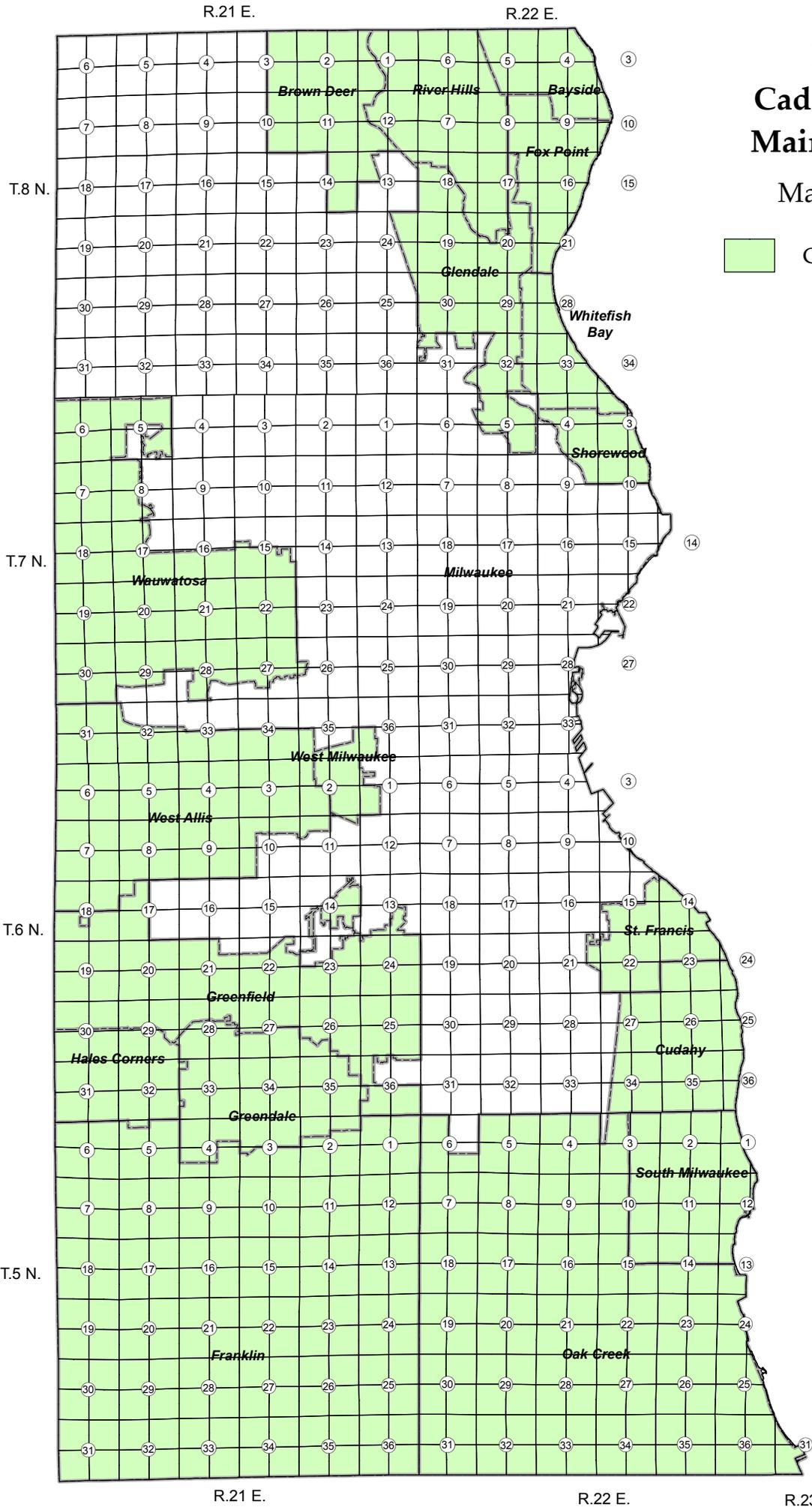


-  Area Where Secondary Set of LAS Files Will be Provided on NAD27 and NGVD29 Datums (Washington County)
-  Area Where Secondary Set of LAS Files Will be Provided on NAD83-2011 and NAVD88-2012 Datums (Milwaukee County)

MCAMLIS Cadastral Database Maintenance Status

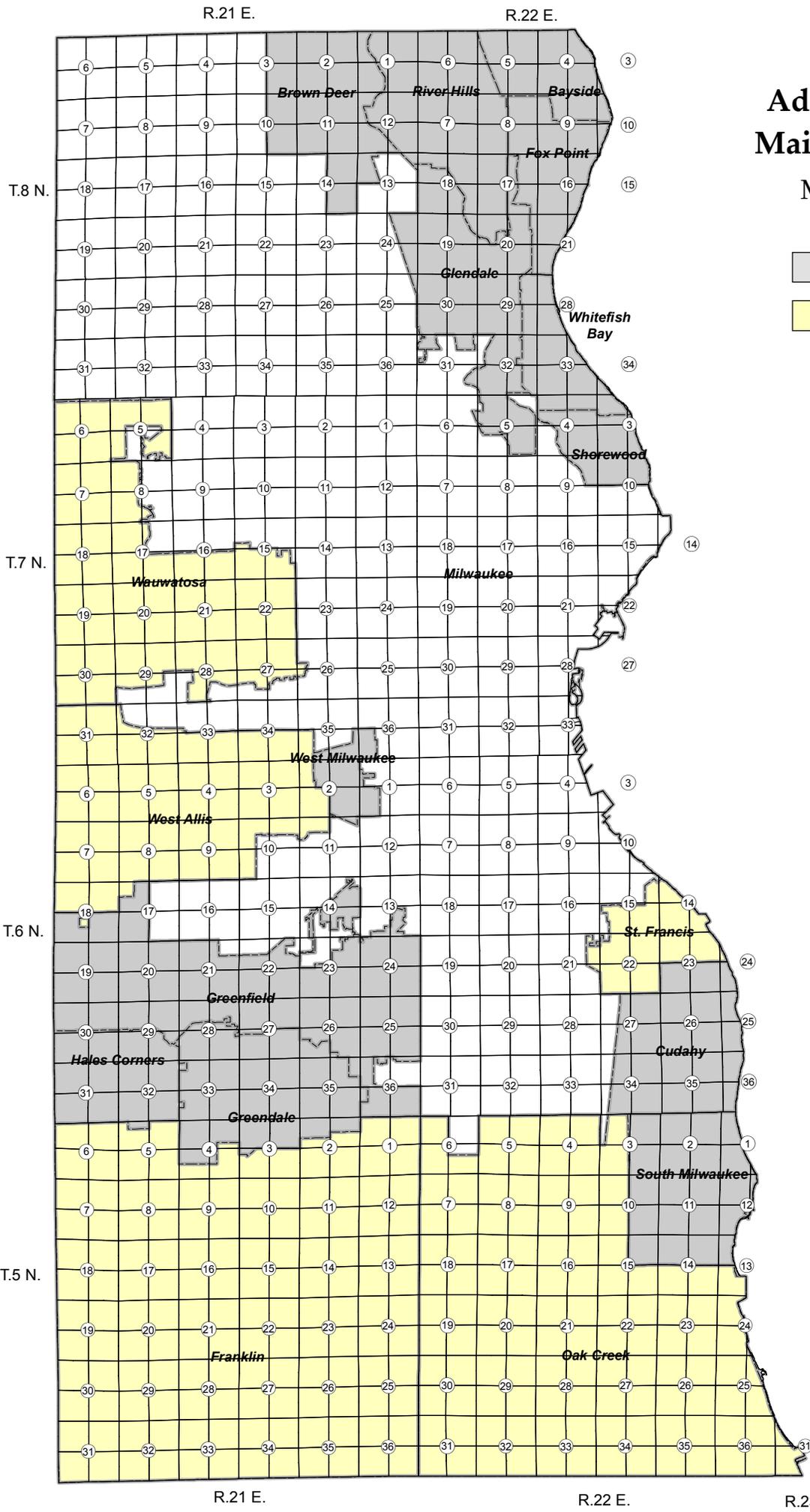
March 2015 Status

 Current as of February 1, 2015

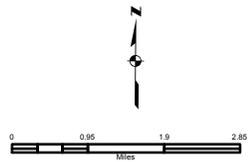


Source: MCAMLIS Project Manager

MCAMLIS Address Database Maintenance Status March 2015 Status



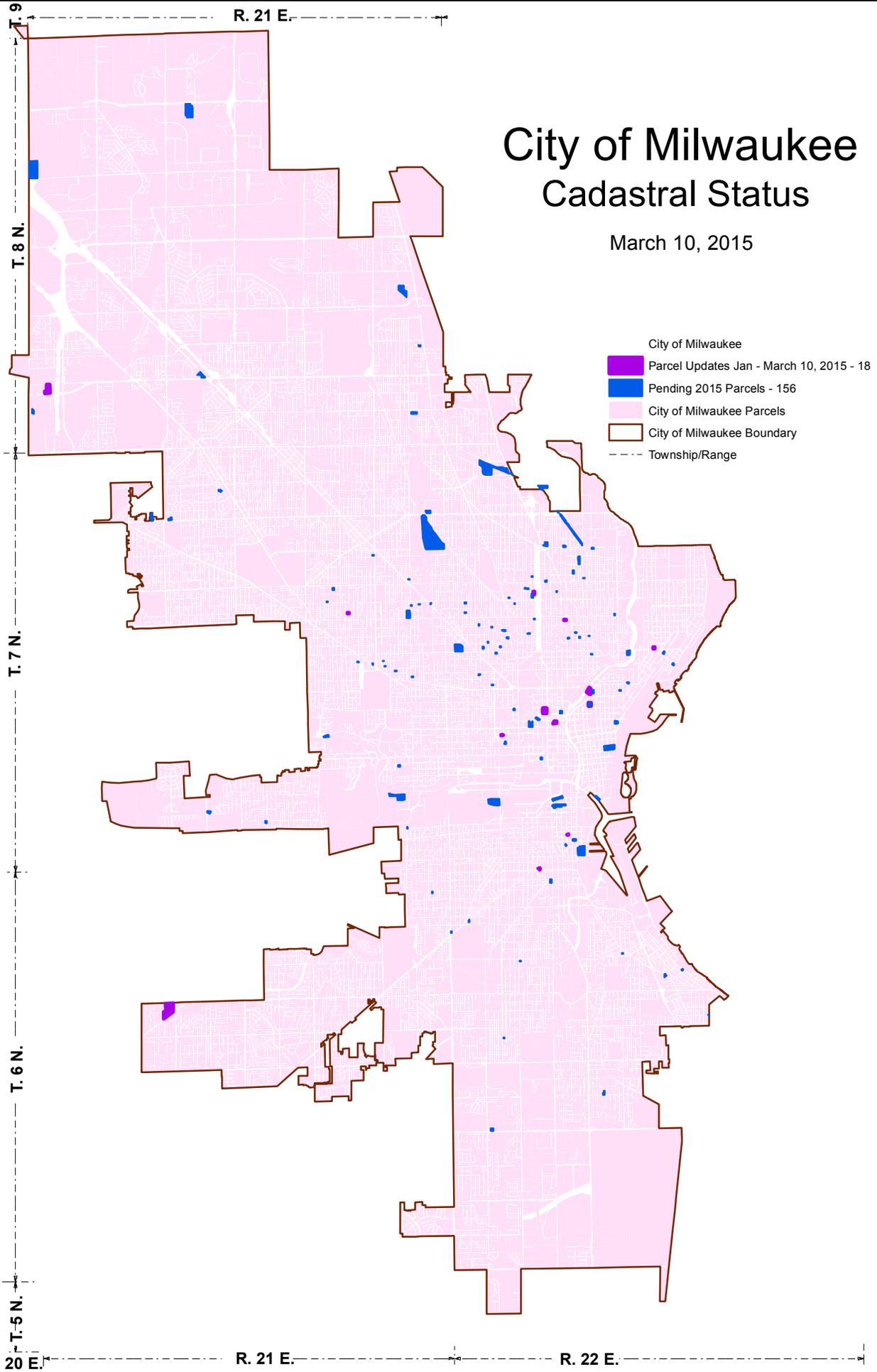
- January 1, 2015
- March 1, 2015



Source: MCAMLIS Project Manager

City of Milwaukee Cadastral Status

March 10, 2015

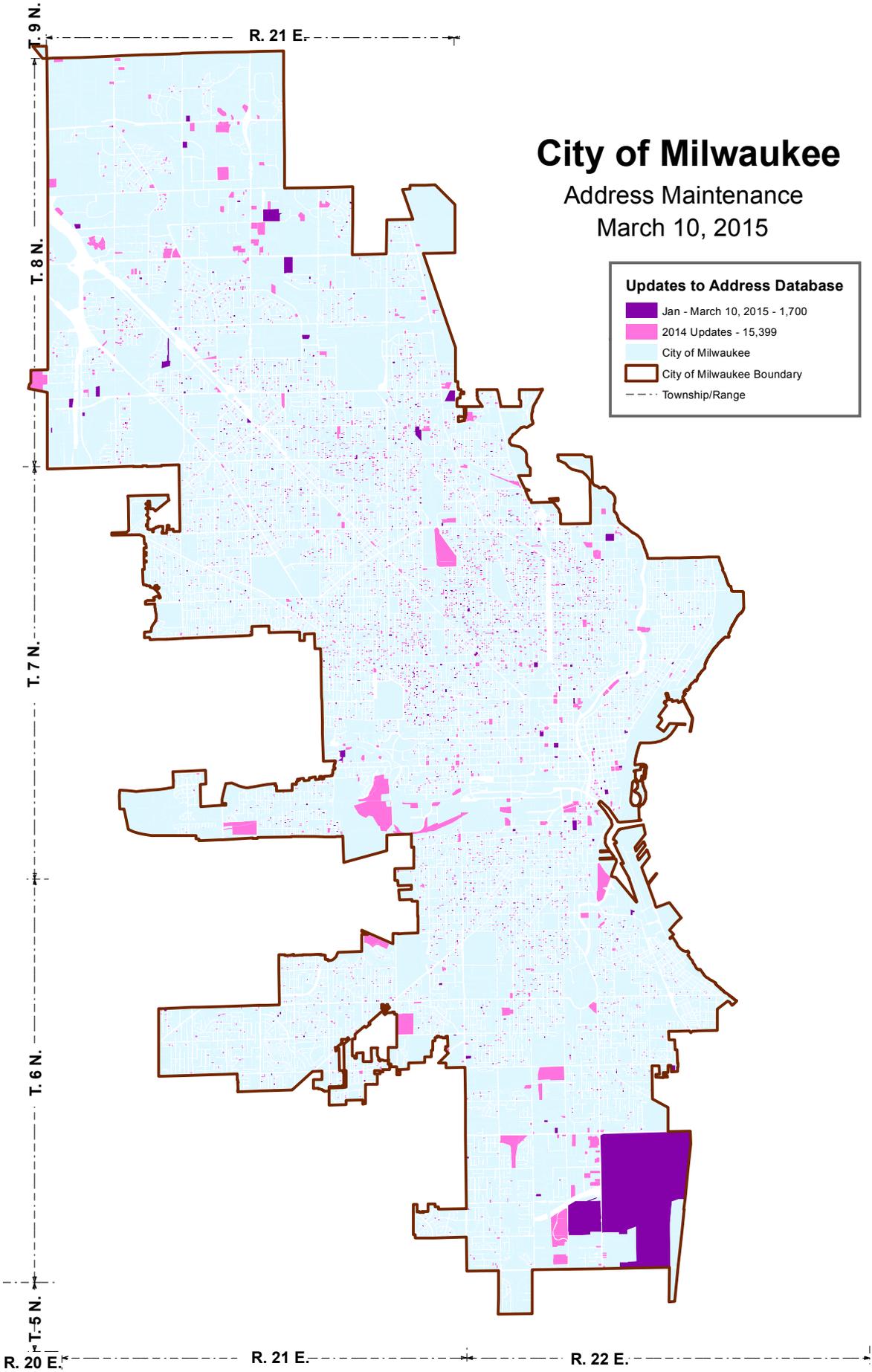


City of Milwaukee

Address Maintenance
March 10, 2015

Updates to Address Database

- Jan - March 10, 2015 - 1,700
- 2014 Updates - 15,399
- City of Milwaukee
- City of Milwaukee Boundary
- Township/Range





DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF ECONOMIC DEVELOPMENT
MILWAUKEE COUNTY LAND INFORMATION OFFICE

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: March 13, 2015
SUBJECT: Educational Outreach Activity Status

BACKGROUND

The MCAMLIS Program Goals and Objectives included in the 'Land Information Strategic Assessment for 2013 –2016 identified the need for MCAMLIS Staff to develop and promote MCAMLIS products and services to MCAMLIS Partners and especially to include contacts and assistance related to local municipalities. The following describes MCAMLIS Staff activities under this objective for the preceding period:

ACTIVITIES THIS PERIOD – 12/14 – 3/15

1. Meetings and Presentations
 - Organized and facilitated the 12th meeting of the Milwaukee Municipal GIS Users Group (MMGUG). Meeting was held on 1/13/2015 @ MMSD Headquarters
 - Scheduled next MMGUG meeting to be held @ Natural Resource Technology scheduled for April 21st 2015
 - Conducted Interactive Mapping Website training at City of Milwaukee Assessors location
2. Maintained production MCLIO web services
3. Incorporated updated tutorial materials, announcements and newsletters to users of the MCLIO Interactive Mapping Service website

NEXT

1. Continue MCLIO website training, data distribution and product enhancements; and
2. Prepare for MMGUG Meeting – Apr 21st
3. Continue to work with member participants to further their GIS goals e.g., 2015-2016 MCAMLIS Work Plan Initiatives



**DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF ECONOMIC DEVELOPMENT
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: March 13, 2015
SUBJECT: COUNTYWIDE PROGRAM INITIATIVES

BACKGROUND

This Goal states that - Where appropriate, identify, initiate, and complete projects proposed by Milwaukee County or its constituent municipalities, agencies of the federal, state or regional government, public utilities and by private entities, including, importantly, interested citizens which would, by understanding of the MCAMLIS Steering Committee, prepare information and maps useful for meeting the needs of the County and *its* local units of government and contributing toward the implementation of the Wisconsin Land Information Program.

CURRENT ACTIVITIES THIS PERIOD – 12/14 – 3/15

1. Address Database Maintenance

- Deployed 4th qtr. consolidated Milwaukee County and City of Milwaukee Cadastral Data;
- Maintained address point "situs" relationship to structure location.

Next

- Continuation of ongoing efforts incorporating updated multiple address source information

2. Plat-of-Survey Maintenance

Plat of Survey Documents received from the Milwaukee County Surveyors Office are scanned and indexed to their respective parcel(s). The public is able to access these as they are posted to the MCLIO Interactive Mapping website. In total, there are 97,040 parcel references to 85,322 documents. In 2015 a total of 247 documents have been scanned and indexed into the Plat of Survey scanned document library.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

W239 N 1812 ROCKWOOD DRIVE • PO BOX 1607 • WAUKESHA, WI 53187-1607 •

TELEPHONE (262) 547-6721
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WAUKESHA



MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: SEWRPC Staff

DATE: March 24, 2015

**SUBJECT: STATUS REPORT ON THE MILWAUKEE COUNTY
FLOODLAND MAPPING PROJECT**

This memorandum sets forth the progress made on the Milwaukee County Floodland Mapping project from March 13, 2013 through March 23, 2015. This status report addresses project progress in the following three major areas:

- Data Acquisition
- Hydrologic and Hydraulic Modeling
- Floodland Map Preparation

Progress is summarized in the attached Exhibit 1. The status of floodplain mapping as of March 12, 2013, is graphically summarized on the map attached hereto as Exhibit 2. The current project status is summarized on Exhibit 3. The considerable project progress since the last status report, as described below, is apparent from comparison of Exhibits 2 and 3.

DATA ACQUISITION

During the reporting period, the following data acquisition activities were carried out:

- Conducted field work to observe and collect measurements of hydraulic structures along the main stem of the Root River; the East Branch of the Root River; Unnamed Tributary No. 1 to the East Branch; the West Branch of the Root River; Unnamed Tributaries No. 3, 4, and 5 to the Root River; 104th Street Branch; Dale Creek; Scout Lake Creek; Oakwood Road Tributary; Ryan Creek; Tess Corners Creek; and Wildcat Creek.
- Obtained Wisconsin Department of Transportation (WisDOT) and/or local municipality drawings for hydraulic structures along the main stem and the East and West Branches of the Root River, 104th Street Branch, Scout Lake Creek, and Oakwood Road Tributary.

- Obtained WisDOT and/or local municipality drawings for hydraulic structures along the Menomonee River upstream of W. North Avenue and for Grantosa Creek.

When additional data needs are identified as work proceeds, the acquisition of the data will be coordinated with the Milwaukee Metropolitan Sewerage District (MMSD), the Wisconsin Department of Natural Resources (WDNR), WisDOT, and the counties and municipalities concerned.

HYDROLOGIC AND HYDRAULIC MODELING

During the reporting period, progress on hydrologic and hydraulic modeling included the following:

Menomonee River Watershed

- Work is underway on preparing an updated hydraulic model of the entire Menomonee River upstream of W. North Avenue using the U.S. Army Corps of Engineers HEC-GeoRAS software. HEC-Geo-RAS enables use of a digital elevation model developed from the 2010 Milwaukee County LiDAR data to automate the process of developing stream channel and overbank cross section geometries and mapping floodplain limits.
- Work was completed on computing the final 10-, 25-, 50-, 100-, and 500-year flood profiles for the Little Menomonee River. The 2010 topographic data developed under the MCAMLIS LiDAR mapping program was used to revise the hydraulic model of the Little Menomonee River for the reach between W. Bradley Road and W. Mill Road where the River channel and adjacent land surface area were recently altered under a U.S. Environmental Protection Agency Superfund project to remediate contaminated sediment conditions in the River.

Fish Creek Watershed

Completed work on computing the final 10-, 25-, 50-, 100-, and 500-year flood profiles for fish Creek and two tributaries to Fish Creek in the Villages of Bayside and River Hills.

Root River Watershed

○ Hydrologic Model

- The United States Environmental Protection Agency HSPF calibrated and validated continuous simulation hydrologic model of the watershed developed for the MMSD/SEWRPC Water Quality Initiative (under which the regional water quality management plan update for the greater Milwaukee watersheds and the 2020 MMSD facilities plan were prepared) is being refined for use in the MCAMLIS/MMSD/SEWRPC floodplain mapping program.
- The hydrologic model is being updated to represent planned year 2035 land use conditions. A composite 2035 planned land use mapping layer was developed using individual community and county comprehensive plans.
- A comprehensive review of digital subbasin boundaries was conducted to assess where subbasins should be further divided to provide sufficient flood flow output locations for the hydraulic modeling, and revisions and refinements were made to the subbasin mapping layer as appropriate.
- Updated hydraulic routing information has been developed for those streams for which flood profiles will be computed and floodplains mapped.

- A review is underway to determine if the model calibration needs to be refined based on the more-detailed definition of subbasins and routing reaches.
- **Hydraulic models**
 - Prepared hydraulic models of the West Branch of the Root River and the Dakota Street and 130th Street Tributaries to the West Branch of the Root River in the City of West Allis using the U.S. Army Corps of Engineers HEC-GeoRAS model. HEC-GeoRAS enables use of a digital elevation model, developed from the 2010 Milwaukee County LiDAR data to automate the process of developing stream channel and overbank cross section geometries and mapping floodplain limits. Began developing HEC-GeoRAS models of Dale and Scout Lake Creeks and Unnamed Tributary No. 3 to the Root River in the Village of Greendale; Unnamed Tributaries No. 4 and 5 to the Root River in the City of Greenfield and the Village of Greendale; Oakwood Road Tributary, Ryan Creek, and an Unnamed Tributary to Ryan Creek in the City of Franklin; Tess Corners Creek in the City of Franklin and the Village of Greendale; and Wildcat Creek and 104th Street Branch in the City of Greenfield. Continued developing HEC-GeoRAS models of the Root River main stem, which flows through the Milwaukee County Root River Parkway in the Cities of Franklin, Greenfield, and West Allis and the Village of Greendale.

FLOODLAND MAP PREPARATION

The 10-, 50-, 100-, and 500-year recurrence interval flood inundation areas were mapped along the Little Menomonee River from its mouth at the Menomonee River upstream to County Line Road and along Fish Creek.

FEMA GREAT LAKES FLOOD HAZARD MAPPING INITIATIVE

The Commission staff also continued to track developments related to the FEMA Great Lakes Flood Hazard Mapping Initiative. Under that Initiative, FEMA has completed preliminary mapping of the boundaries of the Great Lakes flood hazard areas. The boundaries mapped by FEMA will be incorporated in the MCAMLIS floodplain mapping program to the extent allowed by the MCAMLIS project schedule.

PREPARATION OF FEMA LETTER OF MAP REVISION (LOMR) AND CONDITIONAL LETTER OF MAP REVISION (CLOMR) SUBMITTALS

While LOMR and CLOMR submittals are not funded under the MCAMLIS/MMSD floodplain mapping program, the availability of the MCAMLIS/MMSD hydrologic and hydraulic models and floodplain maps for various Rivers and streams in Milwaukee County has enabled such submittals to be undertaken by the SEWRPC staff at the request of municipalities, providing benefits to the County, the municipalities within the County, and MMSD. Over the course of the MCAMLIS/MMSD floodplain mapping program, the SEWRPC staff has assisted municipalities, MMSD, WDNR, and FEMA through the provision of study technical data and floodplain maps for incorporation in FEMA flood insurance studies (FIS) and the accompanying digital flood insurance rate maps (DFIRMs). Such incorporation has occurred either through submittal of study data to WDNR and FEMA under the FEMA Map Modernization Program, or through LOMR submittals. The floodplains shown on the FEMA DFIRMs are also adopted for local floodplain zoning purposes.

Through these processes, the MCAMLIS/MMSD/SEWRPC floodplain mapping program studies for the following streams and rivers were incorporated in the 2008 Milwaukee County FIS:

- All Oak Creek watershed streams shown in red on Exhibit 3,
- Lincoln Creek,
- Legend Creek,
- Milwaukee River main stem,
- Southbranch Creek and Unnamed Tributary No. 1 to Southbranch Creek, and
- Underwood Creek and the South Branch of Underwood Creek

As described below, it is anticipated that the main stem of the Menomonee River downstream from W. North Avenue and the Kinnickinnic River and tributaries will be incorporated in FEMA DFIRMs in the relatively near future. It is anticipated that, ultimately, the floodplains of all streams studied under the MCAMLIS/MMSD/SEWRPC floodplain mapping program will be shown on FEMA DFIRMs and incorporated in local floodplain zoning ordinances.

The SEWRPC staff is currently working with the WDNR as they proceed with the FEMA Risk Mapping, Assessment and Planning (RiskMAP) program for the Milwaukee River Basin (Menomonee, Milwaukee, and Kinnickinnic River watersheds). One of the components of that program is updating DFIRMs, and the SEWRPC staff is also working with WDNR to ensure that the MCAMLIS/MMSD/SEWRPC project floodplains that have not already been incorporated on FEMA DFIRMs will be included on revised DFIRMs developed under RiskMAP.

Preparation of a FEMA CLOMR Submittal for the Menomonee River Main Stem from W. North Avenue Downstream to its Confluence with the Milwaukee River

This effort was undertaken to assist MMSD and the Cities of Milwaukee and Wauwatosa. The November 2012 CLOMR submittal, which was required by WDNR and FEMA, was prepared to reflect both local projects and projects constructed under the MMSD stream rehabilitation and flood mitigation program and to evaluate similar projects committed to be implemented in the near future.

Because of the complex and interrelated nature of the various projects undertaken by MMSD and others along this reach of the River, and because of the SEWRPC staff's familiarity with the hydrology of the watershed and the Menomonee River through development of the supporting models, the parties to this CLOMR process, including MMSD, the Cities of Milwaukee and Wauwatosa, and WDNR requested that the SEWRPC staff prepare the CLOMR submittal. That submittal, which was prepared at no cost to the parties involved, required about eight person-months of SEWRPC staff time to prepare. That time was diverted from the MCAMLIS/MMSD project. The submittal required preparation of a second hydraulic model, reflecting the existing and committed projects described below; new floodplain maps; and a FEMA Technical Support Data Notebook completely documenting the analyses.

FEMA is in the process of reviewing the CLOMR submittal, and the SEWRPC staff is working with WDNR, FEMA, MMSD, and the Cities of Milwaukee and Wauwatosa to answer questions posed by the FEMA review contractor, and to provide supplemental information that has been requested.

The projects included in the CLOMR submittal that have already been completed include the following:

- **MMSD Milwaukee County Grounds Flood Management Basin** This is an off-line detention basin located in the City of Wauwatosa and designed to capture flow from Underwood Creek

during periods of high streamflow, temporarily detain this water, and gradually release it to the Menomonee River downstream of the confluence with Underwood Creek. The basin drains by gravity flow and is intended to reduce peak flood flows along the lower reach of Underwood Creek below the diversion point and along the Menomonee River downstream of Underwood Creek. Many of the other flood control project components described below take advantage of these reduced flood discharges in their design. This basin became operational in 2011.

- **MMSD Hart Park Flood Levee/Floodwall Construction and Floodplain Lowering** This project is located between river miles 5.6 and 6.6 in the City of Wauwatosa, and includes a combination floodplain lowering (north overbank), replacement of a masonry wall along the north channel bank with limestone blocks and riprap, and construction of a series of earthen levees and reinforced concrete floodwalls. The project was designed to provide protection for floods up to and including the one-percent-annual-probability event. The levees and floodwalls were designed to meet FEMA freeboard requirements.
- **Hart Park Athletic Fields and Bandshell** These projects were carried out by the City of Wauwatosa and consist of replacement of a combination football/track facility with viewing stands as well adjacent tennis courts, all located north and east of the River near the west end of Hart Park. This work included some minor regrading. Also constructed was an open-air bandshell within the newly lowered floodplain north of the River near the east end of Hart Park, between N. 68th and N. 70th Streets.
- **North 70th Street Bridge Replacement** This crossing is located at river mile 6.1 and was replaced by WisDOT in 2010.
- **MMSD Western Milwaukee Flood Management Project - Phase 1** This project is located between river miles 4.66 and 4.84 in the City of Milwaukee and includes a combination of structure removal, floodplain lowering (north overbank) and construction of an earthen levee in the north overbank. The project was designed to provide protection for floods up to and including the one-percent-annual-probability event when coupled with the remaining phases of the Western Milwaukee project that are described below. The levee was designed to meet FEMA freeboard requirements.
- **City of Milwaukee Menomonee Valley Shops Redevelopment** This project is located within the north overbank of the River between 33rd Court and Selig Drive (roughly river miles 2.5 to 2.9) and was carried out by the City of Milwaukee in partnership with the Menomonee Valley Partners, a Section 501(c) (3) non-profit organization dedicated to revitalizing the Menomonee Valley. The project consists of filling within the floodplain fringe on the former Milwaukee Road railroad property in order to allow for the development of a light industrial and business park. The project included removal of an earthen berm along the north River bank, installation of a series of stormwater management measures, and the extension of W. Canal Street. Filling and grading related to this project is reflected on the 2010 Milwaukee County topographic mapping.
- **Menomonee Valley Passage Phase 1 (Hank Aaron State Trail bridge)** This project is located at about river mile 2.8 and was constructed in 2010 by the WisDOT in partnership with Menomonee Valley Partners, WDNR, the City of Milwaukee, and the Urban Ecology Center. The bridge is a steel truss structure spanning the Menomonee River and was constructed to convey a recreational trail designed for pedestrian and bicycle traffic.

Projects included in the CLOMR submittal that are committed but have not yet been implemented include the following:

- **Hart Park Muellner Building Floodproofing** This project is located at about river mile 6.4 and is proposed by the City of Wauwatosa. It consists of grading and construction of a reinforced concrete floodwall surrounding a building located within Hart Park that houses a senior community center, curling rink, and park garage facility. This project is intended as a floodproofing measure designed to protect this structure. This project is ready to be implemented and is awaiting approval of the CLOMR.
- **Hart Park Picnic Shelter and Playground** This project by the City of Wauwatosa is located along the north overbank of the River, just east of N. 70th Street. It consists of some minor re-grading within the floodplain, installation of playground equipment, and construction of a picnic shelter with a meeting room and restroom facilities. A portion of the grading would encroach into the one-percent-annual-probability floodway. Grading and installation of the playground equipment was completed in 2011. The picnic shelter has been constructed.
- **MMSD Western Milwaukee Flood Management Project - Phases 2a and 2b** This project is located between river miles 4.5 and 5.6 in the Cities of Milwaukee and Wauwatosa and consists of structure removal and construction of a series of earthen levees and reinforced concrete floodwalls in the north overbank. A portion of the north overbank between river miles 5.4 and 5.6 would be lowered and a portion of Schoonmaker Creek, a tributary to the Menomonee River that is currently enclosed in a conduit, would be exposed. The project was designed to provide protection for floods up to and including the one-percent-annual-probability event. The levee and floodwall are being designed to meet FEMA freeboard requirements.
- **MMSD Menomonee Fish Passage Phase 1** This project is located between river miles 4.06 and 4.27 and consists of removal of the existing concrete streambed and replacement with a more naturalized system consisting of a meandering low-flow channel with pools and riffle sequences to aid fish passage, which is currently hampered due to high flow velocities along this reach. Existing WPA masonry walls defining the channel sides would remain. This project has been constructed.
- **Menomonee Valley Passage Phase 2 (Airline Yards/Hank Aaron State Trail Project)** This project is located between river miles 2.1 and 2.6 and consists of extending the Hank Aaron State Trail along the south River bank, constructing a steel truss bridge crossing to convey the trail over the River, re-grading of portions of the River side slopes to address severe erosion problems and to facilitate access to the River, and installation of instream aquatic habitat measures. The project is being carried out by WisDOT in partnership with the Menomonee Valley Partners, WDNR, the City of Milwaukee, and the Urban Ecology Center. The project has been constructed.
- **Menomonee River North Riverbank Restoration Project** This project is located between 33rd Court and 35th Street (roughly river miles 2.5 to 2.6) and is intended to address severe erosion problems along the northern channel slope. The project is being carried out by the City of Milwaukee and will consist of flattening the channel side slope through a combination of excavation and fill. The slopes will then be re-vegetated. In addition, an extension of the Hank Aaron State Trail will be constructed along the top of the channel bank.

Preparation of a FEMA LOMR Submittal for the Kinnickinnic River Main Stem and Tributaries

In response to a request from the City of Milwaukee, MMSD, and WDNR, the SEWRPC staff has prepared materials for a Letter of Map Revision (LOMR) submittal. As a first step in that process, the hydrologic analysis was submitted to the WDNR, whose review necessitated revisions to the hydrologic model for the watershed. That revision has resulted in the need to revise the hydraulic models and floodplain boundaries, work that is currently underway. Upon completion, the revised hydraulic models and floodplain maps will be provided to the WDNR for review. Upon approval by the WDNR, a formal

LOMR submittal will be made to FEMA. Unlike the CLOMR submittal, the LOMR submittal only addresses MMSD and City of Milwaukee/WisDOT projects that have already been constructed; however, preparation of the LOMR submittal required several person-months of SEWRPC staff time as the work involved updating the models and floodplain mapping to reflect projects completed in recent years, as well as changes requested by the WDNR. The SEWRPC staff time commitment is ongoing as the WDNR and FEMA perform their reviews.

PREPARATION OF MMSD WATERCOURSE SYSTEM MANAGEMENT PLANS

Another positive outgrowth of the availability of the updated maps developed under the MCAMLIS/MMSD/SEWRPC floodplain mapping program has been the preparation by the SEWRPC staff of new, or updated, MMSD watercourse system plans for flood mitigation for the entire Oak Creek watershed, with a focus on the upper reaches of the North Branch of Oak Creek; the Milwaukee River main stem in Milwaukee County; Beaver Creek (in progress); and Honey Creek (in progress). Preparation of these plans has required, and will continue to require, coordination of SEWRPC engineering and planning staff resources to enable timely completion of the plans while continuing to progress on the MCAMLIS/MMSD/SEWRPC floodplain mapping project.

PROPOSED SCHEDULE FOR COMPLETION OF PROJECT

Considerable progress has been made on the MCAMLIS/MMSD/SEWRPC floodplain mapping project during this two-year reporting period. Over the course of the project, the availability of the updated floodplain analyses and maps has led to additional demands on SEWRPC staff time related to the provision of study data for incorporation on FEMA DFIRMs and for preparation of MMSD watercourse system plans. Those time demands have been noted in status reports issued throughout the duration of the project, and they continue as described above. To assist municipalities, Milwaukee County, and MMSD to the greatest degree possible, the SEWRPC staff has willingly undertaken the floodplain study submittal projects and the watercourse system plans. As a result, considerable benefits have accrued, or will accrue, to those parties through 1) the availability of updated, high-quality floodplain maps for local zoning and planning purposes and for Federal flood insurance purposes, 2) satisfaction of WDNR and FEMA regulatory requirements that updated floodplain studies be submitted shortly after completion, 3) official recognition by WDNR and FEMA and local zoning adoption of floodplains reflecting MMSD flood mitigation projects, and 4) the availability of new or updated flood mitigation plans.

