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### APPENDIX A – PUBLIC INVOLVEMENT OVERVIEW

This appendix contains public participation material for Steering Committee meetings, Technical Advisory Team meetings, and Public meetings. The "bill stuffer" sent out in July 2012 is also included within this appendix. The material is summarized below:

### **Steering Committee Meetings**

- March 26th, 2012
- May 17th, 2012
- June 28th, 2012

### **Technical Advisory Team Meetings**

- March 26th, 2012
- May 17th, 2012
- June 28th, 2012
- August 23rd, 2012

### Open House Events

October 4th, 2012







### **Easter Lake Water Quality Management Plan**

### Technical Advisory Team and Steering Committee #1 Weeks Middle School – 901 East Park Avenue, Des Moines, IA 50315 (in the cafeteria) Monday March 26, 2012 – 6:00 PM to 8:00 PM

### 1. Introductions

- Jon Trombino, PE EA, Project Manager
- Jonathan Mohr, AICP EA, Environmental Planner
- Paul Brakhage LakeTech, Water Resources Planner
- Technical Advisory Team/Steering Committee Members

### 2. Project Overview

- Community-based Planning
- EPA Nine Elements

### 3. Existing Data – What it tells us

- ISU Easter Lake Feasibility Study 2011
- Yeader Creek NRCS Studies
- Easter Lake Park Master Plan
- Others

### 4. Missing Data – What we need to collect

- What information needs to be collected?
- How will it be collected?

### 5. Funding Sources

- EPA 319
- State sources
- Other sources

### 6. Project/Meeting Schedule

### 7. Feedback and Input from Steering Committee

### 8. Issues and Questions

### 9. Primary Contact Info

- George Antoniou, Iowa DNR, 515-281-8042, george.antoniou@dnr.iowa.gov
- Jon Trombino, PE, EA, 402-476-3766, <u>itrombino@eaest.com</u>
- Jonathan Mohr, AICP, EA, 402-476-3766, jmohr@jeo.com
- Paul Brakhage, Lake Tech, 402-730-3658, knpbrakhage@gmail.com







Easter Lake Water Quality Management Plan

Technical Advisory Team and Steering Committee Monday March 26, 2012 from 6:00PM - 8:30PM

NAME	TITLE	ORGANIZATION Represented	CITY	PHONE	EMAIL
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William Kreinbring			Des Moines	515-865-7739	Awsome 52 he Gmail com
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### <u>Easter Lake Water Quality Mangement Plan</u> Steering Committee and Technical Advisory Team Meeting

**When:** March 26, 2012, 6:00PM

Where: Weeks Middle School – 901 East Park Avenue, Des Moines, IA

### Attendees:

NAME	ROLE	TITLE	ORGANIZATION
Stan Thompson	SC	Citizen	
Karl Schilling	SC	Citizen	
Daniel Gregory	SC	Citizen	
David Miller	SC	Sewer Enterprise	City of Des Moines
		Administrator	
Kevin Moran	TAT	Parks Department	City of Des Moines
Roger Elliott	SC	Committee Member	Citizen
Jim Gillespie	TAT	Director – Division of Soil	IDALS
		Conservation	
George	TAT	Lake Renovation/Project	IDNR
Antoniou		Manager	
Mark McCurdy	TAT	Engineer	NRCS
William	SC	Citizen	
Kreinbring			
Carl Tarantino	SC	Citizen	
Jonathan Mohr	Consultant	Environmental Planner	EA
Jon Trombino	Consultant	Project Manager	EA
Paul Brakhage	Consultant	Water Resources Planner	LakeTech

### **NOTES**

The first Steering Committee and Technical Advisory Team meeting was held at Weeks Middle as a kickoff for the Easter Lake Water Quality Management Plan. Below is a summary of questions, answers, and notes from the meeting.

- 1. Adam Kiel introduced himself, thanked the group for attending, and introduced the consultants.
- 2. Jonathan Mohr provided a 30 minute presentation to the group explaining EA/LakeTech and the upcoming planning process.
- 3. How will the project team handle accessibility to Yeader Creek considering it is mostly privately owned? A strong education process will be used so property owners better understand the need for the planned improvements.
- 4. What has been done thus far to get people to pick up pet waste? The City of Des Moines currently has a pet waste ordinance. This needs to be enforced and also emphasized through public education. The group discussed the role pet waste and other wildlife has as a pollutant source and discussed potential projects such as bridge retrofits to limit bacteria contributions.
- 5. Paul Brakhage discussed how volume reduction of Easter Lake overtime has decreased the capacity and increased the concentration of pollutants in the lake. A smaller basin to catch pollutants equals increased concentrations of pollutants.

- 6. How is our experience in working with lawn treatment professionals? Jon Trombino answered that working with lawn treatment professionals to encourage use of no/low phosphorus fertilizers is a great approach to decreasing pollutants in the watershed.
- 7. Adam Kiel asked about EA/LakeTech examples of success. Paul Brakhage explained the need for patience and wanted everyone to understand that in-lake improvements would take time and that the lake will respond slowly to external loading reductions. Paul has been involved with over 20 similar watershed planning efforts, several of which saw impairments from the water bodies removed.
- 8. What happens when you dredge and bring up mercury? Paul Brakhage explained that an increase in methyl mercury is common due to the ability for fish to absorb it and that monitoring would determine the level of mercury in the fish population.
- 9. What about lead shot? This shouldn't be an issue as waterfowl hunting isn't allowed.
- 10. Mike McGhee added that Easter Lake is a rare property and it is important to invest in the improvements. He noted that property like this is rare in an urban area and creating something similar would be far too expensive.
- 11. What about the contribution to flow from sump pumps? The project team didn't anticipate a significant issue arising from sump pump contributions as compared to stormwater flows into Yeader Creek.
- 12. Steering Committee members were encouraged to continue participating in the plan and also to encourage others to attend future meetings.

The Steering Committee is encouraged to direct input or any questions to Ben Dodd at 641-891-3795 or <a href="mailto:ben.dodd@dnr.iowa.gov">ben.dodd@dnr.iowa.gov</a>. Regular communication will occur with the Steering Committe team through email.





