

# Agriculture Water Quality Partnership Forum (AWQPF) Technical Subgroup Meeting

## Meeting Notes

Meeting 3: Tuesday, January 26, 2016 – Illinois Dept. of Ag, FFA Room, Springfield, IL, 1:00 pm – 3:30 pm

### Conclusions

- Lyndsey Ramsey gave a report about CBMP's work to gather information that populates the logic model for Input and Human tables. The 2015 data is due by the end of the week. Afterwards, data will be updated quarterly. A PR management firm will collate the information into a report. Each organization will have individual reports. Conservation Story Map website will seek watershed information and will highlight available programs in those areas, as well as "stories" from individual farmers about best management practices they are using on their farms. If you are working with farmers and have a story idea, please email Lyndsey (lramsey@ilfb.org). The timeline for submission is the end of Feb. Heartland GIS is doing this work. The result will be rolled out on Earth Day in April.
- The Subgroup further developed the logic model Land Measures table (see next page) by adding and completing columns for units and actions.
- The Subgroup discussed a method for adding agriculture practices to the Land Measures to the table. They decided that the science assessment team would be the appropriate group to provide guidance.

### Next Steps

- Determine 2 curated lists: cover crops and perennials/energy crops. Natalie Prince will provide a list of FSA crops and send it to Mark Schleusener, Warren Goetsch and Eric Gerth. Then, Mark and the NRCS state agronomist will review the list to determine which ones should be considered for the lists. This will provide the curated lists to query for reporting.
- Mark Schleusener to send draft NASS publication table to Eliana Brown for distribution. Recipients will comment as to their areas of expertise.
- Mark Schleusener will have a somewhat finalized questionnaire so groups can test run with some farmer leaders for wording, clarity, etc. He'll present this to the full Forum on February 23.
- Tentative agenda for the next meeting on March 29:
  - Reports:
    - Acres of cover crops (Kim Martin and Natalie Prince, FSA)
    - Number of bioreactors and acres treated. If possible, provide watershed. (Marcia Willhite and Trevor Sample, Illinois EPA and Eric Gerth, NRCS)
    - Number of acres of buffers and wetland practice. (Kim Martin and Natalie Prince, FSA and Mike Chandler and Lisa Beja, IDNR)
    - Acres of perennial/energy crops equal to pasture/hay acreage from 1987 and on 10% of tile-drained land. (Kim Martin and Natalie Prince, FSA)
  - Develop talking points about the NASS survey for all Forum groups.

Land	Units	Measurement Provider		Action
Reducing N rate from backgrnd to MRTN on 10% acres	Cropland acres	NASS survey	Check with IFCA about similar questions on industry survey.	
Nitrification inhibitor with all fall-applied fertilizer on tile-drained corn acres	Cropland acres	Add 2 questions to NASS survey: inhibitor & drain		
2 Split application of 50% fall & 50% spring on tile-drained corn acres	Cropland acres	NASS survey		
1 Spring-only application on tile-drained corn	Cropland acres	NASS survey		
3 Split application of 40% fall, 10% pre-plant, and 50% side dress	Cropland acres	NASS survey		
Cover crops on all corn/soybean tile-drained acres	Cropland acres	Two sources: FSA (need to link soil data and/or HUC8) and NASS will add this question and tile drain ac to survey		Determine list of cover crops: Natalie to provide list of FSA crops and send it to Mark, Warren and Eric. Then, Mark and NRCS state agronomist review list to determine what is a cover crop. FSA will report on Mar 29.
Cover crops corn/soybean non-tiled acres	Cropland acres	2 sources: FSA (need to link soil data and/or HUC8) and NASS (add this question and tile drain ac to survey)		
Bioreactors on 50% of tile-drained land	Number of acres treated	EQIP (NRCS) & 319 have useable data. Add NASS survey question. Check with LICA about question on industry survey.		Illinois EPA and NRCS to bring report on Mar 29. Number of bioreactors and acres treated. If possible, provide watershed.
Wetlands on 35% of tile-drained land	Acres of wetland/ Numbers of acres treated (NASS)	FSA and IDNR will coordinate data. 319 also has usable data. NASS acts for acres of acres treated.		FSA (Kim M) and IDNR (Lisa B and Mike C) will combine acreage by buffer and wetland practice and (hopefully will) pull out info by watershed. Report on Mar 29.
Buffers on all applicable crop land (reduction only for water that interacts with active area)	Acres of buffers	FSA and IDNR will coordinate data. 319 also has usable data.		
Perennial/energy equal to pasture/hay acreage from 1987	Perennial/energy ac	FSA has usable data. Will ask question on NASS survey.		Determine list of perennial/energy crop per method above for cover crop. FSA will report on Mar 29.
Perennial/energy crops on 10% of tile-drained land	Perennial / energy acres	FSA has usable data. Will ask question on NASS survey.		FSA will report on Mar 29.
Drainage water management* *being considered	Acres effected	EQIP & 319 have usable data. Add NASS survey question. Check with LICA about question on industry survey.		Query the science assessment group whether this practice should be included.