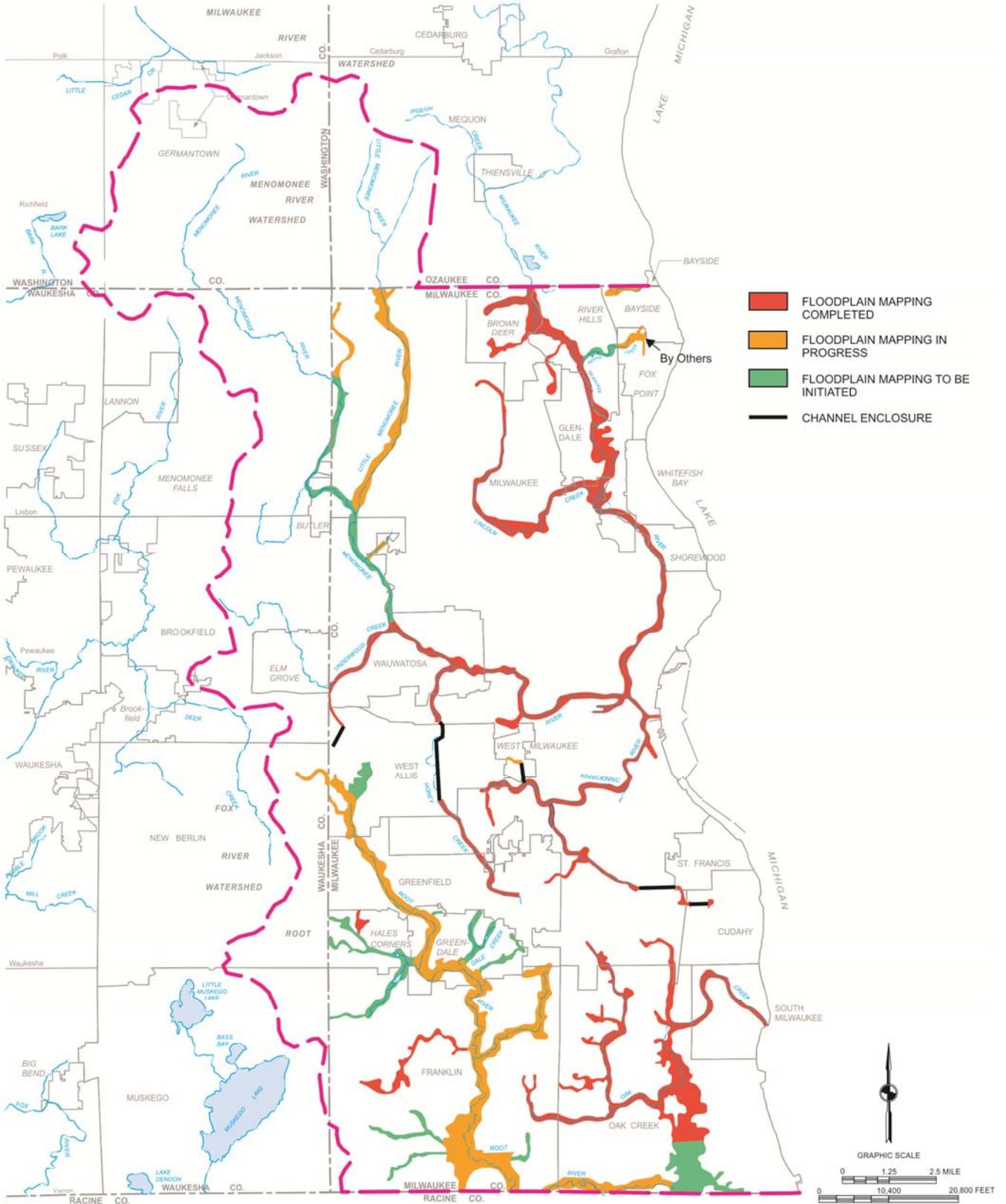
Over the past two years, SEWRPC engineering staff resources have been expanded to devote more time to the MCAMLIS/ MMSD/SEWRPC floodplain mapping, and the project progress over that period reflects that reallocation. The SEWRPC staff recently began work for the watercourse component of the MMSD 2050 facilities plan that incorporates and expands on the completed and ongoing MCAMLIS/MMSD/SEWRPC floodplain mapping efforts in the Menomonee, Milwaukee, and Root River watersheds, the Oak Creek watershed, and the Fish Creek subwatershed. That work is to be completed by July 1, 2016. Consistent with the schedule for that work, and accounting for the additional work that results from preparation of the updated floodplain maps as described in detail above, the project schedule has been adjusted. Thus, while it was intended that the project would be completed by December 31, 2015, when the preceding status report was submitted on March 12, 2013, it is now scheduled to be completed by June 30, 2016.

* * *

KRY/RJP/MGH/LLK/pk
03/05/15

Exhibit 2

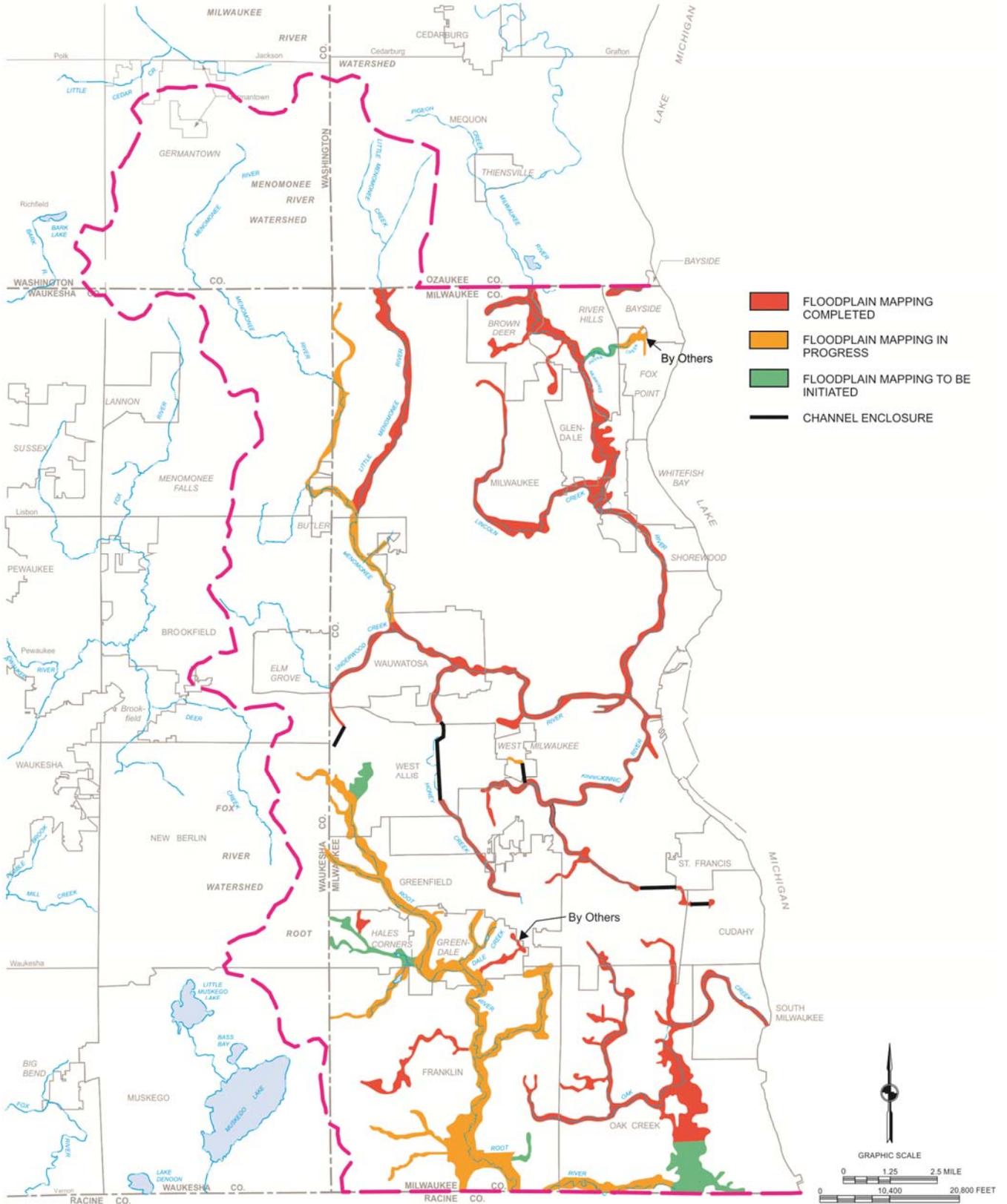
STATUS OF FLOODPLAIN MAPPING IN MILWAUKEE COUNTY: MARCH 12, 2013



Source: SEWRPC.

Exhibit 3

STATUS OF FLOODPLAIN MAPPING IN MILWAUKEE COUNTY: MARCH 23, 2015



Source: SEWRPC.

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

W239 N1812 ROCKWOOD DRIVE • PO BOX 1607 • WAUKESHA, WI 53187-1607 • TELEPHONE (262) 547-6721
FAX (262) 547-1103

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MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: Kurt W. Bauer, PE, RLS, AICP
Milwaukee County Surveyor

DATE: February 22, 2015

SUBJECT: MILWAUKEE COUNTY SURVEYOR ACTIVITIES—2014

This memorandum is intended to provide the MCAMLIS Steering Committee with a report on the work of the Milwaukee County Surveyor in the calendar year extending from January 1, 2014, through December 31, 2014. The office, and the duties and functions, of the County Surveyor are prescribed by Section 59.45 of the *Wisconsin Statutes*. In Milwaukee County the necessary work, pursuant to the direction of the County Board, is funded by document recording fees retained by the County pursuant to Section 59.43(2) of the *Wisconsin Statutes*. Since the MCAMLIS Steering Committee is charged by contract between Milwaukee County and the public and private utilities operating within the County with administering these retained recording fees, a report to the Committee on the activities of the County Surveyor is in order.

Within Milwaukee County, the U.S. Public Land Survey System has been combined with the State Plane Coordinate System and the National Geodetic Vertical Control System to provide the high order horizontal and vertical control survey network required for the preparation and maintenance of the MCAMLIS large-scale topographic and cadastral maps. Therefore, the work of the Milwaukee County Surveyor entails not only the maintenance of the U.S. Public Land Survey System as such, but also the maintenance of the MCAMLIS horizontal and vertical control survey network. Consequently, the work requires expertise in geodetic, as well as plane, surveying and in the legal aspects of property boundary determination.

Attachment 1 to this memorandum consists of a map of Milwaukee County on which are shown the location of all of the corners of the U.S. Public Land Survey System for which various types of perpetuation activities were undertaken in calendar year 2014. These activities involved the replacement of monuments marking the location of section, quarter section, center of section, witness and meander corners which were reported as damaged, disturbed, or destroyed, by construction, or other activities or actions. The work involved the setting of new monuments; and, as necessary, the replacement of attendant witness marks and benchmarks, the verification or establishment of new State Plane Coordinate values for corner monuments, and elevations for benchmarks. A total of eight corners required the reestablishment of vertical control survey reference benchmarks which in turn created the need for the Commission staff to complete about 8.5 miles of high order differential level lines. New records of U.S. Public Land Survey control station records – dossier sheets – were prepared for each corner shown on Attachment I.

A copy of each completed new dossier sheet is provided in Attachment 2 to this memorandum. As already noted, and indicated on Attachment 1, a total of 25 U.S. Public Land Survey corners were involved in the perpetuation activity from January 1, 2014, through December 31, 2014. In some cases, the perpetuation activity resulted in revised elevations for both the corner monuments concerned and the attendant benchmarks. In such cases, control survey summary diagrams were updated to reflect those changes. A copy of each of the revised diagrams concerned is herewith provided as Attachment 3.

Perpetuation of the corners included, where possible and necessary, the setting of preconstruction witness marks for the corners; remonumentation of the corners; the conduct of high order vertical control surveys to establish the elevations of the corner monuments and of accessories thereto, and the preparation of new dossier sheets for the corners. Where necessary high order traverse or global positioning system (GPS) surveys were conducted to reestablish, or verify, the state plane coordinate positions of corners.

Preconstruction field work was also completed for 57 U.S. Public Land Survey corners that are expected to require perpetuation due to street and highway or utility reconstruction proposed to be carried out in 2015. These corners are identified on Attachment 1 by open circles. This work included inspection of proposed construction limits at the corner locations; the setting and the measurement of distances to temporary witness marks located outside of the anticipated construction limits; and the transfer of reference benchmark elevations to stable benchmarks set outside of the anticipated construction limits. Remonumentation, attendant setting of witness monuments, and auxiliary benchmarks, for the 57 corners concerned should be completed in 2015. New dossier sheets will be prepared for the corners concerned following the completion of the construction projects and attendant corner perpetuation work.

It should be noted that, in accordance with Milwaukee County policies relative to the participation and use of disadvantaged business enterprises in the provision of County services, a contract was entered into with the firm of Dakota Intertek Corporation of Milwaukee, Wisconsin--a minority owned firm--to provide assistance to the County Surveyor pertaining to the maintenance of the U. S. Public Land Survey System. More specifically, the contract provided for assistance in the remonumentation of broken or substandard concrete monuments marking the location of corners pertaining to the system. The contract specified 10 such monument locations where the contractor was instructed by the County Surveyor as to what type of work was to be performed and the specifications that were to be followed. After completion of such work, the County Surveyor performed an inspection of the monument installations, all of which were found to be in compliance with the specifications governing the work. Payment was made to the contractor in the amount of \$16,687.61 on July 07, 2014. This amount constituted 21 percent of the total cost of the County Surveyor services, thus exceeding the goal established by Milwaukee County for the participation of a disadvantaged business enterprise in this regard.

Pursuant to State Statutes, Registered Land Surveyors must provide to the County Surveyor for filing copies of all plats of surveys other than land subdivision plats and certified survey maps prepared for surveys conducted within the County. Through December 31, 2014, the County Surveyor received, indexed, and filed 1,304 copies of new land surveys completed in 2014 within the County. In 2011, the Commission completed a project incorporating into the filing system historic plats of surveys acquired from a now defunct land surveying firm, totaling literally thousands of plats. The MCAMLIS staff also incorporated historic plats of survey files in Milwaukee County offices, again totaling thousands of plats, bringing the total number of records of land surveys completed within the County, which have been filed with the County Surveyor since the inception of this work in 1984, to 85,582. The filed records are indexed to permit retrieval by name of the surveyor concerned, the property owner concerned, the address of the property concerned, if shown on the plat, the date of the survey plat, the civil division, and the U.S. Public Land Survey Township and Range, and Section and one-quarter section within which the plat is located.

In 2012, the County Surveyor assisted MCAMLIS staff in the coordination of an annual program to update the Milwaukee County website in order to incorporate the 1,304 copies of new land surveys received during the year and those to be received in subsequent years. The MCAMLIS staff produced digital scans of the 1,304 hardcopies, and merged the new files with the existing files to create a total of 85,582 plats of survey that have been filed with the County Surveyor as of December 31, 2014. The purpose and intent of this project was to create a single digital database from the separate databases maintained by the office of the County Surveyor and MCAMLIS, and to allow the digital images of the plats of survey to be accessed by the public through the MCAMLIS portion of the Milwaukee County website.

* * *

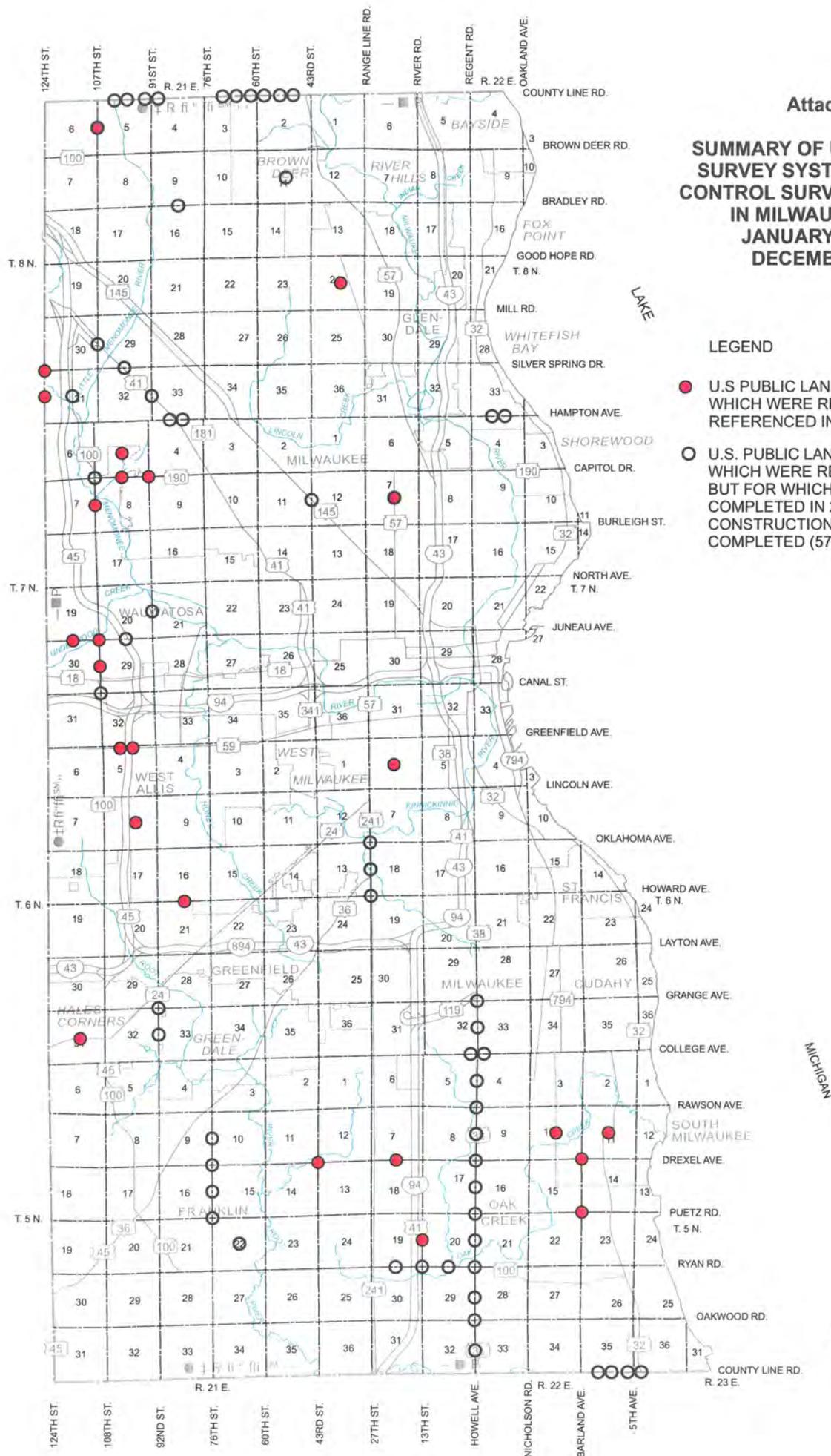
KWB/RWM/lgh
MKE CO. SURVEYOR ACTIVITIES 2013 (00223859).DOC

Attachments

cc: Mr. Robert W. Merry, Chief Surveyor, SEWRPC
Mr. William C. Shaw, GIS Supervisor and MCAMLIS Project Manger
Ms. Marcia G. Cornell, Manager Central Drafting and Records, City of Milwaukee
Mr. Gregory G. High, Director, Architectural, Engineering and Environmental Services,
Milwaukee County
Mr. Daniel R. Talarczyk, Survey Services Supervisor, Milwaukee Metropolitan Sewerage District
Ms. Mary Dziewiontkoski, Project Programming, City of Milwaukee

Attachment 1

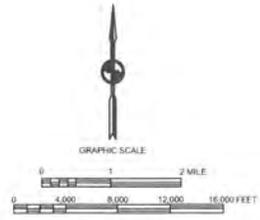
SUMMARY OF U.S. PUBLIC LAND SURVEY SYSTEM CORNER AND CONTROL SURVEY PERPETUATION IN MILWAUKEE COUNTY: JANUARY 1 THROUGH DECEMBER 31, 2014



LEGEND

- U.S. PUBLIC LAND SURVEY CORNERS WHICH WERE REMONUMENTED AND/OR REFERENCED IN 2014 (25)
- U.S. PUBLIC LAND SURVEY CORNERS WHICH WERE REMONUMENTED IN 2014 BUT FOR WHICH REFERENCING WILL BE COMPLETED IN 2015 DUE TO CONSTRUCTION PROJECTS NOT FULLY COMPLETED (57)

MICHIGAN



Source: SEWRPC.

RECORD OF U. S. PUBLIC LAND SURVEY CONTROL STATION

U. S. PUBLIC LAND SURVEY CORNER 11|12 T 5 N, R 21 E, MILWAUKEE COUNTY, WISCONSIN
14|13

HORIZONTAL CONTROL SURVEY BY: AERO-METRIC ENGINEERING, INC. YEAR: 1993
 VERTICAL CONTROL SURVEY BY: AERO-METRIC ENGINEERING, INC./SEWRPC YEAR: 1993/2014

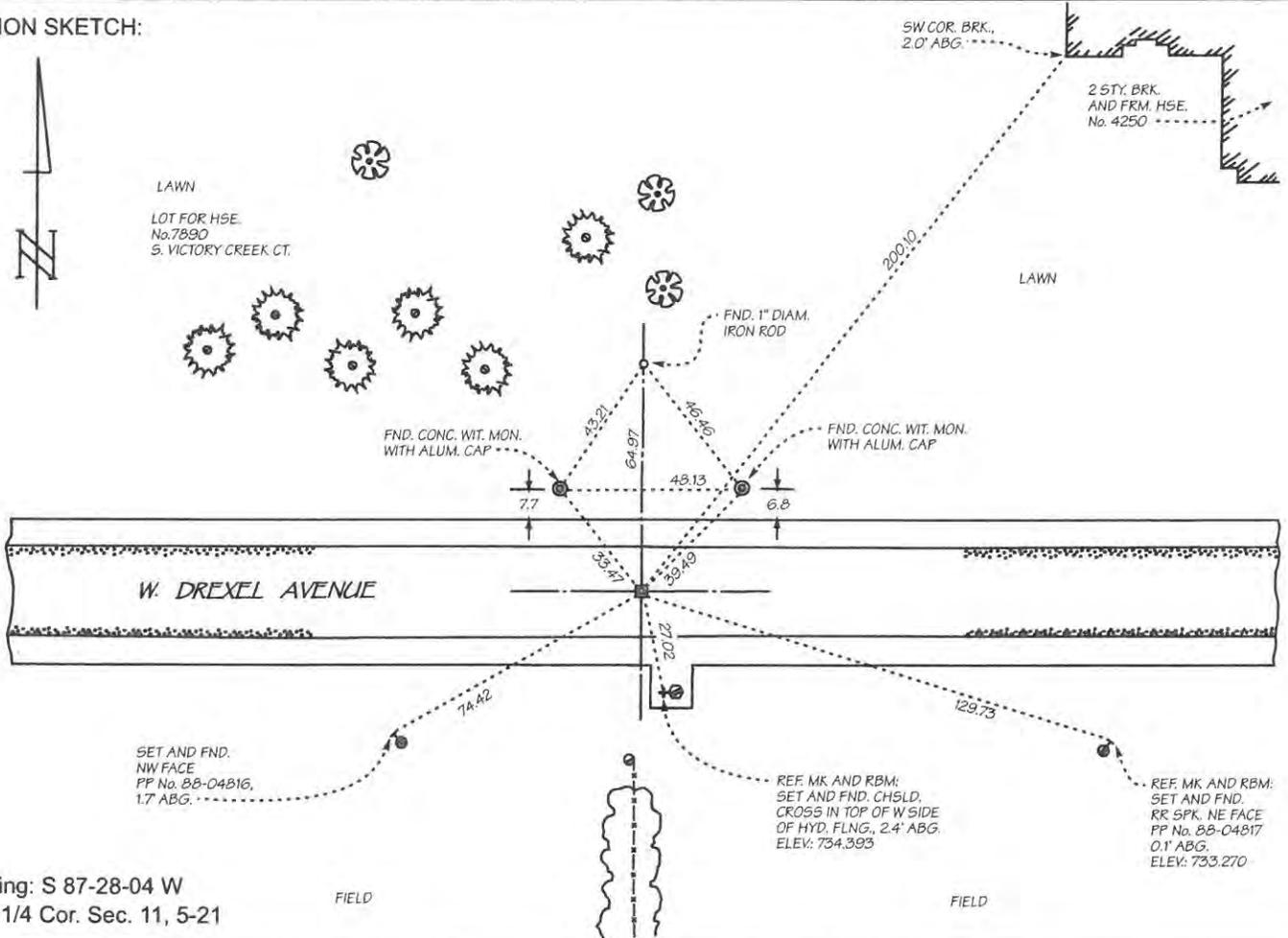
STATE PLANE COORDINATES OF: SECTION CORNER
 NORTH 335,229.04
 EAST 2,543,835.23
 ELEVATION OF STATION: 732.983

HORIZONTAL DATUM: WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE
 NORTH AMERICAN DATUM OF 1927

VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929 THETA ANGLE: +1-23-41

CONTROL ACCURACY:
 HORIZONTAL: THIRD ORDER, CLASS I VERTICAL: SECOND ORDER, CLASS II

LOCATION SKETCH:



Bearing: S 87-28-04 W
 To S 1/4 Cor. Sec. 11, 5-21

SURVEYOR'S AFFIDAVIT:

STATE OF WISCONSIN) SS
MILWAUKEE COUNTY)

As Milwaukee County Surveyor, I hereby certify that I set a concrete monument with SEWRPC brass cap to mark the location of this corner; replacing a deteriorated concrete monument with Wisconsin Department of Transportation aluminum cap in a cast iron handhole, said monument with aluminum cap having been found and referenced by me as Milwaukee County Surveyor on September 15, 1992 and also on September 11, 2002; said concrete monument with aluminum cap having been set to mark the location of this corner in August 1988 by

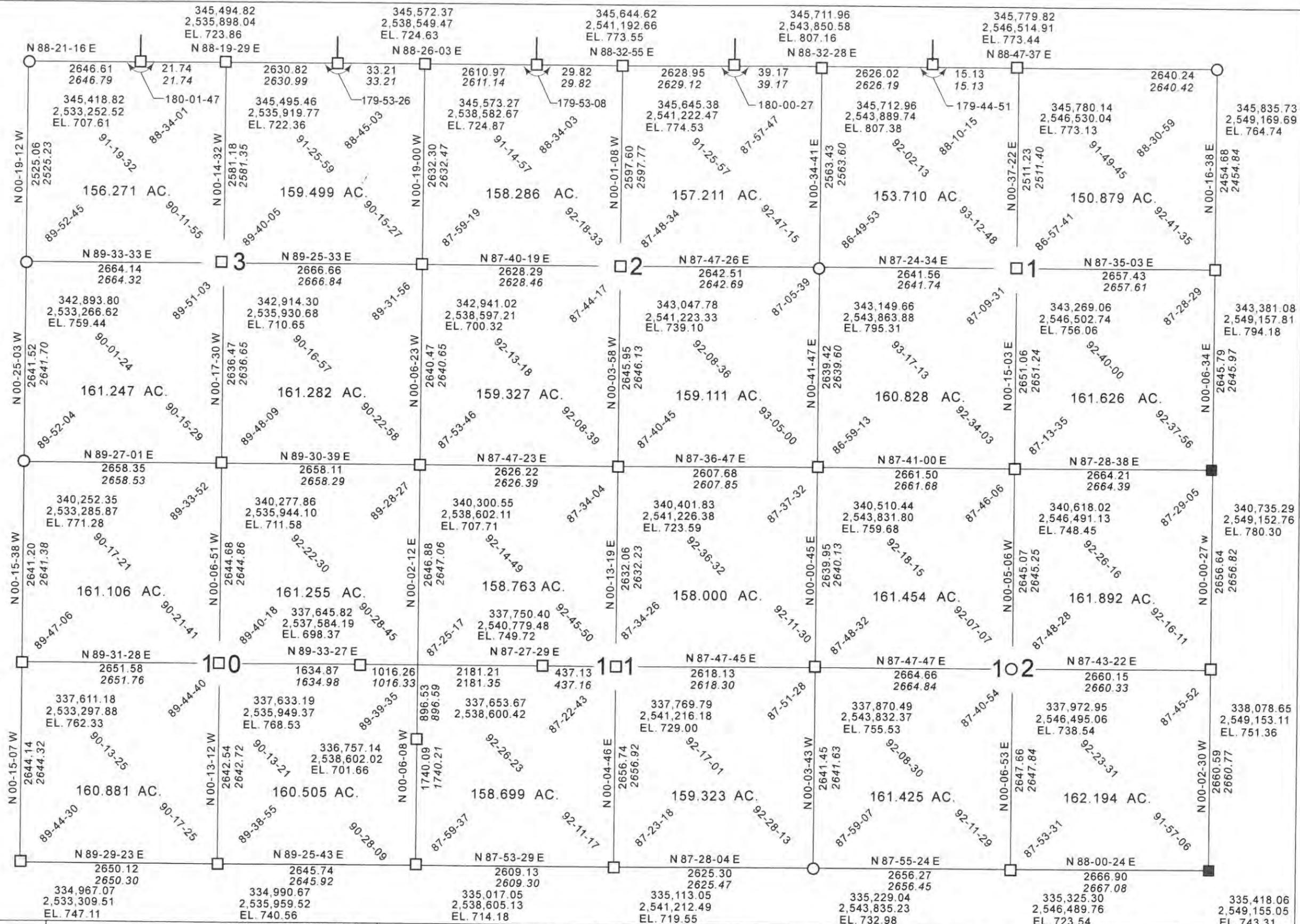
Gerald R. Sommers, S-983, Wisconsin Department of Transportation Project Engineer, following street reconstruction; replacing a concrete monument with brass cap set to mark the location of this corner in June 1987 by Rodale F. Formella, S-916, following sanitary sewer construction; replacing a broken concrete monument; said concrete monument with Wisconsin Department of Transportation aluminum cap in a cast iron handhole, said monument with aluminum cap having been found and referenced by me as Milwaukee County Surveyor on September 15, 1992 and also on September 11, 2002; said concrete monument with aluminum cap having been set to mark the location of this corner in August 1988 by Gerald R. Sommers, S-983, Wisconsin Department of Transportation Project Engineer, following street reconstruction; replacing a concrete monument with brass cap set to mark the location of this corner in June 1987 by Rodale F. Formella, S-916, following sanitary sewer construction; replacing a broken concrete monument; said concrete monument with Wisconsin Department of Transportation aluminum cap in a cast iron handhole, said monument with aluminum cap having been found and referenced by me as Milwaukee County Surveyor on September 15, 1992 and also on September 11, 2002; said concrete monument with aluminum cap having been set to mark the location of this corner in August 1988 by Gerald R. Sommers, S-983, Wisconsin Department of Transportation Project Engineer, and accepted as marking this corner by Elmer G. Seehawer, City of Milwaukee engineering staff member; said limestone monument having been set to mark the location of this corner in 1878 by Jonathan C. Croance, Surveyor, in the conduct of the remonumentation of the Town of Franklin; replacing in turn a wood post; the location of said wood post having been verified by Mr. Croance using recorded distances to still extant bearing trees identified in the original U. S. Public Land Survey notes dated May 29, 1836; said wood post having been set to mark this corner in May 1836 by Elisha Dwell, Deputy United States Surveyor, in the conduct of the original United States Public Land Survey; that I have referenced the same as shown hereon; and that this record is correct and complete to the best of my knowledge and belief.

DATE OF SURVEY: 28 Aug. 2014

Kurt W. Bauer
 REGISTERED LAND SURVEYOR



S - 157



LEGEND

- U.S. PUBLIC LAND SURVEY CORNER, MARKED BY 6" x 6" x 36" CONC. MONUMENT WITH SEWRPC BRASS CAP
- U.S. PUBLIC LAND SURVEY CORNER, MARKED BY 6" x 6" x 36" CONC. MONUMENT WITH BRASS CAP
- U.S. PUBLIC LAND SURVEY CORNER, MARKED BY OTHER MONUMENTATION
- △ N.G.S. HORIZONTAL CONTROL STATION

HORIZONTAL DATUM IS BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM GRID, SOUTH ZONE (NAD-27), AND ALL BEARINGS ARE REFERRED TO GRID NORTH.

COMBINATION SCALE AND SEA LEVEL REDUCTION FACTOR: 0.99993362

DIMENSIONS SHOWN IN ITALICS INDICATE GROUND LEVEL DISTANCES.

VERTICAL DATUM IS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929. SUBTRACT 580.80 TO PLACE ELEVATIONS ON CITY OF MILWAUKEE DATUM.

**CONTROL SURVEY SUMMARY DIAGRAM
FOR
SECTION SURVEYS
IN THE
CITY OF FRANKLIN AND
VILLAGE OF GREENDALE
MILWAUKEE COUNTY, WISCONSIN**

DRAWN BY: C. A. SYRRAKOS	DATE: OCT, 1993
CHECKED BY: L. H. KREBLIN	DATE: OCT, 1993
APPROVED BY: <i>[Signature]</i>	DATE: OCT, 1993
REVISED: N. A. NEJEDLO	DATE: OCT, 2013
REVISED: A. J. TRAEGER	DATE: FEB, 2015

DOSSIER SHEETS CONTAINING ALL INFORMATION NECESSARY FOR RECOVERY AND USE OF CONTROL SURVEY STATIONS AVAILABLE FROM SEWRPC.

SECTIONS
3, 2, 1,
10, 11, 12
T. 5 N. R. 21 E.
MILWAUKEE
COUNTY



**DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF ECONOMIC DEVELOPMENT
MILWAUKEE COUNTY LAND INFORMATION OFFICE**

633 West Wisconsin, Suite 903, Milwaukee, WI 53203 (414) 278-2176

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: March 24, 2015
SUBJECT: 2014 MCAMLIS Highlights

- Orthophotography/Oblique/LiDAR Imagery collection approved and scheduled for spring 2015.
 - Completed rectifying historical aerial photos for years 1937, 1970, 1975, 1980, 1985, 1990. These are being prepared to be posted in 2015.
 - Completed a project to polygonalize existing Planimetric Feature data. Final delivery and distribution was completed 1st qtr. 2015.
 - Quarterly completion and posting of Address and cadastral mapping updates, maintained by Milwaukee County and the City of Milwaukee.
 - Completed 7 of 9 tasks included in the 2014-2015 Work Plan.
 - VWR -01: Viewer/Pictometry Improvement
 - MBL -02: Feature Data Service for Parcels
 - COL -01: Collaborative Education and Training
 - COL -02: Formalize Business Planning
 - MOL- 01: Website Improvement
 - DAT-01: Non-Vector Data Improvement
 - DAT -02: Vector Data Improvement
- 2 of 9 tasks are scheduled into the 2015-2016 Work Plan
- VWR -02: MCAMLIS Data Extract Service
 - MBL -01: Mobile Property Locator
 - Facilitated the 9th-12th Milwaukee Municipal GIS Users Group (MMGUG) Meetings
 - Conducted 95th – 97th MCAMLIS Steering Committee Meetings

2014 MCAMLIS Final

		Final
REVENUES - 2014 YTD		
2014 Actual Revenue		\$775,153
2013 Encumbrances Carried Over		\$315,014
TOTAL		<u>\$1,090,167</u>
OPERATING EXPENSES - 2014 YTD		
2014 Actual Expenditures		\$839,285
2014 Encumbrances		\$339,945
TOTAL		<u>\$1,179,230</u>
2013 Est. Net Income (Loss)		<u>(\$89,063)</u>

Fund Balance:		Final
2013 Year-End Fund Balance*		\$1,547,750
2014 Operating Revenues (Shown Above)	+	\$1,090,167
2014 Exp + Enc for \$8 Fee Projects	-	\$1,179,230
2014 Est Fund Balance**	=	\$1,458,687
2014 Est Fund Balance YTD - Unrestricted		\$1,101,032
2014 Est Fund Balance YTD - Restricted		\$357,655

*2013 YE Fund Balance represents the current amount in reserve as of 2013 YE close.

2014 YTD Combined Fiscal Report - MCAMLIS (\$8) - as of 12-31-2014

Vendor Name	Description	Amount Authorized	Amount Paid - Prior Years	2014 Amount Encumbered	Amount Paid 2014 YTD	Total Amount Paid 2014 (Encumbrances + Actual)	Remaining Unpaid Balance
SOUTHEASTERN WI REGIONAL	MCAMLIS Floodland Mapping Phase 2	\$ 436,000	\$ 161,300	\$ 274,700	\$ -	\$ 274,700	\$ -
SOUTHEASTERN WI REGIONAL	County Surveyor	\$ 78,719	\$ -	\$ -	\$ 78,719	\$ 78,719	\$ -
GRW	Planimetric Map Replacement	\$ 125,000	\$ 108,618	\$ -	\$ 16,382	\$ 16,382	\$ -
CITY OF MILWAUKEE	Cadastral Address Maintenance	\$ 91,780	\$ -	\$ 45,890	\$ 45,890	\$ 91,780	\$ -
	<u>2014 Work Plan</u>						
GEOCORTEX	VWR: Improve MCLIO Mapping Service	\$ 70,000	\$ -	\$ -	\$ 1,011	\$ 1,011	\$ 68,989
	MBL: Mobile Property Viewer	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
ESRI	COL: Collaborative Training & Education	\$ 25,000	\$ -	\$ 2,250	\$ -	\$ 2,250	\$ 22,750
RADGOV	COL: Business Planning	\$ 20,000	\$ -	\$ -	\$ 8,952	\$ 8,952	\$ 11,048
RADGOV	MOL: Website Improvements	\$ 20,000	\$ -	\$ -	\$ 3,659	\$ 3,659	\$ 16,341
GRW	DAT: Planimetric Polygon Processing	\$ 98,650	\$ -	\$ 5,870	\$ 92,780	\$ 98,650	\$ -
SEWRPC	DAT: Regional Orthophotography	\$ 126,158	\$ -	\$ -	\$ -	\$ -	\$ 126,158
SEWRPC	DAT: Regional Elevation Data	\$ 62,343	\$ -	\$ -	\$ -	\$ -	\$ 62,343
SIDWELL INC, RADGOV	DAT: Historical Aerials	\$ 11,000	\$ -	\$ 2,750	\$ 8,224	\$ 10,974	\$ 26
	TOTAL	\$ 1,214,650	\$ 269,918	\$ 331,460	\$ 255,618	\$ 587,077	\$ 357,655

2015 MCAMLIS YTD

		YTD	YE Projected
REVENUES - 2015 YTD			
2015 Actual Revenue		\$139,816	\$718,772.39
2014 Encumbrances Carried Over		\$339,945	\$339,945
	TOTAL	<u>\$479,761</u>	<u>\$1,058,717</u>
OPERATING EXPENSES - 2015 YTD			
2015 Actual Expenditures		\$119,073	\$612,135.85
2015 Encumbrances		\$618,313	\$618,313
	TOTAL	<u>\$737,386</u>	<u>\$1,230,449</u>
2015 Est. Net Income (Loss)		<u>(\$257,625)</u>	<u>(\$171,731)</u>

Fund Balance:		YTD	YE Projected
2014 Year-End Fund Balance*		\$1,458,687	\$1,458,687
2015 Operating Revenues (Shown Above)	+	\$479,761	\$1,058,717
2015 Exp + Enc for \$8 Fee Projects	-	\$737,386	\$1,230,449
2015 Est Fund Balance**		= \$1,201,062	\$1,286,956
2015 Est Fund Balance YTD - Unrestricted		\$1,007,536	\$1,093,429
2015 Est Fund Balance YTD - Restricted		\$193,526	\$193,526

*2014 YE Fund Balance represents the current amount in reserve as of 2014 YE close.