### Easter Lake Water Quality Management Plan Steering Committee #2 of 4

Southside Library – 1111 Porter Avenue, Des Moines, IA Thursday May 17, 2012 – 6:00PM

- 1. Introductions
- 2. Planning Progress Report
  - May 1, 1012 EA Site Visit
- 3. Discussion on Non-structural Stormwater Best Management Practices
  - EA presentation on BMPs
  - Feedback from Steering Committee
- 4. Steering Committee Public Outreach Opportunities
  - What activities can steering committee members be active in now?
  - Other ideas?
- 5. Issues and Questions
- 6. Contact Info
  - Ben Dodd, IDNR, 641-891-3795, ben.dodd@dnr.iowa.gov







# Easter Lake Water Quality Management Plan Steering Committee #2 of 4 Thursday May 17, 2012 - 6:00PM Southside Library – 1111 Porter Avenue, Des Moines, IA

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### Easter Lake Water Quality Mangement Plan Steering Committee #2 Meeting

When: May 17, 2012

Where: Southside Library – 1111 Porter, Des Moines, IA

### Attendees:

NAME	TITLE	ORGANIZATION
Stan Thompson	Neighbor	Committee Member
Karl Schilling	Neighbor	Committee Member
Dan Hurless	Special Projects	Blank Park Zoo
Roger Elliott	South Park Neighborhood	Committee Member
Carl Tarantino	Neighbor	Committee Member
Peg Schilling	Neighbor	Citizen
Karl Schilling	Neighbor	Committee Member
Loren Lown	Natural Resources Specialist	PCCB
Jesse Leckband	Stormwater Env. Tech	City of Des Moines
Hunter Brown	Intern	City of Des Moines
Dan Pritchard	Civil Engineer	City of Des Moines
Ben Dodd	Fisheries	IDNR
Jonathan Mohr	Environmental Planner	EA
Jon Trombino	Project Manager/Engineer	EA

### **NOTES**

The second Steering Committee meeting during the development of the Easter Lake Water Quality Management Plan (Plan) was held at Southside Library in order to continue sharing information and obtaining feedback from the citizens. Below is a summary of questions, answers, and notes from the meeting.

- 1. Ben Dodd started the meeting by introducing himself, thanking meeting attendees, and having each person in the room introduce themselves.
- 2. Jonathan Mohr shared the agenda and began a presentation that outlined progress that had been made since the last meeting, discussed the sediment forebay draft alternatives, and provided an overview of best management practices (BMPs), including a focus on non-structural BMPs. The group had several questions after the presentation.
- 3. What is the overall intent of the new west wing work? Jonathan Mohr and Jon Trombino further explained the intent of the sediment fore bay and how it would help reduce sediment loads into the main body of the lake. Jon Trombino also explained how the sediment forebay would be designed so machinery could reach out and remove sediment and the new trail would cross the lake over the forebay.
- 4. <u>Is there enough public property available in the watershed for building rain gardens?</u> Jon Trombino explained how the focus was on residents installing smaller rain gardens on their property, in addition to projects on public property. Residential rain gardens can be effective in reducing runoff if enough are constructed basin wide. The group discussed how public outreach and other activities, such as workshops, can expand the use of residential rain gardens.

- 5. Has the project team thought about reaching out to lawn care providers to see if they use nophosphorus fertilizers? Jon Trombino described other City's where this had been done. Outreach to lawn care providers, locating stores that sell no-phosphorus fertilizers, and other similar actions will be included in the plan.
- 6. What is a forebay? Jon Trombino explained that a forebay is essential creating a bay within a lake and that in this case the bay would be used to capture sediment.
- 7. <u>Is there commitment from the City, County, and State to maintain the new in-lake projects?</u> Project team members present ensured the Steering Committee that all stakeholders involved were committed to providing proper maintenance.

### Discussion on Non-structural BMPS and Public Involvement Brainstorming

- 8. Ben Dodd led a discussion on some of the ideas presented to the Steering Committee and asked which of these activities the Steering Committee thought other people would implement.
- 9. The South Park Neighborhood has people interested in being involved; they just need information or need to be told where to find information.
- 10. The group discussed adding information to the website such as locations to purchase downspout disconnect materials, no-phosphorus fertilizer, rain barrels, rain barrel workshops, etc.
- 11. Loren Lown suggested having rain barrel workshops at the lake for Easter Lake residents.
- 12. The group discussed, and liked, the idea of a display rain barrel in front of the library which included information and a scan code for the Easter Lake project website.
- 13. The group discussed the need for public outreach and brainstormed ideas including the following:
  - a. TV ads
  - b. Ads before movies at Southridge Theatre
  - c. Mini-lesson plans for elementary students on water quality
  - d. Use of the City's environmental education staff
  - e. Pilot projects in residential areas
  - f. IDNR cost share?
  - g. Distribution of a calendar with Easter Lake photos
  - h. Izaak Walton League stream clean-up participation
  - i. Bill stuffers (Jesse Leckband can do this in July)
  - j. City of Des Moines newsletter
  - k. Project description handout (EA can provide)
  - I. Outreach to the Southside and Eastside Chambers of Commerce
- 14. Someone mentioned failing bank near Advanced Auto that was eroding into Yeader Creek.
- 15. EA is going to obtain a GIS layer of the neighborhood associations with contact information and make it available. Steering Committee members were interested in attending other neighborhood association meetings to provide outreach.
- 16. Jennifer Welch, Urban Conservationist with Polk Soil and Water Conservation District (SWCD) is a great contact for information on water quality projects. Her contact information is <a href="mailto:lennifer.welch@ia.nacdnet.net">Jennifer.welch@ia.nacdnet.net</a> or 515-321-1883, ext. 3.

The Steering Committee is encouraged to direct input or any questions to Ben Dodd at 641-891-3795 or <a href="mailto:ben.dodd@dnr.iowa.gov">ben.dodd@dnr.iowa.gov</a>. Regular communication will occur with the Steering Committee team through email.





