



State of Wisconsin
Governor Tony Evers

Department of Agriculture, Trade and Consumer Protection
Secretary-designee Randy Romanski

**2020 Conservation Engineering Survey
Summary
March 2021**

The Conservation Engineering Section (CES) in the Bureau of Land and Water Resources provides engineering technical assistance to counties that plan, design and provide construction oversight when farmers and landowners undertake conservation projects with county assistance. These projects include agricultural waste management systems, roof and barnyard runoff control systems, streambank and shoreline protection, erosion control practices and other best management practices. The section consists of 12 engineers and environmental specialists located in Madison and five area offices around the state. The CES works closely with county land conservation department staff (LCD staff), NRCS and other conservation partners to approve and ensure the practices and projects are installed correctly in support of the state's Soil and Water Resource Management (SWRM) grant program.

Through authority given in Chapter 92 of Wisconsin State Statute, DATCP must establish a program of training and certification for conservation professionals who provide assistance with planning, design and construction of best management practices. Details for the certification and training programs are further clarified in ch. ATCP 50, Wis. Adm. Code. The stated mission for the CES is “[t]o assist County Land Conservation Departments and other conservation groups to develop their engineering capabilities through technical support and training, thereby empowering them to plan, design and implement conservation practices that protect Wisconsin's environment and natural resources.”

In general, the CES:

- Provides assistance to LCD staff on the design and installation of best management practices.
- Develops and administers a program for LCD staff to become certified conservation engineering practitioners.
- Offers training for LCD staff.
- Develops computer design aids and standard designs.
- Provides technical support for DATCP's livestock siting and agricultural drainage district programs.

In 2020, the CES administered a survey to all 72 county land conservation departments. The survey was developed by the Bureau of Land and Water Resources and the target audience for the survey was technical staff that work directly with our conservation engineering section. The survey was designed to evaluate if the CES is meeting its goals and identify any changes needed to improve the services of the CES.

DATCP received responses from 100 conservation professionals in 67 counties. Several of the questions asked respondents to rate their satisfaction with the service they receive from the CES. These responses were used as a part of the performance evaluation process in 2020. Additional questions gathered information about the type of assistance staff from county LCDs seek from the CES team, participation in the state's certification program, access to design tools and availability of training to support them in their work. Analysis of these responses will contribute to efforts to strengthen the statewide training program. Responses may also be helpful in future revisions to related administrative code.

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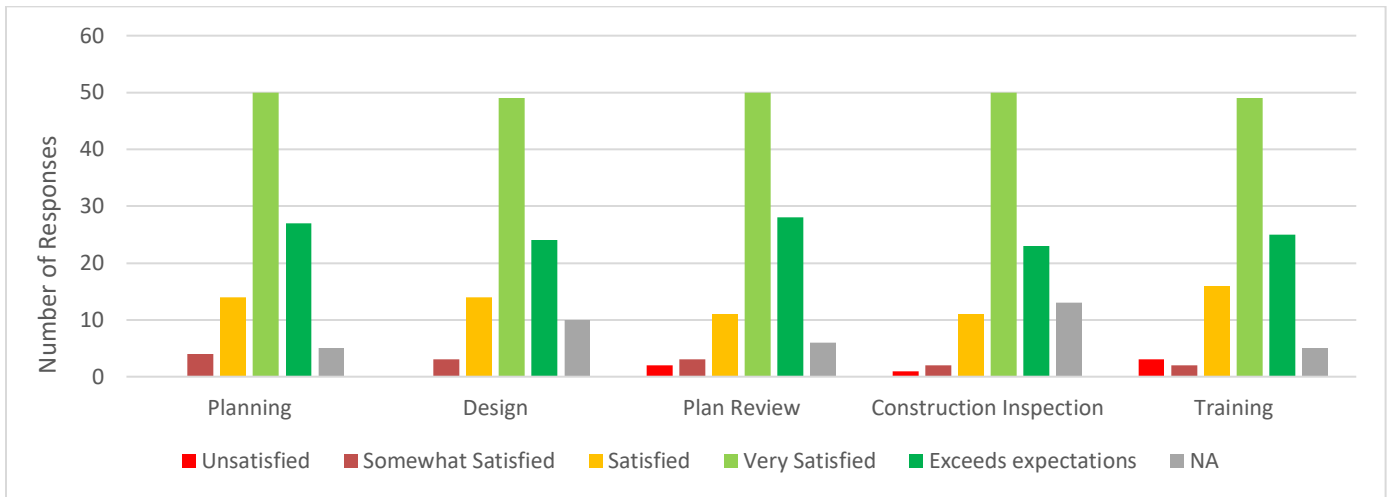
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Satisfaction with Service

Conservation Engineering Section professionals provide a range of technical assistance to county conservation department staff. The survey was designed to collect information about satisfaction with our customer service and our technical assistance.