**2015 Est YTD Fund Balance represents the 2014 YE reserve netted against the actual 2015 expenditures and revenues. This figure will change throughout the year as additional 2015 expenditures and revenues are realized.

NOTE: 2015 expenditures, revenues, and resulting fund balance are year-to-date ONLY. The figures represented in this report are not intended to project a year-end balance for the MCAMLIS budget. The purpose of the report is to provide committee members a "financial snapshot" of MCAMLIS activities within a specific point in time.

2015 YTD Fiscal Report - MCAMLIS (\$8) - as of 3-13-2015

Vendor Name	Description	Amount Authorized	Amount Paid - Prior Years	2015 Amount Encumbered	Amount Paid 2015 YTD	Total Amount Paid 2015 (Encumbrances + Actual)	Remaining Unpaid Balance
SOUTHEASTERN WI REGIONAL	MCAMLIS Floodland Mapping Phase 2	\$ 436,000	\$ 161,300	\$ 274,700	\$ -	\$ 274,700	\$ -
SOUTHEASTERN WI REGIONAL	County Surveyor	\$ 82,916	\$ -	\$ -	\$ -	\$ 82,916	\$ -
CITY OF MILWAUKEE	Cadastral Address Maintenance	\$ 91,780	\$ -	\$ 91,780	\$ -	\$ 91,780	\$ -
	<u>2015 Authorized Projects</u>						
GEOCORTEX	VWR: Improve MCLIO Mapping Service	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000
	MBL: Mobile Property Viewer	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
GRW	DAT: Planimetric Polygon Processing	\$ 98,650	\$ 92,780	\$ 5,870	\$ -	\$ 5,870	\$ 0
SEWRPC	DAT: Regional Orthophotography	\$ 126,158	\$ -	\$ 121,950	\$ -	\$ 121,950	\$ 4,208
SEWRPC	DAT: Regional Elevation Data	\$ 62,343	\$ -	\$ -	\$ -	\$ -	\$ 62,343
SIDWELL INC, RADGOV	DAT: Historical Aerials	\$ 10,000	\$ -	\$ 1,750	\$ 1,275	\$ 3,025	\$ 6,975
	TOTAL	\$ 1,027,847	\$ 254,080	\$ 496,050	\$ 1,275	\$ 580,241	\$ 193,526

Statewide Digital Parcel Map Initiative

- Act 20 of 2013 directed the Department of Administration (DOA) to plan for and create a statewide digital parcel map in coordination with counties.
- DOA is partnering with the State Cartographer's Office to create the Act 20 Version 1 Statewide Parcel Map. The approach is to incrementally improve upon a statewide parcel layer with each version.
- The Version 1 Parcel Project interim report (due June 30th) and final report (due Dec. 31, 2015) will make recommendations for future versions of the statewide parcel layer and on improvements to county parcel datasets, such as with Strategic Initiative grants.

Increase in WLIP Grant Funding

- Training & Education grant funding was increased from \$300 to \$1000 per county
- The Base Budget grant eligibility threshold was increased from \$50k to \$100k.
- **Strategic Initiative grant eligibility** of \$50k per county will begin with 2016 grants.
- While each county would be eligible for the same amount of Strategic Initiative grant funding, counties would be required to apply the funding towards achieving certain statewide objectives, specified in the form of **benchmarks**.
- Strategic Initiative grant requirements, including benchmarks, will be detailed in the 2016 WLIP grant application, to be released by October 1, 2015.

Benchmarks for Strategic Initiative Grants

- **Benchmarks** are a standard or achievement level on a specific measure of data quality or completeness.
- Benchmarks will likely include both short-term and long-term statewide objectives.

Examples of possible benchmarks for 2016 Strategic Initiative grants include:

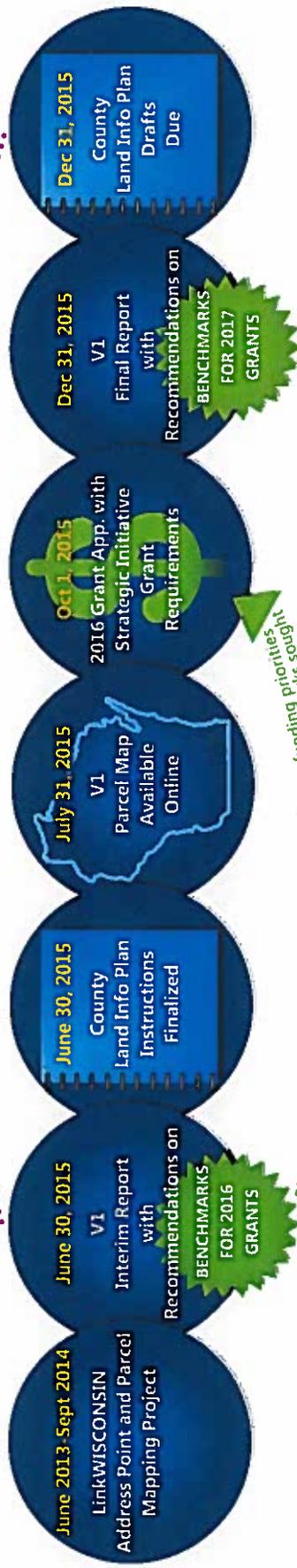
- Benchmark #1– Provision of a complete parcel dataset in a common standard export format as requested by DOA for the Parcel Initiative
- Benchmark #2– Filling in gaps in GIS digital parcel mapping (linework)
- Benchmark #3– Remonumentation, such as along county boundaries
- Benchmark #4– Other remonumentation

County Land Information Plan Updates

- Instructions for updating land information plans will be ready by June 30, 2015.
- The first post-Act 20 update to your county land info plan is tentatively due in draft form to DOA by December 31, 2015.

Statewide Parcel Map Initiative Timeline

V1: Version 1 Statewide Parcel Map Database Project



BENCHMARKS determine a county's Strategic Initiative funding priorities. Stakeholder feedback on recommended Benchmarks sought.

2014 2015

V2: Version 2 Statewide Parcel Map Database Project



2016 2017



DEPARTMENT OF ADMINISTRATIVE SERVICES

DIVISION OF ECONOMIC DEVELOPMENT

MILWAUKEE COUNTY LAND INFORMATION OFFICE

633 West Wisconsin Avenue, Suite 903, WI 53203 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William Shaw, MCAMLIS Project Manager

DATE: March 23, 2015

SUBJECT: MCAMLIS Program Status Report

PURPOSE

This memorandum is intended to serve two purposes: for the MCAMLIS Steering Committee, it constitutes a report identifying either policy or major project issues that remain unaddressed; for the incoming MCAMLIS Project Manager, it constitutes a statement of the status of the MCAMLIS Program at the time of the transfer of responsibilities and provides the incoming Project Manager with a statement of individual work tasks that remain to be completed.

BRIEF HISTORY OF THE MCAMLIS PROGRAM

In November of 1990, Milwaukee County, the Wisconsin Electric Power Company (WEPCO now We Energies), the Wisconsin Gas Company (also now We Energies), and Wisconsin Bell (now AT&T) entered into a Cooperative Agreement to create a countywide system of survey control and digital topographic and cadastral base maps to be used cooperatively by the signatories to the Cooperative Agreement and, by extension, the local area municipalities, in the creation of automated parcel based land information and public works management systems. During 1993, the Milwaukee Metropolitan Sewerage District (MMSD) also became a signatory of the Cooperative Agreement. At the time that the Cooperative Agreement was executed, the SEWRPC had already prepared, at the request of the Milwaukee County Board of Supervisors, a feasibility study for an Automated Mapping System for Milwaukee County. This feasibility study was documented in SEWRPC Community Assistance Planning Report (CAPR) No. 177, *Feasibility Study for a Milwaukee County Automated Mapping and Land Information System*, October 1989. The recommendations made in this study became the basis of the initial MCAMLIS work

program; the principal recommendation of the report being that an Automated Mapping System for Milwaukee County should consist of four major components:

1. Completion of an already initiated program to permanently monument all U.S. Public Land Survey corners in the County.
2. Completion of an already initiated program to obtain both horizontal coordinates related to the State Plane Coordinate System, Wisconsin South Zone, North American Datum of 1927, and vertical elevations related to the National Geodetic Vertical Datum of 1929, for each of the monumented U. S. Public Land Survey comers, and for certain accessories thereto.
3. Acquisition of digital, large-scale, topographic base maps with two feet vertical contour intervals prepared to meet National Map Accuracy Standards at a map scale of 1:1200 (1 inch equals 100 feet) for each U.S. Public Land Survey one-quarter section in the County. These maps would be referenced to the countywide Survey Control Network resulting from the completion of the two above components, and would provide the necessary "ground truth" for the computation of the companion cadastral maps.
4. Creation of a series of digital, real property boundary line, or cadastral, maps -- also at a map scale of 1:1200 -- compiled from official records as overlays to the large-scale, one-quarter section topographic base maps and containing a unique parcel identification number for each parcel mapped.

Coincident with this activity in Milwaukee County, the Wisconsin Legislature acted to create the Wisconsin Land Information Program (WLIP), which included a Grants-In-Aid Program, and the provision for the retention at the County level of specified fees collected for documents recorded in the County Register of Deed's Office. The recording fees thus collected and the grants available under the WLIP have provided the single largest source of funding for the MCAMLIS Program since its inception.

Prior to August 1991, the MCAMLIS Steering Committee had engaged the services of a part-time Project Manager. During 1991, in response to a request from the MCAMLIS Steering Committee, the SEWRPC assumed responsibility as the Project Manager for the implementation of the MCAMLIS program. From August 1991 through December 2004, Mr.

Thomas D. Patterson, a member of the SEWRPC professional staff, was assigned as the MCAMLIS Project Manager. Subsequently, for the period from January 2005 through today, Milwaukee County has organized to provide form MCAMLIS Project Management services. For the majority of this time, Mr. William C. Shaw, a member of the Milwaukee County Department of Administrative Services, Division of Economic Development staff has served as MCAMLIS Project Manager

BRIEF HISTORY OF MCAMLIS WORK PROJECTS

Starting in 1990 through the date of this memorandum the MCAMLIS Program has and is expected to continue to contribute significant value to land information in Milwaukee County. During the early period 1990 – 2004 the program was managed under contract between Milwaukee County and the SEWRPC. Beginning in 2005 the MCAMLIS Program management responsibilities were assumed by Milwaukee County. Below are listed highlights of the many Work Program accomplishments that have been undertaken and are now continuously maintained, such that:

- all recommended land and control survey work has been completed whereby these are maintained under annual contract between MCAMLIS and SEWRPC for provision of Milwaukee County Surveyor services.
- the creation of digital topographic digital mapping was completed and is now being maintained on a five-year maintenance cycle with the next update scheduled to be performed during the 2015-2016 MCAMLIS Work Program coincident with the acquisition of a countywide set of complimentary LiDAR and Orthophotography.
- the digital real property boundary line and polygon mapping was completed for that portion of the county lying outside the City of Milwaukee with ongoing maintenance performed by staff located within the Milwaukee County Register of Deeds Office.
- the City of Milwaukee digital maps were made to fit the geometric framework established by the MCAMLIS Control Survey Network, thereby creating a set of real property boundary line maps covering the City of Milwaukee compatible with MCAMLIS Mapping Standards, the completed MCAMLIS topographic maps, and with the

MCAMLIS Control Survey Network. The digital real property boundary line and polygon mapping lying inside the City of Milwaukee is maintained by the City of Milwaukee and periodically provided to MCAMLIS in compatible format under annual contract between MCAMLIS and the City of Milwaukee.

- the street address and centerline segments for Milwaukee County lying outside the City of Milwaukee was completed with ongoing maintenance performed by the Milwaukee County Register of Deeds Office.
- the integration of the City of Milwaukee street address system covering the balance of the County was completed having further integration scheduled to be completed during the 2017-2018 MCAMLIS Work Program.
- the Milwaukee County Land Information Office was established for purposes of coordination of land information services including internet hosting of the complete digital cadastral, topographic/planimetric, address, street centerline and aerial image data among numerous other digital products as cataloged and presented for distribution via the Milwaukee County Land Information Office website data page.
- the establishment of the Interactive Mapping Services website first deployed in 2009 is now in its second generation and proposed to be third generation during the 2015-2016 MCAMLIS Work Program.
- the SEWRPC Regional Land Use Inventory having been converted to use the MCAMLIS larger scale base maps as a basis for this inventory and now updated by SEWRPC on approximately five year intervals. The latest edition being 2010.
- various administrative boundaries, election district boundaries, and census geographic boundaries have been delineated on the MCAMLIS base maps and are available to all MCAMLIS partners both for internet viewing access and as digital map files.
- Federal Geographic Data Committee (FGDC) compliant metadata files have been prepared for MCAMLIS digital map layers. A Work effort to address metadata deficiencies is proposed to be completed during the MCAMLIS 2016 – 2017 Work Program.

- a comprehensive work effort was initiated to map at a uniform scale and on a consistent basis, the 10, 50, 100, and 500 year recurrence interval flood hazard areas and the 100 year recurrence interval floodways within the County. This effort was initiated during 2001 and is currently scheduled for completion under fixed cost contract between MCAMLIS and the SEWRPC by mid-year 2016.
- a Business Needs Assessment (BNA) was conducted in 2013 resulting in a Five-Year Work Plan beginning in 2014 through 2018. Subsequently, in 2014 a Business Planning Process (BPP) was adopted by the MCAMLIS Steering Committee to provide a formal mechanism for the MCAMLIS Steering Committee to continue to assess stakeholder and partner needs on an ongoing basis. The BPP is now the mechanism in place that allows MCAMLIS to formally adopt and schedule future project requests and include these as part of an ongoing Five Year Work Planning cycle beginning in 2015.
- a collection of historical aerial photography dating from recent 2013 to the earliest acquisition from 1928 with numerous dates between. A project to acquire, index and distribute historical aerial prints is underway through 2017. The schedule for obtaining new photography is continuous with flights to be performed in spring 2015 and future acquisitions as part of 2017 – 2018 MCAMLIS Work Plan.

Through the 25 years since its founding, the MCAMLIS Program continues to remain unique in Wisconsin as a true public/private, partnership. Early on, the MCAMLIS Program was recognized, by the Public Policy Forum for the Program's potential to reduce duplication of effort between and among the private and public; utilities and the County and its constituent municipal units of government, and of its potential for cost avoidance for utility ratepayers and for the County and municipal taxpayers. While it would be difficult to quantify the precise savings it's evident that MCAMLIS consistently embodies the spirit of the Public Policy Forum award and perhaps even more so today than earlier. Today's MCAMLIS has through advances in technology and automation is very much a part of the fabric of what is Milwaukee County. A review of what has been accomplished over this span of time stands as testament to how far the program has come in meeting its potential as forecast so long ago.

CURRENT STATUS OF THE MCAMLIS WORK PROGRAM AND PROJECT MANAGEMENT TASKS

The responsibilities of the current MCAMLIS Project Manager can be categorized into the following eight general groupings:

- Coordination and organization of MCAMLIS Steering Committee meetings;
- Coordination of the MCAMLIS work program with the Wisconsin Land Information Program;
- Administration of the MCAMLIS copyright and distribution of MCAMLIS digital mapping materials;
- Coordination of MCAMLIS budget preparation and accounting activities with Milwaukee County staff;
- General project management including development of detailed project descriptions, scopes of work and specifications for specific projects as proscribed in the adopted MCAMLIS Business Planning Process,
- General maintenance of MCAMLIS data holdings and the incorporation of new material into the MCAMLIS archive files,
- General oversight and coordination of MCAMLIS hardware/software, on-line services, and;
- Facilitation of Milwaukee Metro GIS User Group Meetings and other functional outreach activities organized around the Milwaukee County Land Information Office.

A more detailed itemization of work tasks within each of these particular categories and the current status of each individual work task follows.

Coordination and Organization of MCAMLIS Steering Committee Meetings

Responsibilities under this category fall under the following general work tasks.

- Organization of Steering Committee meetings.
Steering Committee meetings are scheduled during each meeting by a call from the chair followed by members agreeing to a date by advancing the calendar between three and six months and selecting an appropriate date (normally a Tuesday toward the end of the selected month); meetings may be skipped depending on staff or other member recommendation followed by agreement with the Committee Chair; notwithstanding, the

first quarter 2015 MCAMLIS Steering Committee meeting is scheduled for March 24th, there are presently no unaddressed activities under this task. Subsequent to the first quarter meeting, the outgoing Project Manager will provide the incoming Project Manager with a complete and updated MCAMLIS Steering Committee roster, including postal addresses and telephone numbers. The incoming Project Manager will also be provided with a complete list of interested parties and their postal addresses. These lists will be needed for notification of any MCAMLIS Steering Committee meetings scheduled after March 24th, 2015.

- Preparation of meeting agendas

The outgoing Project Manager will organize any tasks assigned by the MCAMLIS Steering Committee at its March 24th meeting and prepare these for inclusion in the meeting minutes.

Preparation of meeting materials

Presently there are no unfinished assignments under this task.

- Completion of minutes following meetings

The outgoing Project Manager will complete the minutes for the March 24th, 2015, Steering Committee meeting and provide a copy of the meeting minutes to the incoming Project Manager for distribution to the Steering Committee as may be appropriate after March 24th, 2015. Following approval by the Steering Committee of the minutes of the March 24th, 2015, a copy of the minutes along with other meeting materials will be placed in a folder and filed in the incoming Project Managers office. Prior to this practice the SEWRPC had prepared bound volumes of the MCAMLIS Steering Committee meeting minutes covering the period from 1990 through the end of 2004 and maintains these at the SEWRPC Office in Waukesha.

- Follow-up on assignments made at Steering Committee meetings.

There are currently no unfinished assignments under this task; notwithstanding, the outgoing Project Manager will document and provide completion status to the incoming Project Manager regarding addition(s) to this task subsequent to the March 24th 2015 Steering Committee meeting.

Coordination of the MCAMLIS Work Program with the Wisconsin Land Information Program.

Responsibilities under this category can be generally summarized as itemized below:

- Monitoring of program activities.
- Preparation of grant applications.
- Negotiation with State staff to resolve issues and questions concerning grant applications.
- Negotiation of grant agreements following awards.
- Fiscal monitoring of grant awards.
- Writing and filing of project completion reports for MCAMLIS projects wholly or partially funded by WLIP grants.
- Preparation and filing of the annual Milwaukee County Land Records Modernization Status Report.
- Completion of the annual WLIP online Wisconsin GIS Inventory survey
- Preparation and filing of the Milwaukee County Land Records Modernization Plan

Originally, the WLIP was the single largest source of funds available to support the MCAMLIS work program and these itemized tasks formerly required several man-months of effort annually. Beginning in 2004 the WLIP closed its grants in aid program and other than an annual Training and Education Grant (WLIP T&E Grant) that prior to 2014 was \$300 annually and now beginning in 2015 is \$1,000 annually; the work effort to manage grants and subsequent benefit of these grants toward the MCAMLIS Work Program has been minor. Recently the WLIP has initiated discussions to re-energize its grants-in-aid program; therefore, the incoming Project Manager must be aware of this and prepare to act accordingly. A folder containing files related to earlier grant management practice is included in a file located in the incoming Project Managers office. The 2015 WLIP T&E Grant remains to be completed.

WLIP 2015 Training and Education Grant

Since there were no WLIP contribution based grant awards made to counties prior to 2015; that remain open, this particular training and education grant is a free-standing grant and must be closed out under the terms and conditions set forth in the associated Grant Agreement. The incoming Project Manager and the Milwaukee County Land Information Officer will be responsible for filing the project completion report with the State.

Preparation and filing of the annual WLIP County Land Records Modernization Status Report

On an annual basis, the WLIP requires the filing of a County Land Records Modernization Status Report. The filing of this report is required in order for the County to retain its eligibility to collect and retain the locally designated portion of the document recording fees provided for under the WLIP. As the Milwaukee County Land Information Officer, the outgoing Project Manager will compile the 2014 report and submit this to the state. The responsibility for completion of all future annual reports will pass to the incoming Project Manager effective with the 2015 report due by June 30th 2016.

Register of Deeds Recording Fee Submission Report

On a monthly basis, the WLIP requires that the Milwaukee County Register of Deeds must send all fees by the 16th of each month following the reporting month to the State Department of Administration. The fees submitted must be accompanied by the Register of Deeds Recording Fee Submission Report. The report documents the fees collected and submitted and requires that the Milwaukee County Land Information Officer certify under penalty of perjury that 1) County Land Information Office established by the County Board per s. 59.72(3), Wis. Stats. continues to perform the duties specified in s. 59.72, Wis. Stats. and 2) the county used the \$8 of each \$30 fee collected under s. 59.72(5), Wis. Stats. to develop, implement, and maintain the countywide plan for land records modernization on the internet. As the Milwaukee County Land Information Officer, the outgoing Project Manager will continue to perform this requirement up and to May 15th 2015, or the date that the incoming Project Manager assumes the Project Manager's role, whichever date is sooner, otherwise the responsibility for completion of this report reverts to the Register of Deeds until such time as an incoming Project Manager is assigned.

Preparation and Filing of the Milwaukee County Land Records Modernization Plan

A Land Records Modernization plan has been approved for Milwaukee County through the year 2015. Submission requirements for county land records modernization plans are currently under review by the WLIP staff and new plan format and content requirements will be promulgated in the near future. Responsibility for the preparation, approval and submission of the Milwaukee County Land Records Modernization Plan to the State DOA will become the responsibility of the incoming MCAMLIS Project Manager. This task is made easier by virtue of MCAMLIS having an established Business Planning Process, and a forward looking project schedule included in the current Five –

Year Work Plan. The outgoing MCAMLIS Project Manager will provide the incoming MCAMLIS Project Manager copies of the 2010 Milwaukee County LRM Plan and the March 9th 2015, MCAMLIS Five-Year Work Plan to assist the future development of the LRM Plan.

Completion of the annual WLIP online Wisconsin GIS Inventory survey

The WLIP GIS Inventory survey is administered through the online Wisconsin GIS Inventory Tool (previously referred to as the "Ramona Survey.") Each county is required to update their survey information at least once a year meet this WLIP program requirement. The survey provides a statewide snapshot of the status of land information. The incoming MCAMLIS Project Manager will be responsible for completion of the 2015 Wisconsin GIS Inventory survey by June 30th 2015.

Administration of the MCAMLIS Copyright and Distribution of MCAMLIS "Digital Mapping Materials"

During December, 1993 Milwaukee County, the MMSD, WEPCO (now We Energies), the Wisconsin Gas Company (also now We Energies), and AT&T (the successor to Wisconsin Bell) executed a License Agreement that set the general conditions under which the signatories to the original MCAMLIS Cooperative Agreement would be permitted to use the digital mapping materials created under the auspices of the MCAMLIS Program. This document, in recognition of the significant funding contribution made to the creation of these materials by the WEPCO, the Wisconsin Gas Company, and Wisconsin Bell conveyed the copyright of these digital mapping materials to the three private utilities named. Paper copies produced from the digital map materials were not made subject to this copyright and could be freely used and distributed by all participants. This document, in effect, constituted a "policy statement" concerning the permitted uses of the digital mapping materials.

To provide an operational structure for the policy document represented by the MCAMLIS License Agreement noted above, the MCAMLIS Steering Committee, in 1995, promulgated a second document, "Data Requisition and Distribution Guidelines," which set forth the conditions under which potential users other than the signatories to the original Cooperative Agreement could access and use the MCAMLIS digital mapping materials. During 2000, the Steering Committee took action to include the MCAMLIS street address data base under the definition of digital mapping materials.

On March 22nd, 2011 the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee approved staff recommendations to implement recommended changes to previously existing MCAMLIS Copyright and Data Distribution Policies including adoption of: 1) a revised Copyright License Agreement – executed on June 8th,2009 dissolving Utility copyright interests and granting Copyright Ownership of digital materials in digital form to the MCAMLIS Steering Committee, 2) a revised MCAMLIS Requisition and Distribution Policy Guidelines, and 3) a revised LICENSE AGREEMENT PERTAINING TO THE NON-COMMERCIAL USE OF COPYRIGHTED DIGITAL BASE MAPPING MATERIALS.

On March 15th 2011, a revised MCAMLIS Requisition and Distribution Policy Guidelines, and LICENSE AGREEMENT PERTAINING TO THE NON-COMMERCIAL USE OF COPYRIGHTED DIGITAL BASE MAPPING MATERIALS was approved by the MCAMLIS Steering Committee and are currently enforced.

Consequently, newer methods now in use to distribute data brought about in part by changes in technology and more importantly due to demands made MCAMLIS Partners (municipalities, Utilities, and other Government stakeholders) the Copyright protections and methods proscribed for enforcement by the current "Data Requisition and Distribution Guidelines" have again become outdated. MCAMLIS Staff is recommending Steering Committee action to account for this change at the March 24th 2015, MCAMLIS Steering Committee Meeting however, a decision as to when these revision should be made is tied, at least in part, to a resolution of related copyright enforcement issues since much of the text in the Guidelines is tied to the copyright.

Minor changes have been made to the provisions of this set of guidelines on several occasions since its original adoption.

Responsibilities under this category fall generally into the following work tasks:

- Answering general inquiries. Responsibility for this task will pass to the incoming Project Manager.
- Providing consultation to potential users on specific available MCAMLIS products
Responsibility for this task will pass to the incoming Project Manager.
- Securing and filing of executed MCAMLIS License Agreements. Responsibility for this task will pass to the incoming Project Manager.

All previously executed and filed MCAMLIS Licensing Agreements will be passed to

the incoming Project Manager, for use in administering requests for MCAMLIS digital data pending action by the Steering Committee at its March 24th 2015 meeting the outgoing MCAMLIS Project Manager will draft appropriate revisions to policy and/or procedures in accordance with action taken by the Steering Committee and pass these as drafts for subsequent action by the Steering Committee to the incoming project manager.

- Managing the MCAMLIS copyright requirements and distributing data upon request Responsibilities for this task will pass to the incoming Project Manager.
- The outgoing Project Manager will provide copies of data file structures for the digital topographic maps and the digital cadastral maps for all software formats currently supported within the MCAMLIS Program.

Coordination of MCAMLIS Annual Budget Preparation and Related Accounting Activities with Milwaukee County Staff

Principal activities carried out under this heading are as follows:

- Preparation of an annual budget. Action concerning the MCAMLIS 2014 budget has been completed. Responsibility for the 2015 MCAMLIS Program budget request and all successive budget requests, will pass to the Project Manager and the designated Fiscal and Management Analyst from the DAS.
- Monitoring of project revenues and expenditures. Responsibility for this task will pass to the incoming Project Manager and the designated Fiscal and Management Analyst from the DAS.
- Interaction with County staff to carry out the annual MCAMLIS single audit. Preparation of the Milwaukee County 2014 single audit has already begun with preliminary materials due to be filed with the DAS at the end of 2014. The outgoing Project Manager will also inform the DAS staff of the change in management responsibilities for the MCAMLIS program and will indicate to that staff that responsibilities for providing assistance for the Milwaukee County 2015 single audit will rest with the incoming Project Manager,

General Project Management

General work tasks associated with this category are as follows:

- Conceptual development of individual projects and development of project technical specifications where needed. Responsibility for this task will pass to the incoming Project Manager.
- Preparation of contracts. Responsibility for this task will pass to the incoming Project Manager.
- Approval of payments to contractors. Responsibility for this task will pass to the incoming Project Manager.
- Associated record keeping. Responsibility for this task will pass to the incoming Project Manager.
- The outgoing Project Manager will provide the incoming Project Manager with a complete list of all "scheduled" MCAMLIS projects; scheduled projects being defined as those projects for which the Steering Committee has taken appropriate action to authorize inclusion for projects listed in the Five-Year Work Plan
- The outgoing Project Manager will provide the incoming Project Manager with a complete list of all "active" MCAMLIS projects; active projects being defined as those projects for which the Steering Committee has taken appropriate action to authorize funding for projects listed in the 2015-2016 Work Plan

With respect to projects recently approved by the Steering Committee, their current status can be summarized as follows:

- The 2015 Agreement with the City of Milwaukee for Cadastral and Address Maintenance services has been executed and on file.
- The 2015 Agreement with the SEWRPC staff for services as the Milwaukee County Surveyor has been executed and on file.
- The 2015 Contract with Pictometry International Inc. for Ortho/Oblique imagery has been executed and on file.
- The 2015 Agreement with the SEWRPC for project management and payment services to Pictometry International Inc. will be fully executed and will be on file
- The 2015 Agreement with the SEWRPC for 2015 LiDAR project management and

product delivery services will be fully executed and will be on file.

General Maintenance of MCAMLIS Data Holdings and Incorporation of New Materials into Archive Files

Responsibilities for any work tasks associated with this project management services category will pass to the incoming Project Manager.

The March 9th 2015, revision to the Milwaukee County Automated Mapping and Land Information System Five-Year Work Plan (pending action by the Steering Committee at its March 24th, 2015 meeting). The Five-Year Work Plan includes a proposed sequencing of 20 tasks scheduled over the next five years.

- The 2015-2016 Work Plan (pending action by the Steering Committee at its March 24th, 2015 meeting)
- The Business Planning Process (BPP) procedures document(s) used to guide project proposal, selection and approval.

General oversight and coordination of MCAMLIS hardware/software and on-line services

Responsibilities for any work tasks associated with this project management services category will pass to the incoming Project Manager.

The outgoing Project Manager will provide to the incoming Project Manager the account names and authorization keys governing the continued management of computer systems and on-line resources

Facilitation of Milwaukee Metro GIS User Group Meetings and other functional outreach activities organized around the MCLIO

Responsibilities for any work tasks associated with this project management services category will pass to the incoming Project Manager

The outgoing Project Manager will provide to the incoming Project Manager access to membership lists and mailings associated with MMGUG activities. An MMGUG meeting is scheduled for April 21st 2015. Arrangements have been made to host this meeting at the offices of Natural resource Technology. The agenda has been set and the meeting will be facilitated by MCAMLIS Staff. Responsibility to host or facilitate future meetings will pass to the incoming Project Manager subsequent to this this meeting.

CONCLUDING REMARKS

The MCAMLIS Program continues to represent a truly unique public-private partnership created to provide the foundational elements for the creation of coordinated automated parcel land, land information and public works management systems at the County and municipal levels of government and by the public utilities operating within the County. The Program has been successful in its creation of the foundational elements for the creation of such systems, for the creation of thematic data layers for use in the system, for the distribution mechanisms in-place to support users of the system, and finally, for the unmatched quality of the data contained within the system over the quarter century it has been active in Milwaukee County.

One policy issue that may need attention is the current governance structure in practice by the MCAMLIS Program and how this aligns with the Land Information Coordination Council identified in Wis. Ss. 59.72(3m). The Steering Committee last addressed this subject at its 83rd Meeting held October 6th 2010; at which, the Committee adopted the following policy recommendations: 1) to designate the existing MCAMLIS Steering Committee as the Land Information Coordinating Council until such time or if required by the State DOA to do otherwise whereby the MCAMLIS Steering Committee would 2) continue the existing MCAMLIS Steering Committee ‘as is’ and create an ‘advisory’ Land Information Coordination Council whose make-up conforms to the State DOA guidance pertaining to the Land Information Coordination Council membership and duties. Responsibilities to formulate any required changes to the current MCAMLIS Steering Committee governance policy pertaining to Wis. Ss. 59.72(3m) will pass to the incoming MCAMLIS Project Manager.

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DEPARTMENT OF ADMINISTRATIVE SERVICES

DIVISION OF ECONOMIC DEVELOPMENT

MILWAUKEE COUNTY LAND INFORMATION OFFICE

633 West Wisconsin Avenue, Suite 903, Milwaukee, WI 53203 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee
FROM: William C. Shaw, MCAMLIS Project Manager
DATE: March 12, 2015
SUBJECT: MCAMLIS Copyright and Data Distribution Policies Status

BACKGROUND

On March 22nd, 2011 the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee approved staff recommendations to implement recommended changes to previously existing MCAMLIS Copyright and Data Distribution Policies including;

Adoption of:

- a revised Copyright License Agreement – executed on June 8th, 2009 dissolving Utility copyright interests and granting Copyright Ownership of digital materials in digital form to the MCAMLIS Steering Committee,
- a revised MCAMLIS Requisition and Distribution Policy Guidelines, and;
- a revised LICENSE AGREEMENT PERTAINING TO THE NON-COMMERCIAL USE OF COPYRIGHTED DIGITAL BASE MAPPING MATERIALS.

Subsequent to the adoption of the revised MCAMLIS Copyright and Data Distribution Policies, MCAMLIS Staff was instructed to implement the new policies.

ACTIVITIES THIS PERIOD – 3/11 - 3/15

- Executed Non-Commercial Use License Agreements. The most recent execution on 4/17/2014 (License Report Exhibit Attached)
- Distributed data in accordance with Data Distribution policies and guidelines through 2014 (Exhibit Attached)
- Beginning with the implementation of the 2014 Work Plan Viewer Improvement and Data Extraction Project more robust on-line services and user initiated 'Data Extraction and Download' capabilities have been made available to MCAMLIS Partners and the public. This practice has made it increasingly difficult to monitor and restrict data access conditioned on strict adherence to current MCAMLIS Copyright and Data Distribution Policies e.g., a data download form is now available for direct access to Orthophotography, Topographic/Planimetric Mapping and Cadastral/Parcel Data. The data download process allows multiple feature classes to be accessed and monitors frequency and class of data e.g., 26 users

downloaded data using the automated form to access the following: 2013 Aerial: 17, 1985 Aerial: 1, Cadastral: 6, Tax Parcel: 8, Total Downloads: 32

- Received an inquiry from Eliza Carrie Bettinger, Spatial Data Specialist, American Geographical Society Library requesting:
 1. UW-Milwaukee be released from the existing Copyright Restrictions and therefore discontinue carriage of the indemnification insurance related to distribution of the data that we have carried since 2001,

Note: August 6th, 2006 correspondence with Karen Jander, Head, Serials Dept., University of Wisconsin-Milwaukee Libraries and instruction to MCAMLIS Project Manager and included in the minutes of the 69th MCAMLIS Steering Committee Meeting (attached). Although no direct action was taken as a result of this request, the action taken in 2009 allows for the opportunity to have the MCAMLIS Steering Committee consider this request without Utility member review and;
 2. The AGSL's distribution of MCAMLIS data will continue in accordance with general unrestricted data distribution policies, namely:
 - a) Requesters indicate at the time of the request whether they are UWM faculty/staff, UWM student, or unaffiliated with UWM.
 - b) The AGSL retains records of only aggregate information about data requests (specific data requested and affiliation of requester); it does not preserve personally identifying information about patron requests.

NEXT

- MCAMLIS Steering Committee consideration of MCAMLIS Staff recommendations:
 1. To formally provide UWM requested changes in clause 7 of the MCAMLIS Non-Commercial Use License Agreement:

“7. The Requestor understands that the digital base maps and materials are being provided AS IS, WITHOUT ANY WARRANTY BY THE UTILITIES AND THE MCAMLIS STEERING COMMITTEE OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND WITHOUT ANY WARRANTY OF ACCURACY. ~~The Requester hereby agrees to indemnify, defend, and hold harmless the Utilities, the MCAMLIS Steering Committee, the SEWRPC, and any other party to the MCAMLIS program and their subcontractors from any claims arising out of the Requestor's use of the digital base maps or any information or materials derived therefrom.~~”

Thereby striking the Indemnification portion of Clause 7 of the Non-Commercial Use License Agreement,
 2. To informally dissolve (cease to assert a defense of) the MCAMLIS Steering Committee Copyright ownership of digital materials in digital form, thereby not requiring continued use of existing or future use of the LICENSE AGREEMENT PERTAINING TO THE NON-COMMERCIAL/COMMERCIAL USE OF COPYRIGHTED DIGITAL BASE MAPPING MATERIALS and;

3. To direct staff to revise the current MCAMLIS Requisition and Distribution Policy Guidelines in accordance with change(s) to copyright restrictions as authorized by adoption of the afore mentioned recommendations.

Attach:

Exhibits: Non-Commercial Use License Agreement and Data Distribution Reports

MCAMLIS Requisition and Distribution Policy

Documents regarding UWM Request to remove Indemnification language contained in Clause 7 of the LICENSE AGREEMENT PERTAINING TO THE NON-COMMERCIAL/COMMERCIAL USE OF COPYRIGHTED DIGITAL BASE MAPPING MATERIALS

* * * * *

REVISED LICENSE AGREEMENT

WHEREAS, the Southeastern Wisconsin Regional Planning Commission, Milwaukee County, Wisconsin Bell Inc. d/b/a AT&T Wisconsin, Wisconsin Electric Power Company and Wisconsin Gas LLC both d/b/a We Energies, the City of Milwaukee, the Milwaukee Metropolitan Sewerage District, and the Intergovernmental Cooperation Council of Milwaukee County are currently members of the Milwaukee County Automated Mapping And Land Information System Steering Committee (the "Steering Committee"), a committee that maintains an automated mapping and land information system covering Milwaukee County, including, among other things, information and materials relating to corner monumentation, control surveys, digital planimetric and topographic maps, digital cadastral map overlays, parcel identifiers and other related documents and materials (all collectively the "Materials");

AND WHEREAS, in order to obtain certain financial support of Wisconsin Bell, Wisconsin Electric Power Company, and Wisconsin Gas LLC (formerly Wisconsin Gas Company) (the "Utilities") in connection with those activities the Steering Committee entered into in 1993 a "License Agreement" governing ownership, access, and use of the Materials;

AND WHEREAS, the Steering Committee (including the Utilities) wish to revise that License Agreement;

NOW THEREFORE, the License Agreement is hereby revised (effective May 18, 2009) to read as follows:

1. Copyright Ownership. The Steering Committee shall own copyright title to all of said Materials. Thus, to the extent the Utilities currently own any copyright or other rights to the "Materials" in digital form (the "Digital Materials") they hereby transfer those rights to the Steering Committee. Hence, copyright title to all the Materials shall therefore be owned by the Steering Committee, or its future designee(s) if any.