### Easter Lake Water Quality Management Plan Steering Committee #3

South Side Senior Center – 100 Payton Ave, Des Moines, IA Thursday June 28, 2012 – 6:00 PM

### 1. Introductions

### 2. Planning Progress Report

De-brief on Technical Advisory Team meeting

### 3. Watershed Tour Debrief

- Pictures of tour
- Discussion of potential water quality projects

### 4. Steering Committee Member Action Items

- Easter Lake project summary handout
- Installation of residential water quality projects
- Information for website
- Neighborhood Association outreach, meeting attendance
- Rain barrel at Southside Library

### 5. Goals and Objectives Input

- Water Quality Targets
- Water Quality Management Plan Goals

### 6. Public Participation Plan

• Steering Committee role during plan implementation and beyond

### 7. Questions or Issues

### 8. Contact Info

Ben Dodd, IDNR, 641-891-3795, ben.dodd@dnr.iowa.gov







# Easter Lake Water Quality Management Plan Steering Committee #3 Thursday June 28, 2012 - 6:00PM South Side Senior Center – 100 Payton Ave, Des Moines, IA

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### Easter Lake Water Quality Mangement Plan Steering Committee #3 Meeting

When: June 28, 2012

Where: South Side Senior Center – 100 Payton Ave, Des Moines, IA

### Attendees:

NAME	TITLE	ORGANIZATION
Karl Schilling	Neighbor	Committee Member
Roger Elliott	South Park Neighborhood	Committee Member
Carl Tarantino	Neighbor	Committee Member
Stan Thompson	Neighbor	Committee Member
Dan Hurless	Blank Park Zoo / Neighbor	Committee Member
Dan Gregory	Neighbor	Committee Member
Rick Cerwick	DSM Izaak Walton League	Committee Member
Jessie Lowry	Blank Park Zoo	Committee Member
Loren Lown	Natural Resources Specialist	PCCB
Ben Dodd	Fisheries	IDNR
Jonathan Mohr	Environmental Planner	EA
Robb Lutz	Project Engineer	EA
Paul Brakhage	Water Resources Planner	LakeTech, Inc.

<sup>\*</sup>Several other attendees were present that may not have seen the sign in sheet

### **NOTES**

The third of four Steering Committee (SC) meetings during the development of the Easter Lake Water Quality Management Plan (Plan) was held at South Side Senior Center in order to continue sharing information and obtaining feedback from the citizens. Below is a summary of questions, answers, and notes from the meeting.

- Ben Dodd kicked off the meeting by asking everyone present to introduce themselves. Ben summarized the watershed tour that occurred earlier in the day to locate potential residential water quality BMPs on SC member properties. Several opportunities were noted including potential locations for rain gardens, downspout disconnections, and improvements to a swale across several residential properties adjacent to Easter Lake. IDNR is currently looking into funding small projects on residential properties to serve as demonstrations.
- 2. Jon Mohr discussed handouts that included information on existing cost-share programs to serve as examples of what might be proposed in the watershed plan.
- 3. Jon Mohr shared with the group a project summary handout and encouraged the SC to contact Ben Dodd if they needed additional copies.
- 4. Jon Mohr and Ben Dodd explained to the group that as the plan is being implemented over the next 5-years a similar type of group will need to remain in place to oversee project implementation on the local scale. Citizens will be needed for this group. This will be included as part of a public involvement plan and included as part of the watershed plan.
- 5. Loren Lown described to the group how the west-arm sediment forebay will benefit the trail currently planned to travel around the west arm of the lake. Polk County Conservation Board is planning on applying for additional grants to help move the project forward.

- 6. Jon Mohr and Ben Dodd shared the draft structural improvement map with the group and explained generally the water quality improvements planned for the area.
- 7. Jon Mohr asked the group their thoughts on seeing the lake level lowered 6-8 feet in the next few years to complete lake improvements. Most of the group seemed shocked, but overall seemed to understand that might be necessary to fix some of the problems.
- 8. The group discussed several outreach strategies, including involvement of the south and east Chambers of Commerce. The group would also like to invite specific groups of people to the upcoming October Open House, such as the Chambers, schools, and conservation volunteers at the Blank Park Zoo.
- 9. The Izaak Walton League would also be an excellent stakeholder to spur involvement. They are planning shooting commercials and are interested in including Easter Lake in them somehow to spur public outreach of the lake improvements.
- 10. The group would like to host rain barrel classes at the lake. Ben stated that Jennifer Welch would be the contact to coordinate these types of activities.
- 11. Jon Mohr asked the group several questions on their thoughts of Easter Lake including the following:
  - a. What would you like to see Easter Lake look like in 10-years?
  - b. What are your thoughts on the level of urban development around the lake?
  - c. What are some of the negative things about the lake?

These questions spurred several responses, each recorded to be used for goal development and visioning for the watershed plan.

The Steering Committee is encouraged to direct input or any questions to Ben Dodd at 641-891-3795 or <a href="mailto:ben.dodd@dnr.iowa.gov">ben.dodd@dnr.iowa.gov</a>. Regular communication will occur with the Steering Committee team through email.





### Easter Lake Water Quality Management Plan Onsite Kickoff Meeting

Scornovacca's Pizza - 1930 SE 14th St. Des Moines IA 50320 (near corner of SE 14th and Hartford)
Monday March 26, 2012 – 2:30 PM to 5:00 PM

### 1. Introductions

- Jon Trombino, PE EA, Project Manager
- Jonathan Mohr, AICP EA, Environmental Planner
- Paul Brakhage LakeTech, Water Resources Planner
- Technical Advisory Team Members

### 2. Communication

- Lines of communication
- Roles and responsibilities
- EA and LakeTech

### 3. Existing Data Discussion

- ISU Easter Lake Feasibility Study 2011
- Yeader Creek NRCS Studies
- Easter Lake Park Master Plan
- Cost Estimates

### 4. Missing Data

- What information needs to be collected?
- How will it be collected?
- Public feedback from previous meetings

### 5. Funding Sources

- EPA 319
- State sources
- Other sources

### 6. Project/Meeting Schedule

- Layout a path forward
- Meeting schedule (TAT, SC, and public meetings)

### 7. Finalize Approach for Technical Advisory Team/Steering Committee Meeting

### 8. Issues and Questions

### 9. Primary Contact Info

- George Antoniou, Iowa DNR, 515-281-8042, george.antoniou@dnr.iowa.gov
- Jon Trombino, PE, EA, 402-476-3766, itrombino@eaest.com
- Jonathan Mohr, AICP, EA, 402-476-3766, <u>imohr@jeo.com</u>
- Paul Brakhage, LakeTech, 402-730-3658, knpbrakhage@gmail.com





Easter Lake Water Quality Management Plan Small Group Meeting 4-Lor He Tooy Monday March 26, 2012 from 2:00PM - 5:00PM

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### <u>Easter Lake Water Quality Mangement Plan</u> Small Group and Lake Tour – Notes

When: March 26, 2012, 10:00AM to 2:00PM (tour) & 2:00PM to 5:00PM (meeting)
Where: Watershed Van Tour & Kickoff Meeting (Scornovacca's Pizza - 1930 SE 14th St.)

