DRAFT NOTES
Illinois Nutrient Reduction Strategy Policy Working Group Meeting
19 February 2014: Innovative Approaches
1 pm to 4 pm
Orange and Blue Room, Illini Center
200 S. Wacker Drive, Chicago, IL 60606

Summary:

I. Introduction
II. Nutrient Trading—Dr. Michelle Perez, World Resources Institute
    a. Please see PowerPoint presentation
III. Environmental Utility—David St. Pierre, Metropolitan Water Reclamation District of Greater Chicago
    a. Addressing nutrient pollution is not part of the mission of any organization in Illinois—need to new paradigm
    b. Developing an environmental utility will provide:
        i. Funding mechanism
        ii. Mission to motivate and address nutrient/clean water problems in state
    c. People should pay for what they use of the natural environment
    d. Funding models such as 911 fee or Minnesota-style Clean Water Fund tax
    e. Managed by a private board—not a government entity
    f. Could be a means of industry innovation and economic development in Illinois
        i. Serve as a market force
    g. Should be developed by and come from the people of Illinois
IV. Facilitated Discussion:
    a. Nutrient Trading
        i. Trading could occur at a watershed (i.e. Mississippi) or statewide-scale
        ii. Biggest strength in theory is lowest cost per pound reduction
        iii. Require farmers to achieve own 45% reduction in nutrient runoff before participating in trading
            1. This would be a hard reduction to achieve for P
            2. Difficult to set baselines
        iv. Has potential to bring unregulated community (farms) to table
        v. Many difficulties to overcome
    b. Watershed Targeting
        i. Study supports ideas suggested in earlier policy working group meetings
        ii. Where does the money come from to support this kind of targeting?
    c. Environmental Utility
        i. Why a utility?
            1. Is a concept people understand—service provider yet without built infrastructure
        ii. White paper is being developed
        iii. Could be incorporated into the nutrient reduction strategy

iv. Bypasses the documentation and certification needed for trading
v. Is additive—municipalities will still pay for improvements to achieve nutrient reduction
vi. Provides more effective tool than raising sewer rates, levels playing field between rich and poor treatment plants

d. Hybrid: Cost Share
   i. Not trading credits, but paying for BMPs
   ii. Environmental utility could act as a clearing house for projects

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Complete Notes:

I. Introduction

a. Policy Working Group roll call
b. Announcements

II. Topic: Innovative Approaches

a. Nutrient Trading and Watershed Targeting: Dr. Michelle Perez, Senior Associate, World Resources Institute (see PowerPoint for complete presentation)

i. Questions:
   1. CEAP (from NRCS) models based on specific practices or watershed scale?
      a. Yes, treatment options based on practices (APEX—field scale)—National assessment used SWAT—combine these two models, can account for practices and look at watershed scale practices
      b. CEAP look at actual reductions?
         i. No, hypothetical and predictive—not an estimate, that's what water quality monitoring is for to measure what is accomplished at end of the day
   2. In Illinois over 50% of farmed property is cash rent. Can trading work in this kind of setting?
      a. Public service campaign from farm industry representatives—need revenue sharing between producer and owner. Could be a quick and easy conversation
   3. NRCS model CEAP—national scope—hired university groups around nation to address these. Selected watersheds with long NRCS involvement, try to determine effects of practices over years. Website with CEAP data and all watersheds, but it's not a continuing program
      a. CEAP watershed assessment projects and this project were part of the National Cropland Assessment

b. Environmental Utilities in Illinois: David St. Pierre, Executive Director, Metropolitan Water Reclamation District

i. Intro: 1908 Teddy Roosevelt held first conservation congress—recognized a growing nation abusing natural resources, important to conserve these so have something to pass along to children. States that in 1787 Philadelphia all the state representatives met for a waterways conference, and when they ended, they produced the Constitution. Now 100+ years later still wrestling with water resources (Conservation as a National Duty: http://voicesofdemocracy.umd.edu/theodore-roosevelt-conservation-as-a-national-duty-speech-text/)

ii. Background: Conversations with farmers and utility leaders (US Water Alliance, Johnson Foundation) a dialogue between two groups to address nutrient problems. Engaged in these conversations are regulators, environmental groups, drinking water providers—how do we move forward on this issue and solve this problem?