2. License. All members of the Steering Committee and their affiliates are hereby irrevocably and perpetually licensed (and granted the right to license others) to use, reproduce, modify, distribute, perform, and display the Materials (other than the Digital Materials) without restriction. With respect to the Digital Materials, all members of the Steering Committee and their affiliates are hereby irrevocably and perpetually (albeit just for their own, including corporate affiliates, internal purposes), licensed to use, reproduce, modify, perform, and display the Digital Materials. This shall include the right to prepare and distribute non-digital form reports on one or more land parcels using the Digital Materials, and to distribute the reports to the public. However, absent the consent of a majority of the Steering Committee (directly or through adopted policies), none of the Steering Committee members may authorize distribution of copies of the Digital Materials (or digital form materials substantially based thereon) to others for the commercial purposes of those besides the Steering Committee and their affiliates.

3. Notwithstanding the above, nothing herein shall preclude Milwaukee County from complying with its obligations under grant agreements with the State of Wisconsin, or restrict rights granted to the State of Wisconsin there under.

4. Also, nothing herein shall preclude a member of the Steering Committee from complying with a court order that it has not stipulated to.

5. All members of the Steering Committee hereby agree that in deciding whether to assert the Steering Committee's power to restrict use of the Digital Materials by third parties they will not unreasonably refuse to provide access to the Digital Materials via their vote where the intended use is for a non-profit purpose (e.g. a University of Wisconsin researcher). Also, if some third party should be interested in having access to the Digital Materials for a commercial purpose, the Steering Committee members also hereby agree not to unreasonably refuse such access where the requester satisfies then applicable Steering Committee policies that have been adopted by a majority of the Steering Committee.

AT&T (WISCONSIN BELL INC.)

Date 2/13/09 By Paul Wilson

Attest Andrew Shaw

WISCONSIN ELECTRIC POWER COMPANY

Date 3/31/09 By CK Cole

Attest Carmen Alderson

WISCONSIN GAS LLC

Date 3/31/09 By CK Cole

Attest Carmen Alderson

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

Date 4/21/09

By [Signature]

Attest anna [Signature]

SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION

Date 20 July 09

By [Signature]

Attest [Signature]

CITY OF MILWAUKEE

Date 5/19/09

By [Signature]

Attest [Signature]

INTERGOVERNMENTAL COOPERATION
COUNCIL OF MILWAUKEE COUNTY

Date 6/3/09

By [Signature]

Attest [Signature]

MILWAUKEE COUNTY

Date 6/8/09

By [Signature]

Attest [Signature]

6565830



DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS MILWAUKEE COUNTY LAND INFORMATION OFFICE

2711 West Wells Street, Rm 426, Milwaukee, WI 53208 (414) 278-2176

DATA REQUISITION AND DISTRIBUTION GUIDELINES

BACKGROUND

The Milwaukee County Automated Mapping and Land Information System (MCAMLIS) is a public-private consortium begun in 1990 by and between Milwaukee County, the Milwaukee Metropolitan Sewerage District, Wisconsin Bell, the Wisconsin Electric Power Company, and the Wisconsin Gas Company. A Steering Committee comprised of representatives from each of the above entities plus representatives from the City of Milwaukee and the Intergovernmental Cooperation Council of Milwaukee County oversees all activities of the consortium.

MCAMLIS was formed to develop and maintain the automated mapping base essential for the creation of a modernized land information system for Milwaukee County. In so doing, MCAMLIS oversees the implementation of the Milwaukee County land records modernization plan, originally set forth in the Southeastern Wisconsin Regional Planning Commission's (SEWRPC) Community Assistance Planning Report No. 177, Feasibility Study for a Milwaukee County Automated Mapping and Land Information System. Accordingly, the Milwaukee County Land Information Modernization Plan is required to be revised every 5 years. Subsequent revisions of this plan were developed over time with the most recent plan pending approval by the Wisconsin State Department of Administration in April 2011. The mapping effort detailed in the County plan builds upon historic, coordinated base mapping efforts carried out by Milwaukee County, the Utilities, the cities and villages in the County, and the SEWRPC.

In December 1993 (revised June 2009), the Steering Committee executed a formal License Agreement pertaining to matters of copyright ownership and use of MCAMLIS derived data. With respect to mapping products, the License Agreement distinguishes between hard copy as derived from the digital mapped materials and the actual digital mapped materials. Under the License Agreement, the Steering Committee has taken copyright title to both hard copy maps and digital materials included under implementation of the adopted County plan.

As included in an implementation study completed in 1991 and subsequently modified over time, the MCAMLIS work program consists of the following:

- The completion of the location and remonumentation of all U. S. Public Land Survey corners in the County, including the centers of the sections.
- The completion of high-order horizontal and vertical control surveys to establish the State Plane Coordinates and elevations of the U. S. Public Land Survey corners.
- The completion of large-scale topographic base maps in digital form at a scale of one-inch equals 100 feet with one-foot contour intervals.
- The completion of companion cadastral maps to the topographic maps in digital form at a scale of one inch equals 100 feet providing detailed information on the location and configuration of all real property boundaries, including the boundaries of all streets and public ways and other public land holdings; and assigning a parcel identification number

(tax key number) to each ownership parcel to enable the linking of geographic with non-geographic data files.

- Street address data for all parcels in Milwaukee County.

All MCAMLIS mapping products are based upon the Wisconsin State Plane Coordinate System, South Zone (North American Datum of 1927) and referenced to the National Geodetic Vertical Datum of 1929.

DATA SHARING POLICY GUIDELINES AND PROCEDURES

As noted above, Milwaukee County, the local units of government in Milwaukee County, and the private utilities created the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) program in response to the need for the development of an automated mapping base. At the outset, it was recognized that an infusion of monetary resources from the private sector was necessary to create an automated mapping base for the County in a timely fashion. In response to this need, We Energies (formerly Wisconsin Gas Company and Wisconsin Electric Power Company), AT&T (formerly SBC AMERITECH, Wisconsin Bell) and The Milwaukee Metropolitan Sewerage District invested significant private capital in the MCAMLIS program.

In order to protect their investments, the private utility members of MCAMLIS were granted the MCAMLIS copyright to the mapping base in its digital form. The utility member copyright interest was dissolved in 2009 and the MCAMLIS Steering Committee now holds copyright to all MCAMLIS digital and hardcopy materials. Nevertheless, the overall goal of the MCAMLIS program has been, and continues to be, the construction of the automated mapping system that is consistent with the standards specified in the County plan, and to make the end products created as a result of the MCAMLIS program available to the widest possible range of users in a fair and efficient manner. Monies generated as a result of the sale of MCAMLIS derived data to commercial entities--other than those commercial entities requesting data for non-commercial, internal use--are to be returned to the MCAMLIS budget, and used in the continued development of the MCAMLIS automated mapping base. The MCAMLIS program is not, and was not intended to be, a 'for profit' venture. Accordingly, the Data Requisition and Distribution Guidelines presented herein are intended to embody a spirit of fair and reasonable access to the MCAMLIS digital materials.

The MCAMLIS Steering Committee has formulated the following policies attendant to the distribution and use of the copyrighted mapped data developed under the MCAMLIS program.

Accommodation of Requests

All requests for MCAMLIS digital materials shall be made through the MCAMLIS Project Manager.

MCAMLIS Project Manager
Milwaukee County Land Information Office
Department of Transportation and Public Works
2711 West Wells Street, Room 426
Milwaukee, Wisconsin 53208-3509
Telephone (414) 278-2176
Fax (414) 223-1982

Distribution and Use of Print Ready Electronically Formatted Materials

It is generally not the policy of the MCAMLIS Steering Committee to make available MCAMLIS products in hard copy form. All such products are now made available as print ready electronically formatted documents and can be obtained electronically through the use of readily available Internet browser technology. This includes topographic maps, cadastral maps, and records of control survey stations, control survey summary diagrams, plat of survey documents, condo/subdivision plats and certified survey maps. The cost schedule for hard copy products that are made available at the cost of reproduction and distribution is attached as Exhibit A. Digital copies of these same materials may be accessed directly through use of the Milwaukee County Land Information Office website located at maps.milwaukeecounty.org at no cost. In addition to those listed here, other types of documents may be made available over time.

Distribution and Use of Digital Materials

The Steering Committee has established a policy that distinguishes between the commercial and noncommercial use of the digital maps produced under the MCAMLIS program. Noncommercial use is defined to include the periodic internal use of selected digital mapping materials--not the entire digital mapping file--by private firms and individuals. For noncommercial purposes, it is the general policy of the MCAMLIS Steering Committee to make available duplicate copies of the copyrighted digital MCAMLIS products subject to reimbursement of the cost of reproduction, handling, and distribution. Local units of government within or outside of Milwaukee County; State and Federal agencies; private firms and individuals requesting digital data for internal, noncommercial use; and nonprofit organizations may request duplicate copies of the digital address, street centerline, topographic and cadastral map files. The MCAMLIS data are typically made available as specified within customized boundaries—area of interest (AOI). A boundary description of the AOI should accompany requests directed to the MCAMLIS Project Manager.

Current cost guidelines for obtaining such duplicate digital mapping files, intended to cover the costs of reproduction, handling, and distribution, are attached as Exhibit B. These guidelines reflect average costs associated with the reproduction, handling, and distribution of digital files as those files are presently stored. All monies received by the MCAMLIS Project Manager under this section will be retained by the MCAMLIS program as reimbursement for the actual expenses incurred.

Any party requesting duplicate digital files containing MCAMLIS copyrighted mapped data will be required to execute a license agreement in addition to paying for the costs of duplication set forth on Exhibit B. A copy of the license agreement is attached as Exhibit C. The license agreement provides the conditions under which the categories of noncommercial users described above may use the digital map data and prohibits the user from providing access to the data in digital form by a third party except in the case of 3rd parties working as agents of a Licensee or in cases where a Licensee's own internal policy requires a release of MCAMLIS data to comply with a record request. The MCAMLIS Project Manager is authorized by the MCAMLIS Steering Committee to act on the Steering Committee's behalf for action in a timely manner regarding requests for a license to obtain and use the digital MCAMLIS mapping files. The MCAMLIS Project Manager will review the request for consistencies with the policies set forth herein. The MCAMLIS Project Manager will not unreasonably refuse to provide access to the digital materials where the intended use is for a governmental, educational, non-profit, or internal private purpose. The MCAMLIS Project Manager will make findings and act to approve or disapprove the request. The MCAMLIS Project Manager will then formulate an appropriate

response with respect to each request and shall report all requests for licenses and specific determinations with respect thereto to the Steering Committee.

For commercial purposes, that is, where private firms or individuals seek to acquire all or substantially all of the digital files for internal or external use, it is the general policy of the MCAMLIS Steering Committee to make available duplicate copies of the digital copyrighted MCAMLIS mapping files in the native format within which the data is maintained. The Steering Committee will consider requests for duplicate digital copyrighted files for commercial purposes on a case-by-case basis. Requests should be directed to the MCAMLIS Project Manager at the address noted above. The Project Manager will report all such requests to the Steering Committee for their consideration and determination. The Steering Committee will make findings and act to approve or disapprove the request. If the Steering Committee disapproves the request, it shall be denied. All actions to approve a request shall include the terms of a license agreement. The MCAMLIS Project Manager will then carry out the Steering Committee's direction with respect to each request.

As a matter of general policy, it is the intent of the MCAMLIS Steering Committee to usually require any commercial entity requesting a duplicate copyrighted digital file of the MCAMLIS mapping database to acquire that database at a cost of \$7,647 per feature class e.g., tax parcel. This amount is derived from \$520,000 --representing a full cost equivalent of each utility member's investment whereby the complete database herein restricted by copyright, if acquired would total this sum. The total amount will be paid directly to the MCAMLIS Steering Committee and will be used by that Committee in furtherance of the objectives of the MCAMLIS program. All commercial entities intending to acquire a duplicate digital file of the copyrighted MCAMLIS mapping database for commercial purposes as defined above will be required to enter into a license agreement for the use of that database. That license agreement--which will be generally based upon the standard license agreement set forth in Exhibit C, but which will be adapted on a case-by-case basis as directed by the Steering Committee--will govern how, if at all, the commercial entity may provide access to the data in digital form by a third party and will provide for appropriate payment or payments.

MCAMLIS DATA AVAILABILITY

The following represents the availability of MCAMLIS print formatted electronic copy and digital data as of March 15, 2011:

- Records of control survey stations have been completed and are available for all U. S. Public Land Survey section and quarter section corners in the County.
- Control survey summary diagrams prepared for six-square-mile areas are available for the entire County.
- Digital files of large-scale topographic base maps are available from MCAMLIS for all of Milwaukee County.
- Digital files of continuously maintained cadastral maps are available from MCAMLIS for all of Milwaukee County.
- Street centerline, parcel address and building address data are available for all of Milwaukee County.

The status of available digital map products under the MCAMLIS program is continually changing. Interested parties should contact the MCAMLIS Project Manager to inquire about the availability of additional products.

* * *

Exhibit A

MCAMLIS HARDCOPY MATERIALS DISTRIBUTION COST SCHEDULE FOR ALL USERS

Item	Geographic Unit of Coverage	Scale	Sheet Size	First Page Unit Price	Second Page(s) Unit Price
Record of Control Survey Station	One U.S. Public Land Survey Section or Quarter-Section Corner	Not Applicable	8.5" x 11'	\$ 1.00*	N/A
Control Survey Summary Diagram	Six Square-Miles	Not Applicable	17" x 11"	\$ 5.00*	N/A
Plat of Survey	Selected Parcel(s)	Not Applicable	Various	\$2.00*	\$1.00
Condo/Subdivision Plat	Selected Parcel(s)	Not Applicable	Various	\$5.00*	\$2.00
Certified Survey Map	Selected Parcel(s)	Not Applicable	Various	\$2.00*	\$1.00

Plus shipping costs and sales taxes where applicable.

* Available for free download at maps.milwaukeecounty.org

Source: MCAMLIS Project Manager; March 17, 2011

EXHIBIT B

MCAMLIS DIGITAL MATERIAL DISTRIBUTION COST SCHEDULE FOR NON-COMMERCIAL USERS*

Digital Format**	Digital Base Materials Area of Interest (AOI)	
	Minimum Request including 1 st .5 hour of labor*	Each Additional Hour of Labor***
ArcGIS (specify format)	\$ 65.00	\$ 75.00
AutoCAD DWG/DXF	\$ 65.00	\$ 75.00

Plus shipping costs and sales taxes where applicable.

* Most fees are waived for government agencies; MCAMLIS partner organizations; non-profit; and for academic purposes that do not incur custom labor commitments beyond a minimum request.

** The two digital formats included in the table are the most frequently requested. Delivery in other formats may not be feasible. Any party desiring to explore delivery in other formats will be expected to pay the costs entailed in determining the feasibility of such delivery.

*** Ordered simultaneously with additional labor beyond the 1st .5 hour required to complete request selection.

Source: MCAMLIS Project Manager; March 15, 2011

EXHIBIT C

MILWAUKEE COUNTY AUTOMATED MAPPING AND LAND INFORMATION SYSTEM

LICENSE AGREEMENT PERTAINING TO THE NON-COMMERCIAL USE OF COPYRIGHTED DIGITAL BASE MAPPING MATERIALS

WHEREAS, the Milwaukee County Automated Mapping and Land Information System Steering Committee (the "Steering Committee"), a committee whose members currently are the Southeastern Wisconsin Regional Planning Commission, Milwaukee County, Wisconsin Bell Telephone now dba/"AT&T", Wisconsin Electric Power Company and Wisconsin Gas now dba/"We Energies", The City of Milwaukee, the Milwaukee Metropolitan Sewerage District, and the Intergovernmental Cooperation Council of Milwaukee County, is the copyright owner of certain digital base mapping materials developed under the Milwaukee County Automated Mapping and Land Information System (hereinafter referred to as "MCAMLIS"); and

WHEREAS, the MCAMLIS program is presently being administered by the Milwaukee County Land Information Office within the Milwaukee County Department of Transportation and Public Works through an employee designated as the MCAMLIS "Project Manager"; and

WHEREAS, _____ a unit or agency of government, a not-for-profit organization, an educational institution, or a private firm or individual seeking MCAMLIS digital data for internal, non-commercial use, (hereinafter referred to as the "Requestor"), has filed a request with the MCAMLIS Project Manager to obtain duplicate files of the digital MCAMLIS base mapping materials (hereinafter referred to as the "digital base maps"); and

WHEREAS, the Steering Committee is willing to permit the Requestor to obtain the digital base maps subject to the following conditions and understandings:

1. Within ten days after the later of the execution of this License Agreement or the Project Manager's receipt of the Paragraph 6 payment, the Steering Committee will provide Requestor with one digital copy of the requested MCAMLIS data in a mutually agreed format. Subject to the limitations set forth below, the Steering Committee agrees not to object to the Requestor using, reproducing, modifying, and/or displaying the digital base maps; preparing or distributing in non-digital form reports incorporating the base maps derived from the digital files; and distributing the base maps and reports in non-digital form to all parties concerned.
2. The Steering Committee agrees not to object to the Requestor making duplicate copies of the digital base map files for its own internal use. Such files, however, are intended only for the use of the employees and agents of the Requestor; and the Requestor and its employees and agents are expressly prohibited from providing copies of the digital base map files to any other party.
3. The Requestor agrees to use the digital base maps only for noncommercial purposes; that is, for governmental and educational purposes and for private purposes when a private firm or individual periodically uses selected digital materials -- not the entire MCAMLIS digital files -- for internal use.

4. The Requestor agrees to hold the digital base map files in confidence and prevent any third party from having access to those files or to any materials in digital form derived there from except as otherwise authorized by the Steering Committee by special agreement with the Requestor.
5. The distribution or use of the digital base maps in violation of the foregoing provisions shall be deemed a copyright violation and shall automatically terminate all rights of the Requestor relative to the digital base maps or any materials derived there from.
6. The Requestor agrees to reimburse the Steering Committee (via payment to the Project Manager), if requested, in the amount set forth in the attached cost schedule in connection with obtaining a copy or copies of the digital base maps.
7. The Requestor understands that the digital base maps and materials are being provided AS IS, WITHOUT ANY WARRANTY BY THE STEERING COMMITTEE OR ITS MEMBERS OR THE PROJECT MANAGER OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND WITHOUT ANY WARRANTY OF ACCURACY. The Requestor hereby agrees to indemnify, defend, and hold harmless the Steering Committee, its members, and the Project Manager, and their subcontractors, from any claims arising out of the Requestor's use of the digital base maps or any information or materials derived there from.
8. The Requestor understands that none of the Steering Committee, or its members, or the Project Manager, or their subcontractors, has any obligation to supplement or update any of the digital base maps provided. Should, however, the Steering Committee or its members provide any updated digital base maps to the Requestor; such updated maps shall automatically be covered hereunder.
9. In the event that MCAMLIS derived hardcopy maps depicting the MCAMLIS copyright have been modified by Requestor, the Requestor shall describe such modification and depict the modification as clearly distinguishable from the original MCAMLIS base maps. The Requestor agrees not to misrepresent modified maps as being the original MCAMLIS base maps, nor to state or imply that modifications made by Requestor were reviewed or approved by MCAMLIS.

AGREED TO:

Requestor: _____

By: _____

Date: _____

Title: _____

Steering Committee

By: _____

Date: _____

Title: Project Manager

MKE\8919307.1

from MCAMLIS 69th Meeting Minutes dated November 28th, 2006

VI(a). Letter from Ms Karen Jander, Head, Serials Department, University of Wisconsin-Milwaukee Libraries to Mr. William Shaw, MCAMLIS Project Manager regarding the non-commercial use of MCAMLIS data.

W. Shaw: explaining that prior to our August 22, 2006 meeting he had a conversation with Ms. Karen Jander of UWM-Milwaukee Libraries and as with previous attempts she wanted to know if there was an opportunity for Committee to reconsider the indemnification clause included as part of the MCAMLIS license agreement. Ms. Jander contends that this clause is causing the UWM-Milwaukee libraries to annually purchase a \$2,900 insurance policy to protect them against the liabilities of any unauthorized distribution of our data by a student. Mr. Shaw noted that he understood that the committee has taken this up in the past and that it is again being brought to the Committee's attention. Further noting that it has been 2 years since the Committee considered this.

K Bauer: remarked that in addition to revisiting the licensing agreement provisions at some future meeting that this issue rests primarily with the utilities. Noting that reconvening the utilities sub-committee may be required at some future time which would necessitate getting AT&T involved. He inquired why the committee couldn't waive that part of clause 7 that relates to indemnification. Adding that the Committee may want to ask Mr. Shaw to look into doing just that and determine if there is a way to provide balance to the policy. Further noting that it would remain up to the Committee to enforce the policy but that Ms. Jander appears to feel that if part of that clause was struck she wouldn't be required to purchase insurance

N. Olson: questioned whether striking the clause would effectively hold the Committee responsible?

J. Place: suggested that perhaps this is something our legal staff would want to review.

W. Shaw: asked Mr. Place if this would be something that We Energies legal staff could review and bring back to the Committee?

J. Place: agreed to ask We Energies legal department to consider this matter.

M.Compton: offered that he would see that Milwaukee County Corporation Counsel provided their opinion as well.

K. Bauer: noted that the Committee has requested DAS and We Energies to contact corporation counsel to get their advice as to how MCAMLIS could possibly help the University. He instructed Mr. Shaw to notify Ms. Jander and inform her that the committee is sympathetic to her plight and is looking into ways to find relief for the University.



UWM Libraries

August 18, 2006

William Shaw
MCAMGIS Project Manager
Milwaukee County Department of Transportation and Public Works
City Campus - Room 427
2711 W. Wells St.
Milwaukee WI. 53208

Golda Meir Library
PO Box 604
Milwaukee, WI
53201-0604
111 229-4785 phone
www.uwm.edu/Libraries

Dear William Shaw:

In December of 2000, the University of Wisconsin-Milwaukee Libraries signed a license agreement for non-commercial use of the Milwaukee County Automated Mapping and Land Information System data. Previous to signing the license the Libraries had requested that the part of clause 7 which related to indemnification be struck. The University of Wisconsin-Milwaukee, as a state institution, can not commit to indemnify, defend and hold harmless parties other than its employees. When this request was rejected, the only way this license could be signed and the data accessed by our students was for us to get additional liability insurance. Currently we are spending \$2900 a year on insurance to cover this liability. This places a burden on an already strained university budget. Could the Committee reconsider dropping this clause or revising it in the licensing agreement so we could possibly drop this expensive solution? I would be happy to work with you on alternative language or other solutions if the Committee agrees to revisit the issue. Thank you for considering our request.

Best regards,

A handwritten signature in cursive script that reads "Karen Jander".

Karen Jander
Head, Serials Dept.
University of Wisconsin-Milwaukee Libraries

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EXHIBIT C

MILWAUKEE COUNTY AUTOMATED MAPPING
AND LAND INFORMATION SYSTEMLICENSE AGREEMENT PERTAINING TO THE NON-COMMERICAL USE
OF COPYRIGHTED DIGITAL BASE MAPPING MATERIALS

WHEREAS, Ameritech, the Wisconsin Electric Power Company, and the Wisconsin Gas Company (hereinafter referred to as the "Utilities"), are the joint copyright owners of certain digital base mapping materials developed under the Milwaukee County Automated Mapping and Land Information System (hereinafter referred to as "MCAMLIS"); and

WHEREAS, the MCAMLIS program is presently being administered by the Southeastern Wisconsin Regional Planning Commission (hereinafter referred to as "SEWRPC"), through an employee designated as the MCAMLIS Project Manager; and

WHEREAS, The Board of Regents of the University of Wisconsin System on behalf of the University of Wisconsin-Milwaukee, a unit or agency of government or a not-for-profit organization (hereinafter referred to as the "Requestor"), has filed a request with the MCAMLIS Project Manager to obtain duplicate files of the digital MCAMLIS copyrighted base mapping materials (hereinafter referred to as the "digital base maps"); and

WHEREAS, the Utilities are willing to permit the Requestor to obtain the digital base maps subject to the following conditions and understandings:

1. Subject to the limitations set forth below, the Utilities agree not to object to the Requestor using, reproducing, modifying, and/or displaying the digital base maps; preparing or distributing in nondigital form reports incorporating the base maps derived from the digital files; and distributing the base maps and reports in nondigital form to all parties concerned.
2. The Utilities agree not to object to the Requestor making duplicate copies of the digital base map files for its own internal use. Such files, however, are intended only for the use of the employees and agents of the Requestor; and the Requestor and its employees and agents are expressly prohibited from providing copies of the digital base map files to any other party.
3. The Requestor agrees not to use the digital base maps for any commercial purpose; that is, for any activity that is conducted by the Requestor on a for-profit basis.
4. The Requestor agrees to hold the digital base map files in confidence and prevent any third party from having access to those files or to any materials in digital form derived therefrom except as otherwise authorized by the Steering Committee and Sub-committee by special agreement with the Requestor.
5. The distribution or use of the digital base maps in violation of the foregoing provisions shall be deemed a copyright violation and shall

automatically terminate all rights of the Requestor relative to the digital base maps or any material derived therefrom.

- 6. The Requestor agrees to reimburse the SEWRPC in the amount set forth in the negotiated cost schedule in connection with obtaining a copy or copies of the digital base maps.
- 7. The Requestor understands that the digital base maps and materials are being provided AS IS, WITHOUT ANY WARRANTY BY THE UTILITIES AND THE MCAMLIS STEERING COMMITTEE OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND WITHOUT ANY WARRANTY OF ACCURACY. The Requestor hereby agrees to indemnify, defend, and hold harmless the Utilities, the MCAMLIS Steering Committee, the SEWRPC, and any other party to the MCAMLIS program and their subcontractors from any claims arising out of the Requestor's use of the digital base maps or any information or materials derived therefrom.
- 8. The Requestor understands that neither the Utilities or the SEWRPC has any obligation to supplement or update any of the digital base maps provided. Should, however, the Utilities or the SEWRPC provide any updated digital base maps to Requestor, such updated maps shall automatically be covered hereunder.
- 9. In the event that MCAMLIS derived hardcopy maps depicting the MCAMLIS copyright have been modified by Requestor, the Requestor shall describe such modification and depict the modification as clearly distinguishable from the original MCAMLIS base maps. The Requestor agrees not to misrepresent the MCAMLIS base maps, nor to state or imply that modifications made by Requestor were authorized by MCAMLIS.

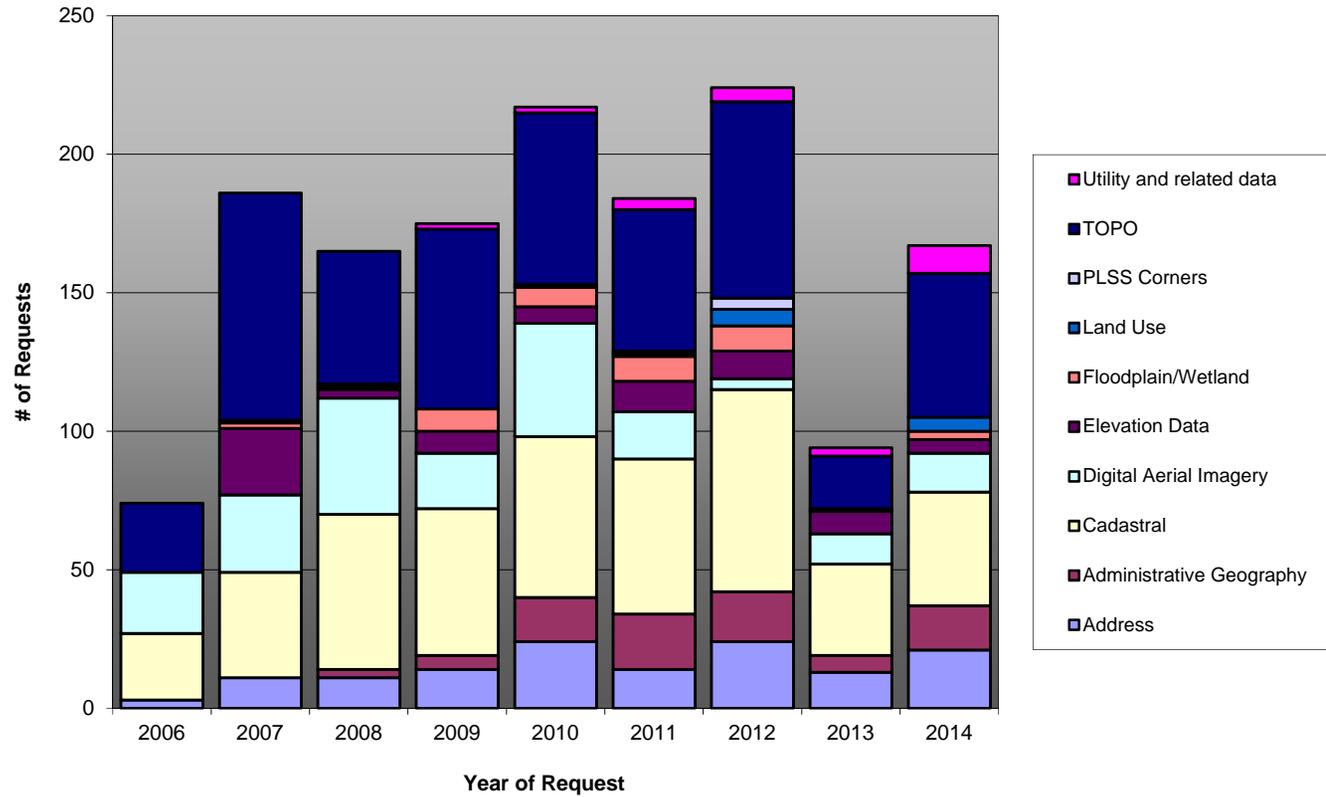
AGREED TO:

Requestor: UWM Golda Meir Library
 By: Ruth Borne, Library Director Date: 5 Dec '00

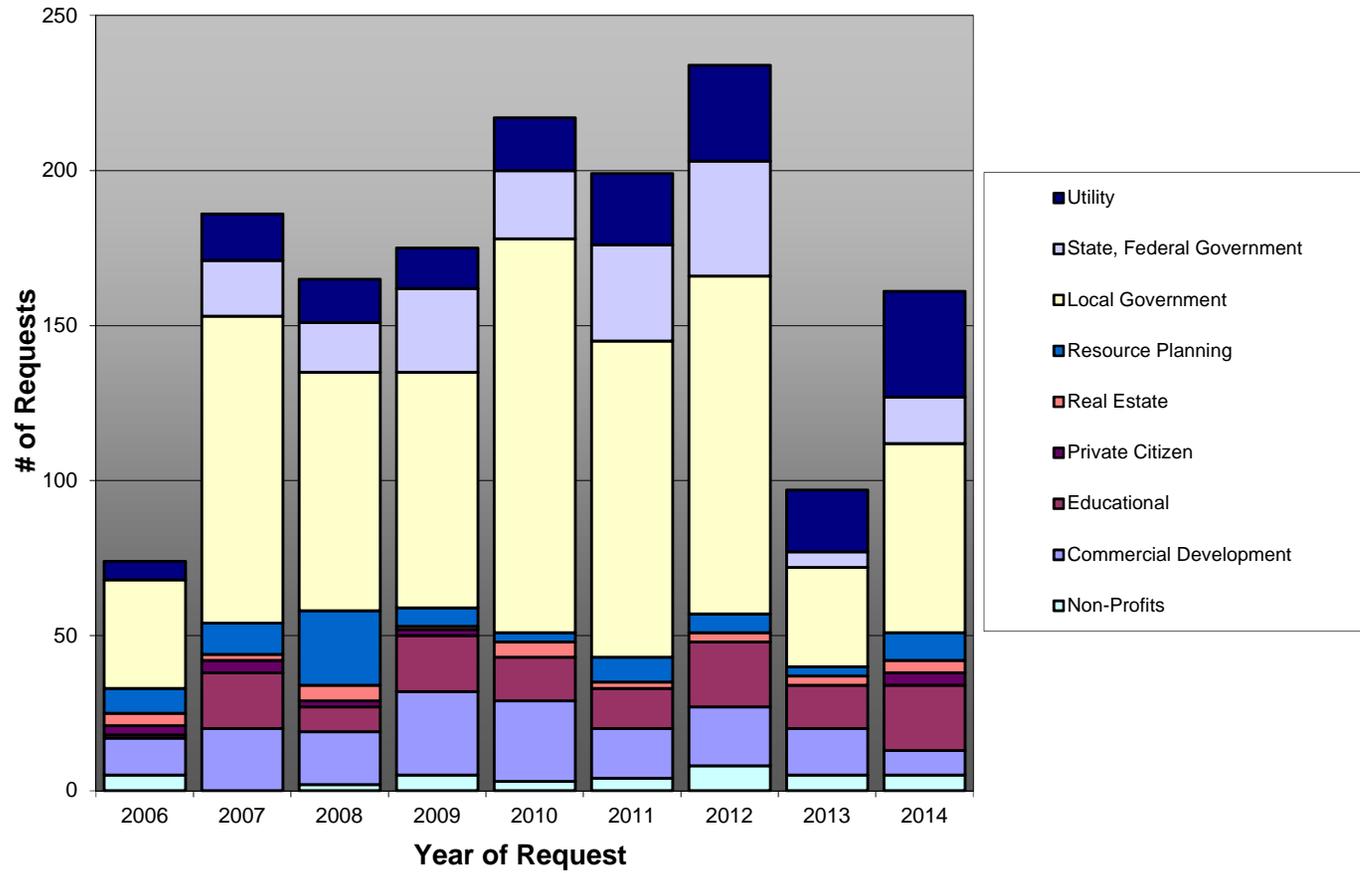
Utilities
 By: _____ Date: _____

* * *

MCAMLIS Data Request by Type



MCAMLIS Data Request by Category



EXECUTED LICENSE AGREEMENTS

*Number of
Executed
Agreements*

Licensee

*Effective
Date*

2014

221	The Pond People	1/3/2014
222	MWH Americas Inc.	2/12/2014
223	Next Door Head Start	4/17/2014

2013

212	Waukesha Water Utility	1/2/2013
213	Public Policy Forum	2/27/2013
214	GEOSTELLAR, Inc.	3/5/2013
215	PINNACLE ENGINEERING GROUP	3/6/2013
216	St. Camillus	3/15/2013
217	Strand Associates, Inc.	4/1/2013
218	School District of Waukesha	4/5/2013
219	Madison College	5/6/2013
220	Crispell-Snyder, Inc., A GAI Company	7/29/2013

2012

203	The Valuation Group, Inc.	1/4/2012
204	Milwaukee Montessori School	3/11/2012
205	McMahon GIS Group	3/11/2012
206	Xceligent, Inc.	7/12/2012
207	Applied Ecological Services	10/1/2012
208	Root-Pike WIN	10/5/2012
209	University of Arkansas - CAST	11/1/2012
210	Compass Land Consultants, Inc.	10/31/2012
211	U.S. Environmental Protection Agency	12/12/2012

2011

197	Mortenson Construction	3/11/2011
199	U.S. Department of Housing & Urban Development (SDS)	9/7/2011
200	Center for Resilient Cities	11/1/2011

*Number of
Executed
Agreements*

Licensee

*Effective
Date*

201	University of Wisconsin-Stevens Point	12/7/2011
202	Wisconsin Government Accountability Board - GAB	11/9/2011

2010

190	Pioneer Engineering & Surveying, LLC	1/21/2010
191	Frontier GeoTek, Inc	1/29/2010
192	Southeastern WI Common Ground	2/10/2010
193	Seeger Map Company, Inc	3/7/2010
194	Burleigh Street Community Development Corporation	7/3/2010
195	Penn State - Stephen Mainzer	7/9/2010
196	Continental Mapping Consultants, Inc.	8/9/2010

2009

179	Milwaukee Area Technical College	1/5/2009
180	Elliot Young - University of Oregon Portland Campus	1/28/2009
181	University of Minnesota - Allan Schraufnagel	2/16/2009
182	Darin J. Frerichs	2/24/2009
183	BT2 Inc.	5/21/2009
184	Lion of Judah Worship Church	6/4/2009
185	Gilbane Building Company	8/3/2009
186	Tran Smart Technologies	9/10/2009
187	NIELSEN MADSEN & BARBER, SC	9/25/2009
188	The Trust for Public Land	10/8/2009
189	Wisconsin Department of Military Affairs	10/27/2009

2008

159	Mead & Hunt, Inc.	1/21/2008
160	Craig Schaefer - Rensselaer Polytechnic Institute	1/30/2008
161	J.D. Knowles and Associates, Inc.	2/8/2008
162	Steve Laine	2/8/2008
163	M Squared Engineering, LLC	2/12/2008
164	Franklin Public Schools	2/26/2008
165	North Shore Engineering, Inc.	3/26/2008

*Number of
Executed
Agreements*

Licensee

*Effective
Date*

166	Marquette University	4/22/2008
167	USDA - Racine, Kenosha, Milwaukee County	4/28/2008
168	Waukesha County	5/19/2008
169	CoreLogic Spatial Solutions	6/5/2008
170	Bayview Bash Association	6/19/2008
171	Pitney Bowes Software, Inc.	6/27/2008
172	River Revitalization Foundation, Inc.	7/3/2008
173	Continental Properties Company, Inc.	7/7/2008
174	Washington County	7/30/2008
175	FBS Data Systems	9/19/2008
176	MapGiving	9/30/2008
177	Emily Pallot - Welsh School of Architecture, Cardiff University Wales	12/4/2008
178	Matt Tobolski - North Carolina State University	12/22/2008

2007

133	Hudson Map Company	1/2/2007
134	Daniel Hesketh	1/10/2007
135	Peter Nagel -University of Cincinnati	1/17/2007
136	Stephanie Valenta	1/30/2007
137	Metropolitan Survey Service, Inc.	2/28/2007
138	Ayres Associates Inc	4/6/2007
148	Wisconsin Great Lakes Coalition	5/3/2007
149	C.O.H.A. International	6/20/2007
150	Aquatic Engineering, Inc.	6/26/2007
151	City of Mequon	7/3/2007
152	Kathryn Lynn - University of Illinois Champaign	7/6/2007
153	TRC, Inc. - Madison	7/11/2007
155	VAST Design Collaborative	9/12/2007
156	Diggers Hotline	9/21/2007
157	Cardinal Stritch University	12/10/2007
158	Gretchen Schuldt	12/28/2007