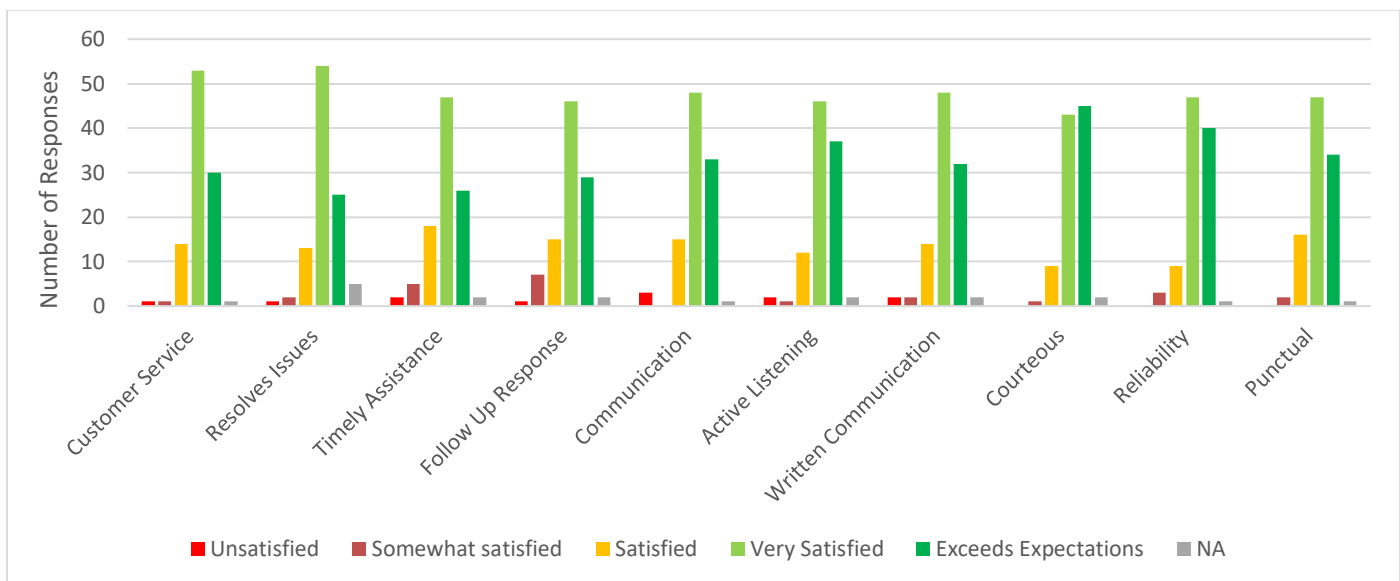
Satisfaction with Technical Assistance: According to 99% of the respondents, CES staff provide the technical assistance that they need. Overall the responding conservation departments are satisfied with the services provided by DATCP, with 88% of responses marking satisfied, very satisfied, or exceeds expectation. Participants were most satisfied with our planning services (91%), training (90%), and plan review (89%). The lowest satisfaction was for construction inspection (84%). Satisfaction with technical assistance for all areas of the state are shown in **Figure 1**.

Figure 1: Satisfaction with Technical Assistance



Customer Service Satisfaction: The responding conservation departments are satisfied with the customer service provided by DATCP and overall 94.5% of responses were satisfied, very satisfied, or thought our services exceed expectation. Participants were most satisfied with our high quality customer service (97%), courteousness (97%), and punctuality (97%). The lowest satisfaction was for providing a thorough and timely follow up (90%) (**Figure 2**).

