

Appendix B - Public Information and Education

OVERVIEW

This appendix contains public participation material for Advisory Council meetings, and Public meetings. The four newsletters are also contained within this appendix. The material is summarized below:

Advisory Council Meetings

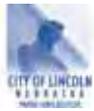
- September 14th, 2010
- February 10th, 2011
- November 29th, 2011

Open House Events

- September 30th, 2010
- December 1st, 2011

Newsletters

- Volume One, August 2010
- Volume Two, January 2011
- Volume Three, September 2011
- Volume Four, April 2012



Antelope Creek Watershed Basin Management Plan

Advisory Council Meeting #1

Lower Platte South NRD Office - 3125 Portia Street

Tuesday September 14th, 2010 – 5:30 to 7:30PM

1. **Introductions (15 minutes)**
 - Nebraska Open Meetings Act
 - Ed Kouma, PE – Project Manager, City of Lincoln, Public Works and Utilities, Watershed Management, Project Manager
 - Paul Zillig, Assistant Manager, Lower Platte South NRD
 - Dale Schlautman, PE – EA Engineering, Science, Technology
 - Advisory Council Members

2. **Introduction to the Antelope Creek Watershed Basin Management Plan (20 minutes)**
 - Ed Kouma - Continued basin planning efforts
 - Ed Kouma and Paul Zillig – explanation of project
 - Dale Schlautman – explanation of scope/project team

3. **Advisory Council (5 minutes)**
 - Roles and Responsibilities: *Council members will be asked to review elements of the process, ask questions, raise issues, and share information with one another, the public and the project team.*
 - Questions from the group

- Break (15 minutes)**

4. **Small Group Discussion on Concerns with Water Quality in Antelope Creek (30 minutes)**
 - Discussion in Two groups, 20 minutes
 - One advisory council representative from each group to summarize discussion, 10 minutes

5. **September 30, 2010 Open House Discussion (15 minutes)**
 - Format of meeting
 - Public perception of the project?
 - Discussion

6. **Next Steps/Questions (5 minutes)**
 - Advisory Council communication, Ed Kouma via email
 - Future meeting topics and discussion

7. **Contact Info**
 - Ed Kouma, PE, City of Lincoln, 402-441-7018, ekouma@lincoln.ne.gov
 - Dale Schlautman, PE, EA, 402-476-3766, dschlautman@eaest.com
 - Jonathan Mohr, AICP, JEO, 402-435-3080, jmohr@jeo.com
 - Website – www.lincoln.ne.gov (keyword: watershed), click on Master Plans, then Antelope Creek Watershed

Antelope Creek Watershed Basin Mangement Plan

Advisory Council Meeting #1 - Minutes

Lower Platte South NRD Office - 3125 Portia Street

Tuesday September 14th, 2010 – 5:30 to 7:30PM

Advisory Council:

NAME	TITLE	JURISDICTION
Bob Kuzelka	Retired Professor UNL	Near South Neighborhood
Mike Renken	Executive Director	Neighbor Works
Dale Hardy	Golf Administrator	City of Lincoln
Jennifer Dam, AICP	Assistant Director Campus Planning	UNL
Andrew Campbell	Landscape Department Manager	Campbell's Nursery
Karen Amen	Director	LPS NRD

Other Attendees:

NAME	TITLE	JURISDICTION
Mary Schroer	Non-point Source Pollution Coordinator	NDEQ
Sara Hartzell	Planner	City of Lincoln
Ed Kouma, PE	Engineer	City of Lincoln
Ben Higgins, PE	Senior Engineer	City of Lincoln
Paul Zillig	Assistant Manager	LPS NRD
Jonathan Mohr, AICP	Planner	JEO
Bob Todd	Scientist	EA
Dale Schlautman, PE	Engineer	EA
Jon Trombino, PE	Engineer	EA

When: September 14, 2010

Where: Lower Platte South NRD Office – 3125 Portia Street

MINUTES

The Antelope Creek Watershed Basin Management Plan Advisory Council met for the first time to discuss roles and responsibilities, introduce the project, discuss concerns with Antelope Creek, and provide the Core Work Group with a public perception of the project. Jonathan Mohr facilitated the meeting. Below is a summary of notes, questions, and discussion.

1. Introductions – in addition to the Advisory Council members, members of the Core Work Group were introduced.
2. Roles and responsibilities – Council members will be asked to review elements of the process, ask questions, raise issues, and share information with one another, the public, and the project team.

3. Kouma and Zillig provided an overview of the project in relation to other planning efforts.
4. Schlautman explained the project tasks using a power point presentation.
5. Kuzelka asked if the upper portion of the watershed has been covered by a similar plan. Kouma described that a separate effort was undertaken during rehabilitation of Holmes Lake, but nothing like the detail being address as part of this Basin Plan.
6. Kuzelka asked about the new stream area, how it will be a high public use area and could become an exposure area. The group discussed the importance of ensuring water in the Creek is safe for the expanded recreational opportunities.
7. If Antelope Creek is not meeting Total Maximum Daily Load (TMDL) now, will we be sampling all the areas including tributaries to determine sources? Yes – sampling will be conducted throughout the Basin to more accurately pin point potential contaminate sources.
8. Campbell inquired about existing pipes discharging into the Creek from properties that are ‘grandfathered’ or allowed under some program in the past that may now not be authorized.
9. Kuzelka recognized industrial sites in the area, are we going to be looking at historical land use data? –e.g. Lincoln poultry may have had industrial discharges and there may be contaminants still flowing or leaving the site from past use. Higgins explained what level of data would be gathered for the Basin Plan, and that they are not getting into soil sampling or similar methods to collect data. Hardy mentioned he has watched this area and has not seen any discharges from the old Lincoln Poultry area.
10. Dam asked about a concern with the Randolph street industrial area, a lot has changed there near the old Coke-Cola Plant.
11. Kuzelka asked about the old Cushman plant. The University has it now but that site could be an area where industrial activities left issues.
12. Schlautman explained about base line sampling, primarily based on evaluation of the TMDL, but will do some additional sampling to track down sources of the E. coli and ammonia as we work our way through the Antelope Creek watershed.
13. Kuzelka asked if the Creek should be posted now to warn the public since it does not meet the TMDL? Todd explained the importance of working to improve water quality and ensure impairments do not worsen. The Creek is 2 to 3 times above the goal listed in the TMDL.
14. Dam discussed the old horse barns at the State Fair Park area may be a source of the E. coli and those will be gone, will sampling be done in that area? EA will be conducting sampling of the Creek in that area.
15. Amen asked about sampling data throughout the Basin? Schlautman explained that the project team has acquired all available data, or is in the process of collecting additional sampling data.
16. Campbell asked about the potential sources of E. coli and ammonia? He considered lawn care and dog/goose waste big possibilities.
17. Renken would like to have more meetings because it will be difficult to keep all the information in mind and to offer productive ideas, the group discussed having the second of potentially three meetings in January.

18. Kuzelka discussed how it might be nice to develop fact sheets or handout that provides information on what a watershed is and other Antelope Creek issues. What are the Councils duties at the public meeting? Will we have specific tasks? Schlautman and Kouma encouraged Advisory Council members to attend the meeting and direct attendees to one of the project team members to have questions answered.
19. Campbell asked about the plan for handout at the public meeting? Need a handout/take away sheet at the meeting. Mohr discussed the game plan to have a project description, FAQs, and other information available, and referenced the City's website.
20. Advisory Council discussed keeping the presentation at open house simple, to start with basic such as 'what is a watershed?', keep the presentation educational and not to technical, and not to use acronyms.
21. Amen explained importance of getting people involved, beyond engineers and scientist, to change habits towards improving water quality.
22. Kuzelka recommended putting neighborhood associations on an overlay of the Antelope Creek Basin map for the meeting. Mohr explained it would be added.
23. Amen asked about having people put sticky notes and comments on the large meeting map or have the Council be available to take comments and notes from the public if the crowd is large and they can't get to the poster areas, or don't want to ask questions in public. Mohr explained that project team staff would be available at the 'large map' and markers will be provided to make notes onto the map.
24. Kuzelka asked if there would be 1-2 follow up public session to provide input after you have come up with alternatives and Best Management Practices.
25. Renken advised that the Mayors Round Table might be a good place to provide public information and get input from neighborhood associations.
26. Campbell suggested using Channel 5 public information adds to get the project information out to the public.
27. Kuzelka asked about the relationship between the City and the NRD. Zillig, Kouma, and Higgins explained that they often alternate being the lead on projects, and commonly split cost and responsibilities.
28. Campbell recommended index cards at the back of the room for people to write comments/questions would be a big help. Mohr explained there would be a box at the sign-in table for feedback.
29. Campbell thought Jan/Feb meeting would be a good time to get back together since a lot of the work will be done and the BMPs may have been evaluated enough to get Council input.
30. Amen asked if the Council could get copies of the descriptions of the actual tasks. The minutes will include copy of actual tasks.
31. Mohr asked the group how do they look at Antelope Creek, as a Creek or a stormwater drain? Overall the group expressed desire to ensure it becomes cleaner and more natural. Work to find a balance between urbanization and the stream.
32. Campbell asked how much groundwater seeped into the Creek.
33. Amen wanted to be sure and recognizes all efforts in the Basin, such as the Assurity Building, Union Park best management practices, etc. We could involve others who have been involved in the project area in the past.

