AGRICULTURE WATER QUALITY PARTNERSHIP FORUM

MEETING 4
MAY 17, 2016

ILLINOIS NUTRIENT LOSS REDUCTION STRATEGY | Improving our water resources with collaboration and innovation

Introductions

Illinois EPA
Lisa Bonnett (Amy Walkenbach)

IDA
Warren Goetsch

USDA-NRCS
Ivan Dozier

IDNR
James Herkert

AISWCD
Kelly Thompson

The Nature Conservancy
Maria Lemke

IFCA
Jean Payne

American Farmland Trust
Mike Baise

Prairie Rivers Network
Carol Hays

Illinois Farm Bureau
Lauren Lurkins

Illinois Pork Producers Association
Jennifer Tirey

Illinois Soybean Association
Amy Roady

University of Illinois - Extension
George Czapar and Laura Christianson

Farm Service Agency
Scherrie Giamanco (Kim Martin)

Illinois Certified Crop Advisor Board of Directors
Tom Kelley

Illinois Stewardship Alliance
Rebecca Osland

Illinois Soc of Prof. Farm Man. & Rural Appr.
Randy Fransen

Illinois Corn Growers Association
Rodney Weinzierl

Nutrient Research and Education Council
Julie Armstrong

Committee Charge

Agriculture Water Quality Partnership Forum

- Steer and coordinate outreach and education efforts to help farmers address nutrient loss and select the most appropriate BMPs:
  - Identify needed education initiatives or training requirements for farmer and technical advisors.
  - Strengthen connections between industry initiatives, certified crop advisor continuing education requirements, state initiatives, and other technical services.
- Track BMP implementation
- Coordinate cost sharing and targeting
- Develop other tools as needed
  - Consider an agriculture water quality certification program.

DEVELOP OTHER TOOLS AS NEEDED

Review of other tools discussed during NLRS development (Brian Miller)

Explored a continuum of Ag. NPS regulatory options to close gaps

- Fertilizer record keeping requirements
- Licensed fertilizer applicators
- Prescription approach (required for fertilizer application)
- Consolidated Nutrient Management Plans
- Mandatory Practices

Identified Ag. NPS policy elements acceptable to most sectors

- Nutrient management should be a systems approach
- Voluntary approaches preferred (providing a plan is in place if goals are not achieved)
- Incentives needed for practice adoption (market driven when possible)
- Producers need to see results of practice adoption (monitoring, testing, $, yields)
- **Voluntary Conservation Certification** was identified as a concept to explore further
- Exploring incentives for certification. Options include: regulatory certainty, priority for cost share and technical assistance, recognition, market advantages (eg. certified wood, organic, responsibly grown)

Recap of other state's certification programs (Carol Hays)

Certainty and Certification Programs to Improve Conservation

Carol Hays, Ph.D.
Executive Director
Prairie Rivers Network

Certainty Programs

- Created at state or multi-state level to provide regulatory certainty in the face of current and future state and federal regulations
- Voluntary programs on private lands that provide confidentiality to participants
- Set agreed to best management practices
- Require verification to prove implementation actions are taken

Basic Principles of Certainty Programs

- Voluntary
- Confidential
- Incentive-based
- Include verification steps
- Give farmers/landowners certainty against certain state and federal regulations

Characteristics

- Programs are designed to accomplish a conservation outcome (e.g. protect a resource)
  - Protect habitat for specific species
  - Water quality
- Most programs locally led with heavy soil and water conservation district engagement and technical assistance
- Programs address locally identified resource priorities
- Rely on scientifically sound practices and systems to achieve verifiable water quality gains
- Farm specific environmental risk assessment
- Confidentiality of farm based conservation plans with verification to provide assurance of implementation to achieve goals

States with Certainty Programs

- Kentucky
- Louisiana
- Michigan
- Minnesota
- Mississippi
- New York
- Texas
- Utah
- Virginia

New programs are under development in:

Arkansas
Delaware
Maryland
Massachusetts
Oregon
Wisconsin
Vermont

Program Development Steps

- Establish certainty requirements
  - Conservation BMP systems for improving water quality
- Develop comprehensive farm specific conservation plan with approved conservation systems to meet certainty requirements
  - Tailored with research based BMPs to meet local needs/conditions
  - Performance standards to achieve certification
- Education
  - Trained technical assistance (e.g. Certified Conservation Planner)
  - Initial & ongoing farmer education (i.e. LA Master Farmer Program)
- Verify maintenance of BMP's implemented
- Incorporate adaptive management for continuous improvement and to maintain certification as production systems change
- Establish re-certification timeframe for participants

Incentives for Participation

- Potential exemption or delay from future regulation
- Enhanced federal Environmental Quality Incentives Program (EQIP) cost-share or points
- State cost-share incentives
  - General Revenue
  - EPA 319 funds
- Locally available cost-share incentives
  - RCPP, MRBI, other grants, check-off programs and other investments

Verification and Evaluation

- Verify to determine if standards have been met
- Verification good for multiple years in some states
- Verification may position producer for market premiums
- Evaluate program performance, including water quality improvements
  - Performance metrics
    - Participation levels (number of producers enrolled, advancing)
    - Treatment levels (e.g. acres in BMPs, acres in various BMPs)
  - Environmental outcomes
    - Reductions in N and P loading (edge of field)
    - Increase in target fish or other wildlife populations

Potential Benefits of Certainty Programs

- Voluntary; mobilizes those concerned about future regulation
- Incentivizes adoption of desired practices
- Verification with Certification publicly acknowledges adoption
- Water quality and environmental outcomes
- Potential rewards
  - Cost share resources (federal, state, local, private)
  - Public recognition of participation reinforces desired norms
    - Michigan MAEAP Environmentally Assured Farmer
  - Marketplace rewards
    - Michigan producers tout certification to consumers
    - Louisiana rice growers with highest level of verification receive crop premiums from Kellogg's sustainability program
  - Reduced property taxes (Present Use Valuation)

Lessons Learned

- Set high standards and develop consensus on standards from state and federal agencies, university and partners
- Rely on scientifically sound practices and systems
- Need extensive outreach and education to producers about the program and its benefits
- Account for all BMPs in place regardless of how they are funded
- Make producers part of the program from the start
- Recognize the power of “Stewardship” in the marketplace
- Marketplace is seeking “simplification and harmonization” of certification programs

Conservation Cropping Systems (Mike Baise)

Conservation Cropping Systems: A Recommended Approach for the Illinois Nutrient Loss Reduction Strategy

"Healthy Soils Reduce Fugitive Nutrients"

Michael Baise

American Farmland Trust
Saving the Land that Sustains Us

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What is a conservation cropping system?

"A managed system of conservation practices consisting of Conservation Crop Rotation, No-till/Strip-till, Cover Crop, Nutrient Management and other supporting practices as needed will be integrated into a cropping system where each practice complements or enhances the others for overall improvement of the health and function of the soil resource which leads to enhanced environmental protection and production efficiency."

USDA-NRCS

2012

Why would a CCS strategy work for the IL NLRS?

- IL NLRS needs an implementation framework to reduce nutrient losses and meet our strategy goals.
- A CCS approach can be flexible, voluntary, incentive-based, targeted and measurable.
- A CCS approach can utilize existing program resources in USDA-NRCS and EPA.
- Conservation practices can be bundled and watersheds targeted to maximize CCS impact.
- A purposeful CCS implementation can proceed through existing governmental infrastructure.
- CCS can leverage private resources.

Why should Illinois public officials support a CCS approach?

Illinois is known as “the Prairie State” because of its abundance of prime soils. These precious soils are a critical strategic natural asset of Illinois and the Nation. It would be sound public policy to protect and preserve them for future generations.

Promoting the regenerative conservation cropping system approach to address agricultural nutrient losses and water pollution would have the additional benefit of improving Illinois soil health and capacity.

“A nation that destroys its soil, destroys itself.”

Franklin Delano Roosevelt

Why should IL farmers adopt CCS practices?