Figure 2: Customer Service Satisfaction



Empowerment: One part of the CES mission is to empower county technical staff to become more self-sufficient. Responses indicate that county staff feel empowered to become more self-sufficient (83% overall). Conservation professionals feel most confident handling projects at the county level (88%), and 80% of respondents feel supported to learn new skills and are encouraged to increase their knowledge and responsibility (**Table 1**).

Table 1: County Staff Assessment of Empowerment

Area of Empowerment	I am empowered to handle projects at the county level	I am supported to learn new skills	I am encouraged to increase my knowledge and responsibility
Percent of respondents	88%	80%	80%

Summary

- Satisfaction with the technical assistance and training the CES provides is very high.
- Construction inspection received the lowest number of satisfied responses – however, the overall level of satisfaction was still high and the lower number of satisfied was influenced by the number of “NA” responses since many counties perform their own construction inspection.
- Customer service satisfaction was also high.
- Empowerment in the job received the lowest number of positive responses.

Possible Next Steps

- Identify counties with unsatisfied responses in order to focus efforts to address needs.
- Evaluate why empowerment received the lowest response, albeit still high, while several responses indicated not needing or wanting certification. Is lack of empowerment related to training/certification or lack of support at the supervisor level? This clarification was not made in the survey.

County Staffing, County Responsibility for Work and Workload

County Staffing: County conservation departments hire conservation staff to provide technical assistance to farmers and landowners interested in installing conservation practices. The number of staff able to do this technical work varies widely across the state depending upon county budgets and priorities (**Map 1**). The CES staff support these technical staff. County staff with necessary certification levels can complete projects with less CES support.

County Responsibility: Counties complete the majority of planning work, initial design, and on-site construction inspection. Fewer counties take responsibility for final design approval and as-built construction approvals as shown in **Table 2 and Map 2**. In addition, only 61% of respondents said they use DATCP engineering staff for review assistance of plans and specifications submitted by private consultants for county ordinance manure storage permits. A variety of reasons for not requesting CES assistance include; CAFO plans are reviewed by DNR (3), NRCS reviews the plans (4), the county does not require storage permits (7), county staff reviews plans themselves (10), or there are no plans to review (13) (**Map 3**).

Table 2: Percent of Responses for which the County is Responsible for the Work Task

County Responsibility	Planning Work	Initial Design	Final Design Approval	On-site Construction Inspection	As-Built Construction Approval
Percent of Respondents	97%	97%	73%	99%	75%

Shifting Workload: As shown in **Map 4**, the workload for conservation engineering practices is variable across the state. When compared to the prior year, sixteen counties reported a decrease in work, 38 reported an increase, and 46 said their workload remained the same. When asked about changing workload, many counties commented on the impact of increased precipitation and a need for more projects focusing on soil erosion, conservation, and runoff mitigation. Simultaneously, the agriculture economy has been down, especially dairy prices, and farmers are less likely to pursue animal waste projects on their property due to a lack of funds. Counties reported that they have seen the workload shifting from agricultural hard practices to projects focusing on erosion control and protecting streambank and shorelines. Another trend noted by several counties is that they have access to grant funds other than SWRM funds, but they do not have additional county staff to implement projects funded by these grants. Additional funding is coming from the multi-discharger variance program, county cost-share funds, Great Lakes Restoration Initiative funds, and USDA-NRCS.

Summary

- The workload within the counties varies based upon weather, funding, economics and the number of staff available to do the work.
- Requests for assistance with in-field and erosion control practices is growing, with less interest in manure management practices.
- Availability of grant funds in some areas is increasing workload.

Possible Next Steps

- Increase communication about the value of certification and doing technical work to encourage county staff take steps to not only get certification, but to become more involved in the process of planning and designing conservation practices. Also emphasize that performing conservation work is necessary to receive SWRM staffing grants.
- Work with county staff to increase certification and technical capabilities to enable them to either complete projects on their own or provide the needed assistance.

Certification

The mission of DATCP’s Conservation Engineering program established under Chapter 92 is “[t]o assist County Land Conservation Departments and other conservation groups to develop their engineering capabilities through technical support and training, thereby empowering them to plan, design and implement conservation practices that protect Wisconsin’s environment and natural resources.” As part of this, the department is required to establish a program of training and certification for individuals involved in implementing the state’s nonpoint source pollution abatement program, with specific emphasis on individuals engaged in plan review, design, on-site inspections and as-built construction approval. The requirements for certification is established by rule in ATCP 50.