1. First meeting—we were asked what do you expect to receive?
    a. Consistent statement: we need a leap, step forward to resolve these issues. A different way to look at the issues. Everyone dealing with these nutrient issues for entire careers
2. Ex. 6-year-old thinking cap: we get caught in a paradigm, realities of life—so to think about environmental utility, look at things outside of traditional method of addressing nutrient problems

iii. Two ways to solve problems:

1. Landing on moon—very straightforward, not that hard to solve that kind of problem. See problem, look at shortest/easiest way to solve problem
2. Nutrient problem is a straightforward problem. We have technology, we have understanding, but there are other issues—the environment we're in

iv. Environmental utility—paradigm shift

1. Doesn't dismiss thoughts just discussed: adaptive management
2. Other problems for budgets: CSOs, flooding, invasive species
3. Is about mission—who is responsible? Current paradigm hasn't defined it that well.
    a. Clean Water Act give mission to local utilities to treat wastewater—gave money to establish those
        i. Compliance officers in Chicago who were supposed to monitor industry discharge—working to decrease bribe offerings

v. Arguable if at the crisis state in nutrients
    1. Residual issues in society—neighborhoods in S. Chicago with 30% unemployment—how to address industry loss?
    2. Mission is very effective means to accomplish goals
        a. Fight over nutrients—who's fault is it, and who is going to pay?
            i. Not a lot of change has happened—not much progress
            ii. Missing: mission
        b. Trading option—might compare to extortion
        c. But mission is clear cut—farmers have a mission: goal by 2050 to double food production—need environment where people eat
            i. Mission doesn't counteract clean water
            ii. Need to recover the water used to produce crops and recover those nutrients
        d. Don't just need money—need an organization responsible, from a larger regional perspective, for the health of watersheds
            i. Not from a regulatory perspective but from a water quality mission standpoint
        e. Starting to look at conservation—an "add on" value. Not really a value for individuals in the environment—so biggest shift in thinking is that the environment provides a value to every person on the planet, so it's right for everyone to pay an environmental fee
        f. How much do you pay for cable? —Amazing that assign more value to this than the environment
vi. How much of the environment does one person use?
    1. All benefit from clean environment—makes sense that we all pay for it
    2. Discussed this idea with multiple stakeholders—lots of buy-in
vii. IAWA white paper
    1. Way Illinois's population is located
    2. Regional USEPA is biggest hindrance to trading
    3. Cost estimates are high: $75K/person
    4. Council of Mayors are in revolt for the cost of regulation already—not because it's not the right thing to do but because expensive
    5. Farming communities—spread out, not heavily populated—where most N running off, small population base to address problem
    6. Are nutrients the last horizon for clean water?

        a. No, many more items that will require extensive investment
    7. $5 per household in state of Illinois: $300 million to tackle nutrients
        a. Not just a money raising entity—must have a mission to solve the problem
        b. Provide both the mission and the means of achieving it

viii. Many concerns/problems raised
    1. National survey asks people how much willing to pay for environment: $252/year
    2. Unsure that this money should go to yet another government utility
        a. Farming communities prefer this money go to the a private entity
        b. Concern about getting to money needed to help is difficult—very bureaucratic—government wants to know how spending money
    3. That kind of money invested over Illinois over a 5 year time period reach 45% reduction
        a. May be an in-stream lag time

ix. How does this work:
    1. California—if farmers participate in "watershed club," receive a little relief from enforcement. If not taking action, will be regulatory pressure
    2. David Taylor—adaptive management—Madison, WI utility. Look at every sector of community to look at reduction goals to watershed—convinced that can work
        a. But what if there isn't someone like this in every watershed?
        b. So a utility is available, it owns the mission, not an individual

x. Drainage districts may need a new purpose—Iowa looking at how many address nutrients
    1. Doesn't exclude involvement with utilities or farmers—must be a group of people looking at water quality in basin
    2. But have overarching utility with mission and is funded
    3. Chicago in unique position—don't need monetary support—not about this
    4. AG REE—collaborative approach in watershed—did some great work
    5. Final result: must have local watershed involvement

xi. Market is a driver—reason technology doesn't develop quickly in wastewater—don't want to take chances and usually wait until made to address issue