34. Renken mentioned Union Bank and others who have provided funding and other involvement in the planning.
35. The City has put a lot of money into the Antelope Creek Basin and now the public will have access to the area in Union Plaza so we need to consider what the water quality will be and make sure we do not have water quality issues in the area or the public will question why the money was spent.

The Advisory Council is encouraged to direct input or any questions to project manager, Ed Kouma, at 402-441-7018 or ekouma@lincoln.ne.gov. Regular communication will occur with the Advisory Council through email.



Antelope Creek Watershed Basin Management Plan

Advisory Council Meeting #1

Lower Platte South NRD Office - 3125 Portia Street

Tuesday September 14th, 2010 - 5:30 PM

PLEASE PRINT CLEARLY - THANK YOU!



NAME	TITLE	ORGANIZATION	ADDRESS	PHONE	EMAIL
BOB KUEHL	Retiree	UNL	1935 55th St 68502	475-0221	vkuehl@unl.edu
Mike Renken	Ex Dir	Norfolkworks Lincoln	2240 Q St	477-7181	MikeRenken@midwestenergy.com
Mary Schreier		NDEQ	1200 N Street	471-6988	mary.schreier@nd.gov
Jonathan Mohr	Planner	SECO	650 J St, suite 215 Lincoln NE 68502	435-3080	jmohr@secor.com
Sara Hartzell	Planner	Lincoln Pac. Co	555 S. 10th	441-6371	shartzell@lincolnregov.com
Ed Kouma	Sq. ineer	City	555 S. 10th	441-7018	ekouma@lincolnregov.com
Ben Higgins	Sr Engr	"	"	441-7589	bhiggins@" "
Paul Zivic	Asst Mgr	LPSNRD		476-2729	pzivic@lpsnrd.org
Dale Schlahtman	Executive	EA	221 South Valley Blvd Lincoln, NE 68528	476-3746	dschlahtman@east.com
Jon Trembino	Engineer	EA	"	"	jtrembino@east.com
Bob Todd	Scientist	EA	"	"	rtodd@east.com



Antelope Creek Watershed Basin Management Plan

Advisory Council Meeting #1

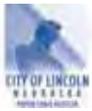
Lower Platte South NRD Office - 3125 Portia Street

Tuesday September 14th, 2010 - 5:30 PM

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NAME	TITLE	ORGANIZATION Represented	ADDRESS Street Number, Street Name, City, Zip	PHONE	EMAIL
DALE HARBY	GOLF ADMINISTRATOR	City of Lincoln	2740 F STREET WESCO	491-3860	DALE@lincolncan.com
Aimee Campbell	Landscape Dept Mgr	Campbell's Nurseries	5625 Pine Lake Rd (W)	484-7788 x101	AICE.CAMPBELL@LINCOLN.NE.CORP
Jennifer Dam	Asst Director IRO Campus Planning	UNL	335 Admin UNL	472-2823	jdams@unl.edu
Karen Duman	NRD BOARD	UNL	3225 S. FRONT 68568	499-7930	kduman@unl.edu kduman@gmail.com



Antelope Creek Watershed Basin Management Plan

Advisory Council Meeting #2

Lower Platte South NRD Office - 3125 Portia Street

Thursday February 10, 2011 – 7:30 AM to 8:30 AM

1. **Introductions (5 minutes)**
 - Nebraska Open Meetings Act
2. **Advisory Council Roles and Responsibilities** - *“Council members will be asked to review elements of the process, ask questions, raise issues, and share information with one another, the public and the project team.”*
3. **Status of the Antelope Creek Watershed Basin Management Plan - Trombino (20 minutes)**
 - Basin inventory summary
 - Sampling efforts
 - Best management practice selection
 - Summary of findings
4. **Public Involvement Discussion - Mohr (20 minutes)**
 - September 30, 2010 open house summary
 - Suggestions for stakeholder meetings (community groups, neighborhood associations, others to present and discuss the Basin Plan)
 - Open House Number 2 of 2 anticipated for July 2011
5. **Questions from Advisory Council (10 minutes)**
6. **Next Steps/Timeline (5 minutes)**
 - Final Advisory Council Meeting likely prior to last Open House
 - Draft plan August 2011, Final Plan September 2011

Core Work Group Contact Info

- Ed Kouma, PE, City of Lincoln, 402-441-7018, ekouma@lincoln.ne.gov
- Paul Zillig, Lower Platte South NRD, 402-476-2779, pzillig@lpsnrd.org
- Jon Trombino, PE, EA, 402-476-3766, jtrombino@eaest.com
- Jonathan Mohr, AICP, EA, 402-476-3766, jmohr@eaest.com
- Website – www.lincoln.ne.gov (keyword: watershed), click on Master Plans, then Antelope Creek Watershed

Antelope Creek Watershed Basin Mangement Plan
Advisory Council Meeting #2 - Minutes

Advisory Council:

NAME	TITLE	JURISDICTION
Bob Kuzelka	Citizen	Near South Neighborhood
Mike Renken	Executive Director	Neighbor Works
Dale Hardy	Golf Administrator	City of Lincoln
Rachael Herpel	Outreach Coordinator	UNL Water Center
Andrew Campbell	Landscape Department Manager	Campbell's Nursery
John Chapo	President	Lincoln Children's Zoo
Scott Wieskamp	Director of Facilities	Lincoln Public Schools
Adam Hornung	City Council	City of Lincoln

Other Attendees:

NAME	TITLE	JURISDICTION
Ed Kouma, PE	Engineer (Project Manger)	City of Lincoln
Paul Zillig	Assistant Manager	LPS NRD
Jonathan Mohr, AICP	Environmental Scientist/Planner	EA
Jon Trombino, PE	Engineer	EA
Jamie Suing	Engineer	EA
Lalit Jha, PE, CFM, D.WRE	Engineer	JEO

When: February 10, 2011, 7:30 to 8:30 AM

Where: Lower Platte South NRD Office – 3125 Portia Street

MINUTES

The Antelope Creek Watershed Basin Management Plan Advisory Council met for the second of three anticipated meetings. The meeting intent was to bring the Council up to speed on project progress, summarize findings of the initial sampling effort and basin inventory, and to discuss possible stakeholder meetings.

1. Introductions (7:35 AM) - Advisory Council members introduced themselves, followed by other members in attendance.
2. Jonathan Mohr began the meeting by thanking Advisory Council members for participating, covering the agenda, reviewing the roles and responsibilities, and turning discussion to Jon Trombino to discuss the task summary.
3. Trombino covered the project team's progress thus far including a summary of the basin inventory and sampling results, work being completed with Wright Water Engineers (WWE) and Dr. Pitt, and the game plan for the next three months.
4. Andrew Campbell asked if there was an expectation or engineering standard to determine the performance of each Best Management Practice (BMP). Trombino explained the advantage of

having WWE's International BMP database, which includes information on BMP performance overtime.

5. Andrew Campbell asked if any other pollutants were present (besides Ammonia and *E.coli*), such as Phosphates. Trombino provided a summary of sampling thus far, *E.coli* remained the most prevalent pollutant, unexpected results haven't occurred.
6. Discussion occurred about the timing of the next Advisory Council meeting. Ed Kouma mentioned the Advisory Council would meet again prior to the draft plan being available for review. Paul Zillig added that the Council would be used to help the project team better understand issues and possible questions the public may have to better prepare the project team when the draft is ready for public review.
7. Mohr began discussion of remaining items on Public Information and Education. Newsletter number two is being mailed this week; there will be two more newsletters. EA and JEO have six stakeholder meetings to facilitate. Mohr asked the Council's input on potential stakeholder groups to meet with, maybe for a one-hour presentation, to increase outreach on the Basin Plan.
8. Bob Kuzelka presented to the Near South Neighborhood Association and provided information on the planning effort. Kuzelka stated that a one-hour presentation to any stakeholder group is probably too much and recommended sending a letter (from the City and NRD) to each Association in the project area to seek interest, or to spread news on the Basin Plan potentially through articles in their newsletters.
9. John Chapo recommended contacting the Downtown Lincoln Association, Local Public Access Channel 5 to include information on how people can receive more information. Chapo also recommended putting a post together about the project. Due to Antelope Creek improvements one area of the Zoo will be closed this summer and Chapo has offered to use that area to post information on the Basin Plan.
10. Andrew Campbell recommended contacting science teachers at Lincoln Southeast and possibly presenting to a group.
11. Councilman Hornung recommended contacting both the Lincoln Independent Business Association and the Homebuilders Association; and possibly the Lincoln Chamber of Commerce.
12. Bob Kuzelka emphasized using the level of knowledge used at the first Open House when discussing the project and recommended booth information at City Earth Day events, Open House at the Zoo, and UNL's Earth Day events.
13. Other discussions included the Earth Wellness Festival.
14. Rachael Herpel asked about using the Basin Plan to discuss at a Fall 2011 Water Seminar Series at UNL.
15. Mike Renken recommended the Mayors Roundtable, Tracey Corr is the primary contact.
16. Next Advisory Council meeting maybe late-July 2011.
17. Scott Wieskamp mentioned that one of the schools could be used for the next Open House.
18. Meeting adjourned at 8:36 AM

The Advisory Council is encouraged to direct input or any questions to project manager, Ed Kouma, at 402-441-7018 or ekouma@lincoln.ne.gov. Regular communication will occur with the Advisory Council through email.