The certification program is similar to the federal Job Approval Authority program administered by the USDA-NRCS, but specifically allows conservation professionals with certification to work on and approve state-funded projects.

DATCP encourages conservation professionals in all counties to become certified for practices. Through the process of obtaining certification, individuals increase their knowledge of conservation practice standards, build their technical skills, and obtain more autonomy in their work. The state benefits by building a network of knowledgeable professionals capable of completing design, review, installation and inspection of engineered conservation practices, and leads to more on-the-ground conservation. Certification of county staff can also help to expedite projects since a professional with the right certification does not have to wait for CES staff to review and approve projects.

As part of the survey effort in 2020, county staff were asked if they have any certification and whether they are interested in obtaining certification or increasing their certification levels. Based upon the 100 responses of LCD staff in 67 counties, there are up to 26 counties that currently do not have at least one staff member with certification (based on those who responded). None of the representatives from these 26 counties expressed an interest in increasing their certification. When asked, 22 of the 64 respondents that have certification felt that they need certification to do their job (**Table 3**). When asked why they do not have certification through the state program, 41 individuals provided a response. Of these 41 respondents, seven are currently working to increase certification and the other 34 are not interested in certification for various reasons (**Figure 3**).

Table 3: Conservation Engineering Practitioner Certification – Level of Interest and Necessity

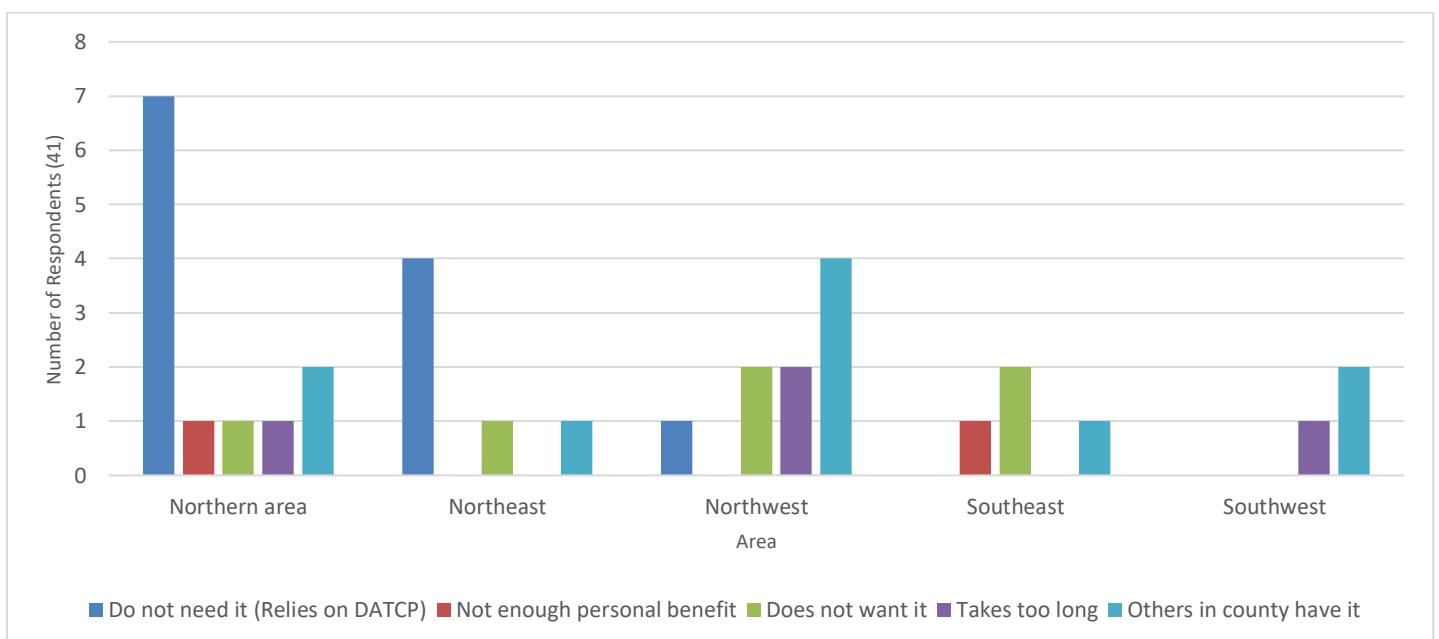
Question/Area	N	NW	NE	SW**	SE***
# of counties in area	14	14	18	12	14
# of counties in area with at least one person with certification*	5	7	17	9	7
Interest in increasing certification level (counties/individuals)	5 /6	4/6	11/19	8/12	4/5
Necessary to do job (counties/ individuals)	2/2	2/2	5/6	8/9	3/3

