Green River Diversion Rehabilitation-Environmental Assessment

Scoping Report

Final

Contract No. AG-3A75-C-10-0025
Task No. AG-8D43-D-12-0020

Dan Axness
Project Manager

December 19, 2012

McMILLEN, LLC

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SECTION 1
INTRODUCTION

1.0 Introduction

The Natural Resources Conservation Service (NRCS) and Utah Department of Agriculture and Food (UDAF), as the project sponsor, are analyzing alternatives to repair damage to the Green River diversion structure from the late 2010 and early 2011 (2010/2011) flood events. The United States Fish and Wildlife Service (USFWS) is proposing to install a fish barrier as part of this project, through funding from the United States Bureau of Reclamation (USBOR), at the entrance to the west irrigation and hydropower plant canal to prevent Endangered Species Act (ESA) listed fish species from entering the canal and/or hydropower plant.

NRCS, as the lead federal agency, is initiating the NEPA analysis in the form of an Environmental Assessment (EA) to analyze impacts to the natural and human environment from this project. The U.S. Bureau of Reclamation (BOR) is proposing to fund the installation of the fish barrier and is a cooperating agency in the NEPA analysis. The EA will comprise of the following elements:

- Alternatives analysis of potential options for structure rehabilitation;
- Detailed analysis of resources that may be affected for each of the alternatives that may satisfy the purpose and need for the project;
- Identification of potential mitigation measures to reduce or eliminate potential impacts; and
- A plan of public participation and government agency coordination throughout development of the EA.

The participation of the public is a vital component of the project so that those who are interested in or potentially affected by proposed alternatives have an opportunity to share their concerns and provide input regarding the EA during the initial stages of the process. This Scoping Report outlines the comments received from the agencies and general public during the scoping process.

1.1 Project Purpose and Need

The Green River diversion structure was constructed in the early 1900's and has been modified over the years to maintain the structure. During the 2010/2011 flood events, flows in the Green River caused severe damage to the diversion structure compromising its structural integrity. If the dam fails water service to two irrigation canals, a historic irrigation water delivery system and one hydropower plant would be eliminated. Repairing the dam would directly result in these resources remaining open and usable. The purpose and need of the project is to maintain existing functions of the diversion dam for water delivery to irrigation canals and the powerhouse.

1.2 Scoping Goals and Objectives

The main goal of public participation is to involve a diverse group of public and government agency participants to solicit input and provide timely information throughout the NEPA review process regarding their concerns for the project and the proposed alternatives. The main goals are to 1) establish ongoing communication with stakeholders, agencies and the general public, 2) educate the public about the environmental review process and each party's role, 3) evaluate the

effectiveness of public participation activities on a continual basis and utilize the most effective techniques throughout the NEPA process, and 4) document all public and government agency input.

SECTION 2
SCOPING PROCESS SUMMARY

2.0 Scoping Overview

Scoping questions, comments and concerns were requested from the public and government agencies during the preliminary scoping period via written submittal of comments. The following summarizes the scoping process and efforts made to engage the public and government agencies.

2.1 Scoping Terms

The following terms were used during the scoping process to identify specific actions:

- Comment: a distinct statement or question about a topic or issue relating to the project.
- Comment Category: a topic to which a comment is addressed.
- Comment Document: a written version of comment(s) submitted by a commenter. One comment document may contain multiple comments.
- Commenter: an individual, organization or agency providing one or more comments.

2.2 Scoping Schedule

The following dates outline the milestones for the scoping process:

- October 30, 2012: Scoping Notice Mailed and Scoping Period Opened
- November 5, 2012: Poster Display Boards Placed in Community Gathering Places
- November 6, 2012: Public Notice Published in the Emery County Progress and Sun Advocate Newspapers
- November 8, 2012: Public Notice Published in the Moab Times-Independent Newspaper
- November 13, 2012: Public Notice Published in the Emery County Progress and Sun Advocate Newspapers
- November 15, 2012: Public Notice Published in the Moab Times-Independent Newspaper
- November 15, 2012: Scoping Meeting
- November 30, 2012: Scoping Period Closed

2.3 Scoping Notice

A scoping notice was prepared and sent to interested parties and regulatory agencies on Oct. 30, 2012. The list of recipients was prepared by the NRCS, UDAF, Utah Association of Conservation Districts (UACD), and the local Green River irrigators. The scoping notice gave a description of the project, location and overview, purpose and need, identified preliminary scoping issues, and requested public participation. The scoping notice also identified the location of public meetings, contact information to submit written comments, and the scoping period closure date. A copy of the scoping notice is attached in Appendix A. The scoping notice was also posted on the NRCS website.