### **Easter Lake Stakeholders:**

NAME	TITLE	ORGANIZATION
Richard Brown	Park Planner	Des Moines Parks
Loren Lown	Natural Resources Specialist	Polk County Conservation Board
Dan Pritchard	Civil Engineer	Des Moines Public Works
Jennifer Welch	Urban Conservationist	Polk Soil & Water Conservation District
Adam Kiel	Basin Coordinator	IDNR
Mike McGhee	Lake Restoration	IDNR
Ben Dodd	Fisheries Biologist	IDNR
Dennis Parker	Director	Polk County Conservation Board
George Antoniou	Lake Restoration Program	IDNR

### Other Attendees:

NAME	TITLE	ORGANIZATION
Jonathan Mohr, AICP	Environmental Planner	EA
Jon Trombino, PE	Project Manger	EA
Paul Brakhage	Water Resources Planner	LakeTech

### **NOTES**

Several Easter Lake technical stakeholders and the consultants met and toured the Easter Lake watershed. After the tour, the group met and held a kick-off meeting. For purposes of these notes the combined group will be called the project team.

- 1. Mike McGhee discussed funding options for sediment removal. He encouraged the project team to integrate projects together once the lake is drained for renovation.
- 2. Paul Brakhage mentioned how EPA is encouraging states to spend available 319 funding and get projects on the ground. He asked the group if the plan is complete by August or September 2012 if there would be residual funding available. Ada Kiel was unsure bout would check on this.
- 3. Easter Lake is currently in Tier I for lake restoration funding.
- 4. A socio-economic study of Easter Lake is available from Iowa State University.
- 5. IDNR now has in-house capability to perform bathymetric surveys. Bathymetric data would be necessary to calculate sediment loading.
- 6. Paul Brakhage asked about the approval process. Both the County Conservation Board and City of Des Moines Parks Board would approve the plan.
- 7. The group briefly discussed a 28E funding agreement.
- 8. 319 funding is more commonly used for watershed work, IDNR lake restoration funds will be used for in-lake work.

- 9. The group discussed starting work in the watershed and Yeader Creek for long-term sustainability of the lake. Once watershed and creek work is moving along plans for lake renovation will begin.
- 10. Paul Brakhage asked the group about the lack of nutrient and sedimentation standards.
- 11. The group wants a holistic plan that includes algae, soil, health impairments, etc.
- 12. Lake restoration projects are required to achieve at least 4.5 feet of secchi disk clarity. Mike McGhee mentioned water quality benefits for a lake when mean depths are around 10 feet.
- 13. The group does not want the plan to use metrics for any measurements.
- 14. Jonathan Mohr asked the group about how they wanted portions of the draft plan delivered. The group seemed to like the concept of receiving about half of the plan first in draft form, then later receiving a full draft.
- 15. Mike McGhee mentioned the Iowa Legislative Session starting January 1, 2013, so having a full draft plan prior to that time would be good.
- 16. 319 grant applications are due April 2013.
- 17. The group decided to have a reviewable draft September 2012 and then a full draft plan together by late-October 2012.
- 18. The project team established a draft meeting schedule; Jonathan Mohr will distribute a draft meeting schedule to George after the meeting.
- 19. EA would like any pictures of wet weather events from Yeader Creek or anywhere in the watershed.
- 20. A stormwater study was completed by Snyder and Associates called the Southeast Annex Area in 1994, Dan Pritchard will get Jonathan Mohr a copy.
- 21. The Parks Department has a master plan for Easter Lake Park that includes discussion on a trail across the west bay. This project could collaborate with a new sediment forebay. Any work in this area cannot raise the flood elevation at Indianola Avenue. This project could mix and match 319 and trail funds.
- 22. Des Moines has plans for a new sewer line south of the lake (Eastside Sewer Project) to run parallel to an existing line. Construction would require dropping the lake up to six feet.
- 23. The project team will follow-up on the sewer project and figure out a timeline.
- 24. If Easter Lake is dropped next year there could be opportunities for some in-lake work, such as retrofitting the spillway or shoreline stabilization.
- 25. The group discussed other possibilities for in-lake work if the lake is drawn down for the sewer project, such as fish renovation. This is a significant topic and would affect the plan implementation schedule.
- 26. Paul Brakhage asked if any known septic systems are located in the watershed. The group agreed that there should be few septic systems.
- 27. Jonathan Mohr asked about the City of Des Moines MS4 permit. He will contact Dan to get a copy.

The Project Team is encouraged to direct input or any questions to George Antoniou at 515.281.8042 or <a href="mailto:George.antoniou@dnr.iowa.gov">George.antoniou@dnr.iowa.gov</a>. Plan related questions or input can be directed to Jonathan Mohr at 402-476-3766 or <a href="mailto:jmohr@eaest.com">jmohr@eaest.com</a>. Regular communication will occur with the Project team through email.





### **Easter Lake Water Quality Management Plan**

### **Technical Advisory Team #2 of 4**

Metro Waste Authority – 300 E. Locust Street, Ste. 100, Des Moines, IA 50309 Thursday May 17, 2012 – 3:00 to 5:00PM

### 1. Introductions

### 2. EA's Analysis of Key Alternatives listed in NRCS Study/ISU's DF

- May 1, 2012 Creek and Watershed Tour
- Bathymetric analysis (1967, 2003, 2012)
- Trail causeway /sediment fore bay
- Yeader Creek stabilization projects
- Detention pond dredging
- Structural BMPs
- Non-structural BMPs

### 3. Strategy Discussion

- Non-structural BMP implementation (Information and Education Coordinator)
- Yeader Creek improvements
- Design and construction BMPs for damaged outfalls in Yeader Creek
- Installation of structural BMPs
- Demonstrative structural BMPs
- Construction of sediment dike at west arm, collaborate with trail causeway
- Dredge sediment forebay on south arm; work with design team to ensure new bridge being built meets flow restriction needs to create sediment forebay.
- Dredge sediment structures in south arm sub-watershed (Three Lakes Estates)
- Build additional sediment impoundment structures within south watershed
- Drain Easter Lake in preparation for in-lake improvements
- Replace lake outlet structure
- Remove sediment from lake, shoreline and aquatic habitat improvements

### 4. Public Outreach and Education

- What can start now?
- Website www.easterlakewatershed.wordpress.com
- Other ideas?

