

# SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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## **Southeastern Wisconsin Regional Planning Commission Planning Efforts for Milwaukee County**

**July 2015**

The following provides a brief summary of work recently completed or underway at the Southeastern Wisconsin Regional Planning Commission, including both regional planning efforts and efforts for Milwaukee County and Milwaukee County municipalities.

### **TRANSPORTATION PLANNING**

- Developed, at the request of the County Board Chairwoman, one Milwaukee County Transit System (MCTS) route extension and one new MCTS route with the objective of better connecting Milwaukee County residents with employment centers in Milwaukee County not presently served by public transit. These routes were implemented in the 2015 County Budget.
- Prepared, at the request of the County Board Chairwoman, a report on the impact of the GO Pass (free fares for seniors and people with disabilities on MCTS) Program on the usage, revenues, and expenses of MCTS, and prepared a report for Milwaukee County on these impacts.
- Prepared, at the request of the County Board Chairwoman, a report for Milwaukee County that analyzed the impact of the Milwaukee Streetcar Phase 1 and potential future extensions on the operations, funding, and revenues of MCTS.
- At the request of the Milwaukee County Department of Transportation (MCDOT), the Commission is assisting the Department in the study of the development of a bus rapid transit (BRT) line in the east-west corridor. The study will include analysis of alternative BRT alignments and development of conceptual BRT facility design, including reserved lanes, stations, traffic signal treatment, and costs. The Cities of Milwaukee and Wauwatosa and the Wisconsin Department of Transportation are working with the MCDOT and the Commission on this effort.
- Prepared for the City of Milwaukee Comptroller and Common Council an independent review and validation of the Milwaukee Streetcar project capital and operating costs, revenues, ridership, and operating plan.

- Prepared for the City of Wauwatosa a report on roadway design and streetscaping improvements to improve transit amenities and operations that could be considered as part of the 2016 reconstruction of W. State St. through the Wauwatosa Village area.
- Assisted Milwaukee County in avoiding significant reductions in transit service and increases in fares by encouraging use of Federal Highway Administration Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds (\$12.7 million in 2012-2014 and \$17.2 million in 2015-2018) to convert local bus routes to express bus routes.
- Serve as the Region's Metropolitan Transportation Planning Organization (MPO) and prepare and maintain up-to-date the Federally-required regional transportation plan and transportation improvement program and ensure meeting all necessary Federal transportation planning and programming requirements to permit the continued use of U.S. Department of Transportation (USDOT) funds on Milwaukee County streets and highways and MCTS. Annual USDOT funding within Milwaukee County is approximately \$200 to \$400 million annually.
- Continued work on a major review, reevaluation, and update of the regional transportation system plan, being prepared in conjunction with an updated regional land use plan. That plan—called VISION 2050—is intended to provide a vision for, and guide to, the development of the Region's land and multimodal transportation system for over 30 years into the future. The new plan—expected to be completed in early 2016—will replace the existing year 2035 regional land use and transportation system plans, and will serve as a guide to land and transportation system development to the year 2050. The periodic (every 10 years) major reevaluation of the regional transportation plan, incorporating new U.S. Census population, employment, and travel survey data and maintaining a minimum 20-year future timeframe, is essential to State and local governments continuing to obtain highway and transit project funding from the USDOT.

To prepare VISION 2050, Commission staff initiated a visioning and scenario planning process in 2013, which will identify a long-range future vision for land use and transportation for the Region. Substantial work was previously completed for the VISION 2050 process, including two sets of interactive public visioning workshops in each County of the Region in October and December of 2013 (in Milwaukee County, these workshops were held at the War Memorial Center). Concurrent workshops were also held by eight partner community organizations targeted at their constituents, with the purpose being to reach and engage minority populations, people with disabilities, and low-income individuals. Workshop activities were also made available online. The Commission also contracted with the Department of Economics and the Center for Urban Initiatives and Research at UW-Milwaukee to conduct a telephone survey in the fall of 2013. The survey asked randomly selected residents in the Region about their land use and transportation preferences for the future, with a similar survey made available on the VISION 2050 website ([www.vision2050sewis.org](http://www.vision2050sewis.org)). Staff also prepared *Guiding the Vision*, released in June 2014, which presents the preliminary vision for land use and transportation that will guide the VISION 2050 process. This initial vision is expressed through a series of Guiding Statements developed to reflect the key values and priorities provided through the initial visioning activities.