In attendance: Mark Schleusener, USDA-NASS; Eliana Brown, Illinois Water Resources Center; Brian Miller, Illinois Water Resources Center; Katie Hollenbeck, Illinois Water Resources Center; Tom Clement, Illinois Water Resources Center; Natalie Prince, Farm Service Agency; Kim Martin, Farm Service Agency; Kevin Rogers, Illinois Department of Agriculture; Chuck Cawley, Illinois Department of Agriculture; Trevor Sample, Illinois Environmental Protection Agency; Scott Ristau, Illinois Environmental Protection Agency; Mike Chandler, Illinois Department Natural Resources; Lisa Beja, Illinois Department Natural Resources, Eric Gerth, United States Department Agriculture-Natural Resources Conservation Service, Jean Payne, Illinois Fertilizer and Chemical Association, Jennifer Tirey, Illinois Pork Producer's Association, Lyndsey Ramsey, Illinois Farm Bureau, Warren Goetsch, Illinois Department of Agriculture

BRIAN MILLER: I'm Brian Miller, director of the Illinois Water Resources Center, and this is the 3<sup>rd</sup> meeting for this group, so I would like to go around and do introductions, then recap our charge and progress, and then I would like to spend the meeting on sources of data and units. Let's start introductions at Eliana Brown.

#### Introductions

BRIAN MILLER: So let's review the charge of technical subcommittee. The group was selected because they control the data and have access to data across agencies. We have to report every 2 years on BMP implementation and track nutrient reduction and percent nutrient reduction. The final step is to assess existing implementation data available and advise the Policy Working Group on what has already been accomplished. We had John Lawrence from Iowa State University at our first meeting and he presented a logic model that they used which includes: Input Table, Human Table, Land Measures Table, and Water Table. We are going to hear from Lyndsey today about data they are collecting. This Subgroup is working on the Land Measures Table. The Nutrient Monitoring Council is working on the Water Table. So this is where I go to Lyndsey Ramsey.

LYNDSEY RAMSEY: I included examples from Iowa and we sent it out to anyone who would receive an email. We would like to collect data your organization deems valuable and submit it as a report. Everything that was done in 2015 is included as an NREC report. In 2016, we will do it on a quarterly basis. The 2<sup>nd</sup> page is Iowa's example and they have staff resources and allocated funding. If you go to the next page, there is an empty page for reporting human activities. We are following Iowa's model. They had 143 presentations and reached 10,000 people and gave out 88 awards. Are there any questions about that first piece?

BRIAN MILLER: So should all the information be sent back to you guys and you will compile?

LYNDSEY RAMSEY: We have an association management firm and they will compile.

BRIAN MILLER: When you have a roadshow, how do you keep from counting same person and same event 5 times?

LYNDSEY RAMSEY: We want each organization to tell their story. It's not meant to be one story, it's meant to be everybody's story, not just for time's sake, but so that everybody gets credit.