1. Utility might be a different approach—would want to be at the front of the problem, leading change

xii. Possible funding models:
   1. $0.75 on cell phone bill for 911 centers in Illinois—board that oversees this
   2. Minnesota passed ¾ cent tax for Clean Water Fund
   3. Idea would benefit from being presented from public than politicians. Politicians having the courage to go for rate increases is usually the problem

xiii. Why would everyone in the state want to address this?
   1. Marketplace is a driver—technology development, people will come up with ideas because funding is there
   2. Private marketplace will stimulate advancement
   3. Trading program is not a real market

xiv. Economics
   1. Need an industry in this country
   2. Other countries in desperate need of environmental technology i.e. China destroying its environment
   3. We can be a international leader
   4. What better to invest in than the environment?
   5. Would be an export
   6. A possibility that should be explored

xv. Science, data, and monitoring
   1. Must confirm results
   2. Labs that can do work and confirm information
   3. Spending money without results—want money to be used properly

xvi. Board for utility
   1. Representatives from environmental community, utilities, industry, regulatory community, academic community

xvii. Why would people be interested—how to gain support in community?
   1. Ag community: would prefer to stay in food production, not in nutrient control
      a. Farming is a science these days
      b. Belong to a watershed club = safe haven—but, must belong and participate
      c. And don't have to pay for what doesn't make sense
      d. Don't have to fund everything
   2. Utility operator
      a. All the issues coming down the line for water quality, because is a regulated community, there is pressure on this group
   3. Business and industry
      a. Understand issues of competing on global market with pressure on environmental stewardship

4. Environmental community
    a. Would like to see progress
    b. Solutions—see something work
5. Regulatory community
    a. A solution that might succeed
6. Municipalities
    a. Many regulations coming down the line—how to get these accomplished?
7. Local citizen
    a. Don't do this right, could do a lot of damage to food costs, to state economy
    b. Big difference between today and the 70s when CWA was implemented
        i. General environmental concern is pretty prevalent
        ii. Have a society that understands the importance of this issue—collectively agree that clean water and affordable food are important
8. May address the problem in an innovative way

xviii. Questions:

1. Talk to legislatures about this?
    a. Think the stakeholders need to agree first—answer the questions on how this would work first
    b. Still drafting the idea—the answer has to come from the community
    c. Step 1: agree a good approach
    d. Step 2 would be idea to present to legislative communities—need the support of the farming community, common citizens, regulated community, industry
    e. Public ballot or something to move through Springfield
    f. Discussed ICC being agency to set rates—already a public utilities
    g. Lots of details to discuss—not ready to put before a legislator
2. How does this tie in with regulatory initiatives?
    a. Adaptive management is best current system
    b. Of course agree on voluntary approach
    c. Getting into the business is first step to planning
    d. Looking at Fulton Co. projects—lab to examine ideas
    e. If don't include these ideas—then some of the incentives go away, go too far down the road

3. Science assessment estimates $700 million for 45%, but if environmental utility, all kinds of things come up—so what's to prevent other priorities squeezing nutrients out?
    a. Nutrients are hot issues right now—moving the needle on nutrients isn't happening
    b. But once we hit nutrients, why couldn't the utility remove every stream from 303d list
4. Point source meeting—we have a mission, but no money—State Revolving Fund didn't expect it to fund nutrients. If the money and mission are available so might achieve goal. Equate to space program—can't calculate the preliminary investment. Can't calculate the environmental return on investment. May be some innovative ideas