### 5. Issues and Questions

### 6. Contact Info

• George Antoniou, IDNR, 515-281-8042, <a href="mailto:george.antoniou@dnr.iowa.gov">george.antoniou@dnr.iowa.gov</a>







### Easter Lake Water Quality Management Plan Technical Advisory Team Meeting #2 Thursday May 17, 2012 3:00PM - 5:00PM

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## Easter Lake Water Quality Management Plan Technical Advisory Team Meeting #2

Technical Advisory Team Meeting #2 Thursday May 17, 2012 3:00PM – 5:00PM

Metro Waste Authority - 300 E. Locust Street, Ste. 100, Des Moines, IA

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### Easter Lake Water Quality Mangement Plan Technical Advisory Team Meeting #2

When: May 17, 2012 @ 3:00PM

Where: Metro Waste Authority – 300 E. Locust Street, Ste. 100, Des Moines, IA

### Attendees:

NAME	TITLE	ORGANIZATION
Mark McCurdy	Planning Engineer	NRCS
Ben Dodd	Fisheries Biologist	IDNR
Loren Lown	Natural Resources Specialist	Polk County Conservation Board
Steve Hopkins	Section 319 Coordinator	IDNR
Adam Kiel	Basin Coordinator	IDNR
Richard Brown	Park Planner	City of Des Moines
Jesse Leckband	Stormwater Tech	City of Des Moines
Hunter Brown	Intern	City of Des Moines
Paul Miller	District Conservationist	NRCS
Jennifer Welch	Urban Conservationist	Polk SWCD
Mark Van Dyck	Intern	City of Des Moines
Dan Pritchard	Civil Engineer	City of Des Moines
Chris Larson	SW Fisheries Supervisor	IDNR
Rachel Glaza	Environmental Specialist	IDNR
Mike McGhee	Lake Restoration	IDNR
Dennis Parker	Director	Polk County Conservation Board
Wayne Petersen	Urban Conservation	IDALS
Jon Trombino	Project Manager	EA Engineering, Science, & Tech.
Jonathan Mohr	Environmental Planner	EA Engineering, Science, & Tech.

### **NOTES**

The second Technical Advisory Team meeting was held at the Metro Waste Authority office for the Easter Lake Water Quality Management Plan. The intent of the meeting was to discuss EA's analysis of key alternatives listed in existing studies, begin a group discussion on an improvement strategy, and share ideas for public involvement. Below is a summary of questions, answers, and notes from the meeting.

- 1. Mike McGhee started the meeting by thanking everyone for attending and asked each person to introduce themselves.
- 2. Jonathan Mohr provided the group a brief update on work completed since the last meeting, a summary of the May 1, 2012 field visit by EA, and an overview of what today's meeting would be covering.

### **Sediment Forebay Alternatives Discussions**

3. Jon Trombino discussed sediment forebay draft alternatives for the west branch of Easter Lake. EA provided a graphic showing sediment forebay placement alternatives based upon service life (10, 15, and 40 years), forebay capacity, excavation depth, storage zone depth, and assumed sediment inflow.

- 4. Dennis Parker asked how the forebay alternatives would reduce phosphorus and sediment from the lake. Jon Trombino explained how sediment capture upstream of the forebay would also reduce phosphorus loading in the main part of the lake.
- 5. Dennis Parker asked about design options for the sediment forebays, such as designing them to be underwater. Jon Trombino described different alternatives for the design and explained that details would be delivered later in the planning process. The group discussed situation where the forebay and trail bridge could be flooded.
- 6. Dennis Parker asked about scenarios for how to dredge out the sediment forebays. Jon Trombino answered that the design would include access for machinery.
- 7. Chris Larson asked if EA would consider a 'what if' scenario to show what would be placed in the lake if budgets were not an issue.
- 8. Mike McGhee brought up how investments into sediment reduction from the creek and watershed BMPs should be balanced with investments in the sediment forebay. The group discussed how watershed reductions could increase the life of the sediment forebays.
- 9. Richard Brown asked how the sediment forebay would affect lake levels behind it during differing rain events. He mentioned some of the parking lots are underwater west of Indianola Avenue. Adam Kiel added that this was upstream of the box culvert at Indianola and wondered if that was causing the backup. Jon Trombino explained to the group that the capacity of flow through the sediment forebay would be slightly greater than the box culvert at Indianola to ensure there were no new problems. The box culvert at Indianola Ave is not being replaced as part of the ongoing construction at that site.
- 10. Dennis Parker mentioned that it is okay to overtop the sediment forebay and trail crossing to ensure Indianola Ave is not overtopped.
- 11. Jon Trombino led a discussion about accessibility through the forebay, asking if the group would prefer paddling access, or motor boat access. The group agreed paddling access would be great.
- 12. Overall, the group agreed with the general concepts as presented. EA will continue to modify design alternatives based upon input from the TAT.

### **Yeader Creek Improvement Discussion**

- 13. Jon Trombino began a discussion on Yeader Creek improvements and provided a figure showing concepts for a stream bed stabilization project near Wal Mart. He explained EA's work put into this concept and asked the group their thoughts and opened up a discussion.
- 14. Mike McGhee asked about materials that would be used, sheet pile or rock. Jon Trombino discussed past experiences using both, and suggested sheet pile for creek improvements.
- 15. Adam Kiel asked about the knick point downstream of Deihl Ave. Jon Trombino mentioned that this is a special issue and that the knick point would most likely continue to travel towards the road. The NRCS study provides a design concept for this issue.
- 16. Richard Brown asked that the plan include several pictures showing what the design will look like. Mark McCurdy added that the NRCS study has several pictures of the rock chute that they recommended.
- 17. The group discussed alternatives for rip-rap and using more natural looking construction in park areas. Jon Trombino is going to provide examples at the next meeting.
- 18. The group discussed infiltration BMPs, the level of detail that will be in the plan explaining where and which BMPs would work best, and the importance of infiltration BMPs to support both creek and in-lake improvements.
- 19. EA's example included only grade stabilization improvements and did not show stream bank improvements. Jon Mohr and Jon Trombino explained the example provided today was just one example, and there would be several more with this level of detail included in the plan, including improvements for outfalls and stream stabilization.

