CWG Review 1: Spring 2015

Tier 1 Information:

1. **Management Action**

   N-68 Reduce and regulate fertilizers, herbicides, fungicides, and pesticides to reduce nutrient and pollutant loading to improve water quality and provide protection to the reefs, and promote the use of Florida friendly herbicides and pesticides to reduce or eliminate toxic chemicals.

   This RMA is a combination of the following RMAs:

   - N-68: Reduce and regulate fertilizers and pesticides to reduce nutrient and pollutant loading to improve water quality and provide protection to the reefs.
   - S-37: Eliminate and ban the use of non-organic fertilizers, weed killers, and insecticides to reduce or eliminate toxic chemicals from entering bays, estuaries, and oceans through storm runoff.
   - N-89: Establish partnerships with local government to uphold restrictions on seasonal use of fertilizer ordinances to reduce nutrient load on reefs.
   - S-34: Ban fertilizing during rainy season as well as limit the types of fertilizer that can be sold to the public to reduce elevated levels of nutrients - primarily nitrogen and phosphorus - into canals, rivers, lakes and estuaries.

UPDATE - K. Fitzgerald – After Pinellas ban the state legislature deemed these bans unconstitutional.

2. **Intended Result (Output/Outcome)**
   What is the end product/result of this management action?
   - To reduce nutrient and pollutant loading to improve water quality and provide protection to the reefs.
   - To reduce the amount of polluted runoff entering the environment, ultimately leading to improved reef health.
   - Formulate and articulate "best management practices" for the purchase (do not stockpile) usage (reduce it during the rainy season) and application (clear label instructions) of household fertilizers along the watersheds that contribute to nutrient loadings to the SEFCRI region. Because the first line of defense is an educated consumer there are advantages on creating BMPs instead of enforcing use restrictions. A simple labeling color "restrict application during heavy rain events" may be better than a fine.
   - Expand fertilizer ordinances that fit each County to reduce the application of fertilizers during rainy periods throughout the State. It should be noted that there are fertilizer ordinances already in force in the northern part of the SEFCRI tract that recently went into effect in 2014. (e.g. Fertilizer Ordinance 895, Martin County (2011); Best Management Practices Ordinance for Fertilizers, Lee County; Best Management Practices Certification for Fertilizers, Lee County; Florida Pest Management Association has a list of ordinances).
   - Reduced nutrient loads will result in improved water quality at the receiving watersheds and water bodies downstream
   - Improved coral reef and related ecosystem health.
   - **March/April 2015 CWG Updates:**
     - SEFCRI has been doing educational brochure and workshops for years, and still have problem, so the group feels we need LBSP reduction, not just education in N-1.
     - All (residential and commercial) are part of problem and all need to be part of solution – challenge is different for each.
     - Locally applied (b/c statewide hard, b/c what's good in Tally isn't good in SE FL) Regulations to reduce overuse, wrong use, non-organic pollutants.
     - Key Updates:
       - Restrict overuse, ~~non-organic~~, during time of year (rainy season)
       - Locally applied (b/c statewide hard, b/c what's good in Tally isn't good in SE FL)

        - Essentially, this MA is intended to increase awareness among law enforcement entities so they will know what to do if they come across a conservation violation. This is not a joint enforcement agreement but a regional education program for enforcement officers that would establish a protocol for responding to natural resource violations.
        - FDEP has suggested ordinances on their website
- **Team & TAC August 2015 Update:**
    - Locally applied (yes)
    - Guidelines exist but enforcement unlikely (similar to plastic bag issue)
    - Focused on BMPs at consumer level. Commercial usage and application are regulated.
    - Development of improved product labeling to improve proper application and seasonally appropriate timing of fertilizer use. Perhaps a legislative action on local/ state levels.

3. Duration of Activity

Is this a discrete action or a recurring activity? Explain.

- It's a discrete action to implement legislation. Once the ban is in place, the process will be much smoother.
- **Team & TAC August 2015 meeting update:** Rather than legislation it should be an ongoing effort in the creation of BMPs, informing the consumer and working with manufacturers and distributors to promote the correct usage. The TAC members does not see a "ban" as a feasible outcome.

4. Justification

What issue or problem will this management action address? Explain.