- Healthy soils improve root development and nutrient efficiency.
- Well developed soils improve water holding capacity and are resistant to periods of limited rainfall.
- Keeping the soil covered and with a living root system protects and builds organic matter and improves soil quality.
- Reduced tillage passes saves time, reduces compaction and fuel use.
- Healthy soils help farmers improve yields.
- CCS practices are good for business and resource stewardship.
- It is voluntary.

Who needs to be involved in CCS implementation?

- USDA Natural Resource Conservation Service
- USDA Farm Service Agency
- USDA Risk Management Agency
- US Environmental Protection Agency
- Illinois Environmental Protection Agency
- Illinois Department of Agriculture
- Illinois Association of Soil and Water Districts
- Illinois Farm Bureau
- Illinois Commodity Organizations
- Illinois Fertilizer and Chemical Association

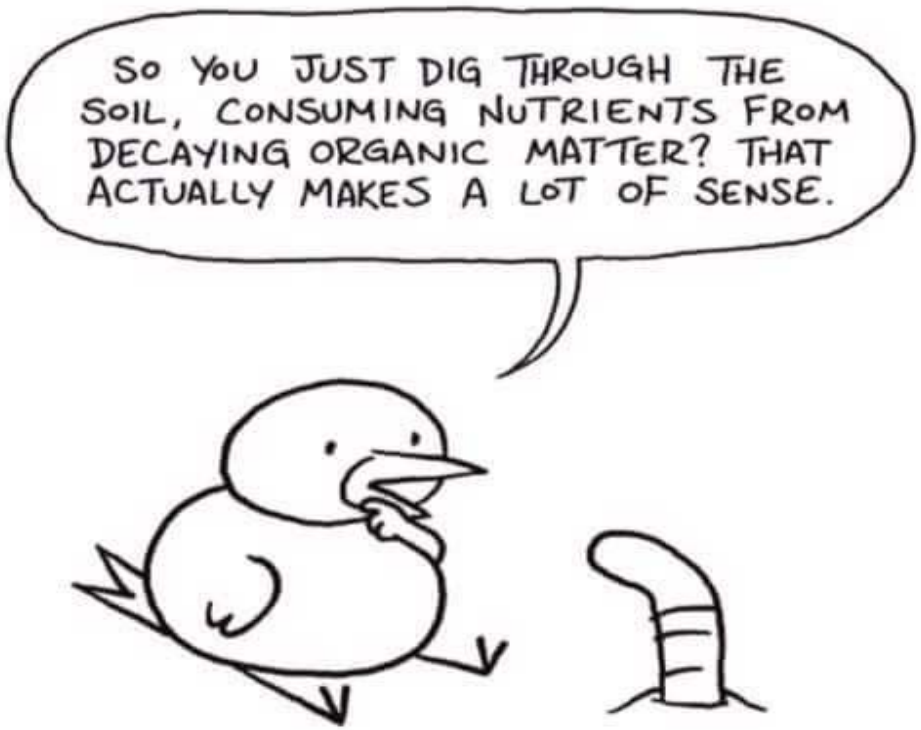
Who needs to be involved in CCS implementation?

- Illinois Certified Crop Advisors
- Illinois Council for Best Management Practices
- Illinois Cooperative Extension
- Agricultural retailers
- Soil Health Partnership
- Illinois Farm Managers
- Illinois conservation and stewardship organizations
- Illinois environmental interests
- Illinois farmland owners
- Illinois Farmers

"The wealth of Illinois is in her soil, and her strength lies in its intelligent development"