BRIAN MILLER: With the number of people reached and events held, double counting can be an issue.

WARREN GOETSCH: I was envisioning the biannual report organized based on the 4 columns. On 1<sup>st</sup> column are resources. My first cut would be various organizations involved. A narrative report would not have double counting as an issue. The 3<sup>rd</sup> column is the metrics we are measuring as part of NASS survey from 2015 to 2017.

LYNDSEY RAMSEY: Since we report on the strategy every 2 years, folks can help get in the habit of keeping track together.

WARREN GOETSCH: This whole thing has been successful. Various stakeholder groups have taken ownership and that makes it successful. I like the idea of updating the spreadsheet quarterly to keep it on the front burner to keep everyone engaged.

LYNDSEY RAMSEY: It's a good way to compile everything. I would like to talk briefly about CBMP to tell the same story in a few different ways. One cool thing is a conservation story map. This is a demo site. It will be rolled out on Earth Day, included is submission forms. If you want to receive an email, google earth interfaces and you can drill down into your area: guys talking about cover crops or 4Rs. On the map, you can hover over your watershed. We are hoping that everyone that has cost share or tech report program will give us their information and that you can find out that you are eligible for streambank stabilization program. I would love to get more information from you if you have any programs. The next page says story, and farmers would be talking about what they are doing for the nutrients to tell that story. The goal is for farmers across the state to tell their own stories and see/read the experiences of others. We want to have these points all up and down Illinois and talk about types of BMPs and show what people are doing different in Illinois.

WARREN GOETSCH: Is there a timeline for submissions?

LYNDSEY RAMSEY: Submission is the end of February; it comes to me in a one page form, and goes to GIS folks at Heartland GIS. It will be updated on quarterly schedule to add new stories and will be rolled out on Earth Day. Are there any more comments or questions on maps? The CBMP also has an event calendar and there is a form to fill out that helps get them on the event calendar.

ELIANA BROWN: Is there a link to the calendar on CBMP website?

LYNDSEY RAMSEY: It's hidden since it hasn't been rolled out yet. I want stories now.

ELIANA BROWN: IWRC would be happy to help with publicizing when you are ready.

LYNDSEY RAMSEY: I go to many meetings and am sending all farmers to the website. There is also a newsletter, a quarterly newsletter, and I'm sending a lot of farmers to this website. For the event calendar, newsletter, and website, we have released it all at once.

JENNIFER TIREY: Is there a timeline on input info?

LYNDSEY RAMSEY: For 2015, at the end of this week actually. We are playing catch up and an addendum to NREC report, while some groups are focusing on 2016. Submissions for 2016 are due in April.

JEAN PAYNE: Inputs and humans?

LYNDSEY RAMSEY: Yes, for 2015 end of this week.

JENNIFER TIREY: Each quarter you'll want it?

LYNDSEY RAMSEY: Yes, but we won't harp on organizations for it.

BRIAN MILLER: We will spend the rest of our time working on the land column, beginning by filling in units for the land measures. After the meeting with John Lawrence, Iowa's logic model made sense, so we went through the NLRS and found BMPs. We asked if you had data to help measure this. At the last meeting, we pulled everything together to answer BMP implementation questions. Some gaps are filled by the NASS survey and Mark will talk about that and about moving forward. Basically we will take this sheet and move to a worksheet and get more specific. We want to

focus on units and now we need to reach an agreement and think of a timeline, so we need to come up with what numbers were at end of 2011 and BMP implementation at the end of 2015. Warren gave a timeline at end of 2016 as the deadline. We have to say, "these are BMPs in place" and then calculate load reduction. We want to focus on appropriate numbers you want to install and once we get to the bottom, we want to go through the action column to get this started. We want to get out of here with a homework list. 1<sup>st</sup> one, units for reducing N rate from background to MRTN on 10% of acres?

JEAN PAYNE: What is "background"?