During the last year, staff developed and compared a series of sketch-level land use and transportation scenarios. The scenarios were intended to represent a range of possible conceptual futures and were the focus of the third series of public workshops held in the fall of 2014. Input on the scenarios was compiled and is being considered as staff develops detailed alternative land use and transportation system plans. The alternative plans will be evaluated and presented to the public in fall of 2015, including the fourth round of public workshops. Ultimately, a final recommended year 2050 land use

and transportation plan will be developed, representing a preferred comprehensive vision for the Region.

Preparation of VISION 2050 is being guided by the Commission Advisory Committees on Regional Land Use Planning and Regional Transportation System Planning.

- As part of the current major update, reevaluation, and extension of regional land use and transportation plans, the Commission completed a new large-scale origin and destination travel survey for the seven-county Southeastern Wisconsin Region. The survey is conducted once every ten years in conjunction with the decennial U.S. Census, and is funded by the USDOT and WisDOT. The information obtained from the survey was used to estimate the current travel habits and patterns of the resident population of the Region and identify trends in those travel habits and patterns, and is assisting in the development of mathematical models to project future travel behavior in the Region. The travel survey information is vital to the proper planning of the highway and transit systems in Southeastern Wisconsin. The origin and destination travel study consisted of five main elements—a resident household travel survey, an external travel survey, a group-quartered travel survey, a public transit travel survey, and a truck travel survey. Similar large-scale origin and destination surveys of travel characteristics and patterns in the Region were previously conducted in 1963, 1972, 1991, and 2001. The resident household travel survey and group-quartered travel survey were completed in 2011. The data collection phase of the external travel survey, public transit travel survey, and the commercial truck survey were completed in 2012. The public transit survey included an on-board survey of MCTS passengers, and a summary of fare payment method by minority, non-minority, and low-income individuals was provided to MCTS in May 2013 for use by MCTS in a fare equity analysis needed as MCTS transitioned to smart card fare payment.
- Completed in June 2014 an interim review and update to the current year 2035 regional transportation plan, which was adopted in 2006. The Commission reviews and updates the regional transportation plan every four years, in part to address Federal requirements. The first interim review and update to the plan was completed in June 2010. The 2014 update included an assessment of the implementation to date of the year 2035 regional transportation plan, a review of the year 2035 forecast underlying the plan, and a monitoring of current transportation performance. The review and update also examined whether it remains reasonable for the recommendations in the year 2035 regional transportation plan to be accomplished over the next 20 years. This assessment of available funding also considered the restrictions and limitations of existing funding. The conclusions reached in this interim review and update of the year 2035 plan will be used to inform the development of VISION 2050—the ongoing major update to the regional transportation plan and the extension of the plan to the year 2050.
- At the request of the City of Milwaukee, the Commission amended in June 2015 the current year 2035 regional transportation plan to include the City’s proposed Lakefront Extension to the Milwaukee Streetcar.
- Completed in November 2014 the 2015-2018 Transportation Improvement Program (TIP), which lists transportation projects intended to be undertaken by State, County, and local governments in Southeastern Wisconsin. The preparation of a TIP every two years, and amendments as needed, are a prerequisite to State, County, and local governments obtaining project funding from the USDOT, Federal Highway and Transit Administrations. In order to obtain Federal approval of the TIP and Federal funding of State, County, and local transportation projects, the Commission must conduct and document an extensive analysis of the air pollutant emission forecasts attendant to the regional transportation plan and TIP and their conformity with respect to the State Air Quality Implementation

Plan. Following its completion, Commission staff has processed 2 amendments to the 2015-2018 TIP for Milwaukee County and 7 amendments for Milwaukee County municipalities.