Andrew Sloan Draper
President of University of Illinois,

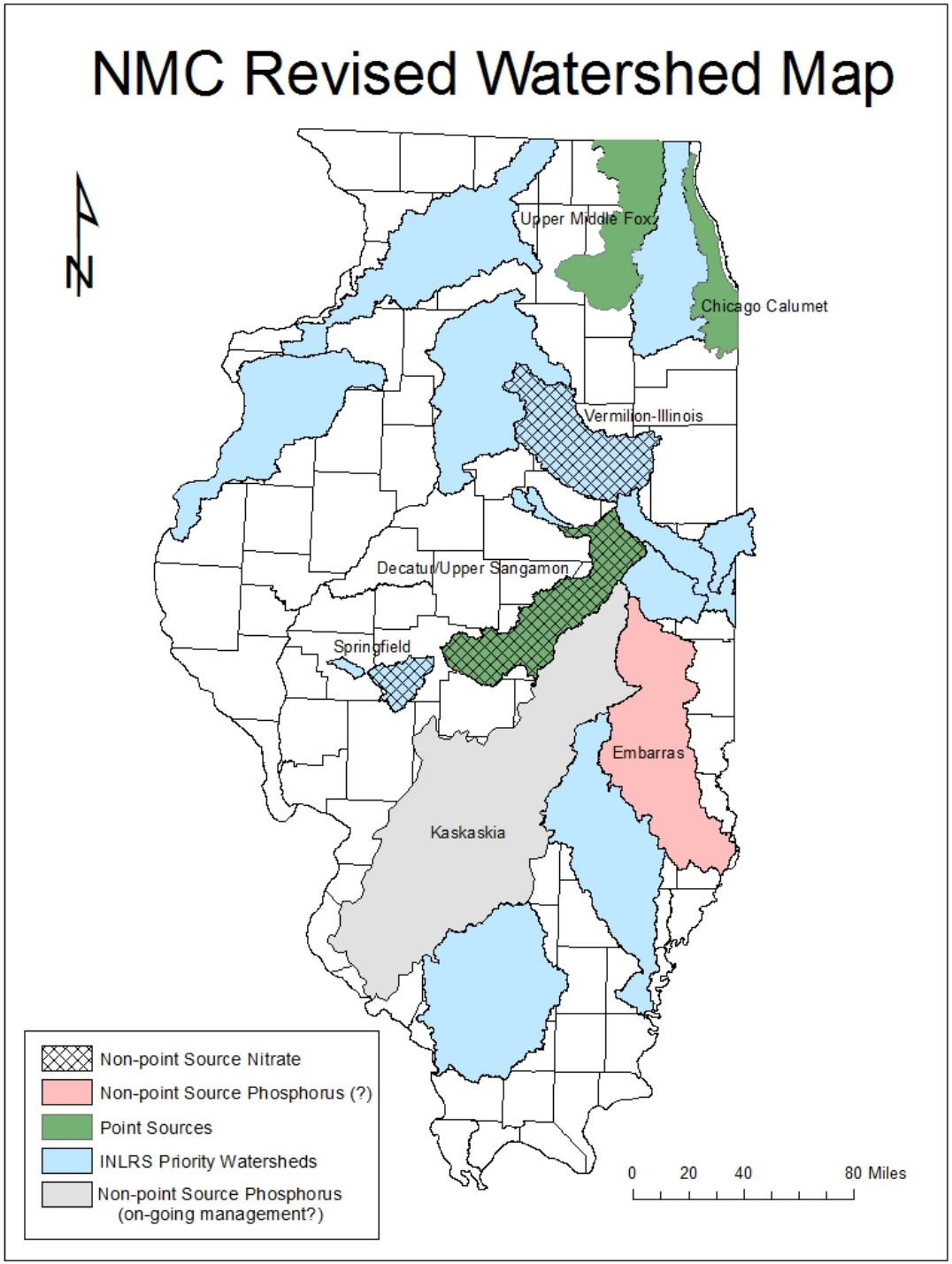
1894 - 1904


SO YOU JUST DIG THROUGH THE SOIL, CONSUMING NUTRIENTS FROM DECAYING ORGANIC MATTER? THAT ACTUALLY MAKES A LOT OF SENSE.
THE EARLY BIRD GETS THE WORM

BMP TRACKING

Priority watersheds map update (Brian Miller)

