

**MUD, CAMP, & SPRING CREEK WATERSHED MANAGEMENT AUTHORITY
MEETING MINUTES**

**CITY OF ALTOONA, IOWA
CITY HALL
407 EIGHTH STREET SE, ALTOONA, IOWA**

**APRIL 8, 2015
1:00 PM**

Attendees: Karen Oppelt, Vern Willey, Mark Arentsen, Skip Dunbar, Bob Rice, Jane Clark, Mark Land, Kyle Riley, Mike Ugolini, Russell Wilkins, Kyle Ament

1. Welcome – Vern Willey, Chair
2. Approval of Prior Meeting Minutes
 - a. December 22, 2014 Special Session
 - b. January 15, 2015 Annual Meeting

Approval of minutes motion by Skip Dunbar, Second by Bob Rice, motion carried

3. IDNR Planning Grant

Bob Rice:

-Six submittals were received and reviewed by the selection committee.

-Polk County will be the fiscal agent for this grant.

-Snyder & Associates, Inc. was selected and an agreement was approved at the April 7, 2015 Polk County Board of Supervisors meeting.

- a. Overview of scope of planning process
- b. Anticipated schedule review
- c. Stakeholder list development

Mark Land:

-Discussion regarding elements of the overall plan and an approximate schedule (Attached). The overall plan has milestones set that will adhere to Iowa DNR contract obligations and the planning session schedule. The plan is proposed to be approved at the April 2016 WMA meeting.

-Discussion regarding Planning Session Schedule (Attached). Planning sessions are broken down into three categories: WMA meetings, Executive Committee meetings, and Stakeholder meetings. Each group will meet every three months and each session has specific tasks that will be completed. Details and deliverables from each session will then be used at the proceeding planning session for further discussion to aid with decision making.

-Discussion regarding Stakeholder Group members (Attached). Opening comment by Jane Clark stating some stakeholders may come from the first public meeting. Attendees agreed that one or two members may be selected from those attending the public meeting.

-Vern Willey & Mark Arentsen gave Berkey Home Builders and Greenland Homes as possible homebuilders representatives.

-Vern Willey suggested Jon Hansen as a City Engineering/Public Works representative.

-Bob Rice agreed to be the County Engineering/Public Works representative.

-Mark Arentsen will contact someone from the Bondurant Planning & Zoning board.

- Kyle Riley will contact Madeline Sturms regarding a Parks & Recreation representative.

-Vern Willey suggested Terrace Hills Golf Course as a possible business representative.

-Skip Dunbar suggested Heartland Co-Op in Mitchellville as a possible business representative.

-Mike Ugulini suggested somebody from Bondurant or SE Polk schools. He is aware of a teacher that has been doing water testing with students.

-Skip Dunbar suggested a member from Deer Group/Pheasants Forever/Ducks Unlimited.

-Bob Rice suggested having a representative from the Iowa DNR with Red Rock oversight.

-The stakeholders list will be updated and transmitted with the meeting minutes.

4. Corps of Engineers Partnering Status

Mark Land:

-Reviewed scope and fee sent from the USACE (Attached). Mark noted the initial desire was to have USACE involvement from the beginning of the project. This would potentially give them a vested interest in the watershed to assist in funding for future projects. Vern Willey ended the discussion with agreeing that a smaller scope or a different alternative needs to be investigated.

-Kyle Ament asked if the NRCS could provide any assistance. Mark noted an NRCS member is projected to be in the Stakeholder Group, in part, to provide input on possible funding sources.

-Comment from multiple attendees that the WMA needed to look at who uses the Des Moines River as drinking a water source. The WMA may be able to partner with them to reduce loading in our watershed for their purposes.

5. Watershed Management Authority Logo

Mark Land

-Mark presented multiple options for a MCSC WMA logo (options attached). After review of the options, the WMA reached a general consensus regarding the logo.

-Motion to approve logo (presented below) by Jane Clark, second by Bob Rice, motion carries.



6. Adjourn

-Motion to adjourn by Bob Rice, second by Skip Dunbar, motion carries.