- The overuse of fertilizers and pesticides which eventually make their way to waterways and diminish water quality.
- Nitrogen runoff contributes to ocean acidification which in turn leads to coral diseases and coral bleaching. This action will address land-based sources of pollution. This action will also address nutrient imbalances in the water, reducing algal growth/impacts on corals.
- This management action will address high nutrient loads in the watersheds. This may fulfill the mandate to each county and municipal government located within the watershed of a body or water segment that is listed as impaired by nutrients to, at a minimum, adopt the FDEP's Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes pursuant to Fla. Stat. 403.9337.
- This will address poor water quality. See S-37.

5. Potential Pros

What are the potential advantages associated with this management action?

- Improvement of water quality.
- See S-37. Additionally, timing of the ban corresponds with a time that corals are particularly sensitive to stressors (summer=warmer water=higher potential for bleaching and algal growth). Removing this variable allows the corals a better opportunity for lower- stress environment.
- Development of on-site vegetated buffers to control (slow down) runoff may be a way to create incentives for homeowners.

6. Potential Cons

What are the potential disadvantages associated with this management action?

- Difficulty in regulating the use of these products.
- Industry and fertilizer user backlash (e.g.: golf courses, farms) from manufacturers, sellers and users. Lack of economical alternative. Potentially affect property values.
- Difficult to ban use during rainy seasons by sales alone, due to long shelf life.
- Loss in fertilizer sales. Not necessarily, just changing in timing.

7. Location

County/Counties: Miami-Dade, Broward, Palm Beach, Martin, Other?

- All four counties and state-wide.

Relevant Habitats: Coral reef, seagrass, watershed, etc.?

- All water habitats.

Specific Location: City, site name, coordinates, etc.?

- State of Florida

8. **Extent**
   Area, number, etc.
   - This needs to be implemented state-wide.

9. **Is this action spatial in nature?**
   - No

Do you believe this management action could be informed by the Our Florida Reefs Marine Planner Decision Support Tool?

If yes, you will proceed to the next section on Marine Planner Information.

- -

Marine Planer Information:

N/A

Tier 2 Information:

WHY?

1. **Strategic Goals & Objectives to be Achieved**
   Refer to the SEFCRI Coral Reef Management Goals and Objectives Reference Guide.
   - -

2. **Current Status**
   Is this activity currently underway, or are there planned actions related to this recommendation in southeast Florida? If so, what are they, and what is their status.
   - Partially most local governments have some sort of ordinance, however the enforcement or effectiveness of this is unsure.

3. **Intended Benefits (Outcomes)**
   What potential environmental benefits or positive impacts might this management action have?
   - Reduce fertilizer impacts and HABs
   - Reduce toxins from herbicides, pesticides and toxic compounds in HAB = more submerged vegetation and more habitat

   What potential social/economic benefits or positive impacts might this management action have?
   - Reduce loss of dive/fish revenues when blooms occur
   - Improve tourist revenues
   - Protect important economic engine

   What is the likely duration of these benefits - short term or long-lasting? Explain.
   - Long term duration of the benefits

4. **Indirect Costs (Outcomes)**

What potential negative environmental impacts might this action have?

- None

What potential negative social/economic impacts might this action have?

- Landscape will be less luxuriant

What is the likely duration of these negative impacts - short term or long-lasting? Explain.

- Long lasting

5. **Risk**

What is the threat of adverse environmental, social, or economic effects arising from not implementing this action?

- There is a high risk to not implementing this action with major impacts form loss of business in the fishing and tourism industries.
- This management action is already occurring in St. Lucie River/Indian River Lagoon and occasional Lake Worth Lagoon and periodic reef HABs

6. **Relevant Supporting Data**

What existing science supports this recommendation? (Provide citations)

- Look towards existing fertilizer ordinances from municipal governments

7. **Information Gaps**

What uncertainties or information gaps still exist?

- This needs further research.

WHEN?

8. **Anticipated Timeframe for Implementation**

How long will this recommendation take to implement?

- ~3 yrs – need to modify existing regulations

9. **Linkage to Other Proposed Management Actions**

Is this activity linked to other proposed management recommendations?

- Yes – possibly N-1 on education
- This needs further research to find out more

If so, which ones, and how are they linked? (e.g., is this activity a necessary step for other management actions to be completed?)

- possibly N-1

Does this activity conflict with other existing or proposed management actions?

- No

WHO?

10. **Lead Agency or Organization for Implementation**

What agency or organization currently has/would have authority? Refer to the Agencies and Actions Reference Guide.