20. Mark McCurdy described how grade stabilization in the creek would benefit stream bank degradation. Mark explained that by stabilization the grade of Yeader Creek, and reducing flow velocity, the toe of the bank becomes more stable, which in turn helps stabilize the sloping stream bank. Ideally overtime vegetation would reestablish and the stream will naturally repair itself.

### **General Discussion**

- 21. Dennis Parker recommended that the plan include a table listing which actions should be implemented based upon when the lake would be lowered.
- 22. July 1, 2012 state legislature signs the IDNR funding bill. Mike McGhee has recommended funding for Easter Lake for 2013 and is currently working on funding for in-lake improvements and dredging, up to \$5-6 Million.
- 23. The Easter Lake trail is currently planned for 2015, but if additional funding is made available this could happen much sooner.
- 24. Mike McGhee recommended discussing timelines and funding for projects at the next TAT meeting.
- 25. Richard Brown mentioned that the Des Moines City Council has interest to begin working on trails soon and that the sediment forebay dovetails well with the planned trail project.
- 26. Loren Lown would like to see future improvements better connect people to the lake, and better connect areas parks to the lake.
- 27. Jon Mohr recommended moving the next TAT meeting on June 28, 2012, to **2pm** to allow more time for discussion prior to the end of the day.
- 28. IDNR has shown interest in supporting City projects to incorporate water quality benefits into them. For example, Southside Library, installing a BMP into the new parking lot, or near it once that project is complete.

The Technical Advisory Team is encouraged to direct input or any questions to George Antoniou at 515-281-8042 or <a href="mailto:george.antoniou@dnr.iowa.gov">george.antoniou@dnr.iowa.gov</a>. Regular communication will occur with the Technical Advisory Team through email.





### Easter Lake Water Quality Management Plan Technical Advisory Team #3

Southside Library – 1111 Porter Avenue, Des Moines, IA Thursday June 28, 2012 – 2:00 to 5:00 PM

### 1. Introductions

### 2. Structural Project Alternatives

- Yeader Creek project locations
- Sediment forebays (west-arm and south-arm)
- Detention pond dredging / construction of additional planned structures
- In-lake work (outlet structure, shoreline, dredging, aquatic habitat improvement, accessibility, etc.)

### 3. Watershed Demonstration Projects

• Tour of projects / potential locations

### 4. Timelines and Funding Availability for Structural Projects

• Funding sources list

### 5. Non-Structural BMPs and Programs

- Program experiences on Holmes Lake
- Non-structural option list
- Information and education coordinator

### 6. Water Quality Targets

### 7. Issues and Questions

### 8. Contact Info

• George Antoniou, IDNR, 515-281-8042, <a href="mailto:george.antoniou@dnr.iowa.gov">george.antoniou@dnr.iowa.gov</a>

### Easter Lake Water Quality Mangement Plan Technical Advisory Team Meeting #3

**When:** June 28, 2012 @ 2:00 – 5:00PM

Where: Southside Library – 1111 Porter Avenue, Des Moines, IA

### **Attendees:**

NAME	TITLE	ORGANIZATION
George Antoniou	Lake Restoration Program	IDNR
Ben Dodd	Fisheries Biologist	IDNR
Loren Lown	Natural Resources Specialist	Polk County Conservation Board
Adam Kiel	Basin Coordinator	IDNR
Richard Brown	Park Planner	City of Des Moines
Dan Pritchard	Civil Engineer	City of Des Moines
Dennis Parker	Director	Polk County Conservation Board
Jim Gillespie	Division Director	IDALS
Vince Sitzmann	Field Services Bureau Chief	IDALS
Robb Lutz	Project Engineer	EA Engineering, Science, & Tech.
Jonathan Mohr	Environmental Planner	EA Engineering, Science, & Tech.
Paul Brakhage	Environmental Planner	LakeTech, Inc.

### **NOTES**

The third of four scheduled Technical Advisory Team (TAT) meetings was held at the Southside Library for the Easter Lake Water Quality Management Plan. The intent of the meeting was to discuss structural and non-structural project alternatives, potential watershed demonstration projects, timelines and funding for structural projects, and how the plan format will relate to EPA's Nine Elements of watershed planning. Below is a summary of questions, answers, and notes from the meeting.

- 1. Each attendee in the room introduced themselves.
- 2. Jonathan Mohr thanked everyone for attending and started the meeting off by describing each of the handouts provided at the meeting:
  - a. Water quality program examples
  - b. Non-structural alternatives for water quality improvement
  - c. Project summary one page handout
  - d. Conceptual design sketches of two types of projects proposed for Yeader Creek
- 3. Paul Brakhage went through the big picture view and related to the group the importance of related EPA's Nine Elements into the watershed plan, especially the importance of identifying pollutant sources and load reductions for each management alternative.
- 4. Jon Mohr and Robb Lutz presented a draft structural alternative map to the group for discussion that included 14 different areas sited for improvement, including 7 proposed improvement areas on Yeader Creek, six areas for improvement in and around Easter Lake, and two areas of improvement in the southeast sub-basin. Water quality BMPs throughout the watershed have not been located at this time and will likely remain generally located.
- 5. The entire group had a discussion on the level of detail necessary for the Yeader Creek improvement projects. George Antoniou wanted to be sure enough detail was present to decide which creek projects should move forward. Paul Brakhage stated that having site specific