III. Discussion:

a. Nutrient trading
    i. Assumption that P would be limited in Illinois because watershed based—but a significant portion of plants that need to remove P will be doing so to meet 45% goal, so a statewide or Mississippi-basin wide goal should be employed
        1. Two different scales at which trading could occur:
            a. Gulf of Mexico and entire Mississippi watershed. This would result in spending state money out-of-state
            b. Statewide trade
            c. Intermediate—some combination of the two
    ii. Big strength in theory is lowest cost per pound reduction—but need to set a baseline for agriculture—also mechanisms to incentivize agriculture
    iii. Before a farmer can participate in trading, would have to hit 45% reduction. That's it's a radical concept
        1. But in Illinois it's going to be very hard to get that kind of reduction in P
        2. The biggest concern is setting the baseline. Everyone has a goal that they need to reach, and trade pluses and minuses from goal—but there is nothing for agriculture to hit 45% without something with teeth like a permit to point source—unless just letting agriculture sell credits to point source—that makes it a one way
    iv. Could split the difference between MRBI and statewide, but what is the water body trying to address. Allow trading in state of Illinois only and water body is Gulf. Where it would get restricted is where point source and the trading are to establish CWA. All the wastewater treatment plants now have P reduction goals, if set up trading production for Gulf, could trade with farmers anywhere in state, but should be restricted to keeping to watershed if

discharging to water body with numeric P limit—then local discharger must be concerned about the local water body. Which are the wastewater treatment plants discharging to impaired waters? Would have to change focus from Gulf of Mexico to local bodies—then must look to willing partners in local watershed
    1. Yes, upstream-downstream is a big concern
v. Concept of additionality is important if water quality goal/specific numeric target—science team needs to identify baseline (starting point, what emitting now). Each farmer has to do his/her fair share to reach trading eligibility standard—if don't, trading away water quality goal
    1. Many of these watersheds could accomplish these water quality goals. Still a big price tag—but may not need everyone to participate
    2. Is a way to get farming community to participate, because they are not regulated?
vi. Point Source efficient at removing P. Farming will have hard time reducing P—N is more available to farming for reduction
    1. This might result in point source to point source trading
    2. If a low number, would be very hard for point sources to reach number and generate credits
    3. Long Island Sound has one of the best point source-to-point source trading analyses—saving a lot of money, too
vii. Is there a model of point source to NPS?
    1. Lots of piloted-style projects with differing degrees of quality, success
    2. One that is successful?
        a. Not really. They are all in different stages—WRI
viii. What about wetlands restoration as credits? Have we looked at this?
    1. Got expensive
    2. Fish and wildlife objections
    3. Might not work in Illinois
    4. Ran into regulatory issues. Also, must be before watershed to remove nutrients—but wetlands need to be part of implementation
    5. If the economics work, could hijack the nitrogen. In theory could install the wetland anywhere between Chicago and Gulf of Mexico
    6. The idea works, but maybe not with big wetlands
    7. Might be useful and cost-effective in certain situations

b. Watershed targeting
    i. Already discussed targeting in Illinois nutrient reduction strategy
        1. What are measures of success
        2. How to measure local water quality

ii. Nice to see the research study that supports most people's opinions of the strategies we support
iii. Where does the money come from without MRBI?
    1. Previously with EWG—assessment for EQUIP (?)—IL used those funds for targeted watersheds
    2. Can come from state use of EQUIP funds. Nothing preventing using NRCS money, can apply for more MRBI projects and RCPP—not known yet—hoping to have RFP out by April 1—a year to discuss and respond but unsure at the moment
    3. That pot of money is still for farming community—how do other groups provide money for this?