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2006

115	MATC Animation Program	3/14/2006
116	TRIO Engineering	4/3/2006
121	CJ Engineering	5/26/2006
122	AECOM - Earth Tech, Inc.	5/26/2006
123	Guest House of Milwaukee	6/2/2006
124	Symbiont	6/14/2006
125	Milwaukee Area Domestic Animal Control Commission (MADACC)	6/29/2006
126	Lynn Bichler Architects	8/7/2006
127	Kevin Kolodziej	9/27/2006
128	Adam John Spitz	9/29/2006
129	Midwest Fiber Networks (Cable Com)	10/24/2006
130	Milwaukee Development Corporation	10/24/2006
131	Survey Associates, Inc	11/30/2006

2005

111	Lohmans Golf Design, Inc.	1/31/2005
112	Land Information Services, Inc.	4/1/2005
113	Workshop Architects	4/25/2005
114	Carlan Johnson	5/9/2005
132	American Transmission Company LLC	10/25/2005
140	Urban Open Space Foundation Inc.	7/7/2005
141	U.S. Census	7/12/2005
142	Amcon Design & Construction	9/16/2005
143	Wisconsin Department of Health and Family Services- DCFS	9/23/2005
144	City of Waukesha	10/7/2005
145	Integrated Building Solutions	11/8/2005
146	Michael White	11/14/2005

2004

101	Sigma Group	1/21/2004
102	TN & Associates	2/20/2004

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103	Hayes Engineering Company	2/23/2004
104	Geocomm	3/30/2004
105	J. Spear Associates, Inc.	6/16/2004
106	Key engineering Group, Ltd.	7/21/2004
107	LandCraft Survey and Engineering, Inc.	8/26/2004
108	The Design Office	10/6/2004
109	Friebert, Finerty & St. John, S.C.	10/26/2004
110	Hiller Consulting, LLC	10/28/2004
139	City of Brookfield	12/21/2004

2003

90	North Shore Communities Fire/Police Department	1/13/2003
91	Planning & Design Institute, Inc.	2/6/2003
92	Nancy M. Aten	2/12/2003
93	Graef USA	4/2/2003
94	Sandridge Commercial Real Estate, LLC	4/25/2003
95	Bloom Consultants LLC	7/11/2003
96	Landscape Architects, Inc.	7/22/2003
97	Jenkins Survey and Design, Inc.	7/23/2003
98	Access Engineering LLC	7/30/2003
99	Fifth Ward Association	12/8/2003
100	West Allis-West Milwaukee School District	12/10/2003

2002

70	Urban Ecology Center, Inc.	1/28/2002
71	PBS & J	2/19/2002
72	Schlitz Audubon Nature Center	3/18/2002
73	URS Corporation	5/10/2002
74	Architects/Planners	5/22/2002
75	STS Consultants, Ltd.	7/19/2002
76	HNTB Corporation	7/26/2002
77	Farr Associates, Inc.	8/6/2002

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78	Yaggy Colby and Associates	8/23/2002
79	Walker Parking Consultants, Inc.	8/27/2002
80	Central City Construction, Inc.	10/3/2002
81	R.A. Smith National, Inc.	10/8/2002
82	University of Wisconsin-Madison Department of Landscape Architec	10/15/2002
83	HDR, Inc.	10/17/2002
84	Hey and Associates, Inc.	10/22/2002
85	McClintock Architects, Inc.	12/11/2002
86	Rowan Williams Davies & Irwin, Inc.	12/11/2002
87	Harley-Davidson Motor Company	12/12/2002
88	Fantasia Design Services	12/12/2002
89	Short Elliott Hendrickson, Inc.	12/18/2002

2001

61	Landcraft Survey and Engineering, Inc.	1/18/2001
62	Owen Aryres & Associates, Inc.	1/23/2001
63	Wisconsin State Fair Park	2/26/2001
64	Natural Resource Technology, Inc.	3/16/2001
65	Village of Shorewood	3/28/2001
66	Hammel, Green and Abrahamson, Inc.	4/24/2001
67	Reynolds, Smith and Hills, Inc.	7/12/2001
68	Rettler Corporation	9/12/2001
69	Milwaukee Institute of Art and Design	9/21/2001

2000

45	Kubala Washatko Architects, Inc.	3/6/2000
46	Archdiocese of Milwaukee Catholic Cemeteries	3/21/2000
47	Kahler Slater Architects, Inc.	4/14/2000
48	Bradley Technology and Trade School Foundation, Inc.	6/23/2000
49	TDI Associates, Inc.	6/23/2000
50	Triad Engineering Incorporated	6/26/2000
51	LaDallman Architects, Inc.	6/30/2000

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52	Zimmerman Design Group	7/17/2000
53	Mr. James Dicker	7/21/2000
54	Thompson Dyke & Associates, Ltd.	8/31/2000
55	Mr. James Piwoni	9/13/2000
56	Mr. Brian Wishne	10/20/2000
57	Ms. Pamela Zipperer	10/25/2000
58	Village of Greendale	11/13/2000
59	University of Wisconsin-Milwaukee	12/5/2000
60	Wisconsin Center District Mr. Charles C. Pesano, CFO	12/20/2000

1999

29	Village of River Hills	2/9/1999
30	Buettner and Associates, Inc.	2/25/1999
31	Ruekert & Mielke, Inc.	3/3/1999
32	Kapur & Associates, Inc.	3/8/1999
33	Jesse Voss, Architect, Arquitectura	3/19/1999
34	Michael J. Losik & Associates, Inc.	4/1/1999
35	CH2M Hill	5/13/1999
36	TSP, Inc. (DBA the Shephard Partnership)	5/21/1999
37	JJR Incorporated	6/21/1999
38	Eppstein Uhen Architects	7/2/1999
39	Northwind Technical Services, Inc.	8/2/1999
40	Sixteenth Street Community Health Center	9/10/1999
41	Metropolitan Survey Service	10/1/1999
42	Engberg Anderson Design Partnership, Inc.	11/10/1999
43	Cathedral of St. John the Evangelist	11/22/1999
44	City of St. Francis	12/8/1999

1998

21	Whitnall School District	1/21/1998
22	Mr. Norbert S. Theine	2/25/1998
23	Durrant Architects	6/17/1998

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Date*

24	Miller Engineers and Scientists	7/2/1998
25	Village of Fox Point	7/14/1998
26	Forest Home Cemetery	9/3/1998
27	University of Wisconsin-Madison	11/17/1998
28	Wisconsin Lutheran College	12/8/1998

1997

11	City of Greenfield	1/22/1997
12	Village of Whitefish Bay	3/31/1997
13	Village of West Milwaukee	4/1/1997
14	Wisconsin Department of Transportation	4/17/1997
15	American Design, Inc.	4/23/1997
16	Land Information Services, Inc.	5/6/1997
17	Village of Hales Corners	5/28/1997
18	City of Franklin	6/20/1997
19	K. Singh and Associates, Inc.	7/8/1997
20	City of South Milwaukee	10/23/1997

1996

5	City of Cudahy	1/2/1996
6	Wisconsin Department of Natural Resources	2/12/1996
7	City of Glendale	7/29/1996
8	Village of Bayside	10/25/1996
9	City of Wauwatosa	10/30/1996
10	Riveredge Nature Center, Inc.	12/19/1996

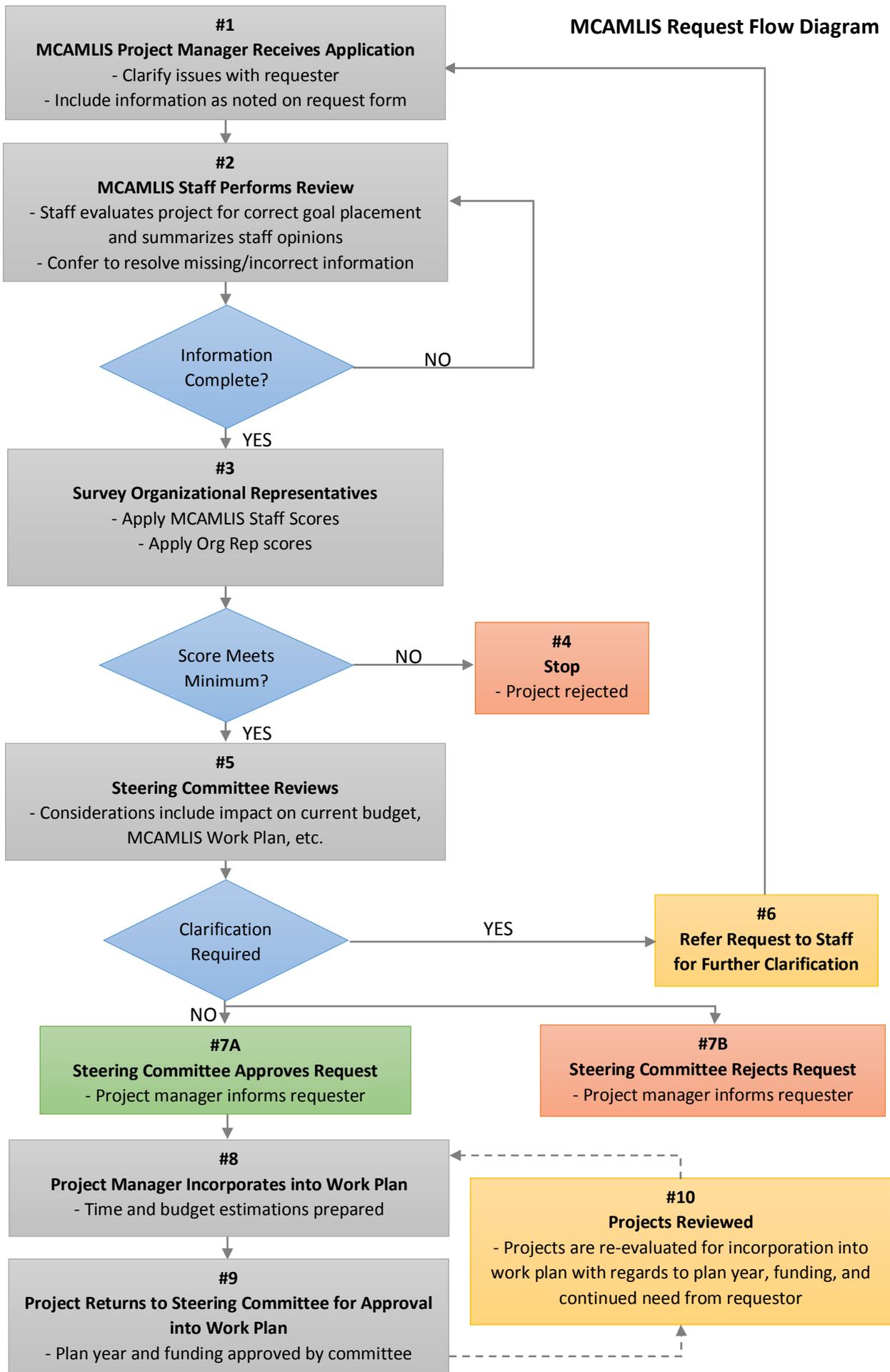
1995

1	City of Milwaukee	10/24/1995
2	City of West Allis	11/27/1995
3	City of Oak Creek	11/29/1995
4	Village of Brown Deer	12/21/1995
147	Southeastern Wisconsin Regional Planning Commission (SEWRPC)	10/24/1995

MCAMLIS Business Planning Process

Process Description and Example Case

MCAMLIS Request Flow Diagram



Flow Diagram Narrative

#1 MCAMLIS Project Manager Receives Application:

The Steering Committee's intention is to encourage a best effort submittal of the project request on the MCAMLIS Business Planning New Project Request form. A completed new Project Request should be forwarded to the MCAMLIS Project Manager, Milwaukee County Land Information Office for evaluation.

The expectation is that the Project Manager and Staff is best positioned to perform a cursory review of the request and to confer with the individual making the request to provide missing information:

- Evaluate the total scope of the request
- Estimate cost of project
- Estimate level of work (number of personnel on team to implement project)

Project requests could come from, but not necessarily be limited to, the following:

1. Individual Communities
2. The County
3. MCAMLIS (Staff Initiated)
4. Federal and State Agencies
5. Utilities
6. Milwaukee Metropolitan Sewerage District (MMSD)
7. Regional Planning Commission
8. Private Sector organizations in partnership with any of the above
9. Target Areas from Aforementioned which could include:
 - Organization Services
 - Public Safety
 - Public Works
 - Water/Wastewater
 - Enterprise IT/GIS
 - Administration

It is important that the requests should concisely identify overall and specific benefits of the project such as:

- Meet existing MCAMLIS goals
- Cost savings to the existing Program and/or the MCAMLIS Work Plan
- How project will add to, replace, or integrate with requests on the MCAMLIS Work Plan
- Application of new technologies that will benefit multiple MCAMLIS Members

#2 MCAMLIS Staff Performs Review

There will be a cursory review by the MCAMLIS staff to determine completeness of the request and, determine whether any portion requires clarification (e.g. contact person identity, general completeness and clarity of the request). If all of the pertinent information is provided, request forwards to Step 3. If additional information is required, Staff returns to the requester to complete. Review will also be made to determine any duplication of efforts identified in the MCAMLIS Work Plan.

It should be noted that the request should be as short and concise as possible. The request process is not intended to be an exercise in writing. Rather, approval will be determined based on the following criteria and as noted on the MCAMLIS Goal Breakdown (see Appendix 1):

- Ensuring the project meets the criteria for MCAMLIS goals
- Benefits should be quantifiable and documented, especially if the request will substantially impact the current Business Plan and/or MCAMLIS Budget.
- The project request will need to identify who is making the project request and who will or could partner or collaborate. While every request will be reviewed, project requests that will benefit multiple communities or users throughout the County will likely receive a higher ranking. The request should identify all of the personnel who will support the request and who would be available to assist with implementation.
- While the new project request form should be clear and concise, the expectation is that there may need to be a meeting with MCAMLIS Staff to provide clarification and more detailed information concerning the entirety or full scope of the project request. The intention is to minimize the amount of writing that will be required in order to promptly move the request along.

Should there be a need for clarification; MCAMLIS Staff will follow-up with the contact person so as to get a better description of the project and eliminate any questions. Based on the review and understanding, Staff may also suggest that the request be altered to provide the most benefits to MCAMLIS. For example, it could be suggested that the request be combined with another request that may already be pending. In combination, both requests may improve the likelihood of approval.

Finally, and because of limited MCAMLIS Staff resources, the contact person or requesting party will need to provide resources to complete the changes and the task of refining the request before submitting again to Staff for review and consideration.

#3 Prepare Preliminary Staff Findings and Survey Organizational Representatives

MCAMLIS Staff will use the form submission to create the MCAMLIS Organization Representative Survey. The initial MCAMLIS review will be supplied to representatives as additional information, but will not include scoring. Additional information includes the MCAMLIS Goal Description (Appendix 1) and the Scoring Rubric (Appendix 2).

MCAMLIS Staff reviews the project again, this time providing a quantitative score in regards to the MCAMLIS Staff evaluation. This score, along with the Representative Survey and response rate, are entered into the Scoring Rubric to determine a final result and make a recommendation.

#4 Steering Committee Consideration

If the score does not meet the minimum of 25%, the Request Form will be returned and noted as rejected/has not satisfied the project criteria.

#5 Steering Committee Reviews Request and Recommendation

Steering Committee will review recommendations from Staff. Should additional questions arise, the Steering Committee will direct Staff to clarify and bring Request back to Committee. At the discretion of the Steering Committee members, the Committee may choose to consult with the Primary Project Liaison and/or the Target Area Representatives concerning their perspective on the Project Request and agreement as to the benefits that the request will bring to MCAMLIS.

#6 Staff Clarifies Questions and Issues

After all issues have been resolved, request is returned to Steering Committee for consideration.

#7A or 7B Steering Committee Action

After all issues have been resolved and any necessary clarifications are documented and included with the Project Request, the Steering Committee will take one of the following actions:

- **#7A** Approve the request and inform Staff to initiate whatever effort is necessary to implement the request. Staff will notify Requestor(s) that the request has been approved.
- **#7B** Reject the request. Based on the documented discussion by the Steering Committee, Staff will notify Requestor(s) that the request wouldn't be valid at this time.

#8 Project Manager Incorporates into Work Plan

The project manager considers time and budget estimations and incorporates the project into the long-term work plan.

#9 Project Returns to Steering Committee for Approval into Work Plan

The project will return to the Steering Committee for final funding approval and incorporation into the next plan year.

#10 Projects Reviewed

Projects are re-evaluated for incorporation into the work plan with regards to plan year, funding, and continued need from requestor. Since each new project is ranked, evaluation will need to continue to determine the plan year for upcoming projects, at which time they will return to the Steering Committee. Also, projects may need to be adjusted, changed, or cancelled depending on the needs of the requestor. Regular reports indicating the status of projects will be provided to the Steering Committee.

#3 Survey Organizational Representatives

MCAMLIS Organizational Representative Survey [EXAMPLE]

Project Name: Mobile Property Locator Application

Project Applicant: GIS Supervisor

Organization: MMSD

1. MCAMLIS Project Requirements

Purpose: The purpose of this survey is to evaluate the relative importance of projects submitted for MCAMLIS consideration, and to prioritize projects within the 5 year plan.

Prerequisite: In order to be considered, projects must qualify in one or more of the four MCAMLIS goal categories. The project applicant(s) have identified one or more of these goals as being met, which is described in Section 4. The goals correspond to the goal categories and subcategories defined in Appendix 1.

Response: Your response is important. The relative response rate to this survey will be used as an indication of the general level of interest in the project. Twelve (12) responses to this survey will be used as the benchmark for excellent survey responsiveness, so if you do not foresee any immediate impact to your organization, your input is still valuable. Planning and prioritization of projects will be determined using survey responses in conjunction with MCAMLIS Staff input, Steering Committee approval and other factors, such as budgeting and project timing. See Appendix 2 for the rubric that will be used to determine an advisory score for the project. MCAMLIS Staff Input is also attached to provide better clarification as to the planning, context, and technological requirements needed to complete the project.

2. Project Summary

This project will allow access to MCAMLIS parcel data using mobile devices such as tablets, cell phones, toughbooks, etc. The application will allow users to locate properties and retrieve addresses.

3. Project Detail

The mobile property mapping application provides organizations with the ability to view property ownership information in the field via a mobile application for phone or tablet. Core capabilities include the ability to retrieve property and owner information at or near the user's current location, or to retrieve property information based on a user-supplied address. This activity includes the development of a feature data service for parcels. The Web feature service will expose the parcel data layer for use by MCAMLIS Partners to support the acquisition of parcel data directly into desktop applications or enterprise solutions for publishing along with any partner's own business data.

4. MCAMLIS Goal Breakdown

a. Goal 1: Maintain Core Foundational Elements

N/A

b. Goal 2: Promote the Integration of Parcel Based Land Information

(b) This project will help integrate parcel based land information with public works management systems by allowing utility and other agencies to quickly locate parcels in the field.

(c, d) This information will be disseminated to the public via interactive website, and as data service feeds that can be used for analysis by interested parties.

c. Goal 3: Educational Outreach

(a) This application will include online help and tutorials.

d. Goal 4: Countywide Initiatives

(b) By providing better access to Milwaukee County enterprise address system data, it is expected that the data will be improved upon based on information collected in the field. This will increase the quality of the data over time.

(f) This application will be available within all municipalities of Milwaukee County.

5. Questionnaire

- a. Is this project an urgent need or of great value/benefit to your organization or stakeholders? (If no, please skip to question c.)**

[YES] / NO

Please describe why this project is or is not applicable to your organization or stakeholders. (If so, please describe any mandates and the level of urgency regarding this project.)

This has been a core need for a while at our organization. When workers are out in the field they frequently need information regarding parcels in the vicinity, but without a mobile option they are limited to old paper maps which are out of date. This causes a great deal of confusion and is not efficient.

- b. 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?**

[YES] / NO

If yes, please provide contact information for the person(s) who may be interested in championing this project.

GIS Supervisor, MMSD

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

[YES] / NO

Please describe why this project may be beneficial to other organizations, or conversely, why you believe it is not of value or applicable beyond the requesting organization.

Most local organizations rely on parcel based data for their processes. Getting that data out into the field can only benefit organizations and increase efficiency.

Appendix 1: MCAMLIS Goal Descriptions

<u>GOAL 1: Maintain Core Foundational Elements</u>		<u>GOAL 2: Promote the Integration of Parcel Based Land Information</u>	
<p>Objectives - Provide for the maintenance of the USPLSS; Maintain high-order vertical and horizontal control systems; and Maintain large-scale topographic and Cadastral mapping products.</p>		<p>Objectives - Integrate attribute data having broad utility within parcel products; Provide technology that fosters integration of parcel information across jurisdictions; Prepare parcel data for easy access via common formats and via on-line systems; and include enabling technology and platforms consistent with a wide variety of capabilities and use for purposes of accessing and distributing GIS via on-line web-based systems.</p>	
a.	<p>Ongoing maintenance of the location and re-monumentation of all U. S. Public Land Survey corners in the County, including the centers of the sections.</p>	a.	<p>Develop and integrate carefully selected attribute data having broad utility, including current land use, zoning, flood hazard, wetland, and assessment data, among others</p>
b.	<p>Maintenance of high-order horizontal and vertical control surveys to establish the State Plane Coordinates and elevations of the U. S. Public Land Survey corners.</p>	b.	<p>Provide technology and services used to foster the integration of parcel based land information within Public Works management systems throughout Milwaukee County</p>
c.	<p>Maintenance of large-scale topographic base maps in digital form at a scale of one-inch equals 100 feet with two-foot contour intervals.</p>	c.	<p>Provide that the information assembled under the program is readily translatable and available for use by state, county, and municipal units and agencies of government and public utilities and by private entities, including, importantly, interested citizens. This requires making the information available via the Internet for viewing and retrieval of base map and land-related information;</p>
d.	<p>Maintenance of companion cadastral maps to the topographic maps in digital form at a scale of one inch equals 100 feet providing detailed information on the location and configuration of all real property boundaries, including the boundaries of all streets and public ways and other public land holdings; and assigning a parcel identification number (tax key number) to each ownership parcel to enable the linking of geographic with non-geographic data files</p>	d.	<p>Provide enabling technologies and platforms including; general purpose interactive internet based land information mapping, standardized client selectable on-line map services, and Representational State Transfer templates for implementing a wide variety of web based applications including public works asset inventory and management systems.</p>

<u>GOAL 3: Educational Outreach</u>		<u>GOAL 4: Countywide Initiatives</u>	
Objectives - Conduct educational outreach programs and forums. Solicit local governmental GIS support requirements. Introduce opportunities for local government introduction to GIS Best Practice processes and procedures.		Objectives - Where appropriate, identify, initiate, and complete projects proposed by Milwaukee County or its constituent municipalities, agencies of the federal, state or regional government, public utilities and by private entities, including, importantly, interested citizens which would, by understanding of the MCAMLIS Steering Committee, prepare information and maps useful for meeting the needs of the County and its local units of government and contributing toward the implementation of the Wisconsin Land Information Program.	
a.	Conduct educational outreach programs through the use of technical and non-technical forums e.g., annual MCLIO open-house, custom training, documentation and best practice presentations;	a.	Develop a methodology for prioritizing project requests to ensure projects are aligned with MCAMLIS strategic objectives and ensure the efficient use of scarce resources;
b.	Solicit input from local governmental units with regard to supporting their mapping requirements;	b.	Continue to develop and maintain an Enterprise Address System (EAS) capable of integrating process, data, technology and organizational components across Milwaukee County municipalities, law enforcement, emergency management and land development interests. This objective strives to remedy current operational constraints while enhancing access to and usability of street name and address data countywide;
c.	Introduce local governmental units to organizations and speakers that exhibit best practice solutions that meet countywide land information requirements.	c.	Complete the mapping of the 100-year recurrence interval flood hazard areas within Milwaukee County, integrating the mapping into the automated land information system;
		d.	Automate the access to and maintenance of address information providing location-based, current, complete and standardized address information across the county via web-based technologies;

Appendix 2: Scoring Rubric

Projects which receive a score of 25% or higher will be deemed as **accepted** by this process, and will move on to the MCAMLIS Steering Committee for consideration.

		Numeric Score Range (min-max)	Maximum Percentage
Survey Questions		0-3	40%
Value Within Org	a. Yes/No: Average of total respondents	0-1	13.3%
Champion	b. Yes/No: Average of total respondents	0-1	13.3%
Value Outside Org	c. Yes/No: Average of total respondents	0-1	13.3%
Survey Response Rate	12 Is Identified as "Excellent" Response Rate	0-1	10%
	Percentage of responses, out of 12	0-1	10%
MCAMLIS Input		0-25	50%
Resources	a. Disagree (0) to Agree (5)	0-5	10%
Extension	b. Disagree (0) to Agree (5)	0-5	10%
Funding	c. Disagree (0) to Agree (5)	0-5	10%
Infrastructure	d. Disagree (0) to Agree (5)	0-5	10%
Data	e. Disagree (0) to Agree (5)	0-5	10%
Feasibility	f. Disagree (0) to Agree (5)	0-5	10%
Roadblock/Mandate	g. Disagree (0) to Agree (5)	0-5	10%
Grand Total Score		29	100%

#3 Apply MCAMLIS Staff Scores

MCAMLIS Staff Evaluation of Project, With Scores [EXAMPLE]

- h. Project applicant/organization has additional resources dedicated to this project, whose participation can positively contribute to project completion. *For example, there are GIS Analysts who can prepare data and/or manage aspects of the project independently from MCAMLIS staff. Projects that shift more of the project work and management onto MCAMLIS staff would score low, whereas projects that will predominantly rely on applicant efforts would score high.*

MMSD has a team of GIS users who can be relied upon to contribute data and constructive feedback pertaining to application development. However, since the applications will be housed in the MCAMLIS system, the majority of efforts will be performed by MCAMLIS staff.

0 1 [2] 3 4 5

- i. 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. *For example, the project is merely an extension on a contract, and therefore does not require the usual time and effort require for preparing RFPs, data, infrastructure, etc. Projects that are new and unrelated to any other projects would score low, whereas add-on or ancillary projects would score high.*

Most of the parcel services are already prepared and include the necessary data for this project. Moreover, there are some existing mobile parcel applications that are being used on a limited basis within MCAMLIS, however this project is, for the most part, brand new.

0 1 [2] 3 4 5

- j. 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 project that has limited funding outside of MCAMLIS, thus requiring work to be funded by MCAMLIS only, would score low, whereas projects with significant outside funding would score high.*

There is no dedicated source of funding for this project as of yet, however, MMSD is providing their own mobile devices, which takes some of the financial burden off of MCAMLIS in terms of providing hardware for this project.

0 [1] 2 3 4 5

- k. 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. *A project that does not endanger MCAMLIS functions would score low, whereas a project that is crucial to the continued operation or improvement of functionality would score high.*

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

0 1 [2] 3 4 5

- l. 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). *A project that is collecting new data, or is localized, and is not part of a periodic update of core MCAMLIS data would score low, whereas a project that is updating county-wide data as part of an update cycle would score highly.*

This project does not pertain to periodic updates of foundational MCAMLIS data.

[0] 1 2 3 4 5

- m. The project is technologically feasible and demonstrably realistic using today's technology, even if MCAMLIS does not currently use such technologies. *For example, the technology to achieve the project exists and has been applied elsewhere, rather than from-scratch coding or development. A project that requires new software or technologies would receive a low score, whereas out-of-the-box solutions would receive a high score.*

All of the hardware and software necessary to complete this project exists in an out-of-the-box option. The data would need to be prepared and configured within the application, however the process is well documented and a proven technology.

0 1 2 3 4 [5]

- n. 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. *For example, a project that requires significant effort to gain approval or alter public policy would receive a low score, whereas a project that is required to be completed because of a mandate would score high.*

This project is not subject to policy roadblocks, nor is it statutorily required. However, as a core project it is identified as being of great importance to the public good.

0 1 2 [3] 4 5

#3 Score Meets/Does Not Meet Minimum

Results and Recommendation [EXAMPLE]

Projects which receive a score of 25% or higher will be deemed as **accepted** by this process, and will move on to the MCAMLIS Steering Committee for consideration.

Scoring Breakdown

		Numeric Score	Percentage
Survey Questions (Max Score 40%)		1.9	25.3%
Value Within Org	a. Yes/No: Average of total respondents	0.7	9.3%
Champion	b. Yes/No: Average of total respondents	0.6	8.0%
Value Outside Org	c. Yes/No: Average of total respondents	0.6	8.0%
Survey Response Rate (Max Score 10%)	12 Is Identified as "Excellent" Response Rate	0.66	6%
8 Responses	Percentage of responses, out of 12	0.66	6%
MCAMLIS Input (Max Score 50%)		15	30%
Resources	a. Disagree (0) to Agree (5)	2	4%
Extension	b. Disagree (0) to Agree (5)	2	4%
Funding	c. Disagree (0) to Agree (5)	1	2%
Infrastructure	d. Disagree (0) to Agree (5)	2	4%
Data	e. Disagree (0) to Agree (5)	0	0%
Feasibility	f. Disagree (0) to Agree (5)	5	10%
Roadblock/Mandate	g. Disagree (0) to Agree (5)	3	6%
Grand Total Score		17.6	61%

Result

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

Cost

There is no expected cost for this project, as all hardware is already purchased

Recommendation

Based on the results of the survey and staff analysis, MCAMLIS staff recommends that this project be **accepted** and incorporated into MCAMLIS Work Plan, at the discretion of the MCAMLIS Steering Committee.

Project Survey Results, Review, and Recommendation

Project: Viewer Improvement - GIS Website

Applicant: MCAMLIS Project Manager

Organization: Milwaukee County Land Information Office (MCLIO)

Summary

This project will migrate and enhance the MCLIO Interactive Map Viewer. The current website viewing application(s) uses plug-in technology that is being deprecated and will soon be unsupported e.g., Google has declared that all plug-ins will not load in the Chrome browser as of September 2015. Esri has also declared that they have stopped development and will discontinue support as of June of 2016. For additional information reference the following links:

<http://blogs.esri.com/esri/supportcenter/2014/11/10/final-release-and-support-plan-for-the-arcgis-apis-viewers-for-flex-and-silverlight/>

<http://blog.chromium.org/2014/11/the-final-countdown-for-npapi.html>

This project was identified in the 2013 Business Needs Assessment (BNA) and is a continuation of the Website Viewer Improvement Project included in the 2014-2015 MCAMLIS Work Plan. Feature enhancement, platform migration and tool enhancement will be addressed with this project.

Survey and Review Results

Project Score Evaluation Results			
	Numeric Score	Max Percent	Percentage
Survey Response Rate	4/12	10%	3%
Percentage of responses, out of 12	33%	10%	3%
Survey Questions	8/12	40%	27%
a. Project Urgent Need for Your Org?	4/4	13.3%	13.3%
b. Does your org have a champion?	0/4	13.3%	0.0%
c. Benefit outside of your org?	4/4	13.3%	13.3%
MCAMLIS Review	24/25	50%	48%
a. Applicant has resources?	3/5	10%	6%
b. Project is a continuation or extension?	5/5	10%	10%
c. Additional funding is available?	1/5	10%	2%
d. Critical to MCAMLIS infrastructure?	5/5	10%	10%
e. Critical to foundational data?	1/5	10%	2%
f. Project is feasible and realistic?	4/5	10%	8%
g. No roadblocks, or mandated?	5/5	10%	10%
Grand Total Score (Max Score 100%)			78%

Survey Response Summary

There were four responses to this survey. The comments included 'The ability to visualize geospatial information through a browser is highly beneficial to any organization.' All respondents were positive and supportive in nature. There were no individuals that indicated that they would champion this project.

Result

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

Schedule

VWR-01 Improve the MCLIO Interactive Mapping Service, is expected to commence in the Q3 2015 and continue through Q1 2016 in the 5 Year Plan.

Cost

Implementation: VWR-01 total estimated cost is \$70,000. VWR-01 is estimated at \$48,000 and VWR-01.1 System Architecture Design Consulting is estimated at \$22,000.

Project Resources: Management: ¼ FTE, Analyst: 1/2 FTE, Professional Services: 600+ hrs.

Ongoing: Current license costs are \$3,700 annually, no additional expected.

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 Q3 2015 through Q1 2016 VWR-01.1. The current viewer technology has been deprecated and needs to migrate to the next platform before the current one has become too burdensome and unreliable to maintain. The GIS web viewer has become an integral resource with MCAMLIS partners as well as the general public and as such is a critical component of the MCAMLIS service and support effort.

Organizational Representative Written Responses

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

1	The Viewer is a highly ubiquitous and utilized throughout the organization with great frequency.
2	Although we do not use the chrome browser very often, it would be interesting if the new plug-in could help allow mobile browsers. We also use some Apple products which would benefit a different pug-in.

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	The ability to visualize geospatial information through a browser is highly beneficial to any organization.
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MCAMLIS Business Planning Process

Staff Review - Final

Project Name

Review Date

Viewer Improvement - GIS Website

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 manage the project and complete any configuration that is needed after the development has been completed. This improvement project was ranked high by MCAMLIS Partner Organizations in the 2013 Business Needs Assessment (BNA) The majority of efforts will be performed by Professional Consulting Services in combination with MCAMLIS staff.

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.

Yes, this project will build on the earlier viewer migration and implemented in 2014.

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"/>

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.

It's expected that MCAMLIS will 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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.

This project addresses a critical core infrastructure deficiency in the currently deployed Viewer Technology. It is highly probable that not implementing alternatives to plug-in viewer technology will eventually cripple our ability to provide service to MCAMLIS Partners and the public in general.

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 would not affect the collection of MCAMLIS data, however it is one of the primary methods of accessing the data.

MCAMLIS Staff Score

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input checked="" type="radio"/>	<input type="radio"/>	<input 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 website will be developed and configured within our current architecture.

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"/>

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 a continuation of the 2013 Website advancements 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"/>

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 type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Section c.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section f.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input 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)

24

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

48

Project Survey Results, Review, and Recommendation

Project: Mobile Property Locator Application

Applicant: MCAMLIS Project Manager

Organization: Milwaukee County Land Information Office (MCLIO)

Summary

This project will allow access to MCAMLIS parcel data using mobile devices such as tablets, cell phones, toughbooks, etc. The application will allow users to locate properties and retrieve addresses. Currently, the MCAMLIS website uses Silverlight plugin technology, which is not supported on most mobile devices.

Survey and Review Results

Project Score Evaluation Results			
	Numeric Score	Max Percent	Percentage
Survey Response Rate	11/12	10%	9%
Percentage of responses, out of 12	92%	10%	9%
Survey Questions	19/33	40%	23%
a. Project Urgent Need for Your Org?	5/11	13.3%	6.1%
b. Does your org have a champion?	3/11	13.3%	3.6%
c. Benefit outside of your org?	11/11	13.3%	13.3%
MCAMLIS Review	21/25	50%	42%
a. Applicant has resources?	3/5	10%	6%
b. Project is a continuation or extension?	5/5	10%	10%
c. Additional funding is available?	3/5	10%	6%
d. Critical to MCAMLIS infrastructure?	1/5	10%	2%
e. Critical to foundational data?	1/5	10%	2%
f. Project is feasibly and realistic?	4/5	10%	8%
g. No roadblocks, or mandated?	4/5	10%	8%
Grand Total Score (Max Score 100%)			74%

Survey Response Summary

There were 10 responses to the survey, and they were all generally positive. In terms of whether or not the project was valuable, all respondents indicated that they plan on embracing mobile technology soon, or in several cases have already developed similar tools. Several organizations (3) named individuals that could champion the project, which may be very important if individual organizations are interested in customized mobile applications. Finally, the vast majority of responses suggest that MCAMLIS on the whole would benefit from a universally accessible mobile viewer.

Result

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

Schedule

MBL-01: Deploy Mobile Property Locator Application is scheduled to commence from Q1 2016 – Q3 2016. This time frame puts the project schedule at the later part of project VWR-01: Improve the MCLIO Interactive Mapping Service, which will upgrade the viewer to HTML. This may cause changes to the schedule of MBL-01.

Cost

Implementation: MBL-01 is estimated at \$25,000, which will be used for consulting services, configuration, training, etc.

Project Resources: Management: 1/8 FTE, Analyst: ¼ FTE, Professional Services: 200+ hrs.

Ongoing: Up to ¼ FTE staff time annually.

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 (MBL-01). Mobile devices are near ubiquitous, and with future technology pointing to HTML 5 rather than browser plugins, cross-platform compatibility will be a standard way of operating. The technology exists to make it happen, and every MCAMLIS partner (and citizen) can benefit from greater access to MCAMLIS data.

Organizational Representative Written Responses

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

1	Mobile access wont just be for property information. In the future the City of St. Francis would like to be able to use MCAMLIS as its primary GIS system. Mobile access would provide additional access for field use in things like mapping, property disputes, code enforcement, tree maintenance, sewer cleaning, condition reports, etc. Our DPW already has access to tablets for City Email. Those same tablets could be the basis for further field use.
2	We still use paper copies and currently don't work off of tablets or smart phones.
3	Our Assessor's office is interested in the development of this app for use in the field by the property appraisers. I think other departments, particularly DPW and Neighborhood Services might find it useful as well.
4	Not urgent for us, staff is already using AGO mobile app on tablets and phone
5	Franklin is in the infancy stage of having access to mobile apps in the field. This project may have greater relevancy in the coming year. Franklin already has a "Property Viewer" that is utilized by multiple departments within the City.
6	I think if we are in the process of updating the viewers to HTML5 that this project can be put on hold. As from what I understand, that by updating to the HTML5 this might include this project and then I don't see any need or benefit of making this a special project.
7	A property parcel polygon feature map service would be invaluable to add value to multiple District web maps and applications,including Green Infrastructure, Diggers Hotline, and Survey workflows.
8	We use some type of mobile on a daily basis. If this project could be accomplished, I believe the City of Cudahy would benefit tremendously. It would save staff time and money by allowing field employees to have the information they need at their fingertips.
9	It is very nice to be able to access this information while in the field. We are currently able to access this data through our GIS application with R&M.
10	We are on a parallel track with our own mobile GIS focused mainly on our public utilities. Accurate parcel/address maps are very important, although mostly to those of us in the office, where we sometimes access MCAMLIS maps to update or verify new owners.

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?