- projects, instead of 'general improvement areas', might hurt the ability to move a project in the future if EPA makes IDNR stick to the areas pointed out in the watershed plan. Jon Mohr mentioned that language can be added to the plan to allow for a certain level of specifics, but yet allow for flexibility when siting projects. It was noted that the dynamic nature of the creek could easily change the location of proposed projects by the time they are constructed. The level of detail to be included in the plan is yet to be decided.
- 6. Dan Pritchard asked if having this level of detail (25%) and site specific locations would pin point them to that action. Paul Brakhage described how EPA's process works, which is why most plan, do not list site specific projects. However, due to the large amount of information available in the NRCS study and ISU DF study this level of detail is more achievable.
- 7. George Antoniou mentioned that having flexible language in the plan will be important if a project location does move for any reason.
- 8. The group is okay with the proposed locations for the west-arm sediment forebay and wants both the 10 and 15-year maintenance alternatives listed in the plan.
- Polk County Conservation has submitted another grant to help fund the trail proposed around the west arm of the lake and have included the west-arm sediment forebay alternatives in the grant proposal.
- 10. Adam Kiel mentioned that IDNR is considering moving the deadline for 319 grants from April 2012 to August or September 2012 to expedite spending of funding that is currently available. Jon Mohr will follow up with Adam and George on how this deadline might affect the over timeline of the watershed plan.
- 11. Jon Mohr asked the group on their overall thoughts of an implementation strategy. Jon suggested that EA uses all available information and input from the steering committee and technical advisory team and puts together a draft implementation strategy that will be made available at the next TAT meeting.
- 12. Adam Kiel asked about the agricultural ground in the watershed, who owns the ground? Jon Mohr will research and provide feedback. The group discussed whether agriculture water quality incentives would be effective if developers own the ground and plan to develop the ground soon (i.e. buffering now to only be ripped out later).
- 13. Dennis Parker asked about the level of project detail to be included for the lake. Jon Mohr answered that quantities will be included for sediment removal from the lake, the south-arm sediment forebay, distances for shoreline improvement, options for retrofitting the outlet to eliminate rough fish, aquatic habitat improvements, and general recommendations for fishing access. IDNR will provide information on other retrofits that have been completed on other outlet structures.
- 14. Once Paul Brakhage receives area/volume calculations from the 2012 bathymetric survey he can put together numbers on internal loading of phosphors in the lake.
- 15. Jon Mohr asked about including alum treatment of Easter Lake as a management alternative. The group decided to include alum treatment as a potential alternative.
- 16. Dennis Parker asked if EA will provide an evaluation on dredging options, hydraulic versus mechanical dredging. Jon Mohr will discuss with Jon Trombino and information will be included on sediment removal alternatives. Based upon the urban environment around the lake areas to deposit spoils from hydraulic dredging is very limited, so likely mechanical dredging will be the primary alternative. The plan will not specify locations to deposit dredged material.
- 17. Ben Dodd asked about including information on improving the fish rearing pond at Easter Lake. Jon Mohr answered that the fish rearing pond probably won't be included in the plan at this point.

18. The group discussed the upcoming Iowa Watershed Improvement Review Board grant application due in July. The City of Des Moines plans to sponsor a grant, co-sponsored by IDNR, for three water quality BMPs around existing parking lots in Ewing Park. Jon Mohr suggested that a small group visit these sites after the TAT meeting. EA will provide preliminary cost estimates and design sketches to support the grant application. Jon Mohr added he can review the grant application if necessary to ensure input related to the watershed plan is provided.

The Technical Advisory Team is encouraged to direct input or any questions to George Antoniou at 515-281-8042 or <a href="mailto:seeantoniou@dnr.iowa.gov">george.antoniou@dnr.iowa.gov</a>. Regular communication will occur with the Technical Advisory Team through email.





### Easter Lake Water Quality Management Plan Technical Advisory Team #4

### Southside Library – 1111 Porter Avenue, Des Moines, IA Thursday August 23, 2012 – 2:00 to 5:00 PM

### 1. Introductions

### 2. WRA Sewer Project and Easter Lake Bridge Replacement

- Timing of future water quality improvements
- City/County future infrastructure projects to reflect Easter Lake long-term efforts
- 3. Outlet Retrofit for Fish Exclusion
- 4. Watershed Demonstration Projects
- 5. Dredge Containment Sites
  - Size necessary and type of sites
- 6. Structural Alternatives vs. Alternative Watershed BMPs
  - Use of softer engineering options near public-use areas
- 7. October Nonpoint Source 319 Applications October 15, 2012 & April 2013
  - Project application sponsors
  - Project ideas (honeysuckle removal, Rainscape Iowa, Easter Lake Conservationist position)
- 8. Draft Plan Review
  - Comments sent to George by August 31<sup>st</sup>
  - Section 4 Water Quality and Fisheries Assessment delivered 8/24/12
- 9. Schedule Public Open House
  - Steering Committee meeting prior (4:30pm to 5:15 pm)
  - Open House 5:30pm to 7:00pm, (2) 15-minute presentations at 5:45 and 6:15, multiple information stations staffed by project team & EA
  - Thursday September 20 or Thursday September 27
  - Full Draft Plan ready for review at meeting

### 10. Contact Info

George Antoniou, IDNR, 515-281-8042, george.antoniou@dnr.iowa.gov





## and the Mater Quality Management Plan

Technical Advisory Team Meeting #4
Thursday August 23, 2012 2:00PM – 5:00PM

Southside Library - 1111 Porter Avenue, Des Moines, IA

NAME	TITLE	ORGANIZATION Represented	ION CITY	PHONE	EMAIL	
Jan Tromstro	PM	EA		405-476-3766	jtrombiholenestirom	4024
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George Anderson	Lakes Pregram	DNG		515-281-8042		
Dan Pritchad	Civil Supher	City or DSM		515-323-8/63 despoise tool @ dayov.org	desperte lend @ do	200.00
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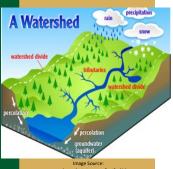
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### community based planning approach, led by a 13 person citizen's Steering Committee, was used to help local residents and stakeholders develop the Plan"

### Easter Lake Water Quality Management Plan

OCTOBER 2012

### **Project Summary**



www.depweb.state.pa.us/justforkids

Sponsored by:







Additional Support provided by:







aster Lake has been providing recreational opportunities for residents and visitors since 1967. The lake is mostly contained within Easter Lake Park located in Des Moines, Iowa: which is managed by the Polk County Conservation Board (PCCB). Over the last several years the water quality of Easter Lake has diminished and it currently suffers from poor water clarity, algal blooms, high sedimentation rates, low oxygen concentrations, and poor fishery.

In response to these water quality problems, area stakeholders have developed the Easter Lake Water Quality Management Plan (Plan). The planning effort was cosponsored by the Iowa Department of Natural Resources (IDNR), City of Des Moines, and PCCB. Other support agencies included the Iowa Department of Agriculture and Land Stewardship, Polk Soil and Water Conservation District, Natural Resources Conservation Service, and the Center for Agricultural and Rural Development. A Technical Advisory Team, including representatives from each agency, was formed and supported the plan establishment. IDNR retained EA Engineering, Science, and Technology, Inc. (EA) of Lincoln, Nebraska to provide engineering, environmental, and planning services.