- DEP
- FDAC
- EPA

11. Other Agencies or Organizations

Are there any other agencies or organizations that may also support implementation? Explain.

- Counties

12. Key Stakeholders

Identify those stakeholders most greatly impacted by this management action, including those from whom you might expect a high level of support or opposition. Explain.

- Fertilizer companies
- Retail outlets
- Landscapes
- Owners of large properties

HOW?

13. Feasibility

Is there appropriate political will to support this? Explain.

- Good support in North (St. Lucie River Lagoon) when impacts are obvious
- Probably no support in the South

What are the potential technical challenges to implementing this action? Has it been done elsewhere?

- This action has been done in Chesapeake and Tampa Bay.
- A potential challenge is that it may be hard to regulate residentially and within the retail industry.

14. Legislative Considerations

Does the recommendation conflict with or actively support existing local, state, or federal laws or regulations? Explain.

- No conflicts
- Supports TMDL/BMA regulations for impaired water bodies

15. Permitting Requirements

Will any permits be required to implement this action? Explain.

- Permitting will be required. Currently landscapers and farmers already have to comply with BMPs.

16. Estimated Direct Costs

Approximately how much will this action likely cost? (Consider one-time direct costs, annual costs, and staff time, including enforcement.)

- Direct costs are unknown.

Will costs associated with this activity be one-time or recurring?

- recurring

If recurring, approximately how long will staff time and annual costs be necessary to implement the management action?

- Eternal

17. Enforcement

Does this require enforcement effort?

- Yes

Provide an explanation if available.

- inspect retail outlets and landscapers and agricultural operators

18. **Potential Funding Sources**
    Identify potential funding organizations/grant opportunities, etc.
    - EPA, FDACS

19. **Measurable Outcomes/Success Criteria/Milestones**
    How will the success of this recommendation be measured? How will you know when the intended result is achieved?
    - Improved water quality, less HABs, less fish kills

SEFCRI/TAC Targeted Questions:

1. **TAC - Is the recommendation likely to achieve the intended result? Explain.**
   Tier 1 – #2 (Intended Result - Output/Outcome)
   - Yes. PRG (N-68)

2. **TAC - Is the recommendation sufficient to address the identified issue or problem? Explain.**
   Tier 1 – #4 (Justification)
   - NO, too broad and limited in chemical nature. PRG (N-68)

3. **TAC - Is the recommendation technically achievable from a science or management perspective? Explain.**
   Tier 2 – #8 (Anticipated Timeframe for Implementation) and Tier 2 - #13 (Feasibility)
   - Ex. Of public education – in TLH they demonstrated there was an effect from nitrates (10 miles south of WWTP, springs were being affected by algae). A community of 200000 people supported and got a WWT upgrade that cost $20 million.
   - Fertilizers/runoff – Ban in Pinellas County from selling fertilizer during high rain summer season. This is an example of an education campaign that worked. June – Sept – Check Homework PD
   - Educate the public about the need for this.
   - PG – Verbs: Ban, Enforce, Restrict etc. these will not go anywhere as currently written. But if public is educated at the Home Depot when buying fertilizers etc. it is helpful to possibly justify $ for wastewater treatment (better understand why $ is needed).
   - I would like to know what the effects of organic fertilizers might be. Are they without problems? JS (S-37)

4. **SEFCRI Team, PPT & Other Advisors - Has this been done (by SEFCRI, other agencies or organizations in the SEFCRI region)? Explain.**
   Tier 2 – #2 (Current Status)
   - -

5. **SEFCRI Team, PPT & Other Advisors - Is this recommendation a research or monitoring project? (Recommendations should be turn-dirt management actions, not the step you take before a management action). Explain.**
   - **-**

6. **SEFCRI Team, PPT & Other Advisors - If either of the following applies to this management action, provide feedback on which information submitted by the Community Working Groups may be more appropriate, or if entries should be merged. Explain.**
   a. **There are different viewpoints for an individual management action (i.e. two working group members provided separate information, as indicated by a '//' marking between them).**
   b. **Information submitted for this and other draft management actions is sufficiently similar that they might be considered the same.**
   - -