- Working with the Commission's Advisory Committee on Transportation System Planning and Programming for the Milwaukee Urbanized Area (Milwaukee TIP Committee) and local governments within the Milwaukee urbanized area, the procedures developed to evaluate, prioritize, and recommend projects for Federal Highway Administration (FHWA) Surface Transportation Program – Milwaukee Urbanized Area (STP-M) funding were revised to include changes requested by Committee members and the public. These revised procedures will be used to by the Milwaukee TIP Committee this year to evaluate, prioritize, and recommend projects for years 2019 through 2020 STP-M funding.
- Worked with the Milwaukee TIP Committee to reallocate years 2015-2018 STP-M funding to fund the construction of three projects that were not selected for 2015-2018 funding, but had previously received STP-M funding for preliminary engineering—the City of Greenfield's reconstruction of W. Edgerton Avenue between W. Loomis Road and S. 27th Street; the City of Oak Creek's reconstruction of S. 5th Avenue between STH 100/STH 32 and E. Ryan Road; and the City of Milwaukee's reconstruction of 92nd Street between W. Capitol Drive and W. Hampton Avenue.
- Worked with the transit operators in the Milwaukee urbanized area to reach agreement on the distribution of FTA Section 5307/5340 formula program funds in 2014 among the four designated recipients in the Milwaukee urbanized area—Milwaukee, Ozaukee, Washington, and Waukesha Counties. A total of \$19,403,672 and \$19,601,596 in Section 5307/5340 funds were allocated to the area in 2013 and 2014, respectively. The funds were distributed among the designated recipients/transit operators based on revenue vehicle miles of transit service, revenue vehicle hours of transit service, revenue passengers, and passenger miles, which are reported by each transit operator to the FTA and WisDOT, with 25 percent of the urbanized area apportionment distributed using each criterion. These funds are not yet available for 2015, but Commission staff will assist with their distribution once they become available.

In addition, Commission staff worked with the transit operators in the Milwaukee urbanized area to reach agreement on the distribution of FTA Section 5310, FTA Section 5337, and FTA Section 5339 formula program funds among the four designated recipients. FTA Section 5310 funding, of which the urbanized area received \$1,187,949 in 2013 and \$1,162,803 in 2014, will be distributed using a competitive selection process managed by the Commission staff. This program is intended to support transit services that are specifically targeted at seniors and people with disabilities, and go above and beyond the requirements of the Americans with Disabilities Act of 1990. FTA Section 5337 funding for capital projects, of which the urbanized area received \$167,371 in 2013 and \$421,944 in 2014, was distributed to Waukesha County because the funds were allocated to the urbanized area due to the exclusive bus lanes located on W. Bluemound Rd. in Waukesha County. FTA Section 5339 funding for bus and bus facility capital projects, of which the urbanized area received \$2,678,007 in 2013 and \$2,652,232 in 2014, was distributed among the designated recipients/transit operators based on revenue vehicle miles of transit service, revenue vehicle hours of transit service, revenue passengers, and passenger miles, which are reported by each transit operator to the FTA and WisDOT, with 25 percent of the urbanized area apportionment distributed using each criterion.

- Assisted Milwaukee County Department of Transportation staff with administering the distribution of FTA Section 5310 funds among non-profits and units of government providing services to seniors and people with disabilities in the Milwaukee urbanized area.

- In support of preliminary engineering for highway projects, the Commission provides long-range traffic forecasts to municipalities, counties, and the State of Wisconsin. Recent work has included forecasts for W. College Avenue (CTH ZZ) in the Cities of Franklin, Greendale, and Greenfield, S. 76<sup>th</sup> Street (CTH U) in the City of Franklin, S. 27<sup>th</sup> Street (STH 241) in the Cities of Franklin and Oak Creek, the IH 94 N-S reconstruction, the Zoo Interchange reconstruction, the IH 43 N-S corridor study, the IH 94 E-W corridor study, and the long-planned extension of 124<sup>th</sup> Street in the Cities of West Allis, Wauwatosa, and Brookfield, and Village of Elm Grove.
- The Commission staff completed traffic studies throughout the County at the request of Milwaukee County staff. Recent work included conducting an analysis of the potential impacts on County highways by traffic potentially generated from the build-out of three proposed development areas in the City of Franklin (the 76<sup>th</sup> Street and Rawson Avenue Commercial Center, the 27<sup>th</sup> Street Business Park, and the 124<sup>th</sup> Street and Oakwood Road Business Park) and an analysis of the impacts of the City of Greenfield's Tax Incremental District (TID) No. 1—initiated in 1980 and closed in 1984—on Layton Avenue (CTH Y).
- Continued to be involved in the efforts of the Milwaukee Gateway Aerotropolis Corporation (MGAC), a non-profit organization that promotes the use of Milwaukee's General Mitchell International Airport (GMIA) as an economic driver for the Region, attempting to efficiently link air, rail, road, and shipping transportation capabilities in the communities in the vicinity of GMIA. Through MGAC, Commission staff is assisting these communities in developing and implementing a vision for future development and redevelopment of the land adjacent to GMIA.