WARREN GOETSCH: The previous rate of nitrogen used, "1.2 is all you should do."

BRIAN MILLER: Agreement, number of acres? Cropland acres? Okay. 2<sup>nd</sup> one. Cropland acres. 3<sup>rd</sup> one, number of acres?

JEAN PAYNE: Why are we not so precise about one split, dual split, triple split applications?

MARK SCHLEUSENER: I agree, I tried to phrase it, "less than 50% fall application with remaining application," but I could be more precise on clarification of the split of applications.

BRIAN MILLER: For spring application, cropland acres? And for summer acres, cropland acres? For cover crops, tile drained or not, and trying to track it, we have to be able to separate if on tile drained or non-acres. The sources of data is FSA but there are challenges of linking soil.

NATALIE PRINCE: On cover crops, you want us to provide acres of cover crops per county?

WARREN GOETSCH: We would report. Yes. By the state, what is available? On a watershed basis or on a county basis? We can't go below a county level.

NATALIE PRINCE: We can go by HUC code. I don't know how specific we can get on cover crops on 2011. I can resend and we can look at that.

WARREN GOETSCH: We are looking for what you did at end on 2015 and end of 2011. For sure we need 2015.

NATALIE PRINCE: It shows all crops reported.

BRIAN MILLER: Are you going to be able to go over tile drained or non-tile drained? There is some knowledge where you can assume it is tile drained. How do we address this?

NATALIE PRINCE: Farms must report everything on farm regardless of crops. I'm not sure about watersheds.

WARREN GOETSCH: We will get what we can get. And then will have to make some assumptions. Mark David made those kinds of assumptions when he did the original assessment and we will have to replicate assumptions. What kind of projection in loss we are getting? If you don't have a layer for tile and non-tile, but have cover crops, use an alternative way of getting subservice draining.

TREVOR SAMPLE: For the cover crop shapefile, we will cut down to HUC boundaries.

NATALIE PRINCE: I don't know if we have a shapefile and don't know that it has every single cover crop. We have an excel file.

BRIAN MILLER: Cover crops with cost shared or done on your own?

NATALIE PRINCE: They have to report everything done on land whether its farmland or not.

WARREN GOETSCH: If these are cover crops we can take credit for them.

BRIAN MILLER: Before we leave this one, let's get agreement on action.

ERIC GERTH: There are either nitrogen savaging or a mix addressing soil erosion concern and different results based on type of cover crop grown. There are different resource concerns being addressed by different cover crops.

WARREN GOETSCH: What are different distinctions or concerns?

NATALIE PRINCE: If you grow radishes, you have to report "mix" and don't have to say it's a cover crop.

ERIC GERTH: There is also a wheat mix.

MARK SCHLEUSENER: For the list of crops in 2013 or 2014, I was overwhelmed what you sent before.

NATALIE PRINCE: It is provided quarterly and tells every crop reported. As of December 2015, we have that data back to 2010.

MARK SCHLEUSENER: We need one big list, "this is a cover crop, this is not," and we can pass it around to the group.

BRIAN MILLER: Who are 2-3 people that want to review this?

MARK SCHLEUSENER: Put my name on list.

ERIC GERTH: We can have my state agronomist review that.

BRIAN MILLER: They will decide what the cover crops are. We have another meeting on March 29. As we get to columns, you can report out on what you have, Natalie, after we hear back from these two folks. Does that sound good?

NATALIE PRINCE: So I'm going to provide a list of 2015 crops?

WARREN GOETSCH: How difficult for lists for both years?

NATALIE PRINCE: Not difficult at all, okay, we will provide 2011 and 2015 and send to Eric and Mark.

ERIC GERTH: Cover crops and grazing land, or cropland only, if we are splitting hairs.

BRIAN MILLER: Is it grazing land a big amount?

ERIC GERTH: It's there, but compared to cropland acres, no.

BRIAN MILLER: We don't want to make more difficult, but if it's important we should do it. Would you be able to tease that out of dataset?

ERIC GERTH: Probably not.