Public notices were published in the Moab Times-Independent, Sun Advocate and Emery County Progress newspapers announcing the project and public meeting. Copies of the newspaper scoping notices are attached in Appendix B.

A poster display ad was placed at government buildings and various businesses and other community gathering places in the project area (Green River, Emery County and Grand County). A copy of the poster ad is attached in Appendix C.

2.4 Scoping Meeting

The primary purpose of the scoping meeting was to gather input and feedback on the project's purpose and need statement, potential alternatives for consideration, environmental issues to be addressed in the EA, methodologies to be used to evaluate impacts, and the overall public participation process. To gather as broad an audience as possible, a combined government agency and general public scoping meeting was held Nov. 15, 2012 from 6:00 PM to 9:00 PM at City Hall in Green River, Utah. The scoping meeting presentation can be found in Appendix D.

There were 34 attendees at the public meeting. Participants were invited to submit comments in writing either at the meeting or subsequently by mail, fax or e-mail during the scoping comment period. Attendance at the meeting was counted using a sign-in sheet that is located in Appendix E. Comment cards were handed out at the meeting which also provided a blank space to submit written comments.

Scoping Meeting – November 15, 2012

2.5 Scoping Mailing List

The mailing list was prepared by the NRCS, UDAF, UACD, and local Green River irrigators to inform the government agencies and general public about the scoping process for the project. A total of 69 mailings were sent to government agencies and 316 mailings were sent to the public.

SECTION 3
SCOPING COMMENTS

3.0 Scoping Meeting

The combined agency/public scoping meeting was conducted on Nov. 15, 2012 from 6:00PM to 9:00PM. There were 34 attendees at this meeting and there were two (2) written comments submitted.

The following project personnel were in attendance for the public meeting.

Name	Organization	Title
Norm Evenstad	NRCS	Water Resource Coordinator
Anthony Beals	NRCS	EWP Specialist
Chris Christiansen	NRCS	EWP Engineer
Bob Normal	BOR	Project Manager
Terry Stroh	BOR	NEPA Specialist
Roger Barton	UACD	Resource Coordinator
Thayne Mickelson	UDAF	Conservation and Resource Manager
Kevin McAbee	USFWS	Fish Biologist
Dan Axness	McMillen, LLC	Project Manager
Greg Allington	McMillen, LLC	NEPA Specialist

3.1 Written Comments

The scoping period officially opened on October 30, 2012 and ended on November 30, 2012 for a total of 32 days. Written comments could have been submitted via mail, e-mail, facsimile, or comment card.

There were eleven (11) written scoping comments received from a commenter via comment document during the scoping period for the Green River Diversion Rehabilitation project. Written comments are presented in Appendix E.

3.2 Comment Categories

Each of the comments was separated into comment categories to identify the nature of the comment. The following categories were created for scoping and are listed below. Specific comment details are listed in the Open House Comment Matrix in Appendix E.

- Fish Passage
- Boat Passage
- E-Barrier
- Sediment
- Water Wheel
- Funding
- Construction Alternatives
- Agriculture
- History

APPENDIX A

SCOPING NOTICE

USDA Natural Resources Conservation Service-Utah
Wallace F. Bennett Federal Building
125 S. State Street – Room 4010
Salt Lake City, UT 84138-1100

October 30, 2012

Dear Interested Parties:

The Natural Resources Conservation Service (NRCS), in cooperation with Utah Department of Agriculture and Food as the project sponsor, are proposing to address flood damage on the Green River diversion structure in Green River, Utah. The proposed project is located approximately 6.6 miles north of the city of Green River on North Long Road. **You are invited to attend a public meeting** where a wide range of conceptual alternatives addressing damage rehabilitation to the Green River diversion structure will be presented and discussed at the meeting.