-Adjourn: 2:16PM

**MUD, CAMP, & SPRING CREEK WATERSHED MANAGEMENT PLAN
PROJECT SCHEDULE 04-03-15**

	April 2016		Complete?	Notes
	Start / Milestone Date	End Date		
Development of Input Process				
Development of Stakeholder List - Meeting minutes to IADNR	4/1/2015	4/30/2015	No	WMA and planning team meeting to determine stakeholder list for participation
Review Existing Studies and Collect Data	4/1/2015	4/30/2015	No	leverage existing studies
WMA Meetings	4/1/2015	Ongoing	No	See Attached
Executive Committee Meetings	4/1/2015	Ongoing	No	See Attached
Authority Member Meetings	4/1/2015	Ongoing	No	See Attached
Public Meeting	4/1/2015	5/15/2015	No	Early process public meeting
Attending Council/Board meetings if desired	4/1/2015	5/15/2015	No	Early process meeting for introduction to planning process (up to 8 for early and late)
Quarterly Report	4/15/2015		No	
Land and Water Resource Inventory				
Characterize the Watershed	5/1/2015	5/30/2015	No	
Review Stream Assessment for priority areas	5/1/2015	5/30/2015	No	
Quadcopter Video of selected priority areas	5/1/2015	5/30/2015	No	
Maps and tables created to the IADNR	5/1/2015	5/30/2015	No	
Water Resource Assessment				
Evaluate potential pollutant sources	6/1/2015	6/30/2015	No	
Evaluate hazard concerns (flood, erosion, restoration, etc.)	6/1/2015	6/30/2015	No	
Identify potential loading or flood contributors	6/1/2015	6/30/2015	No	
Water quality modeling	6/1/2015	7/31/2015	No	
Quarterly Report	7/15/2015		No	
Strategic Planning on Goals and Objectives				
Watershed Action Planning	8/1/2015	11/30/2015	No	Outline goals and objectives, identify targeted policies, funding, BMPs
Water Quality Monitoring Plan	10/1/2015	10/30/2015	No	
Education Plan	11/1/2015	11/30/2015	No	
Public Meeting	10/1/2015	11/30/2015	No	Late process public meeting
Quarterly Report	10/15/2015		No	
Funding Option Analysis				
Funding Option Analysis	11/1/2015	11/30/2015	No	
Implementation Program Development				
Implementation Plan	12/1/2015	2/28/2016	No	
Attending Council/Board meetings if desired	1/1/2016	2/28/2016	No	Late process meeting (up to 8 for early and late)
Quarterly Report	1/15/2016		No	
Final Watershed Management Plan				
Final Report & Website	3/1/2016	4/30/2016	No	

MUD, CAMP, & SPRING CREEK WATERSHED MANAGEMENT PLAN PLANNING SESSION SCHEDULING & DETAILS - APRIL 2015

Proposed Planning Sessions Schedule & Details

- April – WMA Meeting
 - Watershed Management Plan Kickoff
- May – Executive Committee Meeting
 - Review inventory
 - Status update
 - Public meeting planning (mid-May)
- June – Stakeholder Meeting
 - Assessment discussion
- July – WMA Meeting
 - Review status of modeling and assessment work
- August – Executive Committee Meeting
 - Goals & Objectives Discussion
- September – Stakeholder Meeting
 - Goals & Objectives Discussion
- October – WMA Meeting
 - Status updated on final modeling and assessment work
 - Goals & Objectives approval
- November – Executive Committee Meeting
 - Implementation Plan Discussion
 - Plan for jurisdiction presentations
 - Public meeting planning (mid-Novemeber)
- December – Stakeholder Meeting
 - Implementation Discussion
- January 2016 – WMA Meeting
 - Review final Implementation Plan
- February 2016 – Executive Committee Meeting
 - Final report review, discussion, and comment
- March 2016 – Stakeholder Meeting
 - Final report review, discussion, and comment
- April 2016 – WMA Meeting
 - Approve final Watershed Management Plan

**Mud, Camp, & Spring Creek Watershed Management Plan
Stakeholder Group Candidates**

Jurisdiction/Entity	First Name	Last Name	Title	Address	City	State	Zip	Phone Number	Email Address	Response
Metro Waste Authority	Reo	Menning	Executive Director						rme@mwatoday.com	
Polk County Conservation Board	Rich	Leopold						515-323-5322	rich.leopold@polkcountyiowa.gov	
NRCS	Paul	Miller		1513 N Ankeny Blvd, Ste 3	Ankeny	IA	50023	515-964-1883 ext 3	paul.miller@ia.usda.gov	
MPO	Teva	Dawson	Senior Planner	Watson Powell Jr. Parkway, Suite 200	Des Moines	IA	50309	(515) 334-0075	tdawson@dmampo.org	
Upstream Property Owner	Sue/Mike	Ugulini	515-967-2914, mikeufarms@aol.com	6475 NE 80th St.	Bondurant	IA	50035	515-967-1769	sueusueu@aol.com	
Downstream Property Owner	Russell	Wilkins		9602 NE 3rd Ave.	Runnells	IA	50237	515-967-2002	russellm28@msn.com	
City of Altoona	Jon	Hansen	City Engineer	407 8th Street SE	Altoona	IA	50009	515-967-5136	jhanson@altoona-iowa.com	Yes
Bondurant Planning & Zoning	Roy	McCleary		900 Grant St. South	Bondurant	Ia	50035	515-967-8406	rmccleary@q.com	Yes
Polk County Public Works	Bob	Rice	Public Works Director					515-286-3705	robert.rice@polkcountyiowa.gov	Yes
City of Altoona	Karen	Oppelt	Public Utilities Superintendent	407 8th Street SE	Altoona	IA	50009	515-967-5136	koppelt@altoona-iowa.com	Yes
IDALS Representative										
Local Farm Bureau Representative										
Corps of Engineers Representative										
County Planning Representative										
Parks & Recreation Representative										
Terrace Hills or Co-Op Rep										
Berkey Const. or Greenland Homes Rep										
Pheasants Forever/Ducks Unlimited/Deer Group Rep										
SE Polk School Representative										
Iowa DNR Red Rock Coordinator										