BRIAN MILLER: If can't tease it out then have to live with. So for the next three, edge of field practices, up until now, measures acre you are treating. Calculating load is not just acre of practice. In this case, not just the acre of the practice you put in, it's how many acres it was treating. For the number of acres affected or number of acres treated, this is

where we get into multiple agencies. Let's first get the units. What is the number of acres affected for these three practices?

ERIC GERTH: In the zone of influence for bioreactors, in the plan of design, you'd know how many acres are being drained through the bioreactor. You'd have to look at the designs. Some out there that haven't been cost shared on. We would have through EQIP. There is more out there that has not been cost shared on.

BRIAN MILLER: We can check with LICA.

MARK SCHLEUSENER: How many acres drain into buffer or bioreactor?

WARREN GOETSCH: Like water table management, for drainage water management, did we decide if it was included in NASS survey or not.

MARK SCHLEUSENER: I put it in there, but the wording is not finalized.

WARREN GOETSCH: So we would look at acres treated in the NASS survey.

BRIAN MILLER: It might not be important.

ERIC GERTH: They, as an organization, would not have that data, and would have to talk to contractors.

BRIAN MILLER: NRDS and NASS.

SCOTT RISTAU: We track the size of the BMP and load reduction associated with the size of the BMP. We know how many acres, but use it to calculate the load. We would have to manually back it out. We have load reduction for what you are after.

WARREN GOETSCH: We are trying to report on adoption of management practices. So we really need the acres.

ELIANA BROWN: Can't you just divide and get acres?

SCOTT RISTAU: It's not a simple formula and wouldn't be that easy.

TREVOR SAMPLE: Can you can find a way to find out how many acres.

ERIC GERTH: We don't keep track. We have treated acres based on the combination of all things being treated. There are a cumulative total of acres and we have to go back into the design or job plan.

WARREN GOETSCH: Going back to FSA, one challenge was when we talk about buffers, what is definition of buffer? Is there a specific dimension?

ERIC GERTH: It depends on practice and resource concern that you are addressing. Grass filter strips, water quality and sedimentation, and length of slope all dictate the length of filter strip needed. Riparian forested buffer is a different practice so there is a different way to address resource concern.

WARREN GOETSCH: Do you have in your database info about buffers?

KIM MARTIN: It would be like what Eric is talking about.

WARREN GOETSCH: In the list of practices in your database, we would go in and determine if riparian buffer would qualify, using a buffer acre figure based on selection.

ERIC GERTH: It would be tough on acres impacted or protected. We could easily get acres implemented.

WARREN GOETSCH: Acreage of cover crop and buffer numbers are acres included in the buffer itself. If that's what we have, we need a way for us to manipulate those numbers and the first step would be which ones would qualify and which ones to include in our buffer number.

ERIC GERTH: We could easily identify what we would consider as buffer implemented.

WARREN GOETSCH: We don't try to compare acres protected by buffers; we only look at amount of acres in buffer. It's not quite the same as other metrics.

ERIC GERTH: We can easily identify buffer practices, however, not all practices are considered. It may not be a buffer practice, but a lot of practices act as a buffer. It still does the same thing.

MIKE CHANDLER: In calculating acres, acres could go down, but if taken on an easement, we should still be able to calculate.

BRIAN MILLER: How do we put this together? Is there something common between the two databases?

LISA BEJA: We have done it through GIS and worked with Natalie.

BRIAN MILLER: Is there an efficient way to tease this out to get a report?

WARREN GOETSCH: Talking about buffers.

BRIAN MILLER: I am trying to shoot for consistent units.

WARREN GOETSCH: There are different units for bioreactors.

BRIAN MILLER: Can you all get together and tease this out?

ERIC GERTH: Bioreactors are already figured. The number of acres installed means nothing.

SCOTT RISTAU: I've done very few bioreactors and cannot remember either acres or feet. They don't do acres treated. None do drainage area.

BRIAN MILLER: Can we ask you guys and NRCS to bring that data?