## **LAND USE PLANNING**

- At the request of the Milwaukee County Department of Parks, Recreation, and Culture, the Commission has assisted the Department in the development of a scope of work for a Needs Assessment for the park system, and an update and extension to the year 2050 of the County Park and Open Space Plan. The Needs Assessment will have a 10-year timeframe and may be expected to address park system and facility use and preferences, composite park facility level of service provided across Milwaukee County, and estimated costs of capital maintenance of Milwaukee County parks and park facilities, including natural resources. The Needs Assessment may be expected to include a comparison of Milwaukee County parks and park facility standards to a select group of peer park systems and to national standards. Lastly, the Needs Assessment would propose a 10-year Capital Improvement Plan (identifying those projects to be completed over the next 5 years and 10 years) which will address system maintenance, renovation, and improvements/expansion. The Needs Assessment would be documented in a separate report, and its key findings and recommendations incorporated into the Milwaukee County 2050 Park and Open Space Plan.
- In a companion effort related to the review and update of the regional transportation plan, the Commission continued work on a major review and reevaluation of the long-range regional land use plan. Major inventory updates required in support of the new regional plan—including the regional land use, environmental corridor, and public utility inventories—have been completed. More information on the plan – called VISION 2050 – is included in the transportation section of this report.
- In May 2013, the Commission staff completed work on the preparation of a new set of projections of population and employment for the Region and its seven counties. The Commission reconsiders and extends its long-range population and employment projections every ten years, following the receipt of new population data from the decennial census along with the most current information on

employment levels. The new projections are for the period from 2010 to 2050. The new population and employment projections will serve as a basis for updating and extending the currently adopted regional land use and transportation plans, along with other elements of the comprehensive plan for the Region, through the year 2050. The new projections are also available for use in county and local planning efforts.

- Provided digital information developed as part of the Ozaukee County Farmland Preservation Plan and Comprehensive Plan regarding the evaluation and recommendations for preserving farmland to the Milwaukee Metropolitan Sewerage District to help them identify potential parcels in the Milwaukee River watershed for the acquisition of conservation easements.
- The Commission staff is working with the MMSD in developing existing and planned data related to households, population, and land use for the MMSD planning area for use in the MMSD 2050 facility planning work currently underway.

## **ECONOMIC DEVELOPMENT PLANNING**

- Worked cooperatively with the Milwaukee 7 (M7) and Regional Economic Partnership (REP) to prepare a comprehensive economic development strategy (CEDS) for Southeastern Wisconsin. A draft CEDS was completed and transmitted to each county in the Region for review and comment in March 2015. The public comment period was also advertised in major newspapers throughout the Region. Commission staff presented the plan at public meetings at the request of economic development organizations, county boards, or board committees. A presentation to the Milwaukee County Economic and Community Development Committee was made on April 13. Following the close of the comment period in May, Commission staff summarized comments received and drafted changes to address the comments for review by REP members. A final CEDS report will be distributed to each County Board later this year for consideration for final adoption.