**Mud, Camp, Spring Creek Watershed Management Plan
Planning Team**

Jurisdiction	First Name	Last Name	Title	Address	City	State	Zip	Phone Number	Email Address	Response
Snyder & Associates, Inc	Kyle	Riley						515-964-2020	kriley@snyder-associates.com	
RDG Planning & Design	Pat	Boddy						515-288-3141	pboddy@rdgusa.com	
Polk Soil & Water Conservation District	Jennifer	Welch						515-964-1883 ext 3	jennifer.welch@ia.nacdnet.net	
Snyder & Associates, Inc	Mark	Land						515-964-2020	maland@snyder-associates.com	

U.S. Army Corps of Engineers
Scope of Work
Planning Assistance to States and Tribes
Section 22 Program
Des Moines River Tributaries
Camp Creek, Mud Creek, Spring Creek
Polk County, Iowa

HYDROLOGIC / HYDRAULIC MODELING AND MAPPING
TECHNICAL APPENDIX
SCOPE OF WORK

AUTHORITY

Section 22 of the Water Resources Development Act of 1974 (PL 93-251) as amended, provides authority for the Corps of Engineers to assist the States in the preparation of comprehensive plans for the development, utilization and conservation of water and related resources of drainage basins, watersheds or ecosystems located within the boundaries of such state.

BACKGROUND

On January 14, 2014, Polk County transmitted a request for assistance from the Corps of Engineers (USACE) for work in the Mud, Camp, and Spring Creek watersheds. The COE responded of the need for a specific desired scope of services in order to initiate the process. At that time, the Mud, Camp, and Spring Creek Watershed Management Authority (MCSCWMA) was just being formed and additional input from all member organizations was needed to finalize the specific request. In addition, an application for a watershed planning grant was submitted to the Iowa Department of Natural Resources to provide funding for the development of a watershed plan. This grant was awarded to the MCSCWMA in November 2014. That scope includes the following general items:

1. Development of Input Process
2. Land and Water Resource Inventory
3. Water Resources Assessment
4. Strategic Planning on Goals and Assessments
5. Funding Option Analysis
6. Implementation Program Development
7. Final Watershed Management Plan

At the January 15, 2015 MSCSWMA meeting, the board unanimously approved the agreement with the Iowa DNR and discussed the desired participation from the USACE. Please find below the requested scope of services.

PROJECT SCOPE

The project is within the Polk County, Iowa along the Des Moines River. All work will be reviewed by the project sponsor.

HYDROLOGIC / HYDRAULIC MODELING AND MAPPING

1. Site Reconnaissance: The hydraulic engineers conducting the study will make an initial site reconnaissance to become familiar with the study area and to meet with sponsor. During the site reconnaissance, the physical features of the Des Moines River tributaries Camp Creek, Mud

Creek, and Spring Creek will be reviewed to provide general hydrologic and hydraulic data for inclusion in the hydraulic model. Particular attention will be focused on stream characteristics, overflow areas, bridges, culverts, and other basin features that could impact flow conditions.

2. Site Survey: Survey field data collection includes Camp Creek approximately surveyed channel profile over an approximate 20 stream mile study reach; Mud Creek approximately ___ surveyed channel sections, channel profile, and 11 bridge structures over an approximate 14 stream mile study reach; and Spring Creek approximately ___ surveyed channel sections, channel profile, and 13 bridge structures over an approximate 10 stream mile study reach. The survey cost estimate of \$110,000 includes the survey collection and data processing. Bench marks will be established for control purposes. Approximately half of the area is covered with mature timber and wet land. This type of field-work is more efficient in the fall after leaf-off. Coordinate System will be Iowa State Plane NAD 83 and NAVD 88, US Survey Foot. Field-survey will be geo-referenced to existing LIDAR.