ERIC GERTH: The number of acres or bioreactors done?

BRIAN MILLER: Number of acres treated? Would it have to be by watershed?

ERIC GERTH: We are getting guidance from the national office. We can provide bioreactors in state, but I would have to ask national office.

MIKE CHANDLER: We can provide acres treated.

WARREN GOETSCH: We should stick with watersheds if possible. Buffers are where we should be spending our time.

BRIAN MILLER: Is it reasonable to pull that for 2015?

WARREN GOETSCH: We would want a number that exists and total number of acres treated by them.

BRIAN MILLER: By watershed?

WARREN GOETSCH: If life was perfect, sure. Does FSA report wetlands? Do we need to see a list of practices that could qualify?

MIKE CHANDLER: CP4Ds would be dependent on location. It's an upland practice and would have to figure out where the practices are. 3a, 23, 4d and 33 might be included. I've got to figure out location and where it is.

WARREN GOETSCH: Is there a way of determining that these are practices most likely to qualify as field buffers and take a look at other ones and worth the trouble trying to do extra research and could be a small amount?

KIM MARTIN: We would be able to pull out anything under CREP. Under normal continuous signup, we could look at buffers.

NATALIE PRINCE: Kim will pull out CREP acres and Mike will pull out acres expired under easement.

SCOTT RISTAU: We provide funding of 319 and we may have it in watershed format, but they may have the same information.

LISA BEJA: In GIS, it can be reported by HUC, but we may be concerned about double counting.

BRIAN MILLER: So, you will give us a report at our next meeting March 29. So the last two, we can do as a pair. We can move from cropland to grassland perennial crop. Perennial or energy or pasture hay crop with be put in on crop acres to try to get up to the 1987 number and either way is trying to measure conversion to cropland perennial cover. Last time, FSA felt like you could tease out database.

MARK SCHLEUSENER: Not sure I can get it out of census. Can we clarify again?

BRIAN MILLER: Cropland acres converted to perennial or energy crops.

MARK SCHLEUSENER: Tile crops planted to perennial crops is doable but complicated.

BRIAN MILLER: The way Mark worded it is better.

WARREN GOETSCH: A way of trying to get into an existing instrument.

BRIAN MILLER: Does FSA have data?

NATALIE PRINCE: Yes, we would have to give you a list included in the same report that I will send you anyways.

BRIAN MILLER: So when Mark, Eric, and Warren look at it, we are doing two things, cover crops and perennials.

ERIC GERTH: Misinterpreting perennial – non CRP grasses through different mechanisms. If you want to do survey, more pasture or things like that.

MARK SCHLEUSENER: Tiled acres planted to perennial crops and a list in question. CRP would be essentially 0 on tiled land.

ERIC GERTH: There is quite a bit of CRP on tiled land.

BRIAN MILLER: So what should it say?

ERIC GERTH: Collecting CRP data through FSA, some people mean CRP and some don't. Are we now double reporting?

WARREN GOETSCH: I'm looking at NASS survey added to source of the same information. FSA has on participation of federal farms programs. NASS will have based on survey participants. We will make those similar to what Mark David did originally.

ERIC GERTH: It should be either CRP or non-CRP.

WARREN GOETSCH: Yes.

MARK SCHLEUSENER: Can we read that part of the strategy out loud?

WARREN GOETSCH: Perennial energy crops on tiled-drained land.

MARK SCHLEUSENER: It should say include pasture, include CRP, etc.

BRIAN MILLER: The reason for the survey is to get to tile drained acres.

WARREN GOETSCH: We can massage it to tile drained or non-tile drained factors with what Mark David has?

BRIAN MILLER: The last one is water table management. It is not in the strategy. It felt like it might be an emerging practice. Last time, it was mentioned that 319 has useable data. It would be acres affected.

SCOTT RISTAU: Like a saturated buffer?

ERIC GERTH: Can we change it to drainage water management?