Antelope Creek Watershed Basin Management Plan

Advisory Council Meeting #2

Lower Plate South NRD Office – 3125 Portia Street

Thursday February 10th, 2011 – 7:30 AM

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NAME	TITLE	JURISDICTION	ADDRESS	PHONE	EMAIL
John Chago	President	Lincoln Childs 200	1222 So. 27th Lin. 68502	475-6741 ext 125	jchago@ lincoln200.org
Lalit Jha	Eng.	JEO		443-8010	ljha@jio.com
Jon Trombino	Project Manager	EA		476-3766	jtrombino@east.com
Jonathan Mohr	Environmental	EVA		476-3766	jmohr@east.com
Jamie Sving	Eng.	EA		476-3766	jsving@east.com
Bob Kuzelka	Citizen	NSNA	1935 A St	495-0221	rkuzelka1@aol.com
Paul Zilicic	Asst. Man	LDSDNRD		476-2729	p.zilicic@psund.org
Raehael Herpel	Outreach Spec.	UNL WTRCTR		472-4977	rherpel2@unl.edu



Antelope Creek Watershed Basin Management Plan
 Advisory Council Meeting #2
 Lower Platte South NRD Office - 3125 Portia Street
 Thursday February 10th, 2011 - 7:30 AM
 PLEASE PRINT CLEARLY - THANK YOU!

NAME	TITLE	ORGANIZATION Represented	ADDRESS Street Number, Street Name, City, Zip	PHONE	EMAIL
DAN HARDOY	City Administrator	CITY OF LINCOLN	2740 "A", 68502	411-3800	DAN@LINCOLN.NE.GOV
Ed Varma	Engineer	City of Lincoln	555 S. 10 th	491-7018	edvarma@lincoln.ne.gov
SCOTT WISLITZ	Dir. of Fire	Lincoln Fire Dept	800 So. 24 th St.	436-1072	swis@lincolnfire.org
Mike Renken	Executive Director	Neighborhood Works Lincoln	2240 Q St	477-7181	Mrenken@nwlincoln.org
Andrew Campbell	Manager Land Dept	Campbell's Nursery	3025 Pine Lake Rd	484-7788	AAC@campbellnursery.com
Adawn Horvath		City Council	3025 S. 31 st St.	430-0006	ahorvath@scudder-law.com



Antelope Creek Watershed Basin Management Plan
Advisory Council Meeting #3
Lower Platte South NRD Office - 3125 Portia Street
Tuesday November 29, 2011 –7:30 AM

1. **Introductions (5 minutes)**
 - Introductions
 - Nebraska Open Meetings Act

2. **Update since February 2011 Meeting (5 minutes)**
 - Extension of timeline and contract
 - WinSLAMM completion July 2011
 - Water Quality Sampling completion September 2011
 - Recommendations and strategies November 2011

3. **Open House #2 Presentation (15 minutes)**

4. **General Discussion of Programs / Projects**
 - Public perception of programs / projects

5. **Next Steps/Questions (5 minutes)**
 - Open House #2, Thursday December 1, 2011 – 5:00 PM to 7:00 PM
 - Review comments, finalize Master Plan
 - January/February 2012 – City Council / NRD approvals

6. **Contact Info**
 - Ed Kouma, PE, City of Lincoln, 402-441-7018, ekouma@lincoln.ne.gov
 - Paul Zillig, LPSNRD, 402-476-2729
 - Jon Trombino, PE, EA, 402-476-3766, jtrombino@eaest.com
 - Jonathan Mohr, AICP, EA, 402-476-3766, jmohr@eaest.com
 - Website – www.lincoln.ne.gov (keyword: watershed), click on Master Plans, then Antelope Creek Watershed

Antelope Creek Watershed Basin Mangement Plan
Advisory Council Meeting #3 - Minutes

Advisory Council:

NAME	TITLE	JURISDICTION
Bob Kuzelka	Citizen	Near South Neighborhood
Mike Renken	Executive Director	NeighborWorks
Jennifer Dam	Campus Planner	UNL
Rachael Herpel	Outreach Coordinator	UNL Water Center
Karen Amen	Director	LPS NRD
John Chapo	President	Lincoln Children's Zoo
Scott Wieskamp	Director of Facilities	Lincoln Public Schools
Adam Hornung	City Council	City of Lincoln

Other Attendees:

NAME	TITLE	JURISDICTION
Ed Kouma, PE	Engineer (Project Manger)	City of Lincoln
Paul Zillig	Assistant Manager	LPS NRD
JB Dixon	Stormwater Specialist	LPS NRD
Jonathan Mohr, AICP	Environmental Scientist/Planner	EA
Jon Trombino, PE	Engineer	EA
Jamie Suing	Engineer	EA
JD Johnson, PE	Engineer	JEO

When: November 29, 2011 7:30 to 8:30 AM
Where: Lower Platte South NRD Office – 3125 Portia Street

MINUTES

The Antelope Creek Watershed Basin Management Plan Advisory Council met for the last of three anticipated meetings. The meeting intent was to go through the Open House presentation to be shown Thursday December 1, 2011 in order to bring the group up to speed on plan recommendations, in addition to allowing the Advisory Council to critique the presentation.

1. Introductions (7:35 AM) - Advisory Council members introduced themselves, followed by other members in attendance.
2. Jonathan Mohr began the meeting by thanking Advisory Council members for participating and summarizing the extended project timeline.
3. Jonathan Mohr began the presentation along with Jon Trombino, which extended through the entire meeting.
4. Several Advisory Council members commented on wording of the presentation and had suggestions to make the presentation better for the public to understand.
5. Paul Zillig suggested having someone available for water quality questions at the open house.

6. Adam Hornung recommended emphasizing what we thought were the pollutant loads (wildlife and pets).
7. The group asked several questions about specifics on what 'impairments' (copper, conductivity, selenium) were versus 'constituents of concern' (*E. coli* and ammonia). Trombino provided an explanation.
8. Karen Amen asked about the groundwater influence to the stream. Mohr and Suing explained the areas downstream of the Vine Street where groundwater boils are visible.
9. Kuzelka asked if the Open House was for public input or just to provide further information to the public. Mohr mentioned that there would be public hearings after the plan is developed prior to adoption of the plan by the NRD and City Council.
10. Meeting adjourned at 8:40 AM.

The Advisory Council is encouraged to direct input or any questions to project manager, Ed Kouma, at 402-441-7018 or ekouma@lincoln.ne.gov. Regular communication will occur with the Advisory Council through email.



Antelope Creek Watershed Basin Management Plan
 Advisory Council Meeting #3

Lower Platte South NRD Office - 3125 Portia Street
 Thursday November 29th, 2011 - 7:30 AM

PLEASE PRINT CLEARLY - THANK YOU!



NAME	TITLE	ORGANIZATION Represented	ADDRESS Street Number, Street Name, Cty., Zip	PHONE	EMAIL
Jennifer Dam	Campus Planner	UNL	332 Admin 0435	472-2823	jdamshewchuk2@unl.edu
Bob Kuzelka		NSNA	1936 A St 68502	475-0221	rkuzelka2@unl.edu
KAREN FINN	BOARD	LPSNRD	3220 Joy Court	423-3220	amend@unl.edu
John Chapo	President	Lincoln Children's Zoo	1222 S. 27th 68502	475-6741 ext-125	jchapoe@lincolnzoo.org
SCOTT WIESEKAMP	DIR. OF AFFAIRS	UNL/OWN PUBLIC SCHOOLS	800 S. 14th St. 68510	436-1072 ext. 82010	swieska@cp1.org
Rachael Heipel	Ed/Director Specialist	UNL/WRITER CENTERS	3510 Holdrege St Lincoln NE 68503	472-4917	rheipel2@unl.edu
J.D. Johnson	Engineer	JEO Consulting	650 'I' St. Suite 215	435-3080	jdjohnson@jco.com
Ed Houma	Engineer	City of Lincoln			
Paul Zilling	Asst. Manager	LPSNRD			
Janice Suiny	Engineer	EA			
Tom Trambler	Asst. Mgr	EA			
J.B. Dixon	Stimulus Specialist	LPSNRD			



Antelope Creek Watershed Basin Management Plan
Advisory Council Meeting #3
 Lower Platte South NRD Office - 3125 Portia Street
 Thursday November 29th, 2011 - 7:30 AM
PLEASE PRINT CLEARLY - THANK YOU!