The CEDS is intended to provide a basis for a more widespread understanding of the ongoing economic development work program in the Region and draws heavily from the “Framework for Economic Growth” report prepared in 2013 by the M7 in cooperation with the Brookings Institution. The CEDS is also intended to meet the requirements of the U.S. Economic Development Administration (EDA) for regional economic development strategic planning. Adoption of the plan by the County Board would make the County eligible to apply for certain EDA grants intended to benefit economically distressed areas. EDA identifies economically distressed census tracts based on unemployment rates of one percent or more above the national average, or per capita incomes 80 percent or less than the national average. About 58 percent (173 of 296) of the census tracts in Milwaukee County meet these criteria.

- In late 2014, the Commission initiated work on an inventory of existing and proposed business parks in the Region for use in Commission land use, comprehensive, and economic development planning. The information compiled by Commission staff has been provided to planning or engineering staff in each city and village in the county for review in coordination with staff meetings on the MMSD facilities planning work described in the following Environmental Planning section.
- The Commission, in cooperation with WEDC, has made Economic Modeling Specialist International (EMSI) Analyst software available to County and local governments and economic development organizations. EMSI Analyst is a web-based economic development tool that includes extensive industry, occupation, and workforce data, and is used in business and industry analysis and attraction. County and local economic development organizations and units of government can request

SEWRPC staff to apply the software to conduct analyses. During the last 12 months, EMSI data was provided by SEWRPC to the Milwaukee Department of City Development, the City of Milwaukee Business Improvement District #21, Riverworks, and the Creative Alliance in response to their requests.

- Provided assistance to the Village of Shorewood in managing the Village's business incentive loan fund program and completing the following activities: 1) providing assistance in the servicing of six loans totaling \$477,500 that were provided with the assistance of the Commission, and 2) providing assistance in the underwriting of two new loans totaling \$220,000.

## **ENVIRONMENTAL PLANNING**

- Continued to support the Milwaukee County staff in preparation of an environmental assessment of the Estabrook dam on the Milwaukee River. This assessment is part of the evaluation of whether to restore or remove the dam. The SEWRPC staff updated the hydraulic model of the Milwaukee River and used that updated model to evaluate dam alternatives developed by the Estabrook Dam Environmental Assessment Advisory Committee convened by Milwaukee County.
- The following work was performed under the floodplain mapping program for the Milwaukee County Automated Mapping and Land Information System (MCAMLIS) Steering Committee and the Metropolitan Milwaukee Sewerage District (MMSD):
  - Continued work on developing the hydrologic and hydraulic models for the Root River watershed. The project involves mapping the 10-, four-, two-, one-, and 0.2 percent annual-probability (10-, 25-, 50-, 100-, and 500-year recurrence interval) floodplains along 28 streams in the watershed, including the main stem of the Root River. This project involves lands in Milwaukee County parks, the Cities of Franklin, Greenfield, Milwaukee, Oak Creek, West Allis; and the Villages of Greendale and Hales Corners.

Work on the hydrologic model included updating meteorological data, preparing land use data by subbasin for planned year 2035 conditions, and developing flow routing information for all 28 streams, including the entire Root River main stem.

- Prepared hydraulic models of Oakwood Road Tributary in the City of Franklin 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 Whitnall Park Creek and the Northwest and West Branches of Whitnall Park Creek in the Village of Hales Corners, Ryan Creek in the City of Franklin, Tess Corners Creek in the City of Franklin and the Village of Greendale, 104<sup>th</sup> Street Branch in the City of Greenfield, Unnamed Tributaries 3, 4, and 5, Dale Creek and Scout Lake Creek in the Village of Greendale, and Wildcat Creek in the City of Greenfield. Continued developing HEC-GeoRAS model 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.
- With WDNR approval of the hydrologic model for the watershed, Commission staff updated the hydraulic model and floodplain mapping for Lyons Park Creek and Villa Mann Creek in the Cities of Milwaukee and Greenfield, Wilson Park Creek and the Kinnickinnic River in the City of Milwaukee.