NMC Revised Watershed Map



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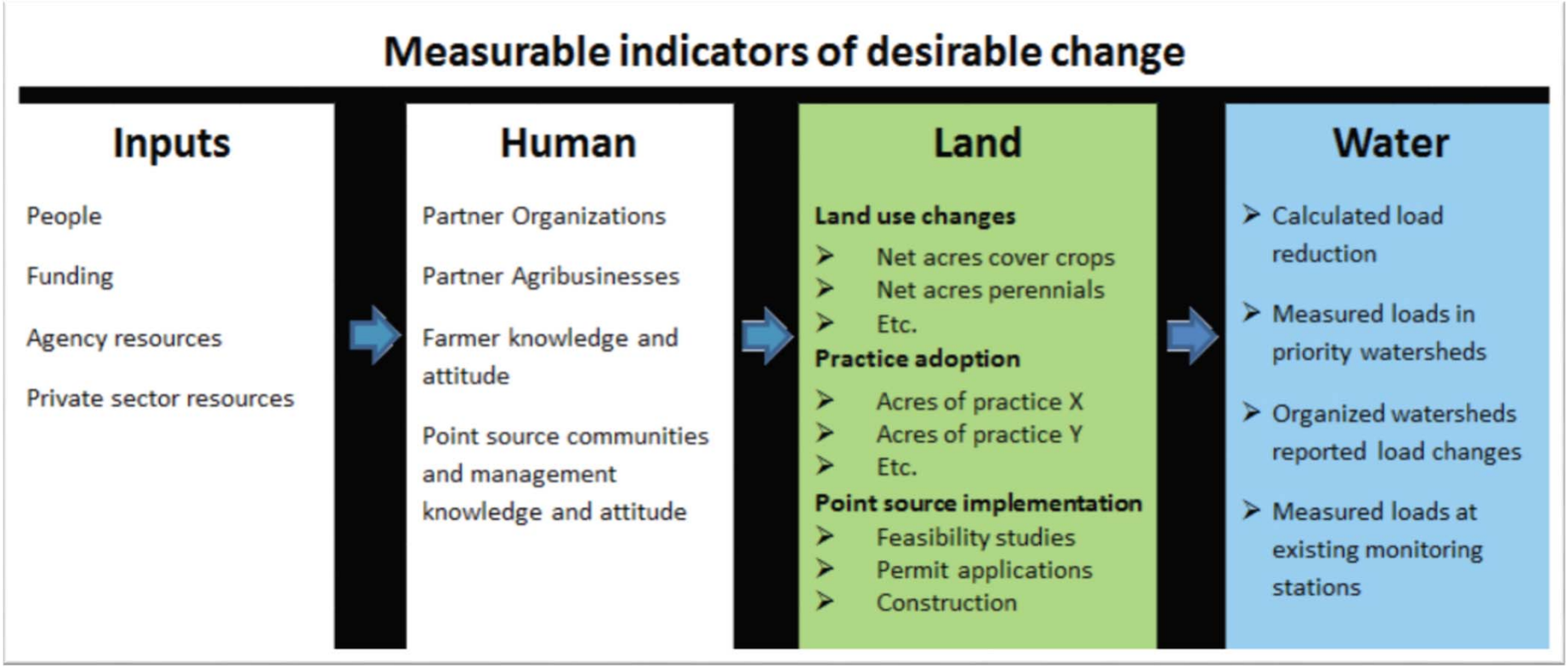
Logic model

Logic Model for BMP implementation tracking



Source: Iowa State University, Extension and Outreach, Measures of Success Committee

Metrics and what are we using to measure them

Land	*Units*	USDA-NRCS	Illinois EPA	FSA	IDNR	NASS
Red. N rate from backgrnd to MRTN 10%	*Cropland acres*					NASS Survey
Nitrification inhibitor w/ all fall-applied fert on tile-drained corn	*Cropland acres*					NASS Survey
Split appl. 50% fall + 50% sp on tiled corn	*Cropland acres*					NASS Survey
Spring-only appl. on tile-drained corn	*Cropland acres*					NASS Survey
Split appl. of 40% fall, 10% pre-plant, and 50% side dress	*Cropland acres*					NASS Survey
Cover crops on all corn/soybean tile ac	*Cropland acres*			To HUC8 level		NASS Survey
Cover crops corn/soybean non-tile ac	*Cropland acres*			To HUC8 level		NASS Survey
Bioreactors on 50% of tile-drained land	*# Acres treated*	EQIP	319 Grant			NASS Survey
Wetlands on 25% of tile-drained land	*Acres wetland/ # Acres treated*		319 Grant	To HUC8 level	To HUC8 level	NASS Survey
Buffers on all applicable crop land	*Acres buffers*		319 Grant	To HUC8 level	To HUC8 level	
Perennial/energy = to pasture/hay ac	*Cropland acres*			To HUC8 level		NASS Survey
Perennial/energy crops 10% tile-drained	*Cropland acres*			To HUC8 level		NASS Survey
Water table management	*# Acres effected*	EQIP	319 Grant			