NAME	TITLE	JURISDICTION Represented	ADDRESS Street Number, Street Name, Cty., Zip	PHONE	EMAIL
Adam Hornung	City Council			430-0006	ahornung@scaddle-laws.com
Mike Renken	Neighborhoods Lincoln			477-7181	MRENKEN@NWLINCOLN.ORG
Ben Higgins	City Council			441-7589	bhiggins@lincoln-ne.gov
Jonathan Mohr	EA - Senior Scientist			476-3766	jmo@jmo.com



Open House

Charles H. Gere Library
Thursday, September 30, 2010
5 to 7:30 pm

Antelope Creek Basin

Antelope Creek
Watershed Basin Management Plan

CITY OF LINCOLN
NEBRASKA
PAVOR CHASE BOUTLER

Lincoln Parks & Recreation
Sutton's Recreation District





Open House

You are invited to attend an Open House to learn about the Antelope Creek Watershed Basin Management Plan and provide input to the project team.

Bring your family, invite a friend, and take an active role in improving the health of your watershed!

Charles H. Gere Library

2400 South 56th Street
(56th & Normal)

Thursday, September 30, 2010
5 to 7:30 pm

(20 minute presentations at 5:30 pm and 6:30 pm)

Door Prize

One Rail Barrel
provided by the City of Lincoln

JEO CONSULTING GROUP, INC.
650 'J' Street, Suite 215
Lincoln, NE 68508

Non-Profit Org.
U.S. Postage
PAID
Lincoln, NE
Permit No. 825





OPEN HOUSE #1 SUMMARY AND NOTES

Project: Antelope Creek Watershed Basin Management Plan
Date: Thursday September 30, 2010
Time: 5:30 to 7:30 pm
Location: Charles H. Gere Library, 2400 S. 56th Street
Submitted by: Jonathan Mohr on February 3, 2011

OPEN HOUSE FORMAT

- Three stations with focuses on: water quality, floodplains, and best management practices in corners of the room
- One very large map of the project area with key landmarks over a 2007 aerial photo, markers provided
- Sign in table with: project summary, sign-in sheet, feed back forms, newsletter one
- City of Lincoln Watershed information on rain barrels and rain garden classes
- Seating for 80 with a power point presentation

PRESENTATION FORMAT

Jonathan Mohr, JEO, started the 15-minute presentation by thanking participants for attending and discussing general information such as 'what is a watershed', 'what is stormwater runoff', and what are the pollutants of concern. Jonathan discussed the project purpose and explained the teaming arrangement between the City and NRD. Dale Schlautman, EA, discussed the project scope and explained some stormwater quality best management practices. The presentation was repeated at 6:30, questions were held until the conclusion of the first presentation once the group was welcomed to mingle with the Core Working Group and view the education boards. Questions were accepted immediately after the second presentation prior to participants moving about.

QUESTIONS AND DISCUSSION SUMMARY

Due to an article published in local papers just prior to the open house a great majority of questions were concerning the public safety risk associated with the body contact with the water in Antelope Creek. Other 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 plan improve flood control?
- 3) What are the immediate health risks?
- 4) What types of projects will we see due to the plan?

A rain barrel was presented to a meeting participant by the City of Lincoln Watershed. The next open house is anticipated for July 2011. Nearly the entire core work group was in attendance along with five members of the Advisory Council (see sign-in sheets).



Antelope Creek Watershed Basin Management Plan
OPEN HOUSE
 Charles H. Gere Library – 2400 South 56th Street
 Thursday September 30th, 2010 – 5:00 to 7:30 PM

NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Rachel Ward	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident		rjward@unomaha.edu	
Joe Alvine	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident		j.alvine1888@gmail.com	3080 S. St.
Tracie Kugelbecht	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	4775522		2631 S-41
Danny Walker	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	477-7064		4777"E"ST.
Janelle Evans	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident			2521 So 56th St
Frances More Mudd	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident			
George Egan	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	488-2580		5345 ROOSEvelt
Debra Larson	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	483 5404	declanson@windstream.net	6039 CACEN DR 68506
Neil Banta	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	488-4085		6195 South St
	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident			
	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident			
	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident			
	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident			



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NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Maura Roseberry	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	489-1854	maurroseberry@lincolncollege.edu	5738 Normal Blvd
Margaret Wood	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	414-4948	margaret.wood@earthlink.net	864 Elmwood
Janae Berg	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	488-2055	theberrysfamily@earthlink.net	5120 Patmore
Wendy Beeth	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	430-1157	garyendsgroup.com	2238 S 48 th
Nancy Buchanan Smith	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	730-8407	nbs@woodsbro.com	3185-5041
Steve Masters	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	488-1789		7876 Sycamore Dr
Karen Arman	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	LPSNRD		
Prof. Carol Foreman	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	968-2603	prof1@panip@gmail.com	1849 O St Apt 4
Darius Wheeler	<input checked="" type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-202-1047	dsf@lincolncollege.edu	6001 S 088 th
Mike Renken	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-750-0571	mre.ken@lincolncollege.edu	2240 O St.
Nancy V Goff	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	730-5473	ed-nancy@netnet.com	2739 Anderson Dr.
Kaylene Tegmeyer	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-617-4926	kaerae11@gmail.com	2119 Park Ave 68502
Regina Lora Shornhafer	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-489-5539		4331 Antelope Creek Rd



Antelope Creek Watershed Basin Management Plan
OPEN HOUSE

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NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Robert C. Cenderson	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	483-5455		4941 So. 73 rd St. Lincoln, Neb 68511
Robert L. Bussmann	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	488 3231		
Billie C. Bussmann	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	488 3231		
Xun Liu	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	610 5511		535 N 23 rd St
Hansheng Kalibr	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-720-1850		
Nan Zhou	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-570-4274		
Trishwei	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-802-8952		4300 Holledge St. Apt # 1101
JED REGALE	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402 550 8283		
Alison Ingunza	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	9083807152		
DAN GAGE	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402 301 6439		
Eric Sibung	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402 429 9294		
Leon Shi / Jr	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	2120 3080		
	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident			



Antelope Creek Watershed Basin Management Plan

OPEN HOUSE

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NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Andy Szutko	<input type="checkbox"/> Business Owner <input checked="" type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-306-5704	aszutko9@huskers.unl.edu	
Sara Hartzell	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	441-6371	shartzell@lincoln.ne.gov	
Tracy Cow	<input type="checkbox"/> Business Owner <input checked="" type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	310-7069	tlines24@hotmail.com	1004 S 37
Pat Stear	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	617-8888	lunitatucumana@msn.com	2812 T St 68503
Wally Martin	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	488-1579	wallymartina@windstream.net	4633 Eden Circle
Shephi Beldin	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	432-5012	sherbel2002@yahoo.com	2725 So. 41 st
Reg Johnson	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	570-2196	mjohnson4@unl.edu	(06)
DAVID RUDER	<input type="checkbox"/> Business Owner <input checked="" type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	475-9375	KATHERINE.RUDER@gmail.com	2400 South 22 nd Street
K Ridenour	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident		rkrbr@gmail.com	
Russell Miller	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	499-2611	MEB31340@windstream.net	
T. Baumbach	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	4889458	N/A	3309 South St
Sandy Marino	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	489-7855	pp31415@windstream.net	1810 S 38 th
Eel Rumbaugh	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	730-5493	Ed-Nancy@rrweb.com	2134 Anderson Dr. 68506



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NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
ED URBAN	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	474-0112		2219 "B" ST
Dan Moseman	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	795-2511		28221 50 96 th Fifth Ave
Richard Deaton	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	430 1514		1442 W Mulberry
Wayne Schreiner	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	446-8080		4301 Normal # 13
Bruce Abemethy	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	817-4763		5901 Frankla St
Jeff Weber	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	890-2299		2853 Jane Lane
Milan Wall	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	435-8908		1530 N. Gate Circle
Ken Ferguson	<input checked="" type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	326-0527	kenferguson@speakingpointpress.com	340 Victory Lane
JANETTE SCHROEDER	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	489-4561	-	3740 Normal Blvd,
Garrett Riffa	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	489-8469	-	828 S 44 th St
Michael H. Hill	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	484 8737		3426 Everett
Crystal Bergman	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident			
Doug Samuelson	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident			711 Benton St.