*Based only on the responses to the survey. There may be other staff in the county with certification that did not respond to the survey.

**Only 11 of the 12 counties responded to the survey.

***Only 10 of the 14 counties responded to the survey.

Figure 3: Reasons for Not Having Certification, by Area



Summary

- In counties with no certified staff identified through the survey, respondents have no interest in getting certification.
- Only about 34% of respondents think increased certification as something necessary to do their job.
- The reason for not getting certified isn't typically related to the personal benefit.
- Lack of interest in certification may be more related to the type and number of projects completed in a given year.
- Additional oversight from the CES over technical projects is desirable.

Possible Next Steps

- Reinforce the benefits of increasing certification levels and identify areas of necessary training.
- Encourage counties to emphasize increasing their staff's technical capabilities, which can lead to establishing and maintaining certification levels.
- Follow up with counties that did not respond to understand their certification needs.
- Review reimbursement requests as they come in for practices to make sure that there is the appropriate sign-off on practices by certified staff.
- Review certification levels in database by area to identify if there is a need to raise levels for common practices installed for that area.

Training and Skill Development and Access to Tools

Under state statute, DATCP is responsible for establishing a program of training for persons involved in conservation activities including providing assistance with planning, design and construction of best management practices. As part of the engineering survey, conservation staff were asked about their training needs. Of the 100 respondents, only 7 commented that their training needs are not being met, and each area had at least one response from someone who did not think their needs were met. When asked to provide more detail about their training needs or why they feel their needs are not met, the responses were general in nature indicating that they want to see more trainings offered.

By rule, DATCP also is responsible for appointing a training advisory committee to advise the department on training activities, (ATCP 50.52). This committee is known as the State Interagency Training Committee (SITCOM). During 2020, DATCP in collaboration with WI Land + Water, and with assistance from the UW Division of Extension, undertook an organizational development process to improve SITCOM and the coordination of state training efforts. Through this process, one significant change in 2020 was the administration of a training needs assessment. The intent of the assessment is to gather more specific information about the type of training needed by conservation professionals.

SITCOM will initiate the needs assessment on a regular basis and send the results to all conservation department staff and state agency staff. The needs assessment will identify training needs at the state level and also at a more regional level. The assessment will inform training efforts to ensure a more coordinated and consistent statewide training effort. The responses to the training needs assessment will be used by SITCOM to identify statewide training needs and by Area Interagency Training Committees (AITCOMs) to identify training needs at the area level. The assessment needs will also be used by the Professional Improvement Committee (PIC) and the Technical Committee (TC) to identify sessions for the annual conference.

DATCP is also responsible for ensuring access to design tools necessary to do conservation work. When asked about access to these tools, 95 of the 100 respondents said that they have the design tools needed to do their work. Despite adequate access to appropriate tools, respondents did note that some tools are not easy to use or are outdated. When outdated tools are updated, it is imperative to ensure all have access to the newest version of tools.

Summary

- Training is currently perceived to be adequate, although feedback on specific needs was not offered.
- Design tools are adequate, but updates may be necessary and communication to share changes to the tools is needed.
- Increased training may increase staff knowledge and elevate feelings of empowerment to learn new skills and take on more responsibility.