3. Hydrologic Analysis

Base Hydrologic Model. Existing condition peak discharges for the 2-, 5-, 10-, 50-, 100-, and 500-year storm events will be calculated for Camp and Spring Creeks using HEC-HMS to develop a model for existing conditions that can serve as Base Model for comparison of other models. A hydrologic model for Mud Creek has been previously developed and is not a part of this scope of services. A HEC-HMS (hydrologic) models will be built to simulate the local runoff from the watersheds. Rainfall frequency will be based on synthetic rainfall amounts taken from the National Oceanic and Atmospheric Administration Precipitation-Frequency Atlas 14 of the United States, Midwestern States, Volume 8, 2013. The sponsor will furnish USACE model calibration data where available.

Future Hydrologic Model. The USACE will utilize the HEC-HMS models for Camp and Spring Creeks to develop future conditions hydrologic models. The best available City and County comprehensive planning documents will be utilized for this effort. The future conditions model will be based on review of the watershed for potential development and adjust the discharges to reflect that projected development accordingly.

4. Des Moines River Tributary Hydraulic Analysis

Base Hydraulic Model. A hydraulic model of existing conditions in Spring Creek as well as Mud Creek from the mouth at the Des Moines River upstream to NE 27th Avenue will be created using HEC-RAS and will be consistent with FEMA's guidelines and specifications for the National Flood Insurance Program. The flood water surface profile and flow velocities for the 2-, 5-, 10-, 50-, 100-, and 500-year events will be determined. A hydraulic model upstream of NE 27th Avenue was previously completed and is not a part of the scope of services.

Future Hydraulic Model. Following completion of hydraulic modeling of existing conditions, future conditions HEC-RAS models for Spring Creek and the portion of Mud Creek downstream of NE 27th Avenue will be created utilizing the peak flow data from the hydrologic modeling.

5. Study Deliverables. A study report and all supporting data and models and mapping will be furnished to the sponsor including the following:

- Hydraulic modeling assumptions and tabulated modeling results.
- Flood profiles of Mud and Spring Creeks throughout the described project length for existing conditions and for the future conditions scenarios.

- Inundation maps for the watershed outlining the flooding limits for the 100-, and 500-year, 24-hour events under existing and future conditions.
- The project will include pertinent mapping to build the GIS database that will be used for the watershed analysis, modeling, and identification of opportunities and site characteristics.

6. Study Coordination. USACE will attend up to 5 planning meetings to provide input on the watershed plan throughout the process. The USACE will review draft copies of planning documents and provide comments. **The anticipated date of the completion of the plan is 18 months after receipt of funding.**

Hydrology and Hydraulic Analysis PRELIMINARY	Camp Creek	Spring Creek	Mud Creek
Stream Miles	20 miles	10 miles	14 miles
1. Site Reconnaissance	\$5,000	\$5,000	\$5,000
2. Survey Data Collection and Processing	\$20,000	\$40,000	\$50,000
3. Existing and Future Condition Hydrologic Data Analysis	\$20,000	\$20,000	
4. Existing and Future Condition HEC-RAS Hydraulic Analysis		\$40,000	\$40,000
5. Report Preparation and Mapping	\$15,000	\$15,000	\$15,000
6. Meetings and Coordination	\$10,000	\$10,000	\$10,000
7. Study Coordination, Agency Technical Review, and Quality Control	\$10,000	\$10,000	\$10,000
8. Supervision (EC) and Management (PM)	\$10,000	\$10,000	\$10,000
SUB-TOTALS	\$90,000	\$150,000	\$140,000
PRELIMINARY GRAND TOTAL \$380,000			

SCHEDULE

Schedule for contracted portion is contained in the attachment.
 Completion of this study shall be 18 months from the initiation of the work via funds.

POINT OF CONTACT

All technical questions and/or comments should be directed to Shirley Johnson, Hydrologic Engineering Section, Hydraulics Branch at telephone 309/794-5276, or via email at Shirley.J.Johnson@usace.army.mil.

SCOPE OF WORK Discussion

- 1) Goals for watershed plan – proactive to watershed, USGS Water Quality Monitoring, and flood plain issues ~ both agriculture BMP’s and future urban development. Watershed Meetings will have combined meetings and plans / Creek Order Priority ~ Spring Creek detail /
- 2) Is there a future land use in mind for analysis or will we develop it? Design for future w/ climate change?
- 3) USACE provide a technical report, HEC-HMS sub-basin size USACE discretion, Data available (LIDAR, No – HWM data available, Bridge Plans)
- 4) Study timeline [April 2016? Firm date?] USACE will develop a DRAFT scope of work (w/ Snyder in-kind survey collection and processing and w/o Snyder in-kind survey, a detailed study scope w/ USACE survey collection and processing). Review FEMA/Stantec Polk County Preliminary FIS / Mapping / Iowa Flood Center Approximate HEC-RAS Models
- 5) PAS Sponsor would be Polk County ~ Mark Land will provide Watershed Study funding source.

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