Antelope Creek Watershed Basin Management Plan
OPEN HOUSE
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NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Lalit Jha	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-443-8010	ljlh03@jpo.com	760, Lincoln
Martha Van Stekile	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-488-7286	w/r	2640 So. 41st
Zhenghong Tang	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-472-9281	ztangz@unl.edu	
Nate Healey	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-310-6942	natehealey@hotmail.com	
John Linhardt	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-486-4290	linhardtj@windstream.net	9172 Chalk Hill Co
BOB KUZEKA	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402.475-0221	rkuzell@unl.edu	
Carl McCann	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402 372 7512	carl.mccann@unl.edu	
Eldon Ogorezika	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	488-5549		2310 So. 56
Andrew Threlf	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402 432 4243		Lincoln
SCOTT SAALFELD	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402 871 3372	scottsalfeld@gmail.com	5012 Buier St, OMAHA 68132
Elaine Bergmeier	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-488-0286		1600 S. 40
BRUNTENAS	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident		bpenas@ps.org	
Scott Bulfinch	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-742-3053	celtic_sailor@web.rr.com	2128 'D' ST, Lincoln 68502



Antelope Creek Watershed Basin Management Plan
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 Charles H. Gere Library - 2400 South 56th Street
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NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Ken Reitan	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-423-3540	Kareitan@inebraska.com	2310 S. Canterbury Ln
Walker + May	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-488-5070	mark@galco.net	5529 Alexander Ave
Jonathan Mohr (CEO)	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-435-3080	jmo@jmo.com	6505 Street Suite 219 Lincoln NE 68508
Bonnie Kadary	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-489-1521		3633 Everett St. 68506
Rebecca Benthel	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	489-6517		2132 S. 37 th - 68506
Alvin Babin-Falar	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	477-0693		2601 Antelope Circle
Jim Baskin	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	430-9014		7134 Abbey Dr Lincoln
MIKE GILMAN	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	650-1294	mbylligan@gmail.com	212 S. Scott St. Omaha NE
JASON KUBICEK	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	306-8793	j.kubicek10@yahoo.com	404 CHESTNUT DR #9 GRETNA, NE
Jean Ceylan	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	488-0286		1600 S 44 St
CARA PENNER	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	817.729.2166	carapenner@icwi.org	2435 Nindingham
Maryellen Tomoghu	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	486.1910	-	4301 Normal - Unit 214
RONALD D. SWOBODA	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	488-8097		6431 Monticello Dr 68510

Antelope Creek Watershed Basin Management Plan



Open House #2

Auld Pavilion

Thursday, December 1, 2011

5:00 to 7:00 pm

more information...

Jim Ager Memorial visit lincoln.ne.gov (keyword: watershed)
select "Antelope Creek Watershed Basin Management Plan" under "Featured Sites"



Open House #2

JEO CONSULTING GROUP, INC.
650 'J' Street, Suite 215
Lincoln, NE 68508

PRSRT STD
US POSTAGE
PAID
OMAHA, NE
Permit No. 498

You are invited to attend an Open House to learn about 1) Results of the Antelope Creek Watershed Basin Management Plan and 2) Projects and programs being recommended to improve the water quality in Antelope Creek.

Bring your family, invite a friend, and take an active role in improving the health of your watershed!

Auld Pavilion

3140 Sumner

(Located in Antelope Park | Note: South Street is closed west of Normal Blvd., access to Antelope Park is recommended from 31st & A Streets)

Thursday, December 1, 2011

5:00 to 7:00 pm

(20 minute presentations at 5:30 pm and 6:30 pm)

Door Prize

One Rain Barrel provided by the City of Lincoln

more information... visit lincoln.ne.gov

(keyword: watershed)

select "Antelope Creek Watershed Basin Management Plan" under "Featured Sites"

call Ed Kouma Lincoln Public Works and

Utilities Watershed Management

402-441-7018



OPEN HOUSE #2 SUMMARY AND NOTES

Project: Antelope Creek Watershed Basin Management Plan
Date: Thursday December 1, 2011
Time: 5:00 to 7:00 pm
Location: Auld Pavilion – 3140 Summer, Lincoln, NE
Submitted by: Jonathan Mohr on December 6, 2011

OPEN HOUSE FORMAT

- Three stations with focuses on: structural recommendations, non-structural recommendations, and City/NRD programs
- One very large map of the project area with structural recommendations
- Sign in table with: project summary, sign-in sheet, feed back forms, newsletters 1-3
- City of Lincoln Watershed information on rain barrels and rain garden classes
- Seating for 100 with a presentation

PRESENTATION FORMAT

Open House attendees spent time before and after the presentation asking project team members questions on project recommendations.

A rain barrel was presented to a meeting participant by the City of Lincoln Watershed. Three members of the Advisory Committee were present as well as several of the Core Work Group members.



Antelope Creek Watershed Basin Management Plan

OPEN HOUSE #2

Auld Pavilion - 3140 Summer

Thursday December 1st, 2011 - 5:00 to 7:00 PM

NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Richard Harper	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	472-4977	rharper2@windstream.net	
Pecky Garry Martin	<input type="checkbox"/> Business Owner <input checked="" type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-435-0740	garrym2@windstream.net	338 S. 29 th Lincoln
John WRAKE	<input checked="" type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-540-9662	SWR@WRAGE@YAHOO.COM	
Kate Seacrest	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-435-6000	kate.sk.ltw.com	
Will Glass	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-470-1691	WillGlass@Kohler.com	
Mike Rankin	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-477-7181	mranken@nwlincoln.org	
Roger Figard	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-525-5630	rfigard@lincolne.gov	
WILLARD BAUGER	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-450-2729	wb90102@windstream.net	36351 SUMNER
Judy Johnson	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-435-9946	qunter-judy@nebraska.com	218 S 29 th L
Avery Pickering	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-423-7818	NEPick1@gmail.com	
Boyd Ready	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	308-390-8883	readybt@yahoo.com	2901 A St #109
Ed & Pam Johnson	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input type="checkbox"/> Resident	402-483-2062		2200 S. 37 th St



Antelope Creek Watershed Basin Management Plan
OPEN HOUSE #2
 Auld Pavilion - 3140 Summer
 Thursday December 1st, 2011 - 5:00 to 7:00 PM



NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Adam Rupe	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident <input checked="" type="checkbox"/> JEO	402-435-4030	arupe@jco.com	650 5 th St. Suite 215 68508
J.D. Johnson	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident <input checked="" type="checkbox"/> JEO	"	jjohnson@jco.com	"
Samuel Jefferson	<input type="checkbox"/> Business Owner <input checked="" type="checkbox"/> Non-Profit Resident	402-483-4921		Newman Church 23 rd R
Jim Christo	<input checked="" type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident	402-432-0590	jameschristo@gmail.com	69 4 th North 721 Lincoln, NE 68521
Elaine Hansen	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident	402-477-0212 5000	you have	5000 N 7
Bob Conderson	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident	402-483-5455		4941 Saba 73 SE Lincoln, NE 68516
Al Topol	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident	402 307 8266	altopol@windstream.net	3619 Garfield Lincoln, NE
Lalit Jha	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident <input checked="" type="checkbox"/> JEO			
Ken Reitan	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident <input checked="" type="checkbox"/> Resident	402-423-3540	karaitan@mbnyska.com	2310 S. Centerville Ln Lincoln 68512
Frankel Vogn Ihan	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident <input checked="" type="checkbox"/> Resident	402-454-8467		4150 South Street '06
Jay Jensen	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident	402 489-7575		1820 Memorial Dr
Ronald Svoboda	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit Resident <input checked="" type="checkbox"/> Resident	402-488-8097	rsvoboda@sjunior.com	6431 Monticello Dr 68516



Antelope Creek Watershed Basin Management Plan
OPEN HOUSE #2

Auld Pavilion - 3140 Summer

Thursday December 1st, 2011 - 5:00 to 7:00 PM



NAME	PROJECT INTEREST	PHONE	EMAIL	ADDRESS
Jonathan Mehr	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-476-3766	jmehr@earth.com	221 Sun Valley Blvd Ste A 68528
Jamie Sving	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-476-3766	jsving@earth.com	221 Sun Valley Blvd Ste D 68528
BRASIL CONRY	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-475-627	-	3320 WASH HWY
R. Bernthal	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-489-6517	-	2132 S. 37th St.
DOUG SAMUELSON	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-742-7509	-	711 Barton St, Lincoln 68521
Geo BRAY	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-617-5481	-	3445 Everett St
Lois Hansen	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-488-0630	-	2611 So 46 St 68506
Dan Schubert	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	-	-	2600 C Street 68502
Tom Pappas	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-484-8467	tpappas@windstream.net	24150 South St - 06
Doris Carpenter	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-488-1994	-	3705 D St, 68510
Bob Kuzelka	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-417-9424	rkuzelka@aol.com	1935 A St 68502
Dick Siseks	<input type="checkbox"/> Business Owner <input type="checkbox"/> Non-Profit <input checked="" type="checkbox"/> Resident	402-320-1540	jsiseks@usa.com	-

Watershed News

Antelope Creek Watershed Basin Management Plan

The City of Lincoln and Lower Platte South Natural Resources District (NRD) are working with a project team of scientists and engineers to establish the Antelope Creek Watershed Basin Management Plan (Basin Plan).

What is the concern with Antelope Creek?

The water quality in a stretch of Antelope Creek starting at the outlet of Holmes Lake Dam and extending to Salt Creek (Figure

Levels of E. Coli bacteria and ammonia in Antelope Creek could pose a threat to public health and safety if actions are not taken to improve the water quality.