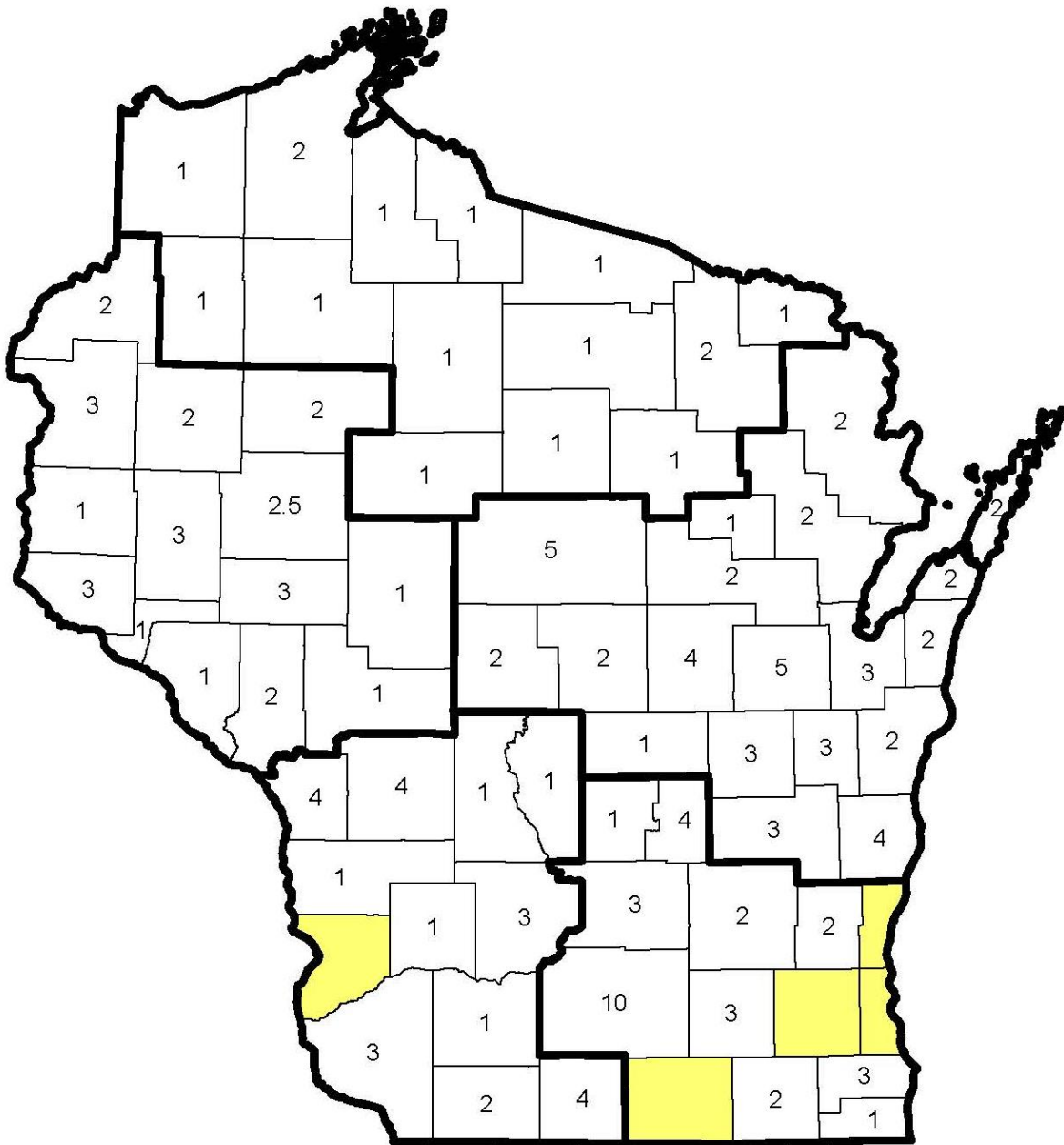
Possible Next Steps

- Create an inventory of available tools to share with conservation professionals.
- Increase communication about available tools, how to use them, and when they are updated.
- Identify needed updates for the tools.
- Further explore the best way to make sure relevant training opportunities are available throughout the state.
- Continue to assist staff to build skills through training to increase certification, and consider whether there are better or more efficient ways to do this.

Steps Already Taken

- Evaluated statewide and area training needs through statewide SITCOM survey and compared them to special expertise of area staff.
 - Identified opportunities to share workload and/or training across areas when feasible through creation of the AITCOMs.
 - Adopted tools that enable CES staff to work more efficiently across areas, such as through the use of Microsoft Teams.