- Completed mapping the floodplain along Fish Creek in the Village of Bayside.
- Started hydraulic modeling for Grantosa Creek in the Cities of Wauwatosa and Milwaukee, and Dretzka Park Creek in the City of Milwaukee.
- Contacted all the Milwaukee County municipalities to offer assistance for adoption of the completed restoration plan for the Root River watershed. The plan was completed in partnership with the municipalities and counties of the watershed (including Milwaukee County), MMSD, WDNR, the Root-Pike Watershed Initiative Network, and the Southeastern Wisconsin Watersheds Trust, Inc. The plan was developed within the framework of the 2007 SEWRPC regional water quality management plan update for the greater Milwaukee watersheds, and it focuses on water quality, habitat, recreation, and flooding issues. The plan is documented in SEWRPC Community Assistance Planning Report No. 316, *A Restoration Plan for the Root River Watershed*, Part 1: Chapters 1 - 7 and Part 2: Appendices, July 2014. To date, the City of Greenfield and the Milwaukee Metropolitan Sewerage District have adopted the plan.
- Continued to coordinate with the Cities of Milwaukee and Wauwatosa and the Wisconsin Department of Natural Resources (WDNR) during the WDNR review and approval of a conditional letter of map revision (CLOMR) application for the floodplain along the main stem of the Menomonee River in the approximately 8.4-mile-long reach extending from the confluence with Underwood Creek near W. North Avenue, downstream to the River's mouth at its confluence with the Milwaukee River in the Milwaukee Harbor estuary. Commission staff will continue to coordinate with the Federal Emergency Management Agency (FEMA) during their review of the CLOMR. The Commission staff created a hydraulic model of the River that incorporated numerous flood mitigation projects implemented over the last decade by MMSD and/or the Cities of Milwaukee and Wauwatosa along with projects committed to be implemented in the near future. The incorporation of those projects, representing over a decade of progress in flood mitigation, in a single hydraulic model is a major achievement that will greatly assist the cities in administering floodplain zoning and MMSD in completing additional flood mitigation projects.
- Continued work on a Honey Creek watercourse system plan for MMSD. The plan will address flooding mitigation and stream rehabilitation in the Cities of Greenfield, Milwaukee, Wauwatosa, and West Allis.
- Began work on a Schoonmaker Creek watercourse system plan for MMSD. The plan will address flood mitigation in the Cities of Wauwatosa and Milwaukee.
- Began work to support the 2050 Facilities Plan for MMSD. This work includes updating floodplains for targeted streams for 2035 land use and updated gauge and rainfall data.
- Performed a hydraulic analysis of proposed modifications to the N. 51st Street bridge over Lincoln Creek City of Milwaukee.
- Evaluated the proposed Wauwatosa Skate Park for flood level increases along the Menomonee River for the City of Wauwatosa.
- Submitted and received approval from the WDNR for the hydraulic model of the Beaver Creek floodplain mapping project in the City of Milwaukee and the Village of Brown Deer.
- Started participating in meetings of the Kinnickinnic Watershed Advisory Committee (WAC) to review flood control management alternatives being proposed by MMSD.