1, page 2), contains elevated levels of E. Coli bacteria, ammonia, and other contaminants that are considered to cause impairments to everyday uses of the creek. The Nebraska Department of Environmental Quality (NDEQ), as required by the Environmental Protection Agency (EPA), has listed Antelope Creek on the State list, known as the 303(d) list. These contaminants may pose a public health and safety risk.

What is being done to improve the water quality?

The Basin Plan will serve as a road map for actions to improve the water quality in the creek in order to potentially remove it from

the NDEQ 303(d) impaired waters listing. Improved water quality in the Antelope Creek will lead to improved public health, safety, and welfare as well as increased aesthetics and other natural benefits to Antelope Creek and adjacent areas.

How is the Basin Plan different than the Antelope Valley Project?

The Basin Plan focuses on improvement of water quality in the creek through reduction of pollutants in stormwater runoff. The Antelope Valley Project focused on infrastructure improvements to reduce the threat of flooding in the City, improve transportation, and create recreational and economic development opportunities. Other master plans completed by the City and NRD have focused on drainage, stream bank erosion, and protection of property and infrastructure from flooding, as well as water quality.

What will the Basin Plan do to improve water quality?

The Basin Plan will serve as a tool for the City and NRD staff, as well as other planning and design engineers, to proactively forecast, evaluate, and manage stormwater quality impacts. The plan will identify and manage stormwater quality issues associated with existing and future re-development of the City through identification of structural and non-structural Best Management Practices (BMPs) in specific areas in the Basin designed to reduce pollutants.

continued on next page



Antelope Creek Watershed Basin Management Plan

continued from page 1

Who is paying for the Basin Plan and when will it be complete?

The City of Lincoln and Lower Platte South NRD are splitting the cost of the Basin Plan. The project began in May 2010 and is anticipated to be complete by September 2011. The Basin Plan will help the City and NRD when applying for Federal and State funds to assist with design and construction costs necessary in order to implement solutions identified in the plan.

What are possible ways to improve water quality?

Water quality can be improved through both structural and non-structural solutions. Some examples of structural solutions include:

- bioswales
- rain gardens
- hydrodynamic separators
- wetland areas
- sand filters
- grassed buffers/bio-retention
- channel stability
- pervious pavement
- Silva Cells
- rain barrels
- infiltration basins

Non-structural solutions, many of which are being implemented in Lincoln, may include programs within the basin to encourage activities such as:

- cleaning up after pets
- use of low phosphorus or phosphorus free fertilizers
- use of phosphate-free detergents for washing vehicles
- sweeping excess fertilizers from paved areas
- cleaning up gutters, sidewalks, and driveways
- proper disposal of household hazardous waste
- storm drain stencilling
- street sweeping

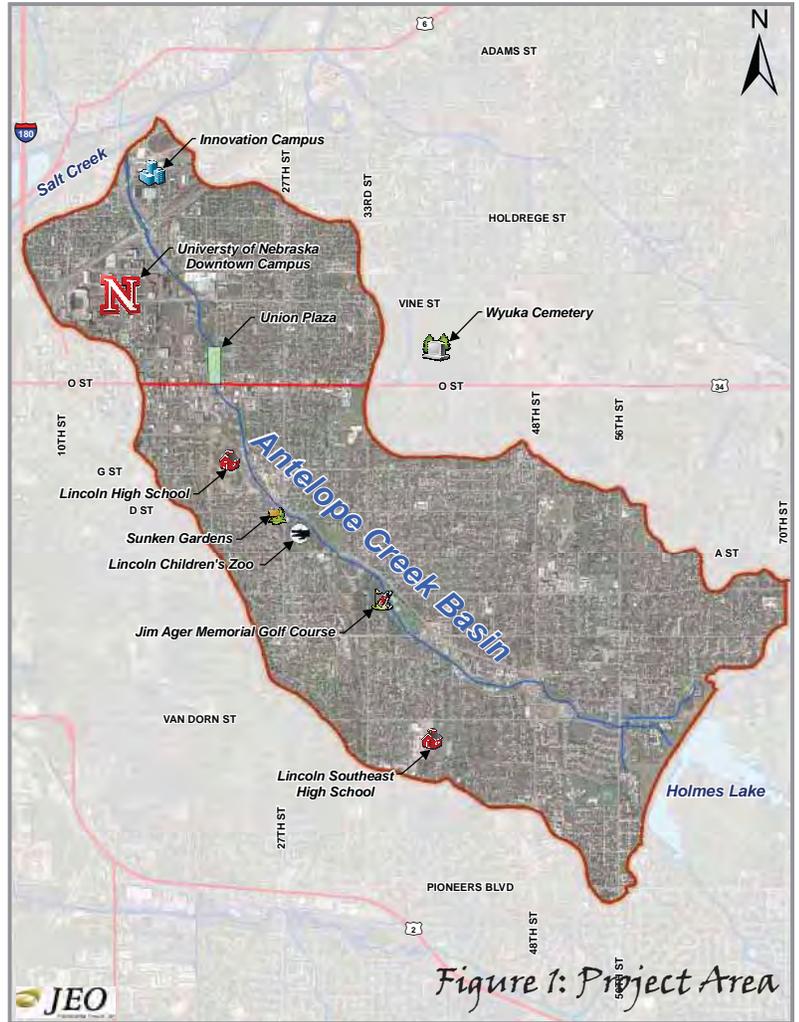
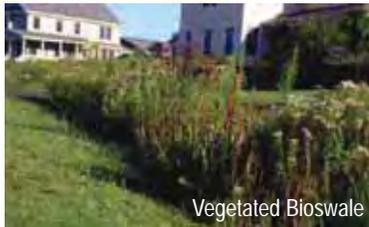


Figure 1: Project Area



Vegetated Bioswale



Bio-Retention



Bufferstrip



Wetland



Pervious Pavement



Rain Barrel



Rain Garden

Project Area Demographics

48,500 full time residents and
8,500 UNL students
live and work within the
Antelope Creek Basin.

Meet the Team



Ed Kouma, PE

Role City of Lincoln Project Manager

Professional Summary B.S. in Civil Engineering from UNL, Engineer with the Watershed Management Division of City of Lincoln Public Works & Utilities

Personal Interest in the Project I feel the most important part of my job is public education about water resources. Each of us has a role to play in protecting the quality of runoff water and managing it in a way that protects our streams and lakes. As the awareness of personal responsibility grows, we will see the results in the improvement of the environment around us. This Basin Management Plan will give us the understanding of water quality issues within this basin and provide tools which may be used to continue the City's on-going efforts of improving the quality of water in our lakes and streams.



Dale Schlautman, PE

Role Consulting Team Project Manager

Professional Summary Civil Engineer, M.S. in Agricultural and Biological Systems Engineering from UNL. Employed by EA Engineering, Science and Technology for 18 years, Dale serves as the Lincoln Branch Manager.

Personal Interest in the Project I believe that the most satisfying projects are those that make a real difference in our community. The Basin Plan is one of those projects. Through this project, the City of Lincoln and the Lower Platte South NRD have the opportunity to improve the environment in which we live and raise our families. Improving water quality in urbanized areas is particularly challenging and the solutions identified will not only help the Antelope Creek Basin, but can be applied to other watersheds throughout the City and the NRD.

The Project Team

This is a joint project led by the City of Lincoln and the Lower Platte South Natural Resources District.

The consulting team is comprised of EA Engineering Science and Technology in association with JEO Consulting Group, Inc. and Wright Water Engineering.

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 (keyword: watershed)

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Antelope Creek Basin Plan Advisory Council

The Basin Plan is being developed under the guidance of an Advisory Council appointed by Mayor Beutler that will meet periodically throughout the project. The Advisory Council includes both citizens and a core work group of technical representatives. The Council will provide ideas and concerns, review key findings, provide input about problem areas, and review final recommendations. The 12-member council includes representatives from neighborhoods, business owners, and various agencies.

Non-profit AgencyMike Renkin, NeighborWorks
 Schools.....Scott Wieskamp, Lincoln Public Schools
 Business GroupAndrew Campbell, Campbell's Nursery
 Business GroupSteve Hill, Assurity
 UNLJennifer Dam, Planner
 Golf CourseDale Hardy, Golf Administrator
 Lincoln Children's ZooJohn Chapo, President
 Neighborhood GroupTracy Corr, 40th & A Streets Neighborhood
 Neighborhood GroupBob Kuzelka, Near South Neighborhood
 UNL Water CenterRachael Herpel
 LPSNRD BoardKaren Amen
 City CouncilAdam Hornung

Core Work Group
 City of Lincoln Planning Sara Hartzell
 City of Lincoln Public Works Ben Higgins
 Ed Kouma
 Miki Esposito
 City of Lincoln Parks and Recreation Terry Genrich
 LPS NRD Paul Zillig
 JB Dixon
 NDEQ Mary Schroer

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City of Lincoln and Lower Platte South Natural Resources District



OPEN HOUSE

Antelope Creek Watershed Basin Management Plan

Charles H. Gere Library

2400 South 56th Street (56th & Normal)

Thursday, September 30, 2010 | 5:00 - 7:30 pm

Presentations at 5:30 and 6:30

open discussion and 20 minute presentation (shown twice) with City and NRD staff and the scientist and engineers working on the Basin Plan to improve water quality in Antelope Creek.