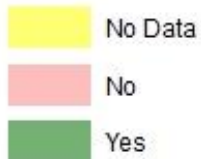
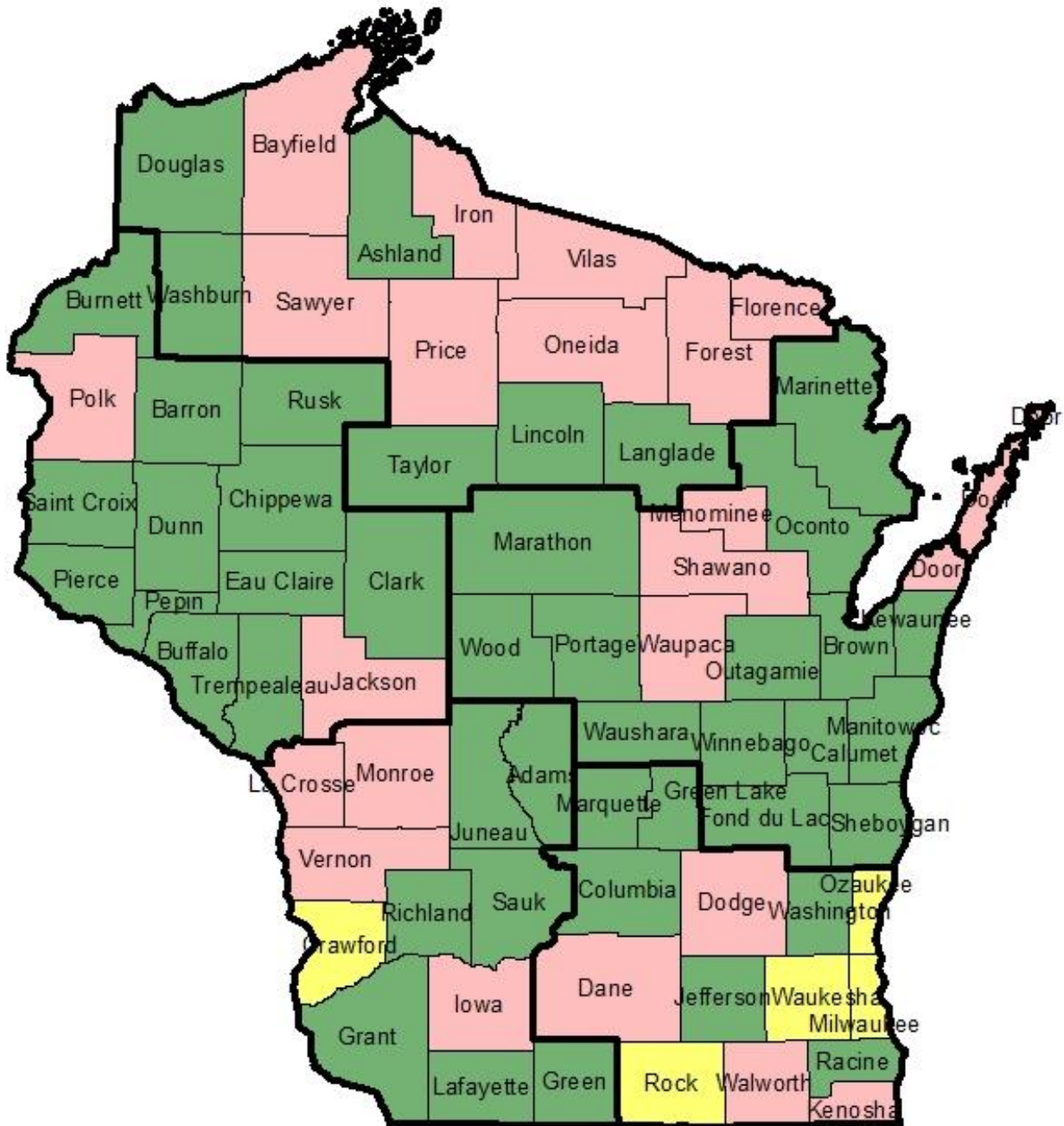
Map 1: Statewide Staffing Levels*
(Of Staff Involved in Planning, Design or Construction Inspection)



* As reported by respondents to survey in February 2020
Yellow designates counties submitting no data