SCOTT RISTAU: We haven't been tracking on acres treated, on number of structures.

BRIAN MILLER: Like bioreactors?

SCOTT RISTAU: Controlling release of tile drainage, no.

BRIAN MILLER: It's an emerging practice and we want to show growth in practice as we go through time. John Lawrence wanted to be cautious about adding practices. The criteria that they used were ran through science assessment group and if we know acres, we calculate load reduction. This one has not been vetted yet, but we want to include it if we can.

JEAN PAYNE: We want to use peer reviewed research papers. If there has not been a paper on reduction of phosphorus, it gets loosey goosey.

BRIAN MILLER: So this group can identify practices, but don't track it until it's run through science assessment group?

SCOTT RISTAU: What about sticking to tried and true, like grassy waterways?

BRIAN MILLER: These practices are listed in the strategy.

WARREN GOETSCH: The monitoring group is putting together a plan to report on water quality changes/improvements and is not worried about grassy waterways, but we can focus on key ones. It cannot be all things to all people.

BRIAN MILLER: We can calculate significant reductions on these. Other ones are harder to do.

WARREN GOETSCH: The strategy focuses on practices that haven't been adopted but focuses primarily on nutrient reduction.

BRIAN MILLER: If we can prove nutrient reduction capabilities, we can push it through science group. So Jean if you have one, we can put that one forward.

LYNDSEY RAMSEY: Do all groups have to do the same thing, to tell a story, do we put all BMPs forward?

BRIAN MILLER: We have to calculate a load and limit to things you can measure and have numbers. And then if you want to add a narrative story, you can. We still have to do the numbers thing, but we can tell a narrative story.

SCOTT RISTAU: Can it also tell a numeric story? We calculate a load reduction with those practices and your goal of 15% of N reduction in 10 years and 45% as ultimate the goal. We should take credit for everything that we can. We might want to think about it.

LYNDSEY RAMSEY: NASS survey is asking specifically about these practices.

WARREN GOETSCH: Mark was to give update.

MARK SCHLEUSENER: Water drainage management only has knowledge of question, 4Rs. It could be how many acres drained into a system. We don't know how people use it so how can we calculate load reduction? I'm willing to ask a question about it, maybe a yes or no question.

LYNDSEY RAMSEY: People may think the term "drainage water management" means "tile-drained".

MARK SCHLEUSENER: I'm willing to try a question about what is out there and what do you know, but numerical is more complicated. I can share the document under the broad category of soil erosion which includes questions on cropland planted to cover crops and cropland where application were reduced based on soil test results. There are more questions asking about cropland where soil tests were conducted before or reduced as result of soil tests. On cover crops, there are questions on corn or soy acres planted on tile ground and corn or soy acres planted on non-tile ground in 2011 and 2015. There is one on acres where patterned tiling was installed after 2011 or 2015 was harvested. For tillage and nitrogen management strategy, question on acres of no-till/conservation tillage/conventional tillage in 2011 and 2015. NR strategy used reduce nitrogen. Then there are fertilizer application strategies on corn including fall/winter nitrogen with nitrification inhibitor, 50% or less of total, and 0% of nitrogen in fall/winter. All for corn on tiled acres. Edge of field practice for 2011-2015, tiled acres draining into bioreactors, tiled acres draining in constructed wetland, and tiled acres planted to perennial crops.

ELIANA BROWN: Mark, for wetland, is it acres of wetland or acres of cropland treated?

MARK SCHLEUSENER: Acres that drain into a constructed wetland, something that you built, but I need help phrasing the questions.

WARREN GOETSCH: Intent of cropland acres benefiting from a wetland receiving runoff.

BRIAN MILLER: Mark, anything else?

MARK SCHLEUSENER: That's the full list. I need help with process of implementing the survey. At one point, request for dataset, deliverable would include publication with numbers and second is a dataset for analyst to use for further analysis. If really needed, who would use it and what they would do. Scheduled penalties?

BRIAN MILLER: Is there a need?