- Previously completed work on development of a watershed-based stormwater permit framework for the Menomonee River watershed communities in Milwaukee, Ozaukee, and Waukesha Counties. The project was funded by the U.S. Environmental Protection Agency (USEPA) and was conducted in collaboration with the municipalities in the watershed, USEPA, the Wisconsin Department of Natural Resources (WDNR), and MMSD. Milwaukee County; the Cities of Greenfield, Milwaukee, Wauwatosa, and West Allis; and the Village of West Milwaukee are parties to the permit. In 2014 and 2015 the Commission staff continued to participate in the meetings of the Menomonee River watershed communities as they coordinated on permit implementation.
- Continued to provide technical assistance to MMSD and its consultant in the conduct of a third-party total maximum daily load (TMDL) study for the Kinnickinnic, Menomonee, and Milwaukee River watersheds and the Milwaukee Harbor estuary. Also served as member of the TMDL development team.
- Provided hydrologic and hydraulic data to consultants and communities for Honey Creek in the Cities of Greenfield, Milwaukee, Wauwatosa, and West Allis; the Milwaukee River, Little Menomonee River, and the Kinnickinnic River in the City of Milwaukee; the Menomonee River in the City of Wauwatosa; Whitnall Park Creek and Northbranch Whitnall Park Creek in the Village of Hales Corners; and Fish Creek in the Village of Bayside.
- As the areawide water quality management planning agency, the Commission staff reviewed, and recommended approval of, four public sewer service extension projects, all of which were determined to be consistent with the regional water quality management plan. Those projects were located in the Cities of Milwaukee, Franklin, Glendale and Oak Creek. The Commission staff also reviewed 16 private sanitary sewer extensions. Those projects were located in the Cities of Franklin (2), Glendale (3), Milwaukee (1), Oak Creek (4), South Milwaukee (1), Wauwatosa (2), and West Allis (1) and the Villages of Brown Deer (1) and Shorewood (1).
- Continued to serve on the stakeholder committee meeting for the streambank stabilization projects that MMSD has proposed to implement in preparation for the increased flows from the WisDOT's Zoo Interchange Reconstruction project. As part of the WisDOT project, MMSD and WisDOT entered into an agreement to perform streambank stabilization on the impacted waterways downstream of their interchange project area that includes Honey Creek and Underwood Creek north of I-94 to their confluences with the Menomonee River.
- Continued to serve on the Burnham Canal Technical Stakeholder Committee as part of the MMSD and US Army Corps of Engineers project.
- Continued to serve on the Menomonee River Technical Stakeholder Committee as part of the MMSD project for the removal of three low flow barriers to improve fish passage.
- Continued to provide technical assistance for the concrete channel removal and reconstruction to improve fish passage on the Menomonee River. This Menomonee River Fish Passage project is a joint effort with MMSD, USFWS, WDNR, Milwaukee Riverkeeper, and Trout Unlimited. This project will re-establish the biological continuity between the Menomonee River, Milwaukee River Estuary, and Lake Michigan to improve fish and wildlife as well as recreational opportunities.
- Continued to serve on the Menomonee River Watershed Action Team Technical Advisory Committee to help identify and prioritize restoration projects and help obtain funding to address them.

- Continued to serve on the Milwaukee Estuary Area of Concern (AOC) Fish and Wildlife Technical Advisory Committee.

### **Environmental Field Work**

#### Environmental Inventory/Analysis – 3 Projects

- Proposed Nature Trails at Alfred Block Property (City of Franklin) – Wetland Delineation
- Proposed Athletic Field Expansion at Wisconsin Lutheran High School Campus and Honey Creek Parkway Plant Community Restoration (City of Milwaukee) – Primary Environmental Corridor Evaluation
- Proposed Recreational Trail Route Between the Bender Park Upper Parking Lot and a Point About 1,100 feet North of Bender Park Associated with the Oak Creek Redevelopment Site (City of Oak Creek) – Vegetation Survey & Inspection for Any Endangered, Threatened, or Special Concern Species

#### Transportation – 3 Projects

- West St. Martins Road (CTH MM) Reconstruction Between STH 100 and North Cape Road (City of Franklin) – Wetland Delineation
- Whitnall Park Drive Bridge Replacements (Village of Hales Corners) – Wetland Delineation
- USH 45/STH 100 Reconstruction Between IH 43 (Rock Freeway) and a Point 500 Feet South of College Avenue (Cities of Franklin and Greenfield and Village of Hales Corners) – Wetland Delineation

#### Park Sites – 5 Projects

- Proposed Playground Improvements at Franklin Woods Nature Center (City of Franklin) – Wetland and Woodland Delineation
- Proposed Milwaukee River Parkway and Oak Leaf Trail Improvements (City of Glendale) – Wetland Delineation
- Proposed Cherokee Park Creek Channel Maintenance (City of Milwaukee) – Wetland Delineation
- Proposed Menomonee River Parkway Improvements (Cities of Milwaukee and Wauwatosa) – Wetland Delineation
- Proposed Recreational Trail and Bridge Crossing at Abendschein Park (City of Oak Creek) – Wetland Delineation

#### Residential/Commercial Development Parcels – 4 Projects

- Norb Theine Property at 5000 S. Pennsylvania Avenue (City of Cudahy) – Wetland Delineation

