

Nutrient Strategy Policy Workgroup
Meeting -- August 8, 2013

IEPA has contracted with Univ of IL to provide info on baseline conditions.

USEPA has given general framework. Final doc will be submitted to US EPA. No formal approval process, but they are looking. Small type handout is what EPA requires.

Much of the framework are things we are already doing. Will use this to report to the public about what is happening.

Handout for outlines what we will want to accomplish. Power point one.

TODAY

Examine charge and scope

Presentation from Mark David about loading and trends

How are we going to state our goal?

Next Meeting September 18 in Bloomington

IEPA perspective; instate water quality as well as IL contribution for Gulf of Mexico hypoxia and strategy should address both. No disagreement.

Approach assumption: using science assessment and technical info to inform action plan development. No disagreement from group.

Question: Jean (feed grower?) how do we verify IL contribution to hypoxia? Answer: hear from Science team and use that to inform the policy. Probably can't directly tell, but will probably look at baseline, and figure out how to reduce to to 45% reduction target. Success is reduction from what we see in our rivers.

From Marcia: What should the depth of the strategy be?

Iowa deferred to another group. We probably have that knowledge as a group.

Dennis McKenna: don't have the resources to do watershed by watershed. There is more important to have local people. Draw on science from U of I. In statewide document, id priority watersheds for N and P. And ID BMPs. Let informed local people

Kim Knowles, prairie rivers. Plan has to have statewide policy and plan has to allow for watershed approach. Happening in certain places already. 3rd party TMDL process acknowledged.

?? Maybe easier time ID watershed categories. Those with similar nutrients. High priority. Urban watershed. 2-3 categories of ag watersheds. Maybe easier to take that approach.

Marcia -- certain actions and elements that need to happen. Want this group to be comfortable deciding what the state wide actions should be rather than creating and deferring to a 3rd party group.

?? Ag rep Anything successful will need to be grassroots. Can't tell anyone what to do. Will get better results if we bring watersheds to us rather than imposing on them. Watersheds might be hungry for this kind of question. Marcia: Providing info at watershed level understand water quality situation is and what affects it and BMPs. then dialog about what is important for a specific watershed. And being able to provide data and info. these are strategic outreach elements.

MARK DAVID's PRESENTATION

Develop science base assessment

today current conditions in IL and point and non point. Nitrate and total P Load from major river basins.

Compared nutrient load between 80-96 and 97 to 11 to determine direction of load. Also looked at ag practices to lump things.

Point sources P analysis

1500 point source of P . in ICIS database. Data on 43 of the most major.

For N. IAWA data. Useable data from 31 facilities. Only 300 N sources in ICIS.

Point source N loads:

8 major rivers used to get load for state. accounts for 75%. IL River dominates. 34,000 or 39 tons of n per year come down IL river.

P loads:

Total P. 7.5-8,000 tons per year. Bulk from major industries. Top 100 are the bulk of the story. IL river dominate. Industrial sources with uncertainty of magnitude.

Then how much is leaving the state. Used USGS flow data. 8 major rivers.

No perfect way or standard method to estimate load. Used interpolation because simple and works well for large rivers, but for P has limitations at high flows when most loss occurs. In end used weighed regressions. Did SRP and total phosphorous.

Trends: Nitrogen hasn't increased much. Reactive P has gone up quite a bit. Total P also up. IL river dominates.

16-18% of nitrate load is from point sources. 48% of total P is from sources. The comparison is the we want to reduce from 183 for nitrate and 15.5 for total P.

How does our load compare to total Mississippi river. We contribute about 20% of nitrate load and 11% for P.

IL loses 16 kg per hectare per year over every acre in the state N.

2 lbs per acre per year lost in P. About 1/2 and 1/2 dissolved v particulate P.

Data by river to help target sources.

Point and Ag. Ag dominates the nitrogen. For P the Illinois and Rock is mostly point. More split than N.

Dissolved Reactive P is higher and more variable in recent years all through the North Central region. No one really knows why this is happening. Has happened in other places too. Lots of potential reasons, but nothing definitive. Maybe more intense rain in winter and spring. Is it lose of surface supply P. Most commonly thought to be runoff of unincorporated P. No reason to think point source has gone up for any reason. Most point P is reactive and is the "good stuff." but there is an increase in corn acres and decrease in soybeans. But would think more would run off of soybeans. Ohio is spending a lot of money to try to figure this out. Most critical for them. Not sure if surface applied is the answer.

45% reduction from 80-96 loads. Nitrate N target is 100,000 tons n per year. P is 85000 tons P per year. It is a pretty big reduction.

The only year we have met the goal was in the 1988 drought year. Haven't met it in the past naturally.

Looking at HUC -8 and 303d list now to help us find where we want to focus. There are reservations from the Group. The IAWA folks have reservations about the list. Amy asked about using the 305B list instead. Maybe more encompassing impairment list.

They divided the state into 9 ag areas based on where geology and land use conditions. Based on MLRAs.

He is not focusing on point sources. Looking mostly at non point. thinking that is most significant.

BACK to MARCIA

Presentations and info on website. www.epa.state.il.us. on left chose water. Right side is nutrient issues. Live now. March presentations are up.

Final discussion point: articulating the goal
Framework elements. ID numeric goal for strategic elements. As we go through watersheds, ID TMDLS, those would give us goals

National goal for science advisory board is 45% from baseline. As stakeholder discussion, that is a stretch goal.

Is there a different way to articulate a numeric goal?

Q does it have to be a single point? Or can it be a scheduled goal. Marcia: we can invent what is useful to us.

States so far are shooting for 45%. If we do the technical analysis to see what it takes, we have to see if we can do it.

How deep are we digging in? How feasible is it? Marcia -- see what they numbers Mark comes up with are.

Warren: walk away from 45% . Why not something simple like 25% or 50% Numbers required to make so many assumptions. It is arbitrary. The goal should be meaningful for us. Not just for EPA. Why not use simpler number. Or not to take a %. Just make it a number. or participation goals. X% of best BMP on X acres. Marcia: that's an activity measure. Output vs. outcome.

Is it achievable to document reduced pounds coming out. Marcia: IDing the year is the tough one.

Jean: Maybe a goal for individual producers trying keep it on their land. Ask a lot of farmers to do something small. If we ask too much, won't get anyone to try. MARK: don't tell producers about %. Just education about what practices will work best in these areas. Metric to Mark that says we make it is lbs going down the river. And we can measure that and check the slope.

Marcia: Conn set their goal based on optimal yield per acre depending on use -- ag, forest, or urban. Questions about how they measure.

Maybe articulate in this way. For the purposes of analysis, U of I will look at 45%. and see where it is. Really the goal is a downward trend.

document can be living. and the goal can be incremental.

We have spent a lot of time focusing on point source control. like 45 years. We are probably looking at that long to focus on nonpoint.

Ron NRCS?? Last speaker. Master Farmer program. Based on what LA has in place. Certified producers.