7. **SEFCRI Team, PPT & Other Advisors - Non-agency Question: Is the recommendation technically achievable from your stakeholder perspective? If not, do you have suggestions that would allow this to become technically achievable from your stakeholder perspective? Explain.**
Tier 1 - #5 (Potential Pros), Tier 1 - #6 (Potential Cons), Tier 2 - #3 (Intended Benefits), Tier 2 - #4 (Indirect Costs) and Tier 2 - #12 (Key Stakeholders)
   - CK: Are there Commercial but not residential regulations?
     - There are seasonal ban during rainy season, but how was it enforced and what other success stories exist?
   - ST: There needs to be a comprehensive review of regulations and programs that may exist before the MA is recommended. Needs to be narrowed or defined before MA can be used.
   - PS: We need info to see how certain locations, examples have regulated fertilizer/pesticide ordinances.
   - CV: Audubon society has a program for fertilizer/pesticides for reduction and use of fertilizers. Example could be like green marinas? Can it be used for golf courses etc. for a certification?
   - LW: The ban of fertilizers during rainy season in another location is effective because Home depot doesn't sell the products during this season.
   - VB: Depends on the type of fertilizer sometimes during certain seasons. BUT you can still find it- often packaged as something different. Something happening in stores with the ability to sell or not sell. This must be some sort of regulations for the stores selling it.
   - PD: There is regulation out there (variable) but the disconnect is on the residential level which is a vast majority of use. There should be displays in the "big box" retailers about when you can apply and when you can't.
   - JF: Tampa Bay is often credited to recovery due to restrictions of fertilizers in that location.
   - VB: Many restrictions exist in the St Pete area.
   - LW: Something to add to RMA to look at consortium in Tampa Bay area as an example/model.
   - JV: Look at previous research to determine regulations locally.

8. **SEFCRI Team, PPT & Other Advisors - Agency Question: Is the recommendation technically achievable from a management perspective? If not, do you have suggestions that would allow this to become technically achievable from your agency's management perspective? Explain.**
Tier 2 – #10 (Lead Agency or Organization for Implementation) and Tier 2 - #11 (Other Agencies or Organizations)
   - JB: Atrazine, an herbicide for lawns and crops (weed control) that has been used for decades (the most widely used herbicide in the US), has been identified as a significant risk to phytoplankton and moderate risk to pink shrimp. It can act as aphytoestrogen (endocrine disruptor EDU), as demonstrated by representative examples in: invertebrates, fish, amphibians, reptiles, birds and mammals. There have not been a plethora of studies (industry pushback VS USGS studies and EPA interest?) - As work continues hormone disruption (crustaceans / fish) are a concern. BANNED by European union (since 2004) still widely used in US and Canada and the world.

     ATRAZINE
     - http://www.epa.gov/pesticides/factsheets/atrazine_background.htm
     - MANUFACTURER SYNGENTA
       - http://www.atrazine.com/AtraMain.aspx
     - NOAA RELATED INFO
       - "Jan. 18, 2007 • NOAA National Centers for Coastal Ocean Science researchers have identified potential effects of the commonly used herbicide atrazine on phytoplankton— free-floating algae forming the base of the food chain for aquatic animals. Published in the January 2007 issue of the journal Pesticide-Biochemistry and Physiology, the study indicates protein levels in phytoplankton significantly decreased as a result of atrazine exposure. Atrazine is one of the most heavily used herbicides in the United States. It acts as an inhibitor of photosynthesis by preventing the transfer of energy in certain plant species. In phytoplankton species exposed to atrazine, NOAA researchers have observed significant decreases in size that may negatively affect higher level species in the aquatic food chain as this crucial food source loses nutritional value. "The use of atrazine as a growth inhibitor in broadleaf and grassy weeds is an accepted practice beneficial to farmers and landscape professionals," said Mike Fulton, a NOAA research

fishery biologist. "But it is equally important to gain an understanding of the potential effects of this herbicide on non-target aquatic plant species.""

- 2007 PESTICIDE MAY NEGATIVELY AFFECT ESTUARINE HEALTH / NOAA Study Identifies Potential Impacts on Aquatic Food Sources
  http://www.publicaffairs.noaa.gov/releases2007/jan07/noaa07-r402.html
  http://www.noaanews.noaa.gov/stories2007/s2778.htm
- Table of "ecotoxicology" of Atrazine by taxa (pesticide action network)
  http://www.pesticideinfo.org/Detail_Chemical.jsp?Rec_Id=PC35042#Ecotoxicity Graymore, Michelle, Frank Stagnitti, and G. Allinson. "Impacts of atrazine in aquatic ecosystems." Environment international 26.7 (2001): 483-495.
  - http://www.sciencedirect.com/science/article/pii/S0160412001000319