When: Thursday November 15, 2012
Time: Formal Presentation: 6 p.m. – 6:45 p.m.
Informal Open House: 6:45 p.m. – 9 p.m.
Where: Green River City Hall
460 East Main St
Green River, Utah 84525

More project specific information is available by contacting Greg Allington (McMillen, LLC) with the project team by phone at 208-342-4214 or email at greenriver@mcmillen-llc.com.

……
……..

Environmental Assessment Introduction

The NRCS is proposing to partially fund, through the Emergency Watershed Protection (EWP) program, a project to address and reduce flood damage to the existing Green River diversion structure. The National Environmental Policy Act (NEPA) and the Council on Environmental Quality's regulations at 40 CFR Parts 1500-1508 require an evaluation of potential environmental impacts associated with federal projects and actions. The project will require an environmental analysis and the environmental impacts will be documented in the form of an Environmental Assessment (EA) for the project.

Project Purpose and Need

In accordance with the rehabilitation provisions of the NRCS's EWP program, the area is eligible for rehabilitation funding due to recent flood damage in late 2010 and early 2011. The purpose of the project is to rehabilitate the structure so it continues to function as originally intended.

Public Participation

The participation of the public is a vital component of the project so that those who are interested in or potentially affected by the proposed project have an opportunity to share their comments, ideas, and concerns regarding actions during the initial scoping stage of the NEPA process. You are encouraged to attend the public meeting and express your comments, ideas, and concerns. You may also submit your

comments via letter, email or fax anytime during the public comment period. For comments to be considered and to become part of the public record for the projects, **we need to receive them by close-of-business on November 30, 2012**.

Please mail your written comments to:

Green River Diversion Rehabilitation Project
c/o McMillen, LLC – Greg Allington
1401 Shoreline Drive
Boise, ID 83702

You may also submit comments by email, phone or fax to McMillen:

Email: greenriver@mcmillen-llc.com
Phone: 208-342-4214
Fax: 208-342-4216

After receiving comments by close-of-business on November 30, 2012, the NRCS will begin reviewing the comments and reviewing conceptual alternatives for analysis in the EA. Preliminary resource concerns identified during this initial project scoping process will also be addressed in the EA.

You may also visit the project website at http://www.ut.nrcs.usda.gov/programs/EWP/index.html to check on the status of the project and download project related documents during the course of the NEPA analysis.

The project team values your feedback and encourages you to attend the open house on November 15, 2012.

Sincerely,

Bronson Smart
NRCS State Engineer

cc: Norm Evenstad – NRCS
Chris Christiansen – NRCS
Thayne Mickelson – UDAF
Roger Barton – UACD
Dan Axness – McMillen, LLC
Greg Allington – McMillen, LLC

APPENDIX B

NEWSPAPER SCOPING NOTICES

Emery County Progress and Sun Advocate

NRCS PUBLIC OPEN HOUSE

The Natural Resources Conservation Service (NRCS), in cooperation with Utah Department of Agriculture and Food as the project sponsor, are proposing to address flood damage on the Green River Diversion Structure (Tusher Wash Diversion) under the Emergency Watershed Protection program. The proposed project is located approximately 6.6 miles north of the City of Green River, Utah on North Long Road. The National Environmental Policy Act (NEPA) and the Council on Environmental Quality's regulations at 40 CFR Parts 1500-1508 require an evaluation of potential environmental impacts associated with federal projects and actions within put from the public.

You are invited to attend a public scoping meeting where a wide range of conceptual alternatives addressing damage rehabilitation to the Green River Diversion Structure will be presented and discussed at the meeting.