c. Environmental utility
    i. Why a utility? Would there be a separate utility bill?
        1. Lot of discussion and heartburn over the term "utility"—but the concept developed is that a utility is something that everyone understands
            a. Would there be a separate bill from that entity?
                i. Looked at a lot of different models—Minnesota has a tax, it could be a subsidiary of another utility, it could have a small staff—concept is that everyone has a share in paying for the environment
    ii. Is there or will there be a written document about environmental utility concept?
        1. Johnson Foundation and water workgroup about utility idea
        2. The district has produced one about how might work for Illinois
        3. They are starting-point documents
        4. For something to become practical must have some universal ownership, so trying to get broad buy-in
        5. Needs to be discussed by broader community
    iii. How does the timeline of this match with nutrient strategy? Especially if an implementing mechanism of strategy?
        1. If Illinois is working toward this, establishes a funding level in the strategy and including a timeline for a utility doesn't seem problematic
        2. A lot of hurdles
        3. But as part of the strategy—seems like that might be pretty easy to write-in
        4. The same question applies to trading—how would this concept work in timeline of nutrient strategy?
        5. Timeline for getting nutrient reduction strategy is shorter than the full discussion needed for a utility or well-developed concept of trading

a. But worth a mention as a potential tool in the toolbox—the goal of the strategy is to develop tools to address nutrients

iv. Idea of environmental utility is that it bridges the gaps in the nutrients—no pointing fingers, we're all in this together—idea that local people would be coming together on a voluntary basis to discuss but still need regulatory and science approach—a uniting strategy

v. Concerns and questions:
   1. If a good parallel with the CWA is made—if funding is available and independent of the microeconomics of the area that needs the work, can get a lot accomplished. Right now what needs to be done and the available dollars don't match—but look at this in a macro way and look at the big pot of money available at the beginning of the CWA

vi. One of the problems of trading is that the documentation and certification means that very few sellers will engage on start-up. Difference with utility—recognition of problem, can find ways to get things accomplished. But documentation and innovation may improve

vii. Comment on how a combination of utility and trading might work—without getting too detailed, look at drainage water management, etc. A utility could include a management entity. It would be a trading scheme but maybe a management entity
   1. Maybe an aggregator—but could be someone who manages—like a mitigation bank
   2. Ongoing management—that could include monitoring to confirm results achieving

d. What about a hybrid idea:
   i. Cost-share—almost a trade. Not trading credits, paying for BMPs
   ii. Same idea. Utility could be the clearinghouse—POTW could get 45% reduction and then some. Established cost of removing P, provide a clearinghouse through one of these methods. Depends on if POTW could sell P from reduced discharge
   iii. Producers are willing to do things—farming is business. Utility would provide some oversight to require BMPs that won't hurt business but must accomplish something. Can find way to save money or stretch nutrients
   iv. Need farmer and utility participation. But a gap between these industries. An environmental utility could bridge those gaps
   v. Could see trading and utility all working together on these concepts

e. Two things: raise a lot of money and spend on water quality
   i. But need more details—management structure, is a regressive tax?

ii. Somewhere between all the details, and enforcing will need those details. For example, could it even be on ballot?

f. Is additive to municipal spending for nutrient reduction—passing it along to customers?
    i. How to get people who are regulated and get them to go beyond what required?
    ii. Providing mission to organization is just as important to providing money to solve issue
    iii. Have looked at financing alternatives—not effective, because not matching with mission
    iv. What happens if invest in trading program—what if don't hit targets—then what?

g. Have you quantified how much municipalities spend to meet nutrient standards, yet?
    i. Not much in IL, but municipalities are spending a lot of money
    ii. One major issue utilities are facing—1970s investments made, and now the upgrades are coming—this a huge cost.
        1. A good time to upgrade

h. Why not just raise sewer rates?
    i. More effective to address on macro level—have someone look at that scale and decide next best investment
    ii. Part of the comparison of these two options. Raising rates won't solve the problem—whereas if accumulate a pot of money directed to priority issues in focused way, that more efficiently addresses problem
    iii. Continuity
    iv. Not adding mission to already underfunded entities
    v. Levels the playing field—the cost for MWRD is nowhere close to a smaller plant
    vi. See value of environmental utility for agriculture land and small communities but do feel that big population centers should be able to look at cost of pollution and bill appropriately
    vii. Want to see more details and work out obvious questions: like how much money per person

i. Are a polarized society—people disagree about how to implement. Not trying to create another government entity. More commonality than we cultivate. It's the hot button words people respond to