- A person who has published and seems to be referenced in many documents is Tyrone Hayes (Department of Integrative Biology, Molecular Toxicology, Group in Endocrinology@ Berkley) Department of Integrative Biology, Molecular Toxicology, Group in Endocrinology, Museum of Vertebrate Zoology, Energy and Resources Group, University of California at Berkeley Berkeley, California 94720-3140. (510)643-1054 (off.), (510)643-6264 (fax) tyrone@berkeley.edu or atrazinelovers@yahoo.com
- Fortin, Marie-Gil, et al. "Effects of salinity on sublethal toxicity of atrazine to mummichog (Fundulus heteroclitus) larvae." Marine environmental research 65.2 (2008): 158-170.
  http://www.sciencedirect.com/science/article/pii/S0141113607001262
- "In coastal marshes, fish larvae may be exposed simultaneously to extreme salinities and to atrazine, a widely used herbicide. To assess the effects of salinity on the toxicity of atrazine, newly-hatched mummichog (Fundulus heteroclitus) were exposed to atrazine (0, 5, 50 and 500 µg/L) at three salinities (3, 15 and 35 PSU)..... (results) > .short-term exposure to environmentally realistic concentrations of atrazine affects osmotic control in mummichog larvae with possible effects on buoyancy, survival and recruitment"
- Effects of Atrazine runoff on Chesapeake Bay aquatic life
  http://r.search.yahoo.com/_ylt=A0LEVv0IAt5UJmgAF9MnnIlQ;_ylu=X3oDMTEzcGdnN2tn BHNlYwNzcgRwb3MDMQRjb2xvA2JmMQR2dGlkA1lIUzAwNF8x/RV=2/RE=1423864456/RO=10/RU=http%3a%2f%2fwww.uvm.edu%2f~wbowden%2fTeaching%2fRisk_Assessment%2fResources%2fPublic%2fProjects%2fProject_docs2008%2fProposal_Atrazine.doc/RK=0/RS=ZpqUTkCy8PX35Hh3Cwu94p1EZAk-
- "Atrazine is the most extensively used herbicide in the United States for control of weeds in agricultural crops and is toxic to aquatic organisms (U.S. EPA 2003) with about approximately 76 millions pounds of it applied each year (Hayes et. al. 2003). Atrazine is used extensively in the United States, Canada and other countries for the control of weeds in agricultural, especially in corn, sorghum, wheat and soybeans. It is one of the most heavily used pesticides in North America, generally being among the top few in terms of total pounds of herbicide used (Braden et al. 1989; Burridge and Haya 1988; Ciba-Geigy 1994; Council on Environmental Quality 1984; Moxley 1989; Pike 1985; Richards and Baker 1993). Annual domestic usage during the past two decades has been in the general range of 30 to 40 million kilograms applied to approximately 70 million acres of farm land in the U.S. (U.S. EPA 2000). Due to the negative impacts atrazine is shown to have on aquatic life both animals and vegetation, it has been banned in the European Union. Studies on tetragenic effects of atrazine in aquatic species has shown that as low as 0.1 part per billion of atrazine in surface water tetragenically effects frogs by causing the male frog gonads to produce eggs – effectively turning males into hermaphrodites (Hayes, et. al. 2003). In the Chesapeake Bay area, loss of submerged aquatic vegetation has been linked to increase in use of Atrazine around the bay area resulting in overall decline of Chesapeake Bay's fish and waterfowl productivity (Christopher et. al. 1992).
- Hayes T, Haston K, Tsui M, Hoang A, Haeffele C, and Vonk A. Atrazine-Induced Hermaphroditism at 0.1 ppb in American Leopard Frogs. (2003). Environmental Health Perspectives 111.
- ENDOCRINE DISRUPTION / ATRAZINE: (GOOD BACKGROUND/ benchmark ATRAZINE "EDC" (lack of)

designation) http://www.temple.edu/law/tjstel/2005/fall/v24no2-Deb.pdf
    - OTHER PUBS: VISIT SURVEY COMMENTS FOR ALL PUBLICATION LINKS

Comments from the Reviewers:

- Would need to identify major sources, also it may be worthwhile to check with the various NPDES coordinators to see which WBIDs have or will have TMDLs. NIC (N-68)
- ST: Agree with JS (TAC). Needs more info and a thorough review of existing regulations to effectively determine how to regulate and what level of reduction would be achievable and beneficial. (N-68)
- This is, of course, a good idea but it is also a huge topic and little detail is provided here. Regulate all usage? Commercial and residential interests are different and will have different issues associated with them. Again, a good idea but more substance is needed here. JS (N-68)
- Development of upstream protective values NIC (N-68)
- Why not Dade and Broward? JS (N-68)
- Convince general public of the concept of application rates. More is not better when it comes to household application of fertilizers and nutrients. Regulation is largely in place for pesticides. PRG
- Goal will be to provide information at the point of sale. PRG (N-68)
- Unknown. PRG (N-68 Tier 2 Question 2)
- Proper loadings of fertilizer and pesticides do have a net benefit for the users. The challenge is to prevent miss usage or applications outside of the label directions. Any reduction of loading is a net benefit for a coastal system. PRG (N-68)
- As N-1 this is a long-term and sustained effort. PRG (N-68)
    - Yes multiple but all linked to N-1. PRG (N-68)
- If regulatory in nature it will be much more difficult to implement. Educational effort should be more feasible. PRG (N-68)
- An investment on making the urban unused chemical collections more user friendly will help a lot. Right now the process is labor intensive and requires the homeowner to drive the materials to a collection center. Very few people do that. Organizing neighborhood collections or a monthly advertised route will be more efficient in recovering old stocks of hazardous chemicals. PRG (N-68)
- More detail is needed for this. JS. Same concerns as in S-34 NIC
- There is no difference on the nutrients (N,P) provided by organic vs conventional fertilizers except for the resources needed to produce them. There is a benefit on recycling nutrients and avoiding the introduction of other contaminants when using organic fertilizers but not in terms of nutrients that are the key concerns in the eutrophication of coastal areas. PRG
- Information about the effectiveness and the effects of alternative methods is needed. JS
- This would require new legislation. JS.

Questions from the Reviewers:

	Questions/Information Needs Highlighted by the Reviewers	Addressed by CWG:	Not Addressed by CWG Because:
1.	Information about the effectiveness and the effects of alternative methods is needed	☐	☐ This does not apply. ☒ Need help addressing it.
2.	Why not Dade and Broward? Addressed – CWG agreed it should be all 4 counties	☒	☐ This does not apply. ☐ Need help addressing it.
3.	Are there Commercial but not residential regulations?	☐	☐ This does not apply. ☒ Need help addressing it.
4.	There needs to be a comprehensive review of regulations and programs that may exist	☐	☐ This does not apply. ☒ Need help addressing it.
4.	Look at previous research to determine regulations locally.	☐	☐ This does not apply.

			☒ Need help addressing it.

Questions from the CWGs back to the Reviewers:

8-4-2015 and 9/2015 Notes:

-Team 9 doesn't have time to address the reviewer questions or complete the blank tier 2 but has these comments:
-DAX regulates this
-Pinellas County Bans all fertilizers and pesticides (after looking at websites pesticides doesn't seem to be included) during rainy season
-Let's recommend a Ban during rainy season or even a couple months before
-Is there a Lyngbya connection with rainy season? Plumes usually in mid summer but have seen plumes in the winter
-A lot of management of fertilizers already at Ag level and companies – resistance is that it is inconsistent from place to place and county to county – Where do we want to focus our attention on Residential or Commercial??
-Need a state set of regulations that are easy to interpret?
-PSA? – Look at N-1
-Still really need to review existing rules and pick what's applicable eg Pinelllas County just do that if it is working – PD Homework find out if it is working
-Look up data that proves Pinellas ban is working if so let's model our 4 county area after that
Pinellas bans sales
fertilizer with nitrogen and phosphorus between June 1 – Sept. 30.
http://www.pinellascounty.org/environment/pdfs/Fertilizer-Ordinance-Brochure.pdf
-Maybe we take it a step further and add pesticides (Atrazine)
-Could be cost savings because fert and pest can wash out during rainy season – wasted money
-We will add outreach thoughts to N-1 – might consider combining them
-Home Depot response to why customers can't buy this stuff.
-Statewide vs. region – different threats – coral reefs not a concern everywhere
-Should consider state wide but be careful how we phrase it so it can be applied state wide
-If not implementable statewide then at least our region.

Point of Contact – Paul Davis – Also will add clarification, find out if Pinellas Ban is working