Easter Park Trail—Spring 2012



Easter Lake Sunset—Winter 2012 (provided by Roger Elliott)

EA was responsible for producing the Plan documents, which included an implementation and public outreach plan and conceptual level design concepts for improvement projects.

A community based planning approach, led by a 13 person citizen's Steering Committee, was used to help local residents and stakeholders have input during the development

The Plan was completed in October of 2012 and lays out the community's vision for the renovation of Easter Lake. The Plan includes a strategy to reduce pollutant loading to the lake from the contributing watershed. The Plan includes a ten year implementation schedule, which is split into three phases. Each phase has specific programs and projects that will be implemented to achieve water quality goals.

Examples of the proposed restoration measures include stream bank and shoreline stabilization, non-structural BMPs such as the use of nophosphorus fertilizers, rooftop downspout disconnects, sediment removal, construction of in-lake sediment detention structures, fish population renovation, and public education and outreach.

For more information contact the project sponsors or Visit the project website at www.easterlakewatershed.word press.com



Stream erosion contributes sediment to the lake







## Easter Lake Water Quality Management Plan

**Open House 1**Thursday Ocotber 4, 2012 - 6:00-7:30

South Side Senior Center - 100 Payton Ave, Des Moines, IA

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## Easter Lake Water Quality Management Plan Open House 1 Thursday Ocotber 4, 2012 - 6:00-7:30

South Side Senior Center - 100 Payton Ave, Des Moines, IA

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## Easter Lake Water Quality Management Plan Open House 1 Thursday Ocotber 4, 2012 - 6:00-7:30

South Side Senior Center - 100 Payton Ave, Des Moines, IA

NAME	TITLE	ORGANIZATION Represented	CITY	PHONE	EMAIL
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Gal Harrison			DSM	563-260-1084	



221 Sun Valley Blvd, Suite D Lincoln, NE 68528 Telephone: 402.476.3766 Fax: 402.476.7825

www.eaest.com

### **OPEN HOUSE #1 SUMMARY AND NOTES**

Project: Easter Lake Water Quality Management Plan

Date: Thursday October 4, 2012

Time: 6:00 - 8:00 pm

Location: Southside Senior Center, Des Moines, IA

Submitted by: Jon Trombino on October 9, 2012

### **OPEN HOUSE FORMAT**

 Five stations with focuses on: structural projects, programmatic BMPs, Park Trials, Fisheries, and Rain Scaping Iowa programs

- Sign in table with: project summary, sign-in sheet, feedback forms
- Seating for 100 with a power point presentation

### **PRESENTATION FORMAT**

Jon Trombino, P.E., EA, started the 15-minute presentation by thanking participants for attending and discussing the community based planning approach used to create the Plan. Mr. Trombino then discussed the water quality issues present at Easter Lake and the pollutants of concern; sediment and phosphorus. The presentation then focused on the recommendations for improving water quality including; both structural and programmatic BMPs. The implementation schedule of the Plan was presented along with the estimated costs to implement the Plan. Questions were taken from the general group for approximately 15 minutes. The group was then encouraged to mingle with the Technical Advisory Team, view the education boards, and ask additional questions to the team. The presentation was repeated at 7:30 and questions were answered immediately following the presentation. The meeting was closed at 8pm.

### **QUESTIONS AND DISCUSSION SUMMARY**

There were many different questions posed by the group and individuals after the presentation. Common themes asked by the nearly 100 participants were:

- 1) As a homeowner what can I do to help improve the water quality?
- 2) Will the proposed projects impact my property?
- 3) How will the plan implementation be funded?
- 4) What will the City be doing to improve water quality?
- 5) General questions about the structural projects and how they would look and function after construction.

A rain barrel was presented to a meeting participant through an entry prize drawing held at 7:45pm.

### HOUSEHOLD HAZARDOUS WASTE DISPOSAL

Leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients are

considered to be household hazardous waste. Products such as paints, cleaners, oils, batteries, and pesticides that contain potentially hazardous ingredients require special care when you dispose of them.

Improper disposal of household hazardous wastes can include pouring them down the drain, on the ground, into storm sewers, or, in some cases, putting them out with the



trash. The dangers of such disposal methods might not be immediately obvious, but improper disposal of these wastes can pollute the environment and pose a threat to human health. (From US EPA) Please contact the Metro Waste Authority's Regional Collection Center for more information about proper household hazardous waste disposal at 967-5512.

### **REPORT SUSPECTED VIOLATIONS**

If you suspect illegal dumping or wish to report sediment laden runoff from construction sites, please call the Public Works 24-hour complaint hotline at 283-4950.

### Watershed Spotlight: Easter Lake and Yeader Creek

Easter Lake has been providing recreational opportunities for residents and visitors since 1967. The lake is contained within Easter Lake Park and Ewing Park located in Des Moines, Iowa. Over the last several years the water quality of Easter Lake has diminished and it currently suffers from poor water clarity, algal blooms, high sedimentation rates, low oxygen concentrations, and poor fishery.

In response to these water quality problems, area stakeholders have begun working to develop the Easter Lake Water Quality Management Plan (Plan). The planning effort is co-sponsored by the Iowa Department of Natural Resources (IDNR), City of Des Moines, and Polk County Conservation Board.

IDNR has retained EA Engineering, Science, and Technology, Inc. (EA) of Lincoln, Nebraska to provide engineering, environmental, and planning services. EA is responsible for producing Plan documents, including an implementation and public outreach plan and conceptual level design concepts for improvement projects. A community based planning approach, led by a 13 person citizen's Steering Committee, is being used to help local residents and stakeholders develop the Plan. The Plan will layout the community's vision for the renovation of Easter Lake and will include a strategy to reduce pollutant loading to the lake from the contributing watershed; consisting primarily of Yeader Creek.

Examples of potential restoration measures include stream bank and shoreline stabilization, non-structural BMPs such as the use of no-phosphorus fertilizers, sediment removal, construction of in-lake sediment detention structures, fish population renovation, and public education and outreach. The plan is scheduled to be drafted by the fall of 2012, and finalized in early 2013. Construction on improvement projects and implementation of water quality improvement programs is expected to begin in 2013 and continue over several years.

Visit www.dmgov.org/stormwater for more information as the project progresses.

For more information please visit <a href="www.dmgov.org/stormwater">www.dmgov.org/stormwater</a> Call 283-4950 24 hours a day to report suspected violations.