WARREN GOETSCH: No. I think the main reason if we will do something statistically significant, we will only get statewide estimates. If we had unlimited money, we could get it down to a county or crop reporting district. I don't see why we can't do statewide estimates. If we get a dataset and use it, what would the purpose be? It is so expensive to consider. With statewide numbers, it will fill the hole we want, but don't need specific dataset.

MARK SCHLEUSENER: I'm going to take what I have and we need to create software to look at data carefully and clean data and be thorough to the max. Move through headquarters people and make sure it is stringent and then we can get a cost estimate. It will go slowly, we will finish the test July and receive the results in summer/winter. Mailing it now is a good time to do so. April isn't, but July is good again.

WARREN GOETSCH: This will be delayed this time, but will repeat in a year and a half and hit producers in winter on 2017/18.

MARK SCHLEUSENER: That's the right schedule to be on. But I am finalizing content. NASS people have this at additional assignment. One thing we talked about, strong coordinated publicity via corn growers, farm service agency, and department of agriculture, my opinion is that we will get good response rate. Some producers fear it will be used against them, but we should combat that with publicity.

WARREN GOETSCH: This is where everyone takes ownership. All stakeholders impressing to members to get about a % of response rates to keep cost rates down and to promote this survey will serve all of us in long term.

ERIC GERTH: We will need a set of talking points so all groups on same page with same message.

MARK SCHLEUSENER: I have some skills with outreach, but there are more here that are professionally skilled.

BRIAN MILLER: Anything to coordinate for public relations? Should we save this for the March meeting?

MARK SCHLEUSENER: That sounds right to me. Email blast and newsletter, creating talking points is great first step, agreement on timing, the rest for publicity.

BRIAN MILLER: Final items to run through, next meetings: March 29, June 14, and October 11. Make sure they don't fall off the calendar. What agenda items for March 29<sup>th</sup> meeting? 1<sup>st</sup> is report back, 2<sup>nd</sup> is dialogue about public relation talk for NASS survey are potential agenda items. Are there any other details to talk about at that meeting? If not, we will make these the points and if you think of something let us know.

ELIANA BROWN: There is a full forum meeting on February 23.

BRIAN MILLER: We will need to report out on our progress at the full Forum meeting. The other meeting is the Nutrient Monitoring Council on April 5. They will be filling out the water column. Lyndsey or Lauren will talk and Warren will talk about the land column to understand how data fits in. We did well.

JEAN PAYNE: For MRTN, can we phrase it so that we say background. Or phrase it more simply?

MARK SCHLEUSENER: All efforts would be what would be tabulated result. You gave me good input. I'm not an expert; it needs a review of question phrasing. We need to avoid obvious mistakes. Your knowledge would help me phrase question properly. I would phrase question check as best I can.

WARREN GOETSCH: Do you think you would have the initial question's draft by March?

MARK SCHLEUSENER: I can go forward with building the questionnaire and I would hope to circulate it around this group to help me get phrasing. I will take February to work on questionnaire. And would say yes, I will have initial questions drafted by March.

WARREN GOETSCH: On February 23, the full forum meets to see where he is and where we are with cycle of meetings and we can perhaps do something.

JENNIFER TIREY: Maybe a draft for focus group with farmers?

MARK SCHLEUSENER: A focus group should be good with 4-5 people in the same room with the final draft.

WARREN GOETSCH: Whatever works better for you.

MARK SCHLEUSENER: I will send the draft publication table to Eliana, and if people can say I'm an expert on this category to get a list of people willing to help and those that are knowledgeable. So I will share publication table and Eliana will send it out to get a list of people.

ERIC GERTH: Mark, then you will reach out to each individual person when you are ready?

MARK SCHLEUSENER: Yes.

BRIAN MILLER: What month for the focus group?

MARK SCHLEUSENER: Step 1, share document and people reply with knowledge and willingness to help. Step 2, I will throw out dates and people can show up or call in.

BRIAN MILLER: Thank you all I think we have a plan of action.