1	Todd Niedermeyer
2	Kathleen Bach
3	Nate Piotrowski, Community Services Director/Planner: 4800 W. Green Brook Dr., Brown Deer, 53223, 414-371-3061

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

1	We frequently have contractors, home appraisers, elected officials, etc. ask for help in getting access to property data. Mobile access would allow those in the field the opportunity to look up information on the fly rather than rely on us to be in the office at that exact time.
2	Yes. I'm sure other municipalities would find it useful for the same reasons as DPW and DNS.
3	This may benefit other communities to access mobile data while in the ROW
4	No comment at this time.
5	In the ROD, we get many calls regarding basic parcel and address searches. This does take up some staff time, as the staff explains the procedures of the MCAMLIS website which is not that user friendly to all our outside clients. Therefore, I think an mobile application would be helpful to some our clients but I would not rate as a high priority.
6	A mobile property parcel feature map service would provide the ability for many organizations or agencies (public and private) to access current property information that could be incorporated into existing software applications and/ or electronic workflows. Many job sectors that rely on outdated paper maps and tabular information about parcel properties would be able to expand or enhance their use of mobile technology with spatial data from the County.
7	Being more accurate than Google maps I can see this being useful to many.
8	It would be beneficial to municipalities or public utilities who don't have systems of their own, especially small towns or villages in rural areas.

MCAMLIS Business Planning Process

Staff Review - Final

Project Name

Review Date

Mobile Property Locator Application

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.

MCAMLIS staff will contribute data (which is already available) and coordinate feedback pertaining to application development with organizational champions. This application was ranked high by MCAMLIS Partner Organizations in the 2013 Business Needs Assessment (BNA) and was originally scheduled for implementation in the 2014 - 2015 MCAMLIS Work Plan. Further participation by member organization(s) is required to move this project forward. Assuming that the applications will be hosted by the MCAMLIS system, the majority of efforts will be performed by MCAMLIS staff in combination with Professional Consulting Services and a yet to be identified

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.

Basic parcel services are already prepared and include the rudimentary data for this project. The critical development was the implementation of the MCAMLIS Feature Data Service for Parcels, which is complete. Moreover, there are some existing mobile parcel applications that are being used on a limited basis within MCAMLIS, however this project is, for the most part, brand new. There is a project in the works to update viewers to HTML5, in which case, this project may be absorbed into the HTML5 viewer applications, as these support mobile technology.

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"/>

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.

There is no dedicated source of funding outside of MCAMLIS for this project as of yet, however, organizations must supply their own mobile devices, which takes some of the financial burden off of MCAMLIS in terms of providing hardware for this project. Additional funding may be available if local organizational either complement or collaborate with MCAMLIS to leverage MCAMLIS services along with a tailored local community solution.

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"/>

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. Along those lines, if HTML5 is assumed to be the preferred method of development, the planned update to HTML5 viewers may subsume this project.

MCAMLIS Staff Score

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 does not pertain to periodic updates of foundational MCAMLIS data.

MCAMLIS Staff Score

	1	2	3	4	5
Rank 1 (low) to 5 (High)	<input checked="" type="radio"/>	<input type="radio"/>	<input 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 in an out-of-the-box-option. The data would need to be prepared and configured within the application, however the process is well documented and a proven technology. Technological hindrances are not anticipated. Conversely, if developed using plug-in technology once HTML5 is embraced, the project will be principally obsolete, since mobile functionality is inherent in HTML5 technology. Therefore it is possible that further delay of this project is advisable.

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"/>

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 checked="" type="radio"/>	<input 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 type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Section c.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section d.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section e.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section f.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Section g.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Total Points (Add all responses)

21

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

42

Project Survey Results, Review, and Recommendation

Project: MCAMLIS Portal

Applicant: MCAMLIS Project Manager

Organization: MCLIO

Summary

The Portal will be the location for Partners and the public to access MCAMLIS data and services. MCAMLIS will manage the Portal to include access to MCAMLIS web and mobile applications. In addition, the Portal needs to provide the means for MCAMLIS Partners to post and access their own web and mobile applications. The Portal will also provide the framework for the data sharing repository.

Survey and Review Results

Project Score Evaluation Results			
	Numeric Score	Max Percent	Percentage
Survey Response Rate	9/12	10%	8%
Percentage of responses, out of 12	75%	10%	8%
Survey Questions	17/27	40%	25%
a. Project Urgent Need for Your Org?	8/9	13.3%	11.9%
b. Does your org have a champion?	1/9	13.3%	1.5%
c. Benefit outside of your org?	8/9	13.3%	11.9%
MCAMLIS Review	22/25	50%	44%
a. Applicant has resources?	3/5	10%	6%
b. Project is a continuation or extension?	5/5	10%	10%
c. Additional funding is available?	1/5	10%	2%
d. Critical to MCAMLIS infrastructure?	1/5	10%	2%
e. Critical to foundational data?	2/5	10%	4%
f. Project is feasibly and realistic?	5/5	10%	10%
g. No roadblocks, or mandated?	5/5	10%	10%
Grand Total Score (Max Score 100%)			77%

Survey Response Summary

There were 9 responses to the survey, and the responses were generally positive. Comments regarding whether the project was valuable to the organizations indicated that, for the most part, accessing data and applications via a centralized and automated location would be beneficial. Only one organization indicated an individual that could champion the project, although this is not expected to be critical for this project. Finally, all written respondents agreed that data sharing via a portal would be beneficial for MCAMLIS.

Result

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

Schedule

MOL-02: Determine MCAMLIS Portal Architecture, is planned for Q3 – Q4 2015 in the 5 Year Plan.

MOL-04: Implement MCAMLIS Portal, is planned for Q1 – Q4 2016 in the 5 Year Plan.

Cost

Initial costs are as follows:

MOL-02: Determine MCAMLIS Portal Architecture, \$20,000 in 2015.

MOL-04: Implement MCAMLIS Portal, \$25,000 in 2016.

Ongoing costs due to staff commitment should actually drop from about ½ FTE to ¼ FTE as the data request process becomes automated.

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 Q3 – Q4 2015 (MOL-02) and Q1 – Q4 2016 (MOL-04). Open data and applications are becoming a critical component of GIS organizations everywhere, and the technology exists to make it happen. Moreover, every MCAMLIS partner can benefit from making data easier to access.

Organizational Representative Written Responses

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

1	Having access to web applications, data and services is critical to the organization's day to day workflows. Workflows that leverage the access of Portal provisioned resources generally include: map exhibits, derivative data output/reference, mailing lists, focused web mapping applications.
2	Franklin is planning on pursuing mobile technology in 2015. This project may be a good vehicle for assisting the City.
3	A portal to access public data from MCAMLIS or others would be helpful. Its not an urgent need since we can always contact agencies directly, but it would prove useful to check from time to time to see what data may be out there. A data release schedule could also be useful.
4	Not urgent, but could help greatly making county data, like foreclosure, available in an easy to access location. Our portal has made access to our own data easier for our staff.
5	Im not sure how often we would use this but I can see it being a valuable tool for some groups

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	Every entity can benefit from having greater access to data, services, and applications.
2	The proposed data sharing component should be a benefit to constituents on an as needed basis.
3	For the same reason it would be helpful to us.
4	This may benefit other communities to have greater access to mcamlis data.
5	Being able to access data can always be useful for study or evaluation of a project.

MCAMLIS Business Planning Process

Staff Review - Final

Project Name

Review Date

MCAMLIS Portal

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.

MCAMLIS already maintains the data that would be accessible through the portal and will coordinate feedback pertaining to application development with organizational champions. The project was identified in the 2013 Business Needs Assessment (BNA) and was originally scheduled for implementation in the 2016 - 2017 MCAMLIS Work Plan. Assuming that the application will be hosted by the MCAMLIS system, the majority of efforts will be performed by MCAMLIS staff in combination with Professional Consulting Services and a yet to be identified organization(s) resources.

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.

The MCAMLIS Portal project is part of a larger initiative to improve the MCAMLIS presence online. The MCAMLIS/MCLIO website has been relaunched with considerable improvements pertaining to accessing data, including a searchable data dictionary. As such, the Portal will be a natural extension (and integration) of the website improvement efforts. Technological and support resources are already established with IT staff and ESRI resources.

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"/>

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.

There is no dedicated source of funding outside of MCAMLIS for this project as of yet, however, it may be possible to utilize existing technology, which takes some of the financial burden off of MCAMLIS. ESRI licensing provides access to Open Data technology, which may be an acceptable solution to utilize in the project.

MCAMLIS Staff Score

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

This project will fundamentally change how MCAMLIS partners and customers interact with staff and data. By opening data to be accessible through a portal, data request commitments should drop, which will allow MCAMLIS staff more time to pursue other projects. 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 does not directly apply to periodic data updates, however the Portal is expected to improve data transactions between MCAMLIS and partner organizations, which may increase the efficiency of the update process.

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"/>

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

It is expected that all of the software necessary to complete this project exists in an out-of-the-box-option. The data would need to be prepared and configured within the application, however the process is well documented and a proven technology. Technological hindrances are not anticipated. ESRI already provides Open Data options which are usable by MCAMLIS. Alternatively, there are other software options available that can achieve the same goals.

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 type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Section c.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section d.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section e.	<input type="radio"/>	<input checked="" type="radio"/>	<input 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)

22

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

44

Project Survey Results, Review, and Recommendation

Project: Non-Vector Data Improvements

Applicant: MCAMLIS Project Manager

Organization: Milwaukee County Land Information Office (MCLIO)

Summary

This project will improve data management practices and technologies that get MCAMLIS non-vector reference data into the MCAMLIS data repository and prepare it for efficient access. MCAMLIS non-vector reference data refers to the following: georeferenced imagery (Imagery: Ortho, Oblique, LiDAR, Caches), documents and photos, and potentially, video and audio. This does not include Partner-shared or Partner-hosted data, and does not include MCAMLIS vector reference data.

In particular, this task will focus on providing the implementation of the ESRI Image Extension to improve the delivery of MCAMLIS image data holdings including a growing amount of geo-referenced historic aerial image collections from around the county.

Survey and Review Results

Project Score Evaluation Results			
	Numeric Score	Max Percent	Percentage
Survey Response Rate	3/12	10%	3%
Percentage of responses, out of 12	25%	10%	3%
Survey Questions	5/9	40%	22%
a. Project Urgent Need for Your Org?	2/3	13.3%	8.9%
b. Does your org have a champion?	0/3	13.3%	0.0%
c. Benefit outside of your org?	3/3	13.3%	13.3%
MCAMLIS Review	26/25	50%	50%
a. Applicant has resources?	4/5	10%	8%
b. Project is a continuation or extension?	5/5	10%	10%
c. Additional funding is available?	3/5	10%	6%
d. Critical to MCAMLIS infrastructure?	4/5	10%	8%
e. Critical to foundational data?	1/5	10%	2%
f. Project is feasible and realistic?	5/5	10%	10%
g. No roadblocks, or mandated?	4/5	10%	8%
Grand Total Score (Max Score 100%)			75%

Survey Response Summary

Responses to the survey were positive but understandably limited. Although many partners benefit directly from MCAMLIS Non-Vector data access it is not evident to many just how this is accomplished and to what extent they would experience a difference either in performance or in access through this extension. Those that did comment did so by acknowledging the expanding list of image products and understood that as this list expands that managing these could become difficult.

Result

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

Schedule

DAT-01.2: Implement ESRI Image Extension for Server, is planned for Q2 –Q3 2015 in the 5 Year Plan

Cost

Implementation: DAT-01.2: Implement ESRI Image Extension for Server, \$10,000 in 2015

Project Resources: Management: 1/16 FTE, Analyst: 1/8 FTE, Professional Services: 100+ hrs.

Ongoing: \$2,500 per year for ESRI Image Extension license maintenance.

Recommendation

MCAMLIS staff recommends that this project be **accepted** and incorporated into the MCAMLIS 5 Year Work Plan for Q2 – Q3 2015. This project will allow MCAMLIS to closely align with ESRI image software enhancements that first arrived in the ESRI 10.1 release; we are now at 10.3. Alternatives to the recommended approach are becoming increasingly cumbersome given the volume of data that MCAMLIS now holds. Adopting this technology will improve our ability to manage the image resources and continue adding to the image libraries without limitation.

Organizational Representative Written Responses

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

1	Non-vector datasets are integral to the daily operations of the organization. These datasets are used in activities such as map exhibits, water resources analysis and capital improvement planning.
2	Given the growing excellent collection of raster imagery implementation of Image Server seems necessary.

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	The ability to better manage and disseminate imagery seem like it would benefit all MCAMLIS member organizations.
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MCAMLIS Business Planning Process

Staff Review - Final

Project Name

Review Date

Non-Vector Data Improvements

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 implementation of ESRI Image Server and the acquisition of historical imagery e.g., SEWRPC, MMSD and local archives. 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 temporary staff augmentation.

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"/>

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 historical imagery are already implemented and include the underlying infrastructure and data required to meet the fundamental data requirements of the MCAMLIS Program.

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"/>

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 checked="" type="radio"/>	<input 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.

This project will alter the management and configuration of existing infrastructure at MCAMLIS and 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 checked="" type="radio"/>	<input 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.

MCAMLIS Staff Score

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

MCAMLIS Staff Review - Score Summary

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

Total Points (Add all responses)

26

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

50

Project Survey Results, Review, and Recommendation

Project: Vector Data Improvement - Topographic Update

Applicant: MCAMLIS Project Manager

Organization: Milwaukee County Land Information Office (MCLIO)

Summary

This project is a natural extension of the 2005-2010 Topographic Update conducted in 2013. The project will be divided into two phases. The first phase will incorporate updates of the major transportation corridors that have been substantially completed between 2010 (last topo update) and 2013 (the most recent imagery). For example, the Mitchell Interchange was completed in 2012 and is not correctly represented in the most recent planimetric dataset (based off of 2010 imagery). The second phase will complete the comprehensive countywide 2010-2015 update. This update coincides with the Regional Five-Year Planning Cycle. Features to be updated in Phase Two will be identified through the use of change detection analysis based in part on LiDAR captured in 2010 and LiDAR scheduled to be captured along with 3" color orthophotography in spring of 2015. The results of this analysis will reveal planimetric feature changes that need to be updated. The final step of this phase will be to perform the updates in the designated areas identified as a result of change detection analysis.

Survey and Review Results

Project Score Evaluation Results			
	Numeric Score	Max Percent	Percentage
Survey Response Rate	3/12	10%	3%
Percentage of responses, out of 12	25%	10%	3%
Survey Questions	7/9	40%	31%
a. Project Urgent Need for Your Org?	3/3	13.3%	13.3%
b. Does your org have a champion?	1/3	13.3%	4.4%
c. Benefit outside of your org?	3/3	13.3%	13.3%
MCAMLIS Review	23/25	50%	46%
a. Applicant has resources?	3/5	10%	6%
b. Project is a continuation or extension?	5/5	10%	10%
c. Additional funding is available?	1/5	10%	2%
d. Critical to MCAMLIS infrastructure?	2/5	10%	4%
e. Critical to foundational data?	5/5	10%	10%
f. Project is feasible and realistic?	4/5	10%	8%
g. No roadblocks, or mandated?	3/5	10%	6%
Grand Total Score (Max Score 100%)			80%

Survey Response Summary

There were three responses to this survey. They were all supportive of this project. A comment pertaining to the continuation of this project is that if the data is not current, the user would have to construct the data separately because the project still needed the data and could not be skipped. There were no champions that were indicated in the survey.

Result

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

Schedule

(DAT-02) Vector Data Improvement - Topographic Update, is scheduled to begin in Q3 of 2015 and will continue through Q2 of 2016 according to the 5 Year Plan.

Cost

Implementation: (DAT-02.1) Phase 1 is estimated to be \$20,000. Phase 2 is estimated to be \$100,000.

Project Resources: Management: 1/8 FTE, Analyst: ¼ FTE, Professional Services: 1000+ hrs.

Ongoing: This project is not expected to have any ongoing cost.

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 Q3 2015 through Q2 2016. Significant resources were spent on the original collection and maintenance of this dataset. It is in the best interest of MCAMLIS to continue with this investment. This product is quite unique and is currently being utilized within MCAMLIS partner organizations. One study that uses this data and had a great need for currency relates to impervious surface analysis that is being refined for this region.

Organizational Representative Written Responses

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

1	Topographic data are in use daily on the organization, such as map exhibits and capital improvement planning. When updates have not yet been conducted, the updates are sketched in to best mimic current conditions until the MCAMLIS updates are released.
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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	Other organizations may benefit from phase 1 more than others, but all would benefit from phase 2.
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MCAMLIS Business Planning Process

Staff Review - Final

Project Name

Review Date

Vector Data Improvement - Topographic Update

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 manage the project and perform the QC that is needed throughout the project. This improvement project was ranked high by MCAMLIS Partner Organizations in the 2013 Business Needs Assessment (BNA) and is Goal number 1 in the Maintain Core Foundation Elements goals. The majority of efforts will be performed by Professional Consulting Services in combination with MCAMLIS staff.

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.

Yes, this project leverages This improvement project was ranked high by MCAMLIS Partner Organizations in the 2013 Business Needs Assessment (BNA) and is Goal number 1 in the Maintain Core Foundation Elements goals.

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"/>

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.

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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.

This project does not directly affect existing infrastructure at MCAMLIS.

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"/>

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 improvement project was ranked high by MCAMLIS Partner Organizations in the 2013 Business Needs Assessment (BNA) and is Goal number 1 in the Maintain Core Foundation Elements goals. It is the goal of MCAMLIS to have a consistent periodic update schedule in place to keep this core data as current as reasonably expected.

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"/>

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 will be prepared and configured within our current architecture.

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"/>

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 a continuation of the 2013 Topographic Update and the Planimetric Polygon Processing Project of 2014.

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"/>

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 type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Section c.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section d.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section e.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Section f.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Section g.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Total Points (Add all responses)

23

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

46

Project Survey Results, Review, and Recommendation

Project: Improve Property Record Currency and Content

Applicant: MCAMLIS Project Manager

Organization: Milwaukee County Land Information Office (MCLIO)

Summary

This project will improve the processes that collect, process, and publish property record data. The result will allow access to more current property ownership records and associated parcel data. This may include working with GCS, which provides a property record service to all but three municipalities and villages in the county, and individually with the municipalities and villages that do not use GCS. The initiative would include communicating the details of the information by posting the currency of the property record information to the MCAMLIS website.

Survey and Review Results

Project Score Evaluation Results			
	Numeric Score	Max Percent	Percentage
Survey Response Rate	11/12	10%	9%
Percentage of responses, out of 12	92%	10%	9%
Survey Questions	16/33	40%	19%
a. Project Urgent Need for Your Org?	6/11	13.3%	7.3%
b. Does your org have a champion?	1/11	13.3%	1.2%
c. Benefit outside of your org?	9/11	13.3%	10.9%
MCAMLIS Review	22/25	50%	44%
a. Applicant has resources?	4/5	10%	8%
b. Project is a continuation or extension?	2/5	10%	4%
c. Additional funding is available?	3/5	10%	6%
d. Critical to MCAMLIS infrastructure?	1/5	10%	2%
e. Critical to foundational data?	5/5	10%	10%
f. Project is feasible and realistic?	2/5	10%	4%
g. No roadblocks, or mandated?	5/5	10%	10%
Grand Total Score (Max Score 100%)			73%

Survey Response Summary

Partner Organization Representatives who currently have difficulty maintaining Property Record data were very enthusiastic regarding the proposed project outcomes. Other organizations (primarily cities) who are currently maintaining Property Records were not so enthusiastic although everyone across the board found benefit in an organization having more current and timely Property Records. It is important to note that there was one declared Champion from among the comments and that that constitutes a significant acknowledgement of the importance of this project.

Result

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

Schedule

DAT-03: Improve Property Record Currency, is planned for Q4 2015 –Q4 2016 in the 5 Year Plan

Cost

Implementation: DAT-03: Improve Property Record Currency, \$50,000 in 2015 – 2016

Project Resources: Management: ¼ FTE, Analyst: ¼ FTE, Professional Services: 500+ hrs.

Ongoing: estimate \$10,000 per year for a GCS license, up to ¼ FTE staff time to maintain PCI process.

Recommendation

MCAMLIS staff recommends that this project be **accepted** and incorporated into the MCAMLIS 5 Year Work Plan for Q4 2015 – Q4 2016. This project will allow MCAMLIS to comply with State Statutes that mandate county compliance in providing certain property record data to the state in a specified format by June 30, 2017. While all partner organizations are not fully onboard with full integration of their assessment and property record keeping within MCAMLIS it's apparent that with minimal effort that the majority of municipalities using GCS Land Records Management Software can be integrated readily with the remainder being configured via other means.

Organizational Representative Written Responses

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

1	I checked NO to the question as the City of Franklin internally maintains property records. Franklin also provides a public facing GIS website that extends property related information to the general public.
2	The City of Milwaukee already maintains the data required by the state however this information would be valuable to us as well as to all MCAMLIS members.
3	(GREENDALE) Having current parcel data is a quarterly (or better) workflow in the assessment, zoning and inspection departments. The prior year municipal tax roll data is updated with ownership throughout the year on a quarterly basis and synchronized to the tax parcel shape from the County. If the County has not yet made the updates to the tax parcel shape, then those changes are made in tandem with the tax roll updates. The resulting tax parcel shapefile is integrated into software for use in Village activities. (WEST MILWAUKEE) Tax parcel currency would benefit the Village in quarterly (or better) synchronization with zoning administration activities such as mailing lists for zoning change notification. Integration between the MCAMLIS parcel dataset and GCS software is seen as a favorable action.
4	The City of Oak Creek used to maintain its own parcel data, but we have recently made the decision to utilize the MCAMLIS data. Parcels with ownership and valuation data are the most utilized and necessary GIS layer in our inventory.
5	Current parcel mapping is critical to City operations so we strive to maintain the most up to date parcel mapping as possible. Many other City departments now use our GIS data and are dependent on current mapping -- permits, addressing, assessor, storm water utility, refuse collection, CIP work, etc. The City is not aware how current MCAMLIS parcel mapping is kept and have been maintaining our own parcel base for a long time - 15+ years.
6	Already posting nightly updates of parcel and property ownership along with other attributes residents may need.
7	Current property record data is valuable to the District for Real Estate and parcel management projects (e.g., Greenseams program).
8	Urgent is a strong word. I could see a project like being beneficial to a local government (taxes, property evaluations, special assessments, emergency mailings, etc.) Keeping a current list of Owners of Record is always a good idea.

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?

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

1	A countywide seamless process would be especially effective for property related inquiries along political boundaries.
2	The additional information would aid in analysis and decision making for all MCAMLIS parcel data users.
3	The activities mentioned above are mandates and not uncommon to MCAMLIS constituents. The project would be beneficial in reducing the time/cost to synchronize the connection between tax roll and tax parcel resources. Additionally, a benefit would also be in standardizing the methods and schedule to make the connection of resources.
4	I cant answer this question for others communities / organizations since I am not aware of their operational procedures, but I would assume that most people would agree that up-to-date parcel mapping is important since most likely use that data as the key part of their base map. I assume that would apply for any GIS data layer.
5	This may benefit other communities to access this information if they don't have a GIS website.
6	The value and benefit of this project will be substantial for local government members of MCAMLIS.
7	Real estate industry & private assessor's would benefit

MCAMLIS Business Planning Process

Staff Review - Final

Project Name

Review Date

Improve Property Record Currency and Content

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 delivery of parcel data linkage URLs to on-line GCS hosted indexes. This improvement 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. Further participation by non-GCS partner organization(s) is required to fully actualize the parcel currency improvement goal. The tax assessment services will be hosted by the MCIO. The majority of efforts will be performed by MCAMLIS staff in combination with Professional Consulting Services and a yet to be identified organization(s) resources.

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"/>

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.

Basic parcel services are already implemented and include the underlying infrastructure and data required to meet most of the basic requirements mandated by the State. One critical development was the implementation of the MCAMLIS Feature Data Service for Parcels, which will be augmented with mandated tax data that is contained in annual data deliveries to the Milwaukee County Treasurer. Data that is not mandated for this county but is already incorporated for two municipalities including zoning and land-use attributes may also need to be developed.

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 \$50,00 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 checked="" type="radio"/>	<input 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.

This project does not directly affect existing infrastructure at MCAMLIS.

MCAMLIS Staff Score

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

Yes, Milwaukee County is responsible for posting certain types of parcel information on-line in a format yet to be determined by DOA. If Milwaukee County does not meet the State Mandated deadline of June 30, 2017, the county will lose a significant amount of LRM fee revenue and have to dedicate the remaining revenue to meeting this requirement.

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"/>

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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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 statutorily required and has been 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 type="radio"/>	<input checked="" 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 checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section d.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Section e.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Section f.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input 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)

22

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

44

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

Project Score Evaluation Results			
	Numeric Score	Max Percent	Percentage
Survey Response Rate	7/12	10%	6%
Percentage of responses, out of 12	58%	10%	6%
Survey Questions	14/21	40%	27%
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%
MCAMLIS Review	27/25	50%	50%
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%
Grand Total Score (Max Score 100%)			83%

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	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.
3	I consider this to be an important project for our organization as we continue to move forward with web application and service development.
4	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.
5	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.
6	Many plans are coming in referenced to 83 and or the county coordinate system especially DOT projects so this would be helpful.

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	Yes, for the same reasons mentioned in response 1. The efforts performed in our organization are perceived to be similar in nature other organizations.
2	All MCAMLIS constituents involved in developing or consuming web-based data or applications have a stake in this issue.
3	For the same reasons it would be beneficial to us.
4	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.
5	I think consulting firms would find this useful.

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

Submitted to:

**Milwaukee County Automated Mapping
and Land Information System
(MCAMLIS)
Steering Committee**

Five-Year Work Plan

Submitted by:



Staff

Revised

MARCH 9, 2015

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Executive Summary

Work Plan Background

The Milwaukee County Automated Mapping and Land Information System (MCAMLIS) has been providing location-based products and services (Data, Collaboration, and Capabilities) in various and growing capacities to its Partners for more than two decades (see Figure 1). A Business Needs Assessment (BNA) conducted in 2013 identified several influencing factors that continue to provide MCAMLIS the opportunity to improve the value it provides to its Partners.

Among these factors are industry advances in location-based data and technologies (LBDT), such as data services and mobile device capabilities. As such, MCAMLIS has taken advantage of these technologies to improve its value to MCAMLIS Partners, and will continue to do so as outlined in this update to the Five-Year Work Plan.

Another factor is that MCAMLIS Partner organizations are changing. Partners themselves are adapting to advances in LBDT and need to quickly react to the implementation of LBDT when necessary. In addition, Partner LBDT abilities vary from rudimentary to highly advanced. As such, MCAMLIS work planning will continue to promote processes and capabilities that quickly adjust to changing and varied Partner requirements.

Finally, the MCAMLIS Program has made significant progress in providing increased value to Partners by implementing recent improvements to MCAMLIS Program data and processes that were driven by the needs of its Partners. The Work Plan update will continue to build on the earlier momentum and continue to advance LBDT improvements.

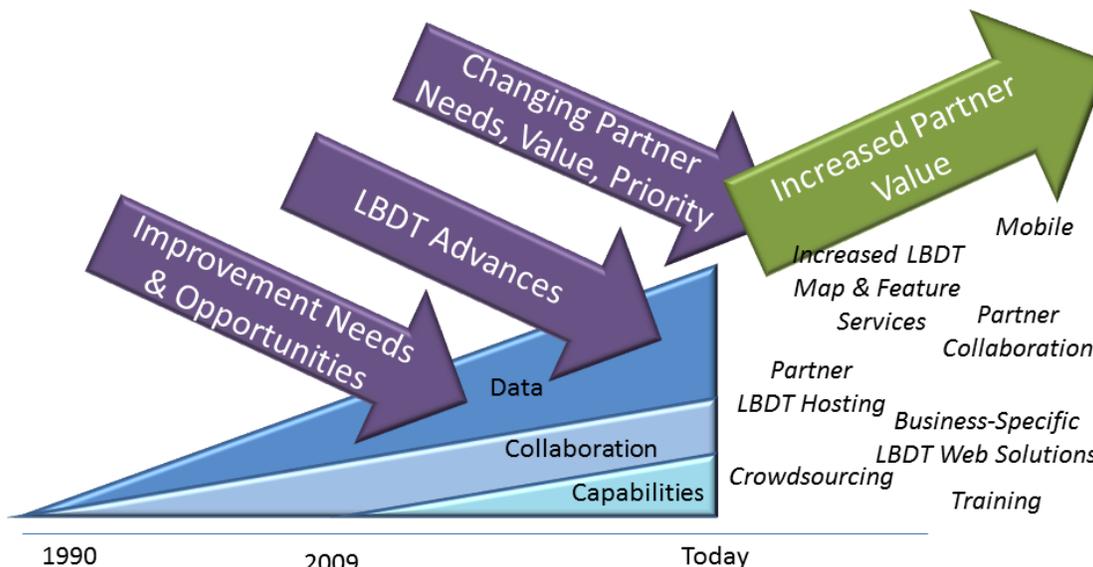


Figure 1: MCAMLIS Direction

In March 2013, the MCAMLIS consortium of Partners initiated a Business Needs Assessment (BNA) Project. The ultimate goal of this project was to foster improvements in effective and efficient management of LBDT across as many MCAMLIS Partners as can be engaged to do so, and to the extent that each Partner or group of Partners finds value in its participation. The MCAMLIS Program anticipated that these improvements would include improved access to MCAMLIS location-based data and Partner data, and would facilitate access to LBDT consulting services and core LBDT applications and services. The 2013 BNA Project set the direction for MCAMLIS for a five year window beginning in 2014. In order to continually shape and maintain the plan going forward it needs to be revised annually to move the five year window into coming years. Each annual Work Plan revision will realize what has been accomplished and what changes to the plan need to be incorporated, including both partner-driven and program-driven projects and tasks. To this end revisions to the ongoing plan incorporate the [MCAMLIS Business Planning Process \(BPP\)](#) adopted by the MCAMLIS Steering Committee in December 2014:

- Business Planning Process** – The Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee utilizes a formal Business Planning Process (BPP) that was adopted in 2014. Previous to the current BPP, input into the Business Needs Assessment (BNA) conducted in 2013 yielded many critically important insights into organizations business needs resulting the first Five-Year Plan. To assess changes that are necessary to update the MCAMLIS Work Plan the Steering Committee recently adopted a formal mechanism to capture MCAMLIS Partner input and to capture any opportunities and changing priorities for land information improvement over time. Organizational input into the formalized Business Planning Process is important to help assess MCAMLIS future direction. Each partner organization is asked to help by 1) providing answers to a ‘Yes/No’ question survey regarding projects being considered as part of the updated Work Plan and 2) if there is a gap in MCAMLIS services that is not covered by a current or proposed project, and if so to formally submit a project application through the Business Planning Process requesting to have it considered by the MCAMLIS Steering Committee for action in a future work planning cycle. The MCAMLIS Partner organizations are each listed below.

MCAMLIS Partner Organizations		
AT&T	City of St. Francis	Village of Fox Point
City of Cudahy	City of Wauwatosa	Village of Greendale
City of Franklin	City of West Allis	Village of Hales Corners
City of Glendale	Milwaukee County	Village of River Hills
City of Greenfield	MMSD	Village of Shorewood
City of Milwaukee	SEWRPC	Village of West Milwaukee
City of Oak Creek	Village of Bayside	Village of Whitefish Bay
City of South Milwaukee	Village of Brown Deer	WE Energies

- Project Initiation and Background** – This phase of the BPP is intended to encourage submittal of projects using an on-line MCAMLIS Business Planning New Project Request form. A MCAMLIS Partner completes a new Project Request and forwards it to the MCAMLIS Project Manager, Milwaukee County Land Information Office for evaluation. The

Project Manager and Staff, then perform a cursory review of the request and confer with the individual organization making the request to provide any missing information that may further clarify the request e.g., evaluate the total scope of the request, Estimate cost of project and estimate level of work (number of personnel needed to implement project) etc.

In the initiation and background phase, MCAMLIS Staff employs an array of tools to evaluate needs: online surveys, face-to-face interviews with Partner organization leadership and business areas, and if warranted collaboration workshops. If the project meets a minimum set of criteria it is then analyzed and distilled into a staff recommendation to the Steering Committee. Depending on the staff recommendation a project may be scheduled immediately into the current planning cycle or considered for placement into the Five-Year Plan as a future consideration as part of the 'Five-Year Program Task Analysis' phase . If the project is scheduled into the current planning cycle it will need to be considered and approved for funding by the MCAMLIS Steering Committee.

- **Five-Year Program Task Analysis** – This phase uses the detailed program initiatives and improvement tasks derived from the projects identified during the Project Initiation phase. The MCAMLIS Staff will prioritize the project initiatives and improvement tasks based on implementation criteria such as whether they address the specified need, the level of development effort, risks of implementation, and benefits to stakeholders.
- **Five-Year Program Development** – This phase re-casts the Five-Year Work Plan (including initiative sequencing and cost estimation) based on MCAMLIS program cycles and budget. The Five-Year Work Plan projects and tasks are derived, in part on the initiatives and improvement tasks included in the original 2013 BNA and modified based on the results of the background and analysis gathered in the previous phases. In 2015 the MCAMLIS Project Manager and staff submitted seven new or revised projects to include among a proposed sequencing of 20 tasks over the next five years. This resulted in a proposed schedule. The Five-Year Work Plan is then finalized based on MCAMLIS Partner and Staff input and submitted to the MCAMLIS Steering Committee for approval.

The MCAMLIS Program, Defined

The MCAMLIS Program activities can be organized into five key categories, which are illustrated in Figure 2. The Work Plan includes one or more Project Tasks that improve each Program Category (see the Benefits section of each Project Task description). The MCAMLIS Project manager and MCAMLIS Partner Organizations can use these categories to communicate program services and activities to MCAMLIS stakeholders. Each MCAMLIS Program Category is described briefly below:

- **MCAMLIS Portal** – The MCAMLIS Portal is the online, one-stop access to all that is MCAMLIS. The Portal provides MCAMLIS Stakeholders one place to go to learn about what MCAMLIS is; who is a part of MCAMLIS; what data, capabilities, and collaboration activities are provided through MCAMLIS; and how one obtains access to or gets involved with MCAMLIS.
- **Data Products and Services** – Essentially, there are two types of location-based data: Business Data and Reference Data. Location-based Business Data is the essential data

created and applied by Partner organizations. Examples include permits, safety-related incidents, and capital roadway improvement projects. Location-based Reference Data gives context to the Business Data. MCAMLIS has been providing Reference Data and support services since its inception, including aerial photography, road layers, parcel layers, contours, and political boundaries. MCAMLIS Partners typically manage their own location-based Business Data.

- Capability Products and Services** – Capabilities refer to location-based technology and applications, and related support services. MCAMLIS may be best known for the MCLIO Web Mapping Application, which offers a version to the public as well as a secured version offered to MCAMLIS Partners. With advances in location-based technologies and the requirements of MCAMLIS Partners, additional capabilities – such as map services – are available, allowing Partners to add MCAMLIS-hosted data into their own mapping applications. Other capabilities are possible, including data services and having MCAMLIS host Partners’ solutions or data for them.
- Collaboration Products and Services** – MCAMLIS has coordinated several forums for MCAMLIS Partners to exchange LBDT ideas and even solutions, most notably the Milwaukee Municipal GIS User Group meetings. However, MCAMLIS is striving to do more to improve the value of LBDT for certain business functions or other LBDT-based solutions (e.g., a commonly invested asset management solution).
- Program Management** – This category represents MCAMLIS activities to plan, budget, operate, and improve on the delivery of MCAMLIS products and services, including information technology, data management, MCAMLIS governance, staff management, and process management.

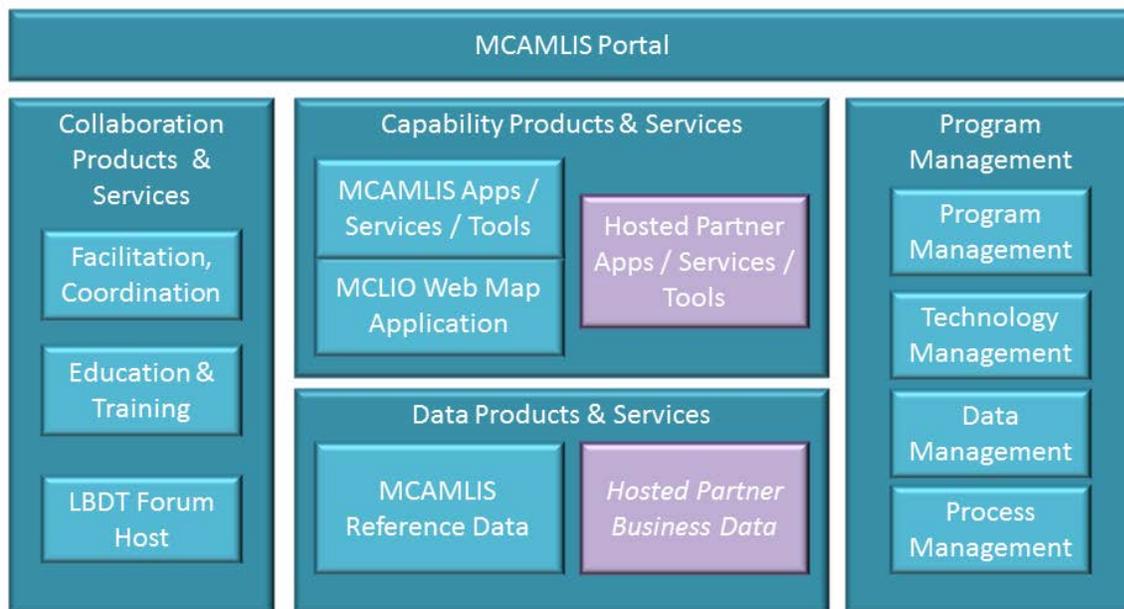


Figure 2: MCAMLIS Program Categories

MCAMLIS Program Five-Year Work Plan Overview

The MCAMLIS Five-Year Work Plan is defined by five improvement-based projects estimated to cost approximately \$1.1 million to implement over the next five years. The figure below illustrates the five projects and costs allocated over the next five years.