Date: 11/25/2020

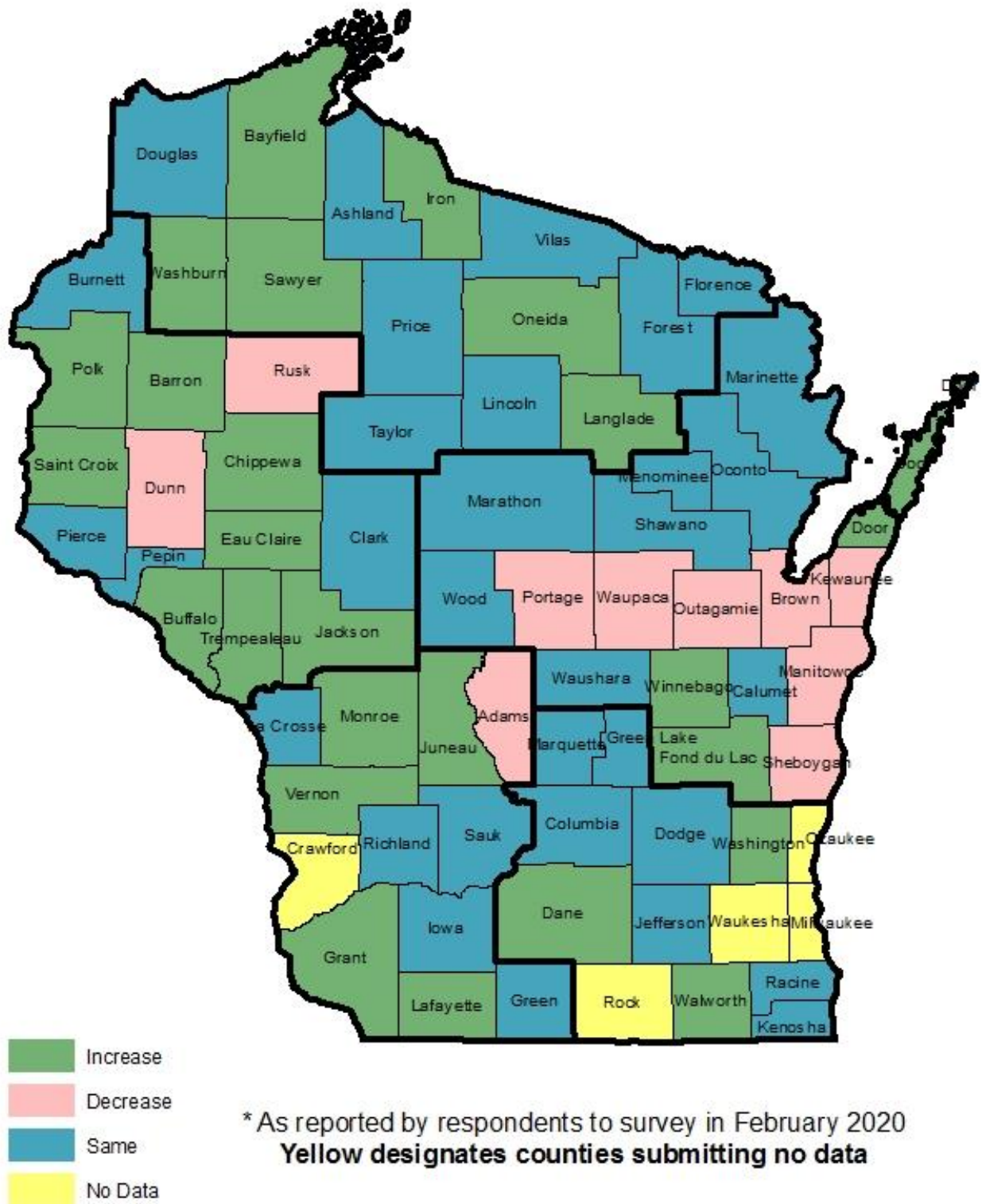
**Map 3: Statewide DATCP Staff Review Assistance of Plans and Specification
(Submitted by Private Consultants for Manure Storage Permitting)***



* As reported by respondents to survey in February 2020
Yellow designates counties submitting no data

Date: 11/25/2020

Map 4: Statewide Conservation Workload Trend*



Date: 11/25/2020