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FSA update – Kim Martin/Natalie Prince

Land Measures Table

VARIABLES BEING COLLECTED BY FARM SERVICE AGENCY (FSA)

Annual Crop Certification Data

To be eligible for certain FSA program benefits, producers must file an accurate and timely acreage report (FSA-578) for all crops and land uses, including failed acreage and prevented planted acreage.

	2011 (Baseline Year)	2015 & 2016	2017
Cover Crops	Crops Certified with Intended Use: • Cover Only (CO) • Green Manure (Gm)	Crops Certified with Intended Use: • Cover Only (C) • Green Manure (Gm)	Crops Certified as: • Cover Crop (Then select from one of 4 categories: Cereals & other grasses, Legumes, Brassicas & other broadleaves, Mixtures)
Perennial / Energy/ Pasture	Crops Certified with Intended Use: • Forage (Fg) • Graze (Gz) • Left Standing (Ls) Certified as CRP: • CP1 – Introduced Grasses • CP2 – Permanent Native Grasses • CP4D – Permanent Wildlife Habitat • CP8A – Grassed Waterway • CP10 – Vegetative Cover – Grass – Already Established • CP15A – Contour Grass Strips • CP15B – Contour Grass Strips on Terraces • CP25 – Rare and Declining Habitat • CP38E – SAFE Grass • CP3 – Tree Planting • CP3A – Hardwood Tree Planting • CP38C – SAFE Trees		
CRP Wetlands	Certified as CRP: • CP9 – Shallow Water Area • CP23 – Wetland Restoration • CP27 – Farmable Wetlands Pilot Wetland • CP30 – Marginal Pasture – Wetland Buffer • CP31 – Bottomland Timber Establishment on Wetlands • CP38B – SAFE Wetlands • CP39 – Farmable Wetland Program (FWP), Constructed Wetland		
CRP Buffers	Certified as CRP: • CP21 – Filter Strip • CP22 – Riparian Buffer • CP28 – Farmable Wetland Pilot Buffer • CP29 – Marginal Pastureland Wildlife Habitat Buffer • CP33 – Habitat Buffer for Upland Birds • CP38A – SAFE Buffers		

NASS Survey update – Mark Schleusener

NLRS Survey

Status report, May 17, 2016

Mark Schleusener, USDA – NASS

Survey Approved at NASS HQ

- Sample size 1,900
- Margin of error 10%
- Expected response rate is 70%

Client will be U of IL Extension

- MOU between NASS and U of I
- Funding from CBMP and ILFB
- Bottom line cost $56,760

Survey Timetable

- Mailings July 1 and August 1
- Some telephone calling August 15 – September 1
- Editing and Data analysis through October 15
- Disclosure review begins October 15
- Summary and publication through December 1

IDOA Responsibilities

- Cover letter
- Publicity
- Printing and folding cover letter
- Printing and folding questionnaires

NASS Responsibilities

- Pre-survey tasks
  - Selecting the sample
  - Questionnaire design
  - Creating tools for editing, analysis, and summary
  - Mail out

NASS Responsibilities (cont.)

- During the survey
  - Data entry
  - Survey management
  - Editing and analysis
  - Summary and Publication
  - Print and mail out results

Next Steps

- U of Illinois Review

NASS Survey Communication plan update – Becky Clark

Drainage Water Management – Laura Christianson

NRCS AND STATE TECH SUBCOMM UPDATE – *IVAN DOZIER*

Next Steps

Schedule of future AWQPF meetings

Jun 14, 2016 (Tech Subgroup)

Sep 27, 2016

~~Oct 11, 2016 (Tech Subgroup)~~

Comments from the Floor
(time permitting)