Project Code and Name		# of Tasks	FY2015				FY2016				FY2017				FY2018				FY2019				Project Budget
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4													
VWR	Viewer/Pictometry Improvement RollOut	3	■	■	■	■																	\$70,000
MBL	Mobile-Based Capabilities Implementation	2					■	■	■														\$45,000
COL	MCAMLIS/Partner Collaboration Improvement	3								■	■				■	■	■						\$70,000
MOL	MCAMLIS On-line Presence Improvement	6		■	■	■	■	■	■	■	■	■				■	■	■	■	■	■		\$155,000
DAT	MCAMLIS Data Improvement	6	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	\$735,000
Annual Budget			\$360,000				\$250,000				\$260,000				\$135,000				\$70,000				\$1,075,000

These five projects are comprised of two to six tasks (20 tasks in total). The five projects are Viewer Improvements (VWR), Mobile-Based Capabilities Improvements (MBL), MCAMLIS/Partner Collaboration Improvements (COL), MCAMLIS Online Presence Improvements (MOL), and Data Improvements (DAT).

The Work Plan proposes seven tasks in Year 1, three of which will be completed in 2015. These tasks focus on enhancing the MCLIO Viewer (VWR) and MCAMLIS website improvements (MOL). Data improvements (vector and non-vector) occur in each of the five years.

As with projects completed earlier the 2015 project tasks will ensure that MCAMLIS is responsive to stakeholders' requirements, and provide MCAMLIS a solid foundation on which to continue building. In subsequent years, the MCAMLIS Program will revisit the Work Plan and make adjustments to the proposed project tasks for the upcoming years. These adjustments need to consider progress made to date, budget realities, and shifting priorities.

Work Plan Document Purpose and Organization

The Five Year Work Plan document describes in detail the MCAMLIS projects and related tasks that MCAMLIS needs to address within the next five years – this version includes the years 2015-2019. This document incorporates a sequence strategy for tackling these projects and tasks. The proposed sequence considers projected annual budgets, MCAMLIS staff involvement, and dependencies. The MCAMLIS program will continue to refine its priorities as each year progresses, and may make changes to the sequence as appropriate.

The Five-Year Work Plan document is organized as follows:

- Executive Summary – Describes why the BNA Project is important, project methodology, key findings, and in, particular, how this document is relevant to the overall project success.
- MCAMLIS Five-Year Work Plan – Presents the Work Plan from several perspectives: timeline, and budget per year.
- Project Details – Provides details about the projects and tasks that, if implemented, would address key MCAMLIS Partner and Program requirements for the next five years. Each task is described, including key benefits, risks, and assumptions.
- Appendices – Describes the needs and improvement initiatives that drove the definition of the Work Plan.

MCAMLIS Program Five-Year Work Plan

This section of the Five-Year Work Plan describes the MCAMLIS projects and related tasks that MCAMLIS needs to address within the next five years. Also included is a proposed sequencing strategy for tackling these projects and tasks. The proposed sequence considers projected annual budgets, MCAMLIS staff involvement, and dependencies. The following table depicts the MCAMLIS BPP Projects and tasks, their sequence, duration, and milestones.

Project	Task ID	Task Description	FY2015				FY2016				FY2017				FY2018				FY2019			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
VWR		Viewer/Pictometry Improvement RollOut																				
	01	Improve the MCLIO Interactive Mapping Service																				
	01.1	System Architecture Design Consulting																				
	02	Implement MCAMLIS Data Extract Service																				
MBL		Mobile-Based Capabilities Implementation																				
	01	Deploy Mobile Property Locator Application																				
	02	Develop MCAMLIS Feature Data Service for Parcels									Complete											
	03	Prototype Services for Mobile Applications																				
COL		MCAMLIS/Partner Collaboration Improvement																				
	01	Invest in LBDT/Collaboration Education and Training									Complete											
	02	Formalize Partner Input in MCAMLIS Business Planning									Complete											
	03	Improve MMGUG Forums																				
	04	Facilitate Business-Driven LBDT Collaboration Project																				
	05	Clarify Partner Opportunities in MCAMLIS																				
MOL		MCAMLIS On-line Presence Improvement																				
	01	Make Initial Website Improvements									Complete											
	02	Determine MCAMLIS Portal Architecture																				
	03	Establish and Market the New MCAMLIS																				
	04	Implement MCAMLIS Portal																				
	05	Finish MCAMLIS Program Management Content																				
	06	Develop Partner Data Sharing Repository																				
	07	Implement Cloud-Based GIS for MCAMLIS (AGOL)																				
DAT		MCAMLIS Data Improvement																				
	01	Make MCAMLIS Non-Vector Data Improvements																				
	02	Make MCAMLIS Vector Data Improvements																				
	03	Improve Property Record Currency																				
	04	Support New Datum Needs																				
	05	Make MCAMLIS Metadata Improvements																				
	06	Acquire Cadastral Data from Outside Milwaukee Co.																				

The following table shows the annual cost associated with each Project Task and the total expected cost per year.

Project	Task ID	Task Description	FY2015	FY2016	FY2017	FY2018	FY2019	
VWR	01	Improve the MCLIO Interactive Mapping Service	\$48,000					\$48,000
	01.1	System Architecture Design Consulting	\$22,000					\$22,000
	02	Implement Initial MCAMLIS Data Extract Service*						
MBL	01	Deploy Mobile Property Locator Application		\$25,000				\$25,000
	02	Develop MCAMLIS Feature Data Service for Parcels*			Complete			
	03	Prototype Services for Mobile Applications		\$20,000				\$20,000
COL	01	Invest in LBDT/Collaboration Education and Training			Complete			\$0
	02	Formalize Partner Input in MCAMLIS Business Planning			Complete			\$0
	03	Improve MMGUG Forums		\$5,000	\$5,000			\$10,000
	04	Facilitate Business-Driven LBDT Collaboration Project				\$30,000		\$30,000
	05	Clarify Partner Opportunities in MCAMLIS			\$20,000	\$10,000		\$30,000
MOL	01	Make Initial Website Improvements			Complete			\$0
	02	Determine MCAMLIS Portal Architecture	\$20,000					\$20,000
	03	Establish and Market the New MCAMLIS			\$15,000			\$15,000
	04	Implement MCAMLIS Portal		\$25,000				\$25,000
	04.1	Portal Licensing						\$0
	05	Finish MCAMLIS Program Management Content		\$20,000				\$20,000
	06	Develop Partner Data Sharing Repository				\$15,000	\$15,000	\$30,000
	07	Implement Cloud-Based GIS for MCAMLIS			\$45,000			\$45,000
DAT	01	Make MCAMLIS Non-Vector Data Improvements						
	01.1	Create Historical Aerials	\$10,000	\$10,000	\$10,000			\$30,000
	01.2	Implement ESRI Image Extension for Server	\$10,000					\$10,000
	01.3	Evaluate DMS for MCAMLIS (OnBase)			\$20,000			\$20,000
	01.4	Implement Dedicated Server for Images					\$45,000	\$45,000
	01.5	Orthophotography/LiDAR Acquisition	\$185,000		\$145,000			\$330,000
	02	Make MCAMLIS Vector Data Improvements						
	02.1	Create/Deploy 2015 Planimetric Update	\$20,000	\$100,000				\$120,000
	02.2	Energize EAS/SCL Data Update				\$20,000		\$20,000
	03	Improve Property Record Currency		\$50,000				\$50,000
	04	Support New Datum Needs		\$25,000				\$25,000
	05	Make MCAMLIS Metadata Improvements		\$15,000				\$15,000
	06	Acquire Cadastral Data from Outside Milwaukee Co.				\$50,000		\$50,000
Total:			\$315,000	\$295,000	\$260,000	\$125,000	\$60,000	\$1,055,000

The remainder of this document provides details on the projects and tasks derived from the initiatives (Data Distribution, Data Integration, Capabilities/Solutions, Collaboration/Training, and Program Management) and associated improvements tasks. For each project¹, the following information is provided:

- Task ID
- Task Name
- Description
- Cross-referenced relationship to Improvement Tasks
- Deliverables
- Participants
- Objectives/Perceptions (Cross-reference)
- Needs (Cross-reference)
- Improvement Task Source (Cross-reference)
- High-level Cost Estimate
- MCAMLIS Staff Involvement (Low, Medium, and High)
- Duration
- Predecessors (other projects)
- Benefits
- Risks
- Assumptions.

¹ Completed projects summaries are included in an abbreviated form

Project VWR: Viewer Improvement Rollout

1. Improve the MCLIO Interactive Mapping Service

Task ID: WP-VWR-01

Task Name: Improve the MCLIO Interactive Mapping Service

Description:

This project will migrate and enhance the MCLIO Interactive Map Viewer. The current website viewing application(s) uses plug-in technology that is being deprecated and will soon be unsupported e.g., Google has declared that all plug-ins will not load in the Chrome browser as of September 2015. ESRI has also declared that they have stopped development and will discontinue support as of June of 2016. For additional information reference the following links: <http://blogs.esri.com/esri/supportcenter/2014/11/10/final-release-and-support-plan-for-the-arcgis-apis-viewers-for-flex-and-silverlight/>

<http://blog.chromium.org/2014/11/the-final-countdown-for-npapi.html>

This project was identified in the 2013 Business Needs Assessment (BNA) and is a continuation of the Website Viewer Improvement Project included in the 2014-2015 MCAMLIS Work Plan. Feature enhancement, platform migration and tool enhancement will be addressed with this project.

This task will finalize multiple improvements to the MCLIO Interactive Mapping Service and plan and execute the roll-out of the HTML viewer.

The task involves refining the improvements to the viewer, creating a roll-out plan, transitioning to the new HTML viewer, and executing the roll-out plan. It includes:

- Identifying new functionality and implementation.
- Updating the GeoCortex user guide with MCLIO web viewer specifics. For example, how to access certain data (e.g., CSMS) and functions (e.g., Pictometry oblique imagery).
- Developing and executing training materials (online, self-paced, group, etc.).
- Marketing/support of the new viewer.

Finally, Users will also have access to Pictometry Online (POL) as a stand-alone viewer. In addition to supplying HTML or web service, MCAMLIS will continue offering information on the availability of these tools and training on how to use them.

Deliverables:

- System Architecture Assessment (SAA) Report
- Outstanding Viewer capability
- Viewer Roll-Out Plan
- Online documentation / how-to materials on applying the Viewer.
- Online documentation of improvements offered through the Viewer.
- Online Viewer-specific user guide and training materials (including short how-to videos).
- Provide training on MCLIO web viewer (classroom and/or virtual).

- See also WP-VWR-02

<p>Participants: Viewer: All; Pictometry Access: in particular, City of Milwaukee Planning</p>	<p>Objectives / Perceptions: O1, O2, O3, O4, O5; P1, P4, P5, P6</p>	<p>Needs: BN08, BN09, PN02</p>	<p>Improvement Task Source: IT-03-01, IT-01-02, IT-03-05</p>
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High-level Cost Estimate: \$70,000
 Costs are included for Professional Services Consultant fees required to consider near and long term infrastructure needs assessment (\$22,000); Viewer migration from Silverlight to HTML including additional customization, configuration, and implementation of the viewer (\$48,000)

MCAMLIS Staff Involvement: Medium (Staff)

Duration: 9 months **Predecessors:** WP-VWR-01 (2014 Silverlight) ;

- Benefits:**
- SAA provides roadmap for future MCAMLIS Infrastructure
 - Improves on current web version.
 - Increases utility of the MCLIO Viewer to handheld and tablet devices.
 - Improves functionality and tools available through the viewer.
 - Continues to provide users with access to Pictometry data without having to go to a separate viewer or application.
 - Improves MCAMLIS Program Category: Capability Products and Services.

- Risks:**
- May not meet all Partner improvement requests.
 - All users may not be informed of the change to the viewer and therefore will not be adequately trained on the new product.

- Assumptions:**
- Geocortex HTML viewer provides enhanced capabilities and ease of use.
 - Training and tutorials on how to use the new site are included.
 - Roll-out needs to at least mention the sunset plan for the existing MCLIO website.
 - Latitude Geographics will continue to increase its use of services-based capabilities in its Geocortex products so these capabilities can be exposed to other information access interfaces that Partners use in their own applications.

2. Implement Initial MCAMLIS Data Extract Service

Task ID: WP-VWR-02			
Task Name: Implement Initial MCAMLIS Data Extract Services			
<p>Description:</p> <p>Task will provide users with a service that will allow them to select one or more MCAMLIS reference data layers to be extracted for a user-specified geographic area, which will result in downloadable datasets in one of a predetermined set of data formats.</p> <p>A "how-to" instructional guide needs to be included with the service.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> Operational data extract service for Milwaukee County Reference Data available on the MCLIO interactive mapping service for partner access. Documentation / how-to materials for applying the data extract service. 			
<p>Participants:</p> <p>MCAMLIS Partners, capital improvement contractors, and land developers</p>	<p>Objectives/ Perceptions:</p> <p>O1, O2, O3, O5; P1, P6, P8</p>	<p>Needs:</p> <p>BN01, BN21, BN04, PN1, PN2</p>	<p>Improvement Task Source:</p> <p>IT-01-02</p>
High-level Cost Estimate: part of WP-VWR-01			
MCAMLIS Staff Involvement: part of WP-VWR-01			
Duration: 3 months		Predecessors: WP-VWR-01; influenced by WP-COL-01 (how-to materials/training)	
<p>Benefits:</p> <ul style="list-style-type: none"> Users of the MCLIO interactive web mapping tool will select data for a particular geographic area to use in their desktop mapping applications. This on-demand service to extract the data reduces the turn-around time for Partners to obtain the required data. Reduces MCAMLIS staff effort spent on responding to user data requests. Provides a service to select data from a specified geographic area. Provides a means for users from outside (e.g., developers) to access the data for use in their projects. Adopts best practice. Improves MCAMLIS Program Category: Capability Products and Services. 			
<p>Risks:</p> <ul style="list-style-type: none"> Tracking use of the data. 			

- Data currency – If Users extract data instead of accessing directly via a web service, the data may become outdated and unsuitable for many purposes.

Assumptions:

- The costs and MCAMLIS staff involvement of this task are included in WP-VWR-01.
- Through training, address the use of web services as a preferred method of data sharing.

Project MBL: Mobile-Based Capabilities Implementation

1. Deploy Mobile Property Locator Application

Task ID: WP-MBL-01			
Task Name: Deploy Mobile Property Locator Application			
Description: The mobile property mapping application will provide organizations with the ability to view property ownership information in the field via a mobile application for phone or tablet. Core capabilities include the ability to retrieve the property and owner information at or near the user’s current location, or to retrieve property information based on a user-supplied address. In addition, this task will develop and deploy feature data services for Parcels (see WP-MBL-02).			
Deliverables: <ul style="list-style-type: none"> • Deployed property locator mobile application. • Deployed mobile address retriever tool. • Deployed online how-to materials; limited number of webinars and/or podcasts. • See also WP-MBL-02. 			
Participants: All	Objectives/ Perceptions: O1, O2, O3, O4, O5; P1, P6, P8	Needs: BN13, BN16 PN02, PN05	Improvement Task Source: IT-03-04
High-level Cost Estimate: \$25,000 Includes consulting services, implementation, configuration, and training of the property locator application.			
MCAMLIS Staff Involvement: Low (PM)			
Duration: 6 months		Predecessors: influenced by WP-COL-01 (how-materials/training)	
Benefits: <ul style="list-style-type: none"> • Provides access to MCAMLIS-based property data via a mobile application on a phone or tablet. • In the future, provides map and data services developed for this application to Partners who have their own mobile applications. • Improves MCAMLIS Program Category: Capability Products and Services. 			
Risks: <ul style="list-style-type: none"> • MCAMLIS Partners will not be able to commit to the use of the application. 			

- Reliable mobile connections across the County geographic area.

Assumptions:

- Property and ownership data available through MCAMLIS will be initially exposed.
- Initial users of the application will be the City of Milwaukee Assessor's office and Planning Department.
- MCAMLIS and Partner data will be served up via map and feature services.
- MCAMLIS staff will formalize production-quality copies of the necessary MCAMLIS data in the necessary datum, as well as copies of the map and data services, as required.
- Estimated costs will vary depending on the selection of mobile framework.
- The application can be extended in the future to include the capability to provide data corrections or updates back to the proper authority.

2. Develop MCAMLIS Feature Data Service for Parcels

Task ID: WP-MBL-02 (Completed 2014)			
Task Name: Develop MCAMLIS Feature Data Service for Parcels			
<p>Description:</p> <p>This activity is part of Task WP-MBL-01 but is separated out to emphasize its importance and provide additional detail.</p> <p>This activity includes the development of a feature data service for parcels. The feature data service will be established using a direct connect and will be accessed through REST endpoints. The Web feature service will expose the parcel data layer for use by MCAMLIS Partners. They can pull that data layer service into their desktop application or enterprise solutions for publishing along with their own business data.</p> <p>Users will be able to:</p> <ul style="list-style-type: none"> • Query and retrieve parcel attribution and symbology, • Control access to features using ownership-based access control, and • Prevent users from editing feature geometry. <p>The feature service will allow MCAMLIS to serve parcel features over the Internet, and will provide the symbology to use when displaying the features. Partners can execute queries to get features that can be used in client applications. Partners can consume feature services using either a web client (e.g., Geocortex), desktop applications (e.g., ArcGIS for Desktop), or Mobile applications.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Deployed Web Feature Service for Milwaukee County Parcel Data available to MCAMLIS Partners. • Documentation / how-to materials on accessing the Parcel Feature Data Service. 			
<p>Participants:</p> <p>Milwaukee Metropolitan Sewerage District (MMSD), We Energies, City of Milwaukee, Partners with mobile apps or ability to integrate with feature services.</p>	<p>Objectives / Perceptions:</p> <p>O1, O2, O3, O5; P1, P8</p>	<p>Needs:</p> <p>BN01, BN21, BN04</p>	<p>Improvement Task Source:</p> <p>IT-01-01</p>
<p>Benefits:</p> <ul style="list-style-type: none"> • MCAMLIS Partners will have access to updated parcel data and property information to bring into their applications and use how they wish. • Provides the data for use within a user’s application (ArcGIS Desktop, Web clients, and AGOL mobile applications). • Provides immediate access to most current data available at MCAMLIS. • Involves limited data management tasks for consumer. 			

- Reduces MCAMLIS staff effort spent on responding to user data requests.
- Provides a means for users from outside (e.g., developers) to access the data for use in their projects.
- Follows industry best practices by moving away from creating copies of data.
- Improves MCAMLIS Program Category: Data Products and Services.

3. Prototype Mobile Applications Using Services

Task ID: WP-MBL-03			
Task Name: Prototype Using Services in Mobile Applications			
<p>Description:</p> <p>This task will provide MCAMLIS staff experience with mobile applications and application of MCAMLIS map and feature services deployed in such applications. In particular, MCAMLIS will prototype asset viewer, field data collector, and property locator mobile applications. This task will most likely incorporate feature and map data services from the preceding mobile tasks (see WP-MBL-01 and -02).</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Prototypes of simple mobile applications, with MCAMLIS map and feature services: asset viewer, field data collector, and preliminary work on the property viewer. • Documented lessons learned for MCAMLIS parcel feature data services, MCAMLIS property locator, and online general lessons learned for MCAMLIS Partners. • Confirmation of Partners who will apply the at least the parcel feature data services and the MCAMLIS property locator application. 			
<p>Participants:</p> <p>MCAMLIS Staff</p>	<p>Objectives/ Perceptions:</p> <p>O1; O2-O5; P1, P6, P8</p>	<p>Needs:</p> <p>BN11, BN16, BN06 PN02, PN05</p>	<p>Improvement Task Source:</p> <p>IT-03-03, IT-01-01</p>
<p>High-level Cost Estimate: \$20,000</p> <p>Costs include consulting services to assess what was done in 2013 and look at more general solutions.</p>			
<p>MCAMLIS Staff Involvement: Medium (staff)</p>			
<p>Duration: 6 months</p>		<p>Predecessors: None; influenced by WP-DAT-04</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> • MCAMLIS Partners and MCAMLIS can leverage experiences gained in developing and applying map and feature services for particular mobile applications. • More effectively defines the mobile framework and requirements. . • Improves MCAMLIS Program Category: Capability Products and Services. 			
<p>Risks:</p> <ul style="list-style-type: none"> • Technology used during prototype may not be what is applied in follow-up applications. • Multiple datum handling may be required. 			
<p>Assumptions:</p>			

- Incorporates the results of WP-MBL-01 and WP-MBL-02.
- MCAMLIS staff will create copies of the necessary MCAMLIS data in the necessary datum, as well as copies of the map and data services.
- Some infrastructure investment is expected; most likely will deploy ArcGIS Online field collector tool (free).
- The task will leverage experiences and build on the recent collaboration with the City of Cudahy.
- The task will leverage experiences gained from the mobile applications in place at We Energies and MMSD.
- Additional collaborative efforts will result from these efforts.

Project COL: MCAMLIS/Partner Collaboration Improvement

1. Invest in LBDT/Collaboration Education and Training

Improvement Task ID: WP-COL-01 (Completed 2014)			
Improvement Task Name: Invest in LBDT/Collaboration Education and Training			
<p>Description:</p> <p>This task will establish and execute an education and training program sponsored by MCAMLIS for Partners and MCAMLIS support staff, and includes two key components:</p> <p>1) Coordinating and executing commonly needed training or education among Partners, in the form of webinars or short in-room or virtual classroom settings focused on particular subjects that do not require full days. This will focus initially on responding to immediate needs associated with the other projects and tasks outlined in the Work Plan:</p> <ul style="list-style-type: none"> • Establishing and operating technology architectures that are new to MCAMLIS/Partners, such as feature services and mobile LBDT. • Applying LBDT-based technologies (e.g., Geocortex Essentials, Pictometry tools, and if relevant, core applications that are based on LBDT, e.g., ProPhoenix). • Providing consulting support services: consensus building, collaborative decision-making, and business analysis associated with these new technology architectures. 			
<p>Delivered:</p> <ul style="list-style-type: none"> • Sustainable criteria, and MCAMLIS procedures for producing and deploying online user and training how-to materials for MCAMLIS-provided capabilities and data. • Commonly needed Partner-driven Training: <ul style="list-style-type: none"> ➢ Two to three key topic sessions each plan year (webinar-like or part of MMGUG). • Six months of support on guidelines and JIT training coordination. • Next Steps plan for training program, including costs. 			
<p>Participants:</p> <p>MCAMLIS Support Staff, All Interested Partners</p>	<p>Objectives/Perceptions:</p> <p>P8, P7, P1, P2; O4</p>	<p>Needs:</p> <p>BN11, BN13, BN16, BN20, BN22; PN05</p>	<p>Improvement Task Source:</p> <p>IT-04-02</p>
<p>Benefits:</p> <ul style="list-style-type: none"> • Partners will be able to attend training courses on GIS and related LBDT technologies that will be supplied by MCAMLIS. • Provides more cost-effective education and training. • Develops a more educated user community. • Reduces time for MCAMLIS and Partner staff in supporting general user inquiries. • Improves MCAMLIS Program Category: Collaboration Products and Services (Education and Training). 			

2. Formalize Partner Input in MCAMLIS Business Planning

Task ID: WP-COL-02 (Completed 2014)			
Task Name: Formalize Partner Input in MCAMLIS Business Planning			
<p>Description:</p> <p>This task will establish the process and procedures to make certain that Partner requirements and priorities are included in MCAMLIS Programming and planning activities. This will include involvement in strategic planning, as well as tactical planning: the process needs to include how to adjust to opportunities or key demands (e.g. natural disaster) as they surface. The process will need to be able to balance providing solutions for countywide needs with those that might be more specialized (smaller area, select set of Partners). This task will result in a detailed process – including criteria used to select and prioritize projects - and a first run-through of the process for tactical planning.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Documented Strategic and Tactical MCAMLIS Business Planning Process and procedures. • Adjustments to MCAMLIS Program for Year 2016. 			
<p>Participants:</p> <p>MCAMLIS Support Staff, All Partners, MCAMLIS Steering Committee Members</p>	<p>Objectives/ Perceptions:</p> <p>P8, P7, P1</p>	<p>Needs:</p> <p>PN03</p>	<p>Improvement Task Source:</p> <p>IT-05-04</p>
<p>Benefits:</p> <ul style="list-style-type: none"> • MCAMLIS Partners will have more influence on the projects that are created and, in return, will see direct benefits from these projects in the future. • Includes explicit Partner input in MCAMLIS project priorities. • MCAMLIS Partner input will be standard operating procedure. • Improves MCAMLIS Program Category: Program Management. 			

3. Improve MMGUG Forums

Task ID: WP-COL-03			
Task Name: Improve MMGUG Forums			
<p>Description:</p> <p>This task will clarify and execute an improvement program given MMGUG member feedback on the MMGUG collaboration activities and tools. The program includes procedures to streamline MMGUG coordination and therefore re-allocate activities to increase the MMGUG value.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Small set of improvements implemented. • Documented procedures for MMGUG feedback surveys and meeting delivery. • Improved online content (MCAMLIS portal-compliant). 			
<p>Participants:</p> <p>Milwaukee metropolitan area LBDT Professionals</p>	<p>Objectives/ Perceptions:</p> <p>O4; P1, P2, P7, P8</p>	<p>Needs:</p> <p>BN14, PN03</p>	<p>Improvement Task Source:</p> <p>IT-04-01</p>
<p>High-level Cost Estimate: \$5,000</p> <p>Costs include consulting services, website content.</p>			
<p>MCAMLIS Staff Involvement: Low (PM)</p>			
<p>Duration: 3 months</p>		<p>Predecessors: influenced by WP-COL-01</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> • MCAMLIS Partners will benefit by having direct access to the knowledge and experiences of other GIS professionals in Milwaukee County. • Improves the MMGUG experience driven by MMGUG members. • Allows MCAMLIS Partners to stay up on the latest trends and co-Member practices in LBDT. • MCAMLIS will have procedures to allow support staff/interns to perform most of the administrative activities. • Improves MCAMLIS Program Category: Collaboration Products and Services (LBDT Forum Host). 			
<p>Risks:</p> <ul style="list-style-type: none"> • Duties to proactively improve and support MMGUG grow beyond what can be accomplished by MCAMLIS staff. 			
<p>Assumptions:</p> <ul style="list-style-type: none"> • Partners continue to participate in such forums. 			

4. Facilitate Business-Driven LBDT Collaboration Project

Task ID: WP-COL-04			
Task Name: Facilitate Business-Driven LBDT Collaboration Project			
<p>Description:</p> <p>This task proactively leverages one business area forum (e.g., regional public works or safety conference) to promote LBDT and what MCAMLIS and its Partners can offer. It then follows through with a project that implements a product of value to the collaborative parties.</p> <p>One example is to hold a forum for Partner safety staff who will be or are using ProPhoenix to share how they handle certain workflows – especially as it relates to using LBDT to their advantage – and then support a pilot or implementation of improved location-based data or capabilities that can be shared among Partners.</p> <p>Another example is associated with asset management, bringing together public works engineers and field staff from municipalities to create an application and data flow that allows field staff members to report asset problems or data issues identified in the field to neighboring public works municipalities (e.g., data, capabilities).</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> A particular data, service, or application used by similar business areas from multiple MCAMLIS Partners. 			
<p>Participants:</p> <p>Partner Public Works or Safety professionals.</p>	<p>Objectives/ Perceptions:</p> <p>O4; P1, P2, P4, P7, P8</p>	<p>Needs:</p> <p>BN14, PN03</p>	<p>Improvement Task Source:</p> <p>IT-04-03</p>
<p>High-level Cost Estimate: \$30,000</p> <p>Costs include consulting services, training, and data and/or capability.</p>			
<p>MCAMLIS Staff Involvement: Low (Staff)</p>			
<p>Duration: 6 months</p>		<p>Predecessors: influenced by WP-COL-01 (how-materials/training)</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> MCAMLIS Partners will benefit by having access to the knowledge and experiences of other professionals in Milwaukee County in their area of interest. Shares LBDT best practices with colleagues in the context of forum business perspective. Learn about ROI in context to the business perspective. Initiates data, capability, and other collaboration initiatives. 			

- Reduces time required of MCAMLIS and Partner staff to support general user inquiries.
- Improves MCAMLIS Program Category: Collaboration Products and Services (Facilitation, Coordination), and Capability Products and Services (Hosted Partner).

Risks:

- The MCAMLIS budget may not be able to support the prioritized business area project.
- Partners do not incorporate the data or capabilities into their business practices.

Assumptions:

- The first project should be a ProPhoenix-related group led by a number of crime analysts from a police department.
- Subsequent projects could be associated with asset management (public works), planning and zoning, elections, or working with emergency management leadership to be prepared to support LBDT activities for an emergency event.
- Partners will participate and encourage their users to engage in such forums.
- This task may drive the specific requirements of, or replace the need for, one of the other improvement tasks, such as WP-MBL-03 or WP-VWR-03.

5. Clarify Partner Opportunities in MCAMLIS

Task ID: WP-COL-05			
Task Name: Clarify Partner Opportunities in MCAMLIS			
<p>Description:</p> <p>This task will clarify and implement refined roles and responsibilities that MCAMLIS Partners have regarding the MCAMLIS Program. In particular, Partner involvement in the following MCAMLIS activities will be explored at a high level to make certain that proper roles and responsibilities are established: MCAMLIS business planning, accessing MCAMLIS-collaborated data and services, providing data and services to MCAMLIS Partners, and participating in MCAMLIS initiatives. This task will include clarifying the relationships between the MCAMLIS Program, MCAMLIS Steering Committee, and MCAMLIS Partners.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Expected outputs: MCAMLIS Partner-related processes defined at a high level, established Partner roles and responsibilities (e.g., Steering Representative, Organizational Representative, Business Area Representative or Champion), and established levels of involvement (e.g., directing member, active member, and member). • Expected outcomes: Partners have determined their roles in MCAMLIS and people are assigned to those roles; selected Partner members are assigned to participate in other initiatives that will implement and test the improved roles and responsibilities; MCAMLIS will incorporate the processes into its operations. 			
<p>Participants: MCAMLIS Support Staff, All Partners, MCAMLIS Steering Committee Members</p>	<p>Objectives/ Perceptions: P7, P8</p>	<p>Needs: PN03</p>	<p>Improvement Task Source: IT-05-03</p>
<p>High-level Cost Estimate: \$30,000 Costs include consulting services.</p>			
<p>MCAMLIS Staff Involvement: Medium (Staff)</p>			
<p>Duration: 3 months</p>		<p>Predecessors: None</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> • Allows MCAMLIS support staff and Partners to clearly understand how they can participate in and more effectively benefit from MCAMLIS. • Allows MCAMLIS Support Staff and Partners to have contacts to make certain that Partners can be engaged in or informed of the proper MCAMLIS activities for their role; in particular: business planning, updates or changes in data and services, opportunities for collaboration, or LBDT networking. 			

- Improves MCAMLIS Program Category: Program Management.

Risks:

- The initial MCAMLIS Partner staff members assigned to certain roles may change frequently (e.g., target area [business area] representatives).

Assumptions:

- Task will leverage the roles and responsibilities and lessons learned from the BPP process.

Project MOL: MCAMLIS Online Presence Improvement

1. Make Initial MCAMLIS Website Improvements

Task ID: WP-MOL-01 (Complete 2014)			
Task Name: Make Initial MCAMLIS Website Improvements			
<p>Description:</p> <p>This task will make it easier for MCAMLIS Partners and other stakeholders to obtain information about MCAMLIS data, data services, and the MCAMLIS Program.</p> <p>Most importantly, this task will provide an online, easily searchable and filtered list of the MCAMLIS data and map/data services available through MCAMLIS. This list will include the last time the object was updated and when it is anticipated to be updated next. Online how-to materials will be created.</p> <p>In addition, this task will load material for online presence that more clearly defines the MCAMLIS organization and its Partners, and the MCAMLIS Program components (Portal, Data, Capabilities, Collaboration, and Program Management). This task will then begin to expose this new information in a roll-out of this material and, in particular, the data/service inventory and the Five-Year Work Plan.</p> <p>These improvements will be done either to the existing MCAMLIS website or a new site, whichever is more effective for short-term value and can be easily migrated to the MCAMLIS Portal (see WP-MOL-02).</p> <p>This task will also begin the process of looking into a new MCAMLIS brand; if a cost-effective opportunity arises, this task be extended to fully develop a brand (logo, colors, banners, slogan, etc.) (See also WP-MOL-03).</p>			
<p>Delivered:</p> <ul style="list-style-type: none"> • Refinements to existing Site or a new stand-alone site (MCAMLIS.com). • Improved online, searchable list of MCAMLIS Data, Data Services, and their currency. • Online how-to materials for the searchable list (will be influenced by guidelines from WP-COL-02). • Improved online, searchable content regarding MCAMLIS: who, what, Work Plan. • Preliminary findings for a new MCAMLIS brand. 			
<p>Participants:</p> <p>MCLIO staff, MCAMLIS Partners</p>	<p>Objectives/ Perceptions:</p> <p>O2, P1, P7, P8</p>	<p>Needs:</p> <p>BN05, PN02, PN06, BN14, BN15, BN21, PN03</p>	<p>Improvement Task Source:</p> <p>IT-05-01, IT-05-02</p>

Benefits:

- Efficiently distributes MCAMLIS-related information, in particular, information regarding the currency and update plans of MCAMLIS data and data services.
- Increases use of MCAMLIS services and applicability of the data.
- Improves exposure to the MCAMLIS Program.
- Improves MCAMLIS Program Category: MCAMLIS Portal.

2. Determine MCAMLIS Portal Architecture

Task ID: WP-MOL-02			
Task Name: Determine MCAMLIS Portal Architecture			
<p>Description:</p> <p>The improvement task will determine the architecture for a MCAMLIS Portal. The Portal will be the location for Partners and the public to access MCAMLIS data and services. MCAMLIS will manage the Portal to include access to MCAMLIS web and mobile applications. In addition, the Portal needs to provide the means for MCAMLIS Partners to post and access their own web and mobile applications. The Portal will also provide the framework for the data sharing repository.</p> <p>The portal architecture will need to provide for managing membership and access, cataloging data and services, and potentially managing content for program management-related information (examples include what/who is MCAMLIS, current MCAMLIS initiatives, MMGUG, and training).</p> <p>Options for the Portal architecture could make use of Esri's AGOL, Esri's ArcGIS Portal, or Open Source Data Portals such as CKAN. The primary output from this task will be a document that presents initial and five-year operating costs.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Documentation on recommended portal architecture options. • Budget estimate for recommended portal architecture solution(s). • Technical content for a Request for Proposals (RFP) as may be required. 			
<p>Participants: County, City, MMSD</p>	<p>Objectives/ Perceptions: O5; P1, P8</p>	<p>Needs: BN05; BN03, BN04, BN17 PN01, PN02, PN03, PN05</p>	<p>Improvement Task Source: IT-01-03</p>
High-level Cost Estimate: \$20,000			
MCAMLIS Staff Involvement: High (Staff)			
Duration: 3 months		Predecessors: None; influenced by WP-DAT-04	
<p>Benefits: (once implemented)</p> <ul style="list-style-type: none"> • The Portal offers one-stop shopping for MCAMLIS Partners to access information and services without having to log into multiple sites. In addition, the Portal provides a location for collaboration between Partners. • Provides a single location for MCAMLIS information and services. • Provides access to MCAMLIS data and services. • Improves MCAMLIS Program Category: MCAMLIS Portal. 			

Risks:

- Recommended architecture may require changes in infrastructure and administration of services.
- Issues, both internal and external, with the direction of the County Information Technology (IT) may stand in the way of adopting a portal.
- A single product may not include all the necessary functionality for MCAMLIS services (e.g., Partners posting data, single membership sign-on, metadata retrieval for both data and services).

Assumptions:

- This service will allow Partners to access information posted by other MCAMLIS participants.
- Partners will engage and put resources toward sharing their data with other MCAMLIS participants.
- The solution must meet the requirements outlined in the following tasks:
 - MCAMLIS will develop a service for Partners to post their data (public works initially) (WP-MOL-06).
 - The Portal can meet the membership requirements of obtaining information about the MCAMLIS Program (see WP—MOL-01, 03, 05; WP-COL-05), in particular, access to secure or public content, and notification services to inform members when new data and services are posted to the site.
 - The Portal has advanced map-based portal capabilities or is fully integrated with such a solution (see also WP-MOL-07).
 - The data sharing repository would allow for posting data in multiple formats, including Esri, AutoCAD, spreadsheets, Google, and other formats (WP-MOL-06).
 - The portal can be branded to the MCAMLIS (WP-MOL-03).
- Once a particular object is selected, the user can then link to capabilities that allow access to that object (e.g., MCLIO Web Map application, a map or feature data service, or Partner application).
- Implementation may include piloting and/or iterative deployment.
- Milwaukee County IT would prefer not to manage logons for stakeholders external to Milwaukee County government.

3. Establish and Market the New MCAMLIS

Task ID: WP-MOL-03			
Task Name: Establish and Market the New MCAMLIS			
<p>Description:</p> <p>This task will establish a new look and feel for MCAMLIS; it will initiate activity to clarify to LBDT stakeholders the purpose and value MCAMLIS provides to Partners and their stakeholders. This task will define a MCAMLIS brand (colors, logo, etc.) and additional marketing material covering MCAMLIS value proposition. Finally, the task will define and assist MCAMLIS in the execution of an outreach campaign that most likely includes presenting at IT and business forums and having a more aggressive presence on Partner Internet and intranet websites.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Branding (colors, logo, banners). • Marketing materials (value proposition). • Initial execution of an outreach campaign on MCAMLIS, the Work Plan, and the portal. 			
<p>Participants:</p> <p>MCAMLIS Partner Business Area Representatives; MCAMLIS Steering Committee Members or proxy</p>	<p>Objectives/ Perceptions</p> <p>:</p> <p>P8</p>	<p>Needs:</p> <p>PN06</p>	<p>Improvement Task Source:</p> <p>IT-05-01</p>
<p>High-level Cost Estimate: \$15,000</p> <p>Costs include consulting services.</p>			
<p>MCAMLIS Staff Involvement: Low (PM)</p>			
<p>Duration: 3 months</p>		<p>Predecessors:</p> <p>WP-MOL-01, WP-MOL-02</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> • MCAMLIS Partners will be able to better communicate what MCAMLIS is to their leadership. • Clarifies MCAMLIS value proposition with Partner senior leadership and key operational decision-makers in Partner business areas. • Positions MCAMLIS image for the future. • Improves MCAMLIS Program Category: MCAMLIS Portal. 			
<p>Risks:</p> <ul style="list-style-type: none"> • Branding and MCAMLIS message require more refinement than estimated. 			