- Proposed TIF District – Area D Properties Located South of Oakwood Road, West of S. 27<sup>th</sup> Street, and North of the County Line (City of Franklin) – Wetland Delineation
- Richard and April Hepp Property at 8473 S. 47<sup>th</sup> Street (City of Franklin) – Wetland Delineation
- Gary Schubert Property at 7970 S. Lovers Lane Road (City of Franklin) – Wetland Delineation

## **SURVEYING AND MAPPING ASSISTANCE**

The Commission has, since its inception, provided surveying and mapping services to Milwaukee County. As a part of such services, the Commission has since 1984 provided a County Surveyor for Milwaukee County. Pursuant to State Legislation, the County Surveyor is responsible for perpetuating corners of the U.S. Public Land Survey System which may be subject to disturbance, removal, or burial through construction or other activities, and for maintaining a record of the surveys required for such perpetuation. The U.S. Public Land Survey corners, as monumented by the County Surveyor, provide the basis for the conduct of all land and engineering surveys within the County. The Commission remonuments from 50 to 60 such corners annually. The surveys and remonumentation required, if performed through private contract, may be expected to cost over \$100,000 per year. Importantly, the Commission not only remonuments disturbed corners as necessary, but establishes the State Plane Coordinates and Mean Sea Level elevations for those corners through the conduct of high order geodetic surveys. This makes the resulting control survey network invaluable for public works engineering as well as for land surveying purposes.

Also pursuant to State Legislation, a copy of each land survey plat prepared by a land surveyor must be filed with the County Surveyor, and through that office made available to other surveyors, engineers, realtors, assessors, and the public in general. Approximately 900 to 1,000 such plats are filed annually with the County Surveyor.

In addition to meeting the statutory responsibilities of the County Surveyor, the Commission provides related technical assistance in survey and mapping in response to County requests. At the County request, the Commission in 1989 prepared a detailed design plan for the creation of an Automated Mapping and Land Information System for Milwaukee County. In accordance with that design, the Milwaukee County Board created the Milwaukee County Automated Mapping and Land Information System (MCAMLIS). The exclusive work necessary to create the system was initially funded with matching grants totaling \$2.1 million from the Wisconsin Electric Power Company, Wisconsin Bell, the Wisconsin Gas Company, and the Milwaukee Metropolitan Sewerage District. The County Surveyor for many years served as chairman of, and still serves as a member of, the MCAMLIS Steering Committee. The Commission provided the technical specifications for the creation of the foundational elements of the MCAMLIS – consisting of a horizontal and vertical control survey network, covering the entire County and the large-scale topographic and matching property boundary line maps – and administered the creation of those elements through contracts with consulting engineering firms. That administration included the conduct of the field surveys necessary for quality control of the finished control survey system and the attendant base maps. The Commission has also completed the technical analyses required to facilitate the bidirectional transformation of control survey data between the various survey datums in use by various public and private sector organizations operating within the County; and has, in response to a specific request from Milwaukee County, undertaken a technical evaluation of ability of alternative orthophotography programs to meet National Map Accuracy Standards. The Commission has also at County request provided special surveys such as those necessary to map hazards to air navigation that exist in the approach zones to Milwaukee County General Mitchell International Airport, and special surveys to delineate environmental corridor and flood hazard areas.

Since 1995, the Commission has assisted Milwaukee County in the acquisition of new digital orthophotography as part of the Regional Orthophotography Program. The next orthophotography acquisition project in this ongoing program is scheduled for 2015. Milwaukee County has procured the firm of Pictometry International to acquire and prepare high-resolution orthophotography and accompanying oblique imagery in 2015. The Commission will assist the County by providing federal planning funds for a portion of the orthophotography and by reviewing the delivered orthophotography to ensure that it is consistent with the specifications of the regional project. The final orthophotography and oblique imagery is scheduled to be delivered to Milwaukee County by September 30, 2015.

In conjunction with the orthophotography project, Milwaukee County will also obtain digital elevation products collected in 2015 to complement the imagery. The Commission is coordinating and administering a regional elevation mapping project that will acquire LIDAR (light detection and ranging) data, digital elevation model files, and one-foot interval contour and depression line files for Milwaukee County and four additional counties in the Region. The LIDAR and elevation products will be delivered to Milwaukee County by December 1, 2015.

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