You are invited to attend an
Open House to learn about the Basin Plan and
provide input to the project team.

Bring your family, invite a friend, and take an active role in
improving the health of your watershed!

Antelope Creek Watershed Land Uses and Pollutant Loads

Due to the urbanized nature of the Antelope Creek Watershed, the pollution in stormwater runoff (particularly E.Coli bacteria and ammonia) has become a concern to the City of Lincoln and Lower Platte South Natural Resources District (NRD). Stormwater runoff originates from precipitation events such as rainfall or snowmelt. As stormwater drains through the watershed towards the creek as runoff, pollutants, such as fertilizers from lawns and animal waste, travel with the water into the creek. The City of Lincoln and the NRD are working together to improve water quality, by managing the amount of pollutants in stormwater runoff as part of the Antelope Creek Watershed Basin Management Plan (Basin Plan).



Land Uses in Antelope Creek

Land use categories describe how property owners utilize the land, such as residential for homes, commercial for businesses, and industrial for manufacturing. The amount of stormwater runoff can vary greatly depending upon the type of land use. Lower intensity land uses, such as residential lots, allow a greater amount of stormwater runoff to infiltrate into the ground, while higher intensity land uses (commercial or industrial areas) allow runoff to move rapidly across impervious surfaces and travel more rapidly into the creek. Impervious surfaces, such as parking lots and rooftops, convey stormwater runoff quickly compared to more permeable surfaces such as lawns, golf courses, and open spaces. A breakdown of land uses in the Basin Plan project area is found in Table 1.

The Storm Drain System

Stormwater runoff is collected through a system of curbs and gutters, open channels, and pipes that create the storm drain system. Runoff is discharged into the creek at approximately 221 known locations along the 5.5 miles of Antelope Creek in the Basin Plan project area. The project team has been collecting and testing water samples at approximately 17 of the outfalls during dry-weather. Nine locations along Antelope Creek have also been sampled both during dry weather and after a rain.

Table 1: Land Use Type	Total Acres	Percentage of Project Area
Single Family Residential	1,879	38%
Multiple Family Residential	309	6%
Commercial (Shopping Areas)	182	4%
Industrial	94	2%
Public/Quasi-Public (Schools)	639	13%
Transportation (Roads)	1,261	25%
Park/Recreation/Open Space	569	12%
TOTAL	4,933	100%

Source: City of Lincoln/Lancaster County Planning Department

Stormwater Runoff Potential - Typical Single Family Lot

Over 38% of the project area consists of approximately 10,000 single-family residential lots. The figures below show stormwater runoff amounts from an example residential lot (Figure 1). The same lot is shown in Figure 2 with two rain barrels, a rain garden, and pervious pavement.

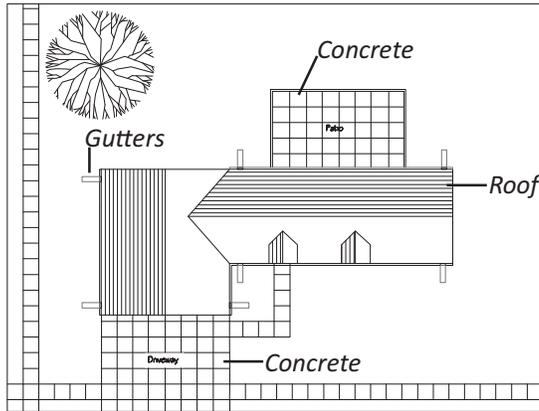


Figure 1 - Typical Lot

Lot Size: 14,520 sq. ft. | Total Coverage: 5,176 sq. ft. (36%)
One Inch Rain Runoff Potential: 3,230 gallons

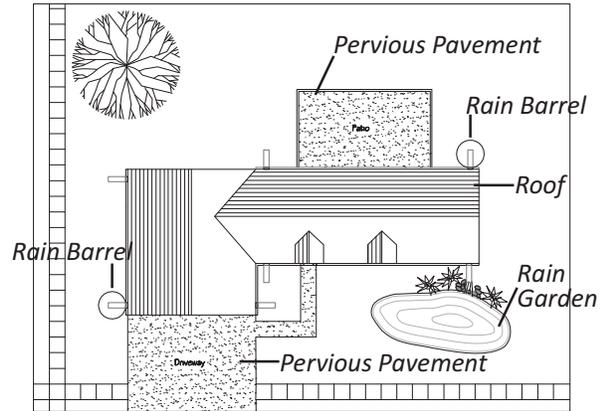


Figure 2 - Typical Lot with Best Management Practices

Lot Size: 14,520 sq. ft. | Total Coverage: 5,176 sq. ft. (36%)
Pervious Pavement: 1,630 sq. ft. (11%)
One Inch Rain Runoff Potential: 1,343 gallons

The roughly 1,900 gallons retained from a one inch rain event might seem small until it is multiplied by the approximately 10,000 lots within the watershed. The water retained on each lot will infiltrate into the ground and replenish groundwater tables and be filtered prior to entering Antelope Creek. Along with reducing the quantity of water flowing rapidly into Antelope Creek, it would also reduce the pollutant loads into Antelope Creek. Residents using rain barrels will also be able to reuse the rainwater during dry weather conditions, reducing their water bill over time.

Open House Summary

A key component to the success of the Basin Plan is public input and education. The project overall will include four newsletters, Advisory Council meetings, stakeholder meetings, a website, and interest group meetings focusing on neighborhood associations and commercial property owners. The first of two open houses was held September 30, 2010, with nearly 100 people in attendance; the final Open House is anticipated for July 2011. Below are a few questions from those attending with corresponding answers from the first Open House meeting:

Q: How can an individual property owner have a positive impact on the watershed?

A: *Individuals can do simple things like using a non-phosphorus fertilizer, sweeping excess fertilizer from sidewalks and driveways, and picking up pet waste. If a lot of property owners each do a little, there will be a positive impact on the basin with improved water quality.*

Q: How will projects identified in the Basin Plan be funded?

A: *City of Lincoln Storm Bonds, Lower Platte South NRD Funds, and grants received from the Nebraska Department of Environmental Quality are key funding sources.*

Q: Will this Basin Plan eliminate flooding issues in the Antelope Creek?

A: *The Basin Plan focuses on improving water quality, not reducing flooding impacts. Numerous other plans completed by the City and NRD have focused on flood control.*



Congratulations!
Eldon Ogorzolka won a rain barrel at the open house, provided by the City of Lincoln.



Meet the Team



Dr. Robert Pitt

Role: Technical Consultant (Wright Water Engineering)
Professional Summary: PhD from the University of Wisconsin, MSCE from San Jose State University, and B.S. from Humboldt State University
Personal Interest in the Project: Helping to solve environmental problems is a challenge and a very rewarding experience for me, especially when applying research results to actual situations. My interest in this project is helping to develop cost-effective solutions that build on current knowledge by applying newly developed robust technologies.



Paul Zillig

Role: Lower Platte South NRD Project Manager
Professional Summary: B.S. in Natural Resources and Agricultural Economics from UNL, Assistant Manager for the Lower Platte South NRD
Personal Interest in the Project: I live in the Antelope Creek Watershed above Holmes Lake and recreate along Antelope Creek on the Billy Wolff Trail, the Ager Junior Golf Course, and Union Plaza in Antelope Valley. The NRD has improved water quality in Antelope Creek by nearly eliminating streambank erosion. The challenge now is to continue to find ways to reduce non-point source contaminants to acceptable levels.

The Project Team

This is a joint project led by the City of Lincoln and the Lower Platte South Natural Resources District.

The consulting team is comprised of EA Engineering Science and Technology in association with JEO Consulting Group, Inc. and Wright Water Engineering.

For more information, contact:

Ed Kouma, PE

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Advisory Council

Roles and responsibilities of the Advisory Council are to review elements of the process, ask questions, raise issues, and share information with one another, the public, and the project team.

