

Third Party Assessment, Verification and Continuous Improvement

Pilot Program Results
Observations
Conclusions
Questions

Pilot Program Results: No BMP to Existing

Average Percentage Reduction

| Farm Type | # of Farms | Total Nitrogen | Total Phosphorous* |
|---------------|------------|---------------------|--------------------|
| Beef | 7 | 22% (9-42%) | 38% (11-51%) |
| Beef-Poultry | 13 | 17% (6-34%) | 26% (12-49%) |
| Dairy | 21 | 17% (5-36%) | 26% (8-48%) |
| Dairy-Beef | 2 | 18% (9-27%) | 21% (21-21%) |
| Dairy-Poultry | 2 | 15% (14-15%) | 20% (18-22%) |
| Poultry | 5 | 14% (8-19%) | 19% (12-26%) |
| ALL | 50 | 17% (5-42%) | 26% (8-51%) |

*CBP watershed model does not consider existing soil P levels so are from reduction estimates due to changes in current management (movement to P balance)

Percent Reduction - Existing to CIP

Percentage Reduction from Existing to CIP

| Farm Type | # of Farms | Total Nitrogen | Total Phosphorous |
|---------------|------------|----------------|-------------------|
| Beef | 7 | 12% | 19% |
| Beef-Poultry | 13 | 12% | 26% |
| Dairy | 21 | 20% | 25% |
| Dairy-Beef | 2 | 13% | 25% |
| Dairy-Poultry | 2 | 23% | 39% |
| Poultry | 5 | 20% | 33% |
| ALL | 50 | 16% | 26% |

Pilot Results

Percentage Reduction from No BMP to CIP

| Farm Type | # of Farms | Total Nitrogen | Total Phosphorous |
|---------------|------------|----------------|-------------------|
| Beef | 7 | 31% | 51% |
| Beef-Poultry | 13 | 26% | 45% |
| Dairy | 21 | 34% | 46% |
| Dairy-Beef | 2 | 28% | 40% |
| Dairy-Poultry | 2 | 34% | 52% |
| Poultry | 5 | 31% | 46% |
| ALL | 50 | 31% | 47% |

Aggregate CIP Recommendations

New BMPs in CIP (Acres in CIP Scenario minus Acres in Existing Scenario)

| Farm Type | Total # of Farms | Commodity Cover Crops | "True" Cover Crops | Continuous No-Till | Grass Buffers | Stream Fencing ≥35 ft (Forest Buffer) | Stream Fencing ≥35 ft (Grass Buffer) | Stream Fencing <35 ft (Grass Corridor) |
|---------------|------------------|-----------------------|--------------------|--------------------|---------------|---------------------------------------|--------------------------------------|--|
| | | Acres | Acres | Acres | Acres | Acres | Acres | Acres |
| Beef | 7 | 0 | 93 | 77 | 0 | 1 | 21 | -11 |
| Beef-Poultry | 13 | 200 | 98 | 484 | 7 | 0 | 31 | 0 |
| Dairy | 21 | 1771 | 479 | 3243 | 11 | 4 | 22 | -4 |
| Dairy-Beef | 2 | 0 | 0 | 252 | 0 | 0 | 11 | -3 |
| Dairy-Poultry | 2 | 25 | 0 | 114 | 0 | 0 | 5 | 0 |
| Poultry | 5 | 75 | 154 | 157 | 0 | 1 | 0 | 4 |
| TOTAL | 50 | 2071 | 824 | 4327 | 18 | 6 | 91 | -14 |

Observations

- Concept of third party assessment resonated well with farmers
- Private sector, confidential assessment well received
- Incremental continuous improvement with defined target and quantitative assessment was well received
- As long as logical and consistent, use of model/software to *estimate* loads was generally acceptable

Observations (cont'd)

- Farmer had been given message that basic conservation or having “permit” meant they were doing all needed
- Local, state and Bay Program BMP definitions and expectations vary
- Implementation, operation and maintenance consistent with definition used with efficiency critical
- For most animal operations, need alternative uses for manure/litter

Conclusions

- Substantial existing practice implementation but not close to level expected by TMDL WIPs
- Needed reductions achievable on most farms, but
 - Need alternative uses of manure
 - Will require widespread BMP implementation
 - May require some changes in cropping systems and limited, strategic land retirement
 - Hardest for animal ag but hard for all
- Practices need to match “efficiency definitions”

Conclusions

- Third party assessment, verification and continuous improvement can provide “ag certainty” or “reasonable assurance” and acceptable to farmers
- Independent party not involved in farm business or BMP implementation most credible assessors
- Incremental approach with verified continuous improvement allows farmer to “transition to success”
- Must pay cost of assessment and verification and increased implementation or operation cost to farmer

Questions

- Who will pay for this service?
- Can state or feds regulate assessors and CIP plan writers to assure quality and consistency, rather than farmer?
- Can Districts/NRCS be implementers and funders for CIP practices with ongoing third party assessment of implementation progress?
- Given current budget realities, can this offer “ ag certainty” or “reasonable assurance”?
- ***YOUR COMMENTS AND QUESTIONS***