Assumptions:

- Tasks WP-MOL-01, WP-MOL-03, and WP-MOL-05 are highly inter-related.
- Costs assume contracting with a local small business or individual that specializes in marketing for IT service provider companies, and corresponding website design and development.
- MCAMLIS branding logo and some initial materials may be defined in an earlier task, WP-MOL-01, and applied here.

4. Implement the MCAMLIS Portal

Task ID: WP-MOL-04			
Task Name: Implement the MCAMLIS Portal			
<p>Description:</p> <p>This task would implement the MCAMLIS Partner Portal solution determined in IT-01-03. This Portal would be a single location where Partners would interface with MCAMLIS. It would provide Partners with access to and use of MCAMLIS data and services, as well as a location to publish their business data. In addition, the portal would offer a location for Partner collaboration.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Implementation and roll-out of portal solution. • Documentation. • Initial primary support of portal solution (three months). 			
<p>Participants:</p> <p>County, City, MMSD</p>	<p>Objectives/ Perceptions:</p> <p>O1, O2, O3, O5; P1, P6, P7, P8</p>	<p>Needs:</p> <p>BN03, BN04, BN17 PN01, PN02, PN03, PN05</p>	<p>Improvement Task Source:</p> <p>IT-01-04</p>
<p>High-level Cost Estimate: \$25,000</p> <p>These are implementation and first-year costs; the annual operating cost for subsequent years adopted solution will be determined as part of the MOL-02 adopted solution.</p>			
MCAMLIS Staff Involvement: Medium (Staff)			
<p>Duration: 6 months</p>		<p>Predecessors: WP-MOL-02; influenced by WP-COL-01 (training), WP-DAT-04, WP-MOL-05, WP-MOL-06.</p>	
<p>Benefits: (once implemented)</p> <ul style="list-style-type: none"> • The Portal offers one-stop shopping for MCAMLIS Partners to access information and services without having to log into multiple sites. In addition, the Portal provides a location for collaboration between Partners. • Provides a secure location for Partner access to MCAMLIS data and services. • Alleviates staff from having to administer multiple individual services and sites. • Improves MCAMLIS Program Category: MCAMLIS Portal. 			
<p>Risks:</p> <ul style="list-style-type: none"> • Recommended architecture may require infrastructure investment and changes. • The owner of a Portal object (e.g., MCLIO Web Map application, a map or feature data service, or Partner application) will not keep the metadata up-to-date. 			

Assumptions:

- MCAMLIS will maintain and administer the Portal.
- The Portal will allow Partners to access all MCAMLIS services.
- Partners will engage and use the MCAMLIS Portal.

Finalize MCAMLIS Program Management Content

Task ID: WP-MOL-05			
Task Name: Finalize MCAMLIS Program Management Content			
<p>Description:</p> <p>This task will finish what was started with increasing and updating online material regarding MCAMLIS and participation in the MCAMLIS Program, and will do so as part of the new MCAMLIS Portal. This additional content includes: updated and more detailed information about MCAMLIS and the definition of LBBDT; information on key data, information services, and consulting services available through MCAMLIS; Work Plan updates and the new upcoming Portal; information on upcoming regional LBBDT events.</p> <p>This content will include both secure and publicly available information, and will be integrated with the MCAMLIS Portal to take advantage of membership and cataloging capabilities to be supported by the MCAMLIS Portal. The primary purpose of access to membership capability is to allow both MCAMLIS support staff and MCAMLIS Partners to efficiently disseminate MCAMLIS-related information to each other. Accordingly, the membership system on the Portal must include the ability to establish certain subgroups, for example, MCAMLIS roles. Processes will be established to make certain that the system is managed over time. Expected outputs/outcomes include the system becoming operational with an initial set of MCAMLIS members loaded, and members having access to and receiving training on how to use the system. Regardless of the solution, web analytics capabilities must be included.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • MCAMLIS membership capabilities populated and deployed, including secured membership and message notification management. • Earlier MCAMLIS Program content migrated to the MCAMLIS Portal. • MCAMLIS cataloging capabilities integrated with search lists from WP-MOL-01. • Online how-to materials and rollout to MCAMLIS membership for accessing and maintaining membership information. • Branding applied to new MCAMLIS Portal. 			
<p>Participants: MCLIO staff, MCAMLIS Partners</p>	<p>Objectives/ Perceptions: O2, P1, P7, P8</p>	<p>Needs: BN05, PN02, PN06, PN03 BN14, BN15</p>	<p>Improvement Task Source: IT-05-02</p>
<p>High-level Cost Estimate: \$20,000 Costs include set-up, content population, and training development and delivery.</p>			
<p>MCAMLIS Staff Involvement: Low (Staff)</p>			
<p>Duration: 6 months</p>		<p>Predecessors: WP-MOL-01, WP-MOL-02, WP-MOL-03; influenced by WP-COL-01 (how-materials/training) and WP-MOL-04</p>	

Benefits:

- Along with the Portal Development and the MCAMLIS Marketing, the content will allow Partners to get directly to MCAMLIS versus going through the Milwaukee County website.
- Membership provides the ability to sign up for and send out notifications to the proper MCAMLIS membership.
- Increases use of MCAMLIS services and applicability of the data.
- Improves exposure to the MCAMLIS Program.
- Efficiently distributes MCAMLIS-related information.
- Improves MCAMLIS Program Category: Collaboration Products and Services, MCAMLIS Portal.

Risks:

- Whether a single secure logon can be established for both the portal and the MCLIO viewer (especially the secure website).
- Members will not keep their contact information or roles updated.
- Restrictions that government and quasi-government organizations place on creating, managing, having access to, or receiving notifications from a website outside of the organization's firewall.

Assumptions:

- Tasks WP-MOL-01, WP-MOL-03, and WP-MOL-05 are highly inter-related.
- For MCAMLIS Membership:
 - The Project will first focus on MCAMLIS Partners and their proxies; others like business Partners, LBDT solution and service providers, and certain public groups can be the second phase.
 - The expected system will be based on an existing product that can be provided via the web, most likely as a software as a service, and may be as simple as capabilities provided as part of the MCAMLIS website initiative.
 - Members will keep their information up-to-date.
- Content for MMGUG and the MCAMLIS-supported training program would be migrated as part of this Task.
- Milwaukee County IT would prefer not to manage logons for stakeholders external to Milwaukee County government.

5. Develop Partner Data Sharing Repository

Task ID: WP-MOL-06			
Task Name: Develop Partner Data Sharing Repository			
<p>Description:</p> <p>Based on the recommended portal architecture in WP-MOL-02 and implemented in WP-MOL-04, MCAMLIS would develop and deploy the selected data sharing repository solution.</p> <p>This action would provide a service where Partners could post their data on the MCAMLIS website, which would be available to other MCAMLIS Partners via a secure login. For example, Partners would post their own spatially enabled public works data, such as municipal storm and sanitary sewer utility data, capital improvement project information, and street projects, to the repository. It would then be available for access by other municipalities and MCAMLIS Partners. Once this repository is established for public works data, Partners would use this same method for sharing zoning and land use data.</p> <p>Items included in the Partner data sharing repository may eventually migrate to formalized data integration processes that MCAMLIS may host.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Implementation and roll-out of the repository. • Documentation / how-to materials on applying and accessing the repository. 			
<p>Participants: County, City, MMSD</p>	<p>Objectives/ Perceptions: O1, O2, O3, O5; P1, P6, P8</p>	<p>Needs: BN03, BN04, BN17, BN21 PN01, PN02, PN03, PN05</p>	<p>Improvement Task Source: IT-01-05</p>
High-level Cost Estimate: (Depends on WP-MOL-02; assume \$30,000)			
MCAMLIS Staff Involvement: Medium (Staff)			
Duration: 3 months		Predecessors: WP-MOL-02; influenced by WP-COL-01 (how-materials/training) and WP-MOL-04	
<p>Benefits:</p> <p>The data sharing repository provides MCAMLIS Partners with a hosted location for sharing their data with other Partners in a secure and coordinated manner.</p> <p>Same benefits as IT-MOL-02, as well as:</p> <ul style="list-style-type: none"> • Allows users/organizations to upload their data, extract data, and use applications hosted by MCAMLIS, and to download application templates to be used within their own environments. This frees up MCAMLIS staff time. • Besides data, can also include a web service catalog/directory for all of MCAMLIS. • Besides data, can also include a web application catalog/directory for all of MCAMLIS. 			

- Offers pushing of new data/apps/functionality to all organizations as a service by MCAMLIS.
- Grows user adoption and involvement.
- Improves MCAMLIS Program Category: Capability Products and Services (Hosted Partner), Data Products and Services (Hosted Partner), and MCAMLIS Portal.

Risks:

- Uncertainty of MCAMLIS Partner adoption.
- MCAMLIS staff administration will be required.
- May require MCAMLIS to invest in new technology.
- Will require staff and Partner training.
- New data update workflows and quality assurance/quality control (QA/QC) processes.

Assumptions:

- Architecture fits well into the existing MCLIO environment.
- MCAMLIS will have staff to administer the data sharing repository.
- This service will allow Partners to access information posted by other MCAMLIS participants.
- Partners will engage and put resources toward sharing their data with other MCAMLIS participants.
- Metadata is included with the data.
- This task includes implementation of the service for at least two, preferably more, Partners who will post their data; initially, this is public works data.
- After this repository is operational for public works data, the process will be applied for zoning information.
- Notification service alerts members when new data is posted to the site.
- The data sharing repository would allow for posting data in multiple formats, including Esri, AutoCAD, spreadsheets, Google, and other formats.

6. Implement Cloud-Based GIS for MCAMLIS

Task ID: WP-MOL-07			
Task Name: Implement Cloud-Based GIS for MCAMLIS			
<p>Description:</p> <p>This task would provide a pathway toward MCAMLIS having a cloud-based GIS presence. Present thinking is that this would be AGOL for MCAMLIS. However, the environment may change by the time this task is executed.</p> <p>A cloud-based GIS presence will offer a collaborative content management system for maps, applications, and data. A cloud-based GIS capability will be an important technology that MCAMLIS can leverage to provide Partners and public users with access to data and services through mobile, web, and desktop applications in the future. This technology would be a means for accessing MCAMLIS-hosted data and services in addition to the MCLIO viewer.</p> <p>This task includes an assessment of the proper implementation technology choices available, including AGOL, and includes a determination of initial and operating costs associated with a MCAMLIS cloud-based presence that Partners can access. A Go/No-Go determination will be made based on this assessment and then the solution will be acquired and implemented.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Documentation of assessment findings from the cloud-based GIS options. • Expected initial implementation and ongoing operating costs for two to three options. • If a Go determination is made, initial implementation is complete. 			
<p>Participants:</p> <p>All</p>	<p>Objectives/Perceptions:</p> <p>O1, O2, O3, O5; P1, P4, P5, P6, P8</p>	<p>Needs:</p> <p>BN08, PN02</p>	<p>Improvement Task Source:</p> <p>IT-03-02</p>
<p>High-level Cost Estimate: \$45,000</p> <p>Costs include the initial assessment and implementation.</p>			
<p>MCAMLIS Staff Involvement: Medium (Staff)</p>			
<p>Duration: 6 months</p>		<p>Predecessors: WP-MOL-02; influenced by WP-MOL-04 and WP-COL-01 (training)</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> • Partners will see benefit in researching a cloud-based GIS solution. • Increases usage of MCAMLIS data. • Allows non-programmers to deploy and share web maps containing their own GIS data. • Allows mapping applications to be shared with a group or the public through a web browser, smart phone applications, social media, or emails. • Embeds maps into websites. 			

- Enables layer editing by multiple authors and tracks edits for data sets (volunteered geographic information – VGI).
- Improves MCAMLIS Program Category: Capability Products and Services, MCAMLIS Portal.

Risks:

- Pricing structure has not yet stabilized.
- Enough MCAMLIS Partners will not invest in integrating this solution into their LBDT websites and business functions to justify the investment in software and support.
- Users may need to create and manage an additional MCAMLIS-related account.

Assumptions:

- One-third of the budget is for assessment, the rest for implementation.
- The solution can be integrated to the MCAMLIS Portal without customization.
- Services will be provided via MCAMLIS servers and registered to the cloud-based GIS solution; implementation includes security.
- Training and tutorials on how to use the solution are included.
- MCAMLIS is moving in the same direction as the solution's technology.

Project DAT: MCAMLIS Data Improvement

1. Make MCAMLIS Non-Vector Data Improvements

Task ID: WP-DAT-01			
Task Name: Make MCAMLIS Non-Vector Data Improvements			
<p>Description:</p> <p>This task will improve data management practices technologies that get MCAMLIS non-vector reference data into the MCAMLIS data repository and prepare it for efficient access. MCAMLIS non-vector reference data refers to the following: georeferenced imagery (Imagery: Ortho, Oblique, LiDAR, Caches), documents and photos, and potentially, video and audio. This does not include Partner-shared or Partner-hosted data, and does not include MCAMLIS vector reference data (see other WP-DAT tasks).</p> <p>In particular, this task will focus on providing the following: apply Esri Image Server; finalize historical aerial work; and explore the value of using OnBase, the County’s document management solution, for MCAMLIS.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Deployed additional Historical Aerials. • Deployed Esri Image Extension for Server. • DMS Tool Evaluation (OnBase?) Results. • Deployed Dedicated Image Server. 			
<p>Participants: MCAMLIS Staff</p>	<p>Objectives/ Perceptions: O1; P1, P8</p>	<p>Needs: Based on MCAMLIS Program Assessment</p>	<p>Improvement Task Source: IT-02-04</p>
<p>High-level Cost Estimate: \$250,000²</p> <p>Costs include consulting services, hardware and software, and online how-to materials.</p> <ul style="list-style-type: none"> • Deployed additional Historical Aerials: \$30,000. • Deployed ESRI Image Extension for Server software: \$10,000. • DMS Tool Evaluation (OnBase) Results: \$20,000 • Deployed Dedicated Image Server (hardware and software): \$45,000 • Orthophotography/LiDAR Acquisition: \$145,000 			
MCAMLIS Staff Involvement: Low (Staff)			

² MCAMLIS funds totaling \$185,000 are committed for 2015 Ortho and LiDAR acquisition

<p>Duration: distributed over 4 years:</p> <ul style="list-style-type: none"> • Historical Aerials: each of 3 years • ESRI Image Extension for Server: 3 Months • DMS Tool Evaluation: 3 Months • Dedicated Image Server: 3 Months 	<p>Predecessors: None; influenced by WP-COL-01 (training), WP-DAT-02</p>
<p>Benefits:</p> <ul style="list-style-type: none"> • Partners will see improvements in the raster-based information offered by MCAMLIS through better processes and more formal management of these data. • Eliminates the need for the same image data to be in two different data structures as is currently done. • New image storage approach allows for existing geoprocessing tools to be used to develop a simple image extract service. • Completes the historical aerial project; enhances the ability to analyze historical drainage patterns across the county. • Promotes the function and benefit of what MCAMLIS provides and how it goes about providing it, resulting in increased use. • Improves MCAMLIS Program Category: Data Products and Services. 	
<p>Risks:</p> <ul style="list-style-type: none"> • Increased automation of data integration procedures may require further development and a wider range of skills for the small number of MCAMLIS staff. • May result in modifying current cached MCAMLIS products. • Partners may be slow to take advantage of new improvements. 	
<p>Assumptions:</p> <ul style="list-style-type: none"> • The improvements defined here will be integrated with the improvements from other WP-DAT tasks. • Milwaukee County IT and OnBase and its licensing can effectively support external stakeholder access. • Priorities will be influenced by Partner requirements (priorities are driven by Partners who are willing and able to implement the improvements being made). • Implementation may include piloting and/or iterative deployment. • Task will also result in recommended next steps and associated costs for highest priority items. • A dedicated image server will be necessary. 	

2. Make MCAMLIS Vector Data Improvements

Task ID: WP-DAT-02			
Task Name: Make MCAMLIS Vector Data Improvements			
<p>Description:</p> <p>This task will improve data offerings, management practices, and automation that get MCAMLIS vector reference data into the MCAMLIS data repository and prepare it for efficient access. MCAMLIS vector reference data refers to the following: Topographic / Planimetric Mapping, Enterprise Address System, and the Routable Street Centerline. This does not include Partner-shared or Partner-hosted data, and does not include non-vector data (imagery, video, audio).</p> <p>In particular, this task will focus on providing the following: complete the polygonization of key planimetric data; provide map and data services associated with these planimetric features; and if priority is confirmed by Partners, improve enterprise address system (EAS) data maintenance (streamline coordination and prototype an upcoming Esri product) and expedite routable street centerline (SCL) data maintenance.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Deployed completed planimetric polygons. • Deployed map/data services for planimetric polygons. • Deployed updated enterprise address and street centerline data. 			
<p>Participants: MCAMLIS Staff</p>	<p>Objectives/ Perceptions: O1; P1, P8</p>	<p>Needs: Based on MCAMLIS Program Assessment</p>	<p>Improvement Task Source: IT-02-03</p>
<p>High-level Cost Estimate: \$140,000 Costs include consulting services.</p> <ul style="list-style-type: none"> • Create/Deploy 2015 Planimetric Feature Polygons and Services: \$120,000 • Updated EAS, SCL data: \$20,000 			
<p>MCAMLIS Staff Involvement: Low (Staff)</p>			
<p>Duration: Distributed over 32 months:</p> <ul style="list-style-type: none"> • Planimetric Polygons and Services: 6 months • Updated EAS, SCL data: 3 months 		<p>Predecessors: influenced by WP-COL-01 (training), WP-DAT-01</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> • Partners will see benefits in the vector information by having better knowledge about the currency and quality of the information being provided by MCAMLIS. • Planimetric objects in polygon form will assist with impermeable surface run-off analysis and improve cartographic flexibility. • More current street addressing and routable network data. 			

- Defines current and necessary capabilities and specifications for ETL procedures (both for providing data to MCAMLIS and extracting data out of MCAMLIS) and database APIs for developing against web services to the data.
- Promotes the function and benefit of what MCAMLIS provides and how it goes about providing it, resulting in increased use.
- Improves MCAMLIS Program Category: Data Products and Services.

Risks:

- Increased automation of data integration procedures may require further development and a wider range of skills for the small number of MCAMLIS staff.
- Partners may be slow to take advantage of improvements.

Assumptions:

- Planimetric features: building footprints, bridges, traveled ROW, sidewalks, surface parking, paved trails, and unpaved driveways and access points.
- WP-DAT-03 focuses on cadastral data (parcel and property/owner) so this task will not focus attention there.
- The improvements defined here will be integrated with the improvements from other WP-DAT tasks.
- Priorities will be influenced by Partner requirements (priorities are driven by Partners who are willing and able to implement the improvements being made).
- Implementation may include prototyping and/or iterative deployment.
- Task will also result in recommended next steps and associated costs for highest priority items.

3. Improve Property Record Currency

Improvement Task ID: WP-DAT-03			
Improvement Task Name: Improve Property Record Currency			
<p>Description:</p> <p>This task will improve the processes that collect, process, and publish property record data. The result will be access to more current property ownership records and associated parcel data. This includes working with GCS, which provides a property record service to all but three municipalities and villages in the county, and individually with the municipalities and villages that do not use GCS. The initiative would include communicating the details of the information by posting the currency of the property record information to the MCAMLIS website.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Improved and enhanced automation of property and parcel data integration and publishing processes. <ul style="list-style-type: none"> ➤ Wisconsin State Statutes require that no later than June 30, 2017, the County board shall post on the Internet, in a searchable format determined by the department of administration, the following information related to individual land parcels: <ol style="list-style-type: none"> 1. Property tax assessment data as provided to the county by municipalities, including the assessed value of land, the assessed value of improvements, the total assessed value, the class of property, as specified in s. 70.32 (2) (a), the estimated fair market value, and the total property tax 2. Any zoning information maintained by the county 3. Any property address information maintained by the county 4. Any acreage information maintained by the county • An updated version of property and parcel data and/or data services. • Improved and updated parcel and property metadata. 			
<p>Participants:</p> <p>Municipal Partners, GCS</p>	<p>Objectives/Perceptions:</p> <p>O2, P1, P8</p>	<p>Needs:</p> <p>BN02, BN07, BN15 PN01, PN02, PN03</p>	<p>Improvement Task Source:</p> <p>IT-02-01</p>
<p>High-level Cost Estimate: \$50,000+</p> <p>This includes consulting services, development, training, and limited support costs. Note that costs are unknown for MCAMLIS to obtain access to GCS data (attribute) or data services.</p>			
<p>MCAMLIS Staff Involvement: High (Staff)</p>			
<p>Duration: 12-15 months</p>		<p>Predecessors: None; influenced by WP-DAT-02, WP-DAT-01, and WP-COL-01</p>	

Benefits:

- Partners will have access to the most up-to-date property records from municipalities within the county.
- Provides a process for delivering more current property-related data.
- Offers consistency with the update process.
- Is more in sync with the Partner property record data.
- Instills confidence in the use of property data being provided via MCAMLIS.
- Improves MCAMLIS Program Category: Data Products and Services.
- Meets Wisconsin Statute requirements as specified in s. 70.32(2)

Risks:

- Partner organizations may resist changing their internal business practices.

Assumptions:

- This includes both parcel features as well as property/owner data.
- This would require MCAMLIS to refine or redesign the process for scheduling data transfer with the Milwaukee County Treasurer's office, the City of Milwaukee Assessor's office, and other municipalities for the data to be as current as the data available at the municipalities.
- Will begin working with one suburban organization that uses GCS, (Shorewood, for example), GCS, and one Partner organization that does not use GCS, on the process to better time the delivery of property records, and then translate this process to the remaining Partners.
- The improvements defined here will be integrated with the improvements from other WP-DAT tasks.

4. Support New Datum Requirements

Task ID: WP-DAT-03			
Task Name: Support New Datum Requirements			
<p>Description:</p> <p>The current NAD 27 datum standard limits the interoperability of certain web services and use of MCAMLIS data in certain applications. This task 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 in new datums. This task will leverage the work accomplished in the SEWPRC studies on the multiple datum issue.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • NAD 27 datum > New Datum transformation tools. • A deployed version of key MCAMLIS data and map/data services in the new datum. • Documented transformation procedures to create new map/data services. 			
<p>Participants: MCAMLIS Data Stakeholders who also use other datums</p>	<p>Objectives/ Perceptions: O5; P6</p>	<p>Needs: BN12, PN01</p>	<p>Improvement Task Source: IT-02-02</p>
<p>High-level Cost Estimate: \$25,000 Includes consulting services.</p>			
<p>MCAMLIS Staff Involvement: Medium (Staff)</p>			
<p>Duration: 6 months</p>		<p>Predecessors: None; influenced by WP-MBL-01, WP-MBL-02, WP-MOL-02, 04, 06</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> • Solving the datum issue will allow Partners to integrate MCAMLIS services into their mapping environments seamlessly without having to transform their data. This is valuable for using consumer or mapping-grade GPS devices, mobile phones, and other web services from the state or federal government. • Can offer map/data services that integrate with commercially available data. • Use of statewide and national datasets with MCAMLIS services. • Use of MCAMLIS data in mobile and field applications that include location-based services that accommodate consumer-grade or mapping-grade accuracy requirements. • Improves MCAMLIS Program Category: Data Products and Services, Capability Products and Services. 			

Risks:

- Initially, most partners may be slow to adopt the new data and services.

Assumptions:

- Analysis needs to include approaches that may incrementally resolve the issue.
- MCAMLIS and MCAMLIS Partners will implement the recommendations.
- Will work with the County Surveyor and regional LIO's to address datum modernization throughout the region
- The improvements defined here will be integrated with the improvements from other WP-DAT tasks.
- If budget allows, the procedures used to create new map and feature services for data copied into the new datum should be automated.

5. Make MCAMLIS Metadata Improvements

Improvement Task ID: WP-DAT-05			
Improvement Task Name: Make MCAMLIS Metadata Improvements			
<p>Description:</p> <p>This task will improve the metadata content and associated processes and procedures that obtain, update, and publish the metadata. More specifically, this task will improve metadata across all MCAMLIS-provided vector and non-vector layers, and establish processes and procedures to make sure metadata is maintained and published.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Updated metadata for MCAMLIS-provided data. • Processes and procedures to update and publish metadata (online format). 			
<p>Participants:</p> <p>MCAMLIS Staff</p>	<p>Objectives/ Perceptions:</p> <p>O1; P1, P8</p>	<p>Needs:</p> <p>Based on MCAMLIS Program Assessment</p>	<p>Improvement Task Source:</p> <p>IT-02-03, IT-02-04</p>
<p>High-level Cost Estimate: \$15,000</p> <p>Costs include consulting services.</p>			
<p>MCAMLIS Staff Involvement: Medium (Staff)</p>			
<p>Duration: 3 months</p>		<p>Predecessors: Influenced by WP-DAT-01, WP-DAT-02, WP-MOL-04, WP-MOL-07</p>	
<p>Benefits:</p> <ul style="list-style-type: none"> • Partners will see benefits in the vector information by having better knowledge about the currency and quality of the information being provided by MCAMLIS. • Promotes the function and benefit of what MCAMLIS provides and how it goes about providing it, resulting in increased use. • Improves MCAMLIS Program Category: Data Products and Services, MCAMLIS Portal. 			
<p>Risks:</p> <ul style="list-style-type: none"> • Partners may be slow to take advantage of improvements. • Metadata formats are not effectively integrated with the MCAMLIS portal. 			

Assumptions:

- WP-DAT-05 focuses on cadastral data (parcel and property/owner) so this task will not focus attention there.
- The improvements defined here will be integrated with the improvements from other WP-DAT tasks.
- Priorities will be influenced by Partner requirements (priorities are driven by Partners who are willing and able to implement the improvements being made).

6. Acquire Cadastral Data from Outside Milwaukee County

Improvement Task ID: WP-DAT-06			
Improvement Task Name: Acquire Cadastral Data From Outside Milwaukee County			
<p>Description:</p> <p>This task will assess, acquire, and then make available data or data services (e.g., map or feature services) obtained from public agencies that border Milwaukee County. In particular, the focus will be on cadastral data (parcels, property, CSM, ROW). This task needs to also consider collaboration with GCS. This task will inventory the availability of planimetric mapping data (e.g., transportation, facilities, and utilities) and imagery (e.g., Ortho, Oblique, and LiDAR) data, but does not focus on its acquisition. This task would end with MCAMLIS putting in place processes and procedures to refresh the external cadastral data as required or as able.</p> <p>While outside the scope of this task, the longer term vision would be to incorporate this external data into the same data and data services that MCAMLIS provides so Partners can apply the data seamlessly.</p>			
<p>Deliverables:</p> <ul style="list-style-type: none"> • Parcel and property data and/or data services areas bordering Milwaukee County. • Processes and procedures for accessing updated versions of the data/services. • Inventory of available framework data from border governments. 			
<p>Participants:</p> <p>Municipal Partners (especially public safety business areas) along Milwaukee County borders, We Energies, MMSD, and SEWRPC</p>	<p>Objectives/ Perceptions:</p> <p>O4, O5; P8</p>	<p>Needs:</p> <p>BN10, BN18, BN19 PN01, PN02</p>	<p>Improvement Task Source:</p> <p>IT-02-05</p>
<p>High-level Cost Estimate: \$50,000</p> <p>This includes consulting services and limited support costs.</p>			
<p>MCAMLIS Staff Involvement: Medium (Staff)</p>			
<p>Duration: 6 months</p>		<p>Predecessors: WP-DAT-03; influenced by WP-COL-01 (training)</p>	

Benefits:

- MCAMLIS Partners will have access to cadastral data from participating counties surrounding Milwaukee. This will offer access to this data from the same services provided for MCAMLIS reference data.
- Provides a process for delivering property-related data from outside the County area.
- Offers consistency with the update process.
- Improves MCAMLIS Program Category: Data Products and Services.

Risks:

- Costs to process and make the data available may be significantly higher than estimated.
- GCS costs are prohibitive.
- Partner organizations may resist changing their internal business practices to have the data made available through MCAMLIS or may resist applying the data once it is available.

Assumptions:

- This includes both parcel features as well as property/owner data.
- Will work to acquire, load, and publish the data only in the areas where Partners are willing and able to participate and apply the data.
- The improvements defined here will be integrated with the improvements from other WP-DAT tasks.

Appendix A: Acronyms

AGOL – ArcGIS Online

BNA – Business Needs Assessment

CAD – Computer Aided Design

COL – MCAMLIS/Partner Collaboration Improvement

DAT – MCAMLIS Data Improvement

GIS – Geographical Information System

LBDT – Location-Based Data and Technologies

MBL – Mobile-Based Capabilities Implementation

MCAMLIS – Milwaukee County Automated Mapping and Land Information System

MCLIO – Milwaukee County Land Information Office

MMGUG – Milwaukee Municipal GIS Users Group

MMSD – Milwaukee Metropolitan Sewerage District

MOL – MCAMLIS Online Presence Improvement

VGI – Volunteer Geographic Information

VWR – MCLIO Viewer/Pictometry Improvement Rollout

WP – Work Plan

Appendix B: Initiative and Project Cross-Reference

The Initiatives and related Improvement Tasks from the Improvement Task Analysis phase of the Business Needs Assessment Project were the primary input to creating the Project Tasks that make up the Work Plan. The table below provides a cross-reference between the Initiatives and Improvements Tasks to the Projects and Project Tasks. Most of the Project Tasks correspond to only one Improvement Task; those that do not are footnoted. Note that a list of names for both Initiatives and Projects is provided below the table.

Initiative	Improvement Task ID and Name		Project	Project Task ID and Name	
Initiative 3	IT-03-01	Improve the MCLIO Interactive Mapping Service	VWR	WP-VWR-01	Improve the MCLIO Interactive Mapping Service
Initiative 3	IT-03-05	Implement Pictometry Desktop Plug-In	VWR		
Initiative 1	IT-01-02	Implement Initial MCAMLIS Data Extract Service	VWR	WP-VWR-02	Implement Initial MCAMLIS Data Extract Service
Initiative 3	IT-03-04	Deploy Mobile Property Locator Application	MBL	WP-MBL-01	Deploy Mobile Property Locator Application
Initiative 1	IT-01-01	Develop MCAMLIS Feature Data Service for Parcels	MBL	WP-MBL-02	Develop MCAMLIS Feature Data Service for Parcels
Initiative 3	IT-03-03	Provide Data Services for Partner Mobile Applications	MBL	WP-MBL-03	Prototype Services for Mobile Applications
Initiative 4	IT-04-02	Invest in LBDT/Collaboration Education and Training	COL	WP-COL-01	Invest in LBDT/Collaboration Education and Training
Initiative 5	IT-05-04	Formalize Partner Input in MCAMLIS Business Planning	COL	WP-COL-02	Formalize Partner Input in MCAMLIS Business Planning
Initiative 4	IT-04-01	Improve MMGUG Forums	COL	WP-COL-03	Improve MMGUG Forums
Initiative 4	IT-04-03	Facilitate Business-Driven LBDT Collaboration Project	COL	WP-COL-04	Facilitate Business-Driven LBDT Collaboration Project
Initiative 5	IT-05-03	Clarify Partner Opportunities in MCAMLIS	COL	WP-COL-05	Clarify Partner Opportunities in MCAMLIS
Initiative 5	IT-05-01	Establish and Market the New MCAMLIS*	MOL	WP-MOL-01	Make Initial MCAMLIS Website Improvements

Initiative	Improvement Task ID and Name		Project	Project Task ID and Name	
Initiative 5	IT-05-02	Develop a MCAMLIS Program Management Website*			
Initiative 1	IT-01-03	Determine MCAMLIS Portal Architecture	MOL	WP-MOL-02	Determine MCAMLIS Portal Architecture
Initiative 5	IT-05-01	Establish and Market the New MCAMLIS*	MOL	WP-MOL-03	Establish and Market the New MCAMLIS
Initiative 1	IT-01-04	Implement the MCAMLIS Portal	MOL	WP-MOL-04	Implement the MCAMLIS Portal
Initiative 5	IT-05-01	Establish and Market the New MCAMLIS*	MOL	WP-MOL-05	Finalize MCAMLIS Program Management Content
Initiative 5	IT-05-02	Develop a MCAMLIS Program Management Website*			
Initiative 1	IT-01-05	Develop Partner Data Sharing Repository	MOL	WP-MOL-06	Develop Partner Data Sharing Repository
Initiative 3	IT-03-02	Research and Possible Adoption of ArcGIS Online (AGOL)	MOL	WP-MOL-07	Implement Cloud-Based GIS for MCAMLIS (AGOL)
Initiative 2	IT-02-04	Make MCAMLIS Non-Vector Data Improvements*	DAT	WP-DAT-01	Make MCAMLIS Non-Vector Data Improvements
Initiative 2	IT-02-03	Make MCAMLIS Vector Data Improvements*	DAT	WP-DAT-02	Make MCAMLIS Vector Data Improvements
Initiative 2	IT-02-01	Improve Property Record Currency	DAT	WP-DAT-03	Improve Property Record Currency
Initiative 2	IT-02-02	Determine How to Support New Datum Needs	DAT	WP-DAT-04	Support New Datum Requirements
Initiative 2	IT-02-04	Make MCAMLIS Non-Vector Data Improvements*	DAT	WP-DAT-05	Make MCAMLIS Metadata Improvements
Initiative 2	IT-02-03	Make MCAMLIS Vector Data Improvements*			
Initiative 2	IT-02-05	Acquire Cadastral Data from Outside Milwaukee County	DAT	WP-DAT-06	Acquire Cadastral Data from Outside Milwaukee County

**These Improvement Tasks are Listed More than Once*

Initiatives:

- Initiative 1: Data Distribution
- Initiative 2: Data Integration
- Initiative 3: Capabilities/Solutions
- Initiative 4: Collaboration/Training
- Initiative 5: Program Management

Projects:

- VWR: Viewer/Pictometry Improvement Rollout
- MBL: Mobile-Based Capabilities Implementation
- COL: MCAMLIS/Partner Collaboration Improvement
- MOL: MCAMLIS Online Presence Improvement
- DAT: MCAMLIS Data Improvement

**MCAMLIS
FISCAL NOTE**

PROPOSED ACTION: _____ **Approve** _____

Financial Impact of Proposal	
MCAMLIS Online Presence Improvement	\$45,000
MCAMLIS Data Improvement - Ortho/Lidar	\$25,000
MCAMLIS Data Improvement - Planimetric Update	\$120,000
Total Investment	\$190,000
Identify Funding Source of Proposal	<input checked="" type="checkbox"/> \$8.00 Fee
EST Impact of Proposal on 2015 Funding Source Fund Balance	
EST 2015 End of Year Unrestricted Fund Balance	\$1,286,956
EST 2015 End of Year Unrestricted Fund Balance incl. projects above	\$1,286,956
<u>Fiscal Affairs Comments:</u>	
Sufficient funds are available in the 2015 Budget for these projects. Since the funding source is the \$8 fee, there is no projected impact on the 2015 end of year unrestricted fund balance.	



DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF ECONOMIC DEVELOPMENT
MILWAUKEE COUNTY LAND INFORMATION OFFICE

633 West Wisconsin Avenue, Suite 903, Milwaukee, WI 53203 (414) 278-2176

MEMORANDUM

TO: MCAMLIS Steering Committee

FROM: William Shaw, MCAMLIS Project Manager

DATE: March 12, 2015

SUBJECT: 2015 – 2016 MCAMLIS STAFF WORK PLAN RECOMMENDATION

BACKGROUND

In March 2013, the MCAMLIS consortium of Partners initiated a Business Needs Assessment (BNA) Project. The ultimate goal of this project was to foster improvements in effective and efficient management of LBDT across as many MCAMLIS Partners as can be engaged to do so, and to the extent that each Partner or group of Partners finds value in its participation. The MCAMLIS Program anticipated that these improvements would include improved access to MCAMLIS location-based data and Partner data, and would facilitate access to LBDT consulting services and core LBDT applications and services. The 2013 BNA Project set the direction for MCAMLIS for a five year window beginning in 2014. In order to continually shape and maintain the plan going forward it needs to be revised annually to move the five year window into coming years. Each annual Work Plan revision will realize what has been accomplished and what changes to the plan need to be incorporated, including both partner-driven and program-driven projects and tasks.

MCAMLIS 2015 WORK PLAN RECOMMENDATION

At its meeting held on December 16th, 2014 the MAMLIS Steering Committee directed MCAMLIS Staff to implement the Business Planning Process. In accordance with the BPP MCAMLIS Staff submitted and evaluated seven project applications:

1. Support New Datum Requirements
2. Non-Vector Data Improvements
3. Mobile Property Locator Application
4. Improve Property Record Currency and Content
5. MCAMLIS Portal
6. Vector Data Improvement - Topographic Update
7. Viewer Improvement - GIS Website

The final application review by MCAMLIS staff included a survey of Partner Organization Representatives to gather input regarding each of the projects and finally conducting an internal review of the findings resulting in the following recommendations for inclusion in the 2015-2016 MCAMLIS Work Plan:

PROJECT VWR: IMPROVE THE MCLIO INTERACTIVE MAPPING SERVICE

ESTIMATED COST

1. Improve the MCLIO Interactive Mapping Service (WP-VWR-01, pg 11-12)
2. System Architecture Design Consulting (WP-VWR-01.1, pg 11-12)

INCLUDED

Note: \$70,000 authorized for Viewer Improvement on 12/3/2013

PROJECT MOL: MCAMLIS ONLINE PRESENCE IMPROVEMENT

1. Determine MCAMLIS Portal Architecture (WP-MOL-02, pg 30-31)
2. Implement the MCAMLIS Portal (WP-MOL-04, pg 34-35)

\$45,000

Note: includes \$20,000 in 2015 Work Plan & \$25,000 in 2016 Work Plan

PROJECT DAT: MCAMLIS DATA IMPROVEMENT

1. MCAMLIS Non-Vector Data Improvements: Historical Aerials (WP-DAT-01.1, pg 44-45)
2. MCAMLIS Non-Vector Data Improvements: Implement ESRI Image Extension for server (WP-DAT-01.2, pg 42-43)
3. MCAMLIS Non-Vector Data Improvements: Orthophotography/LiDAR (WP-DAT-01.5, pg 42-43)

\$20,000

Note: \$190,000 authorized for Ortho/LiDAR on 9/23/2014

4. MCAMLIS Vector Data Improvements: Create/deploy remaining Planimetric Update (WP-DAT-02.1, pg 44-45)

\$120,000

Note: includes \$20,000 in 2015 Work Plan & \$100,000 in 2016 Work Plan

TOTAL \$185,000

* * * * *