- Non-profit Agency Mike Renkin, NeighborWorks Schools
- Schools Scott Wieskamp, Lincoln Public Schools
- Business Group..... Andrew Campbell, Campbell's Nursery
- Business Group..... Steve Hill, Assurity UNL
- UNL Jennifer Dam, Planner
- Golf Course Dale Hardy, Golf Administrator
- Lincoln Children's Zoo..... John Chapo, President
- Neighborhood Group Tracy Corr, 40th & A Streets Neighborhood
- Neighborhood Group Bob Kuzelka, Near South Neighborhood
- UNL Water Center Rachael Herpel
- LPSNRD Board Karen Amen
- City Council..... Adam Hornung

Project Schedule

2011	Tasks
Winter	<ul style="list-style-type: none"> • Identify Pollutant Sources • Identify Best Management Practices
Spring	<ul style="list-style-type: none"> • Water Quality Monitoring • Establish Projects to Improve Water Quality
Summer	<ul style="list-style-type: none"> • Open House #2 • Final Plan
Ongoing	<ul style="list-style-type: none"> • Informational and Educational Process



City of Lincoln and Lower Platte South Natural Resources District



ANTELOPE CREEK POLLUTANT SOURCES

In order to assemble management strategies to improve water quality a 'basin inventory' was completed by the project team during the summer and fall of 2010. Information collected included; water sampling data, field notes, outfall locations, historical records, and a land use breakdown. The information collected is being used to help identify possible sources of pollution in the watershed. Below is a summary of some possible pollutant sources:

Wildlife and Pet Waste – Twenty-nine bridge crossings were found, many of which are older and allow birds to nest and perch, where their droppings may contribute to some contaminants in the creek. Many new bridges nearly eliminate areas for birds to perch. Existing habitat in the watershed provides room for wildlife such as raccoons, squirrels, and feral animals that contribute to pollution sources. Domesticated pets, such as dogs and cats, can also provide a significant source of pollution if waste is not properly disposed.



Fertilizers and Phosphorus in Soils – Excess nutrients in the stream, which may originate from over-fertilizing and soil erosion, contribute to algal blooms in the water. Improper storage and disposal of fertilizers or incidental application to impervious surfaces, such as concrete driveways and sidewalks, can lead to nutrients entering the creek through stormwater runoff.

Antelope Creek Watershed Basin Management Plan

Over the past year Antelope Creek has been studied, monitored, and modeled to determine sources of potential contamination. Information gathered will be utilized for the Antelope Creek Watershed Basin Management Plan (Basin Plan). The Basin Plan will outline the most effective pollution reduction strategies to improve the water quality of Antelope Creek. The Basin Plan will describe actions the City of Lincoln (City) and Lower Plate South Natural Resources District (NRD) can take to improve water quality over the next several years. Actions will include reducing bacteria in the stream and minimizing loadings of pollutants such as nutrients and sediments. Below is a summary of the lessons learned over the last year and descriptions of potential alternatives that the project team is considering.

What Have We Learned?

Pollutant sources contributing to bacteria in Antelope Creek do not appear to be point sources, such as illegal discharges, malfunctioning sanitary sewer lines, or runoff directly contributed by a single property. Bacteria in Antelope Creek appears to originate from several general sources across the entire watershed. These potential non-point sources include birds and other wildlife, pet waste, and urban stormwater runoff (which collects bacteria from gutters, rooftops, etc.).

Once bacteria enter Antelope Creek, the stream system holds and incubates bacteria through natural functions. Overall, the amount of bacteria that occurs in Antelope Creek is typical of streams in other urban areas across the U.S. The U.S. Environmental Protection Agency's (EPA) nationwide standard for bacteria levels in recreational stream segments, such as



{Waterfowl Commonly Use the Creek}

Antelope Creek, are stringent and very challenging to meet without going to the large expense of intensive instream treatment alternatives. Therefore, the goals are to work toward a sustainable reduction of pollutant levels. These goals will guide project and program development as part of final plan recommendations.



{EA Staff Collecting Wet Weather Field Data, Spring 2011, Near Holmes Lake}

What is the Next Step?

As part of the Basin Plan, the consultant team will outline activities for the City and NRD to implement that will focus on reducing bacteria levels and improving the overall health of Antelope Creek. Regulatory agencies, such as EPA and the Nebraska Department of Environmental Quality (NDEQ), monitor activities that communities are taking to improve water quality in impaired streams such as Antelope Creek. Establishment of the Basin Plan is a vital step in working

continued on next page

Antelope Creek Watershed - continued from page 1

towards regulatory goals set up by the EPA and NDEQ. Below is a summary of stormwater controls that are being considered for incorporation in the Basin Plan.

Potential Structural Stormwater Controls

- Roof runoff: rain gardens, disconnection of downspouts from the storm drain, rain barrels
- Pavement runoff: redirection of gutters that flow onto pavements, bio-filtration, porous pavement, retrofitting parking lots to infiltrate stormwater runoff
- Street side drainage: grass swales and curb-cut bio-filters
- Outfalls: wet detention ponds and retrofitting dry ponds
- Grass areas: buffer strips, tall grass
- Birds: retrofit bridges to limit roosting and nesting

Potential Non-Structural Stormwater Controls

- Pet waste: pick-up after pets programs
- Lawn care: encourage non-phosphorus fertilizers, limiting lawn fertilizing, sweep excess fertilizer
- Operation and maintenance: plan for sediment removal from selected creek areas
- Public Work practices: street sweeping and catch basin cleaning

Where larger spaces are available, a combination of practices, called a treatment train, would be the most efficient method of improving or limiting stormwater runoff. The above listed control practices are currently being evaluated based largely on the land use and availability of space to construct a project.



{Wet Weather Flows Near Confluence with Salt Creek}



{Lincoln Children's Zoo Rain Garden}



Plan Recommendations

Previous research and data analysis is being used for the evaluation of several alternatives, including potential residential area demonstration projects (10 to 20 acre areas) in select locations of the Antelope Creek watershed. Also being looked at are watershed based incentive programs, city policy changes, and other programs and projects. Recommendations for specific project locations and sizes are being determined.

Recommended projects and programs will be provided at an upcoming Open House, planned for November 2011.

The Basin Plan is scheduled to be finalized in December 2011, following review and approval by the City and NRD. The next step will be to incorporate projects and programs into capital improvement programs, seek funding for construction and implementation, and continue to inform and educate the public on the numerous environmental benefits effected by the Basin Plan. Lessons learned from the Basin Plan will be incorporated into future planning efforts city-wide.

more information...visit lincoln.ne.gov (keyword: watershed)



Use your smartphone and a QR reader app to view the website.

Meet the Team



Jane Clary

Role: Technical Expert (Water Quality)

Professional Summary: Senior Water Resources Scientist at Wright Water Engineers, Inc. in Denver, Colorado. Jane’s background includes an M.S. in Environmental Science from the University of Colorado and a B.S. in Economics from Vanderbilt University. She serves as a Project Manager on the International Stormwater Best Management Practices (BMP) Database project, which she has been involved with for over 15 years.

Personal Interest in the Project: The Antelope Creek project is of significant interest to Jane because it provides an opportunity to work with a community committed to water quality improvement in the challenging context of bacteria pollutants.



Jon Trombino, PE

Role: Project Manager/Engineering Lead

Professional Summary: Engineer, B.S. from the University of Nebraska in Biological Systems Engineering. Project manager and professional engineer with EA Engineering, Science, and Technology in Lincoln, Nebraska for 6 years.

Personal Interest in the Project: “My entire career I have been very interested in low impact design concepts. A big piece of the low impact design strategy is the reduction of stormwater runoff quantity and the improvement of water quality. This project involves work in both of those areas. I have really enjoyed studying the watershed and seeing how the different land uses impact the water quality. As we move into the next phase of the project, I am excited to work with our team to develop best management practices that will improve the water quality in Antelope Creek and make it a wonderful asset to the citizens of Lincoln.”

The Project Team

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For more information, contact:

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Lincoln Public Works/Utilities Department

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(keyword: watershed)

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Neighborhood Group	Bob Kuzelka, Near South Neighborhood
UNL Water Center	Rachael Herpel
LPSNRD Board	Karen Amen
City Council.....	Adam Hornung

Pick up your pet’s waste!

lincoln.ne.gov
keyword: Ecoli

Lower Platte South Natural Resources District

WATERSHED MANAGEMENT



City of Lincoln and Lower Platte South Natural Resources District



Monitoring the Water Quality of Antelope Creek

Water quality monitoring is used as a tool for establishing baseline conditions, evaluating potential sources, and improving the effectiveness of future projects used to improve water quality. Monitoring activities have included sediment and water sampling as well as collection of the streams physical parameters such as flow, pH, conductivity, temperature, and dissolved oxygen. Water sampling for this project has been completed during three different time periods at 11 stream locations and 17 outfalls.



- Dry weather sampling – sampling taken after at least four consecutive days without rain. Dry weather sampling is a representation of flows into the stream other than stormwater runoff (such as springs). Dry weather sampling was completed three times and tested for *E. coli* bacteria, total coliform, ammonia, dissolved organic carbon, and total phosphorus.
- Wet weather sampling – many pollutants, including solids, nutrients, metals, and bacteria, are washed into Antelope Creek during rain events. Sampling is conducted within 24-hours after rainfall stops. Samples were tested for the same parameters as the dry weather sampling.
- Sediment sampling – sediment samples were collected at 11 locations twice during the project. These samples were tested for *E. coli* bacteria, chemical oxygen demand, fecal coliform, phosphorus, and total nitrogen. Sediment sampling data helps describe the overall health of the stream.

'Watershed News' Newsletter Volume 4 of 4 is anticipated to be delivered April 2012 during public review of the draft plan.