When: November 15, 2012 - Thursday
Time: 6:00 PM to 9:00 PM
Where: Green River City Hall
460 East Main St
Green River, Utah

Interested parties may voice their comments, ideas, and concerns to the project sponsors during this meeting. Comments may also be submitted via the following methods prior to the **end of the scoping period on November 30, 2012**:

Mail: Green River Diversion Rehabilitation Project
c/o McMillen, LLC
1401 Shoreline Drive
Boise, Idaho 83702
Email: greenriver@mcmillen-llc.com
Fax: (208) 342-4216
Phone: (208) 342-4214 ext. 318

Bishop notes the outdoors groups are not talking with [illegible] officials about how those lands should be managed and said this is one reason state leaders are

Times-Independent

Tuesday that a legislative route [illegible]on for the Great[illegible] has seemed out of reach.

"Congress has not passed

derness Alliance, v
outdoor industry
and says he is n
that the group wer
president for help.

"Utah politicia
begging for this,"
"Governor [Gar
launched his att
public lands by de
federal governmen
million acres of lar
ing over 20 lawsuits
That is not a way to
sion. People's favor
their businesses ar
and that triggers
seek protection."

A spokeswoma
said the governor's
contacted by anyon
national monumen
and opposes its cr
president.

"We certainly h
have another Bill
proach to creating a
Ally Isom said. "
was established by
any expansion ough
ly created by statut

Leaders of the
crafted the letter to
said in a conference
that they don't pla
changes should G
yonlands National
become a reality.

"Most [changes
to do with resourc
Korenblat said. "
leasing system no

NRCS

PUBLIC OPEN HOUSE

The Natural Resources Conservation Service (NRCS), in cooperation with Utah Department of Agriculture and Food as the project sponsor, are proposing to address flood damage on the Green River Diversion Structure (Tusher Wash Diversion) under the Emergency Watershed Protection program. The proposed project is located approximately 6.6 miles north of the City of Green River, Utah on North Long Road. The National Environmental Policy Act (NEPA) and the Council on Environmental Quality's regulations at 40 CFR Parts 1500-1508 require an evaluation of potential environmental impacts associated with federal projects and actions with input from the public.

You are invited to attend a public scoping meeting where a wide range of conceptual alternatives addressing damage rehabilitation to the Green River Diversion Structure will be presented and discussed at the meeting.

When: November 15, 2012 - Thursday
Time: 6:00 PM to 9:00 PM
Where: Green River City Hall
460 East Main St
Green River, Utah

Interested parties may voice their comments, ideas, and concerns to the project sponsors during this meeting. Comments may also be submitted via the following methods prior to the **end of the scoping period on November 30, 2012**:

Mail: Green River Diversion Rehabilitation Project
c/o McMillen, LLC
1401 Shoreline Drive
Boise, Idaho 83702
Email: greenriver@mcmillen-llc.com
Fax: (208) 342-4216
Phone: (208) 342-4214 ext. 318

Hiring Crew

Hiring Bo
up to $75

APPENDIX C

OPEN HOUSE POSTER DISPLAY AD

PUBLIC OPEN HOUSE

You are invited to attend a public scoping meeting where a wide range of conceptual alternatives addressing damage rehabilitation to the Green River Diversion Structure (Tusher Wash Diversion) will be presented and discussed at the meeting. Interested parties may voice their comments, ideas, and concerns to the project sponsors during this meeting.

When: November 15, 2012 - Thursday
Time: 6:00 PM to 9:00 PM
Where: Green River City Hall
460 East Main St, Green River, Utah

The Natural Resources Conservation Service (NRCS), in cooperation with Utah Department of Agriculture and Food as the project sponsor, are proposing to address flood damage on the Green River Diversion Structure under the Emergency Watershed Protection program. The proposed project will require an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA).

More information is available by contacting McMillen, LLC with the project team.

Email: greenriver@mcmillen-llc.com
Phone: (208) 342-4214 ext. 318

NRCS
Natural Resources Conservation Service

UDAF
Utah Department of Agriculture and Food

APPENDIX D

SCOPING MEETING PRESENATION

NRCS Emergency Watershed Protection (EWP) Green River Diversion Rehabilitation Environmental Assessment

Public Open House

November 15, 2012

Project Team

Natural Resources Conservation Service
(NRCS)
Lead Funding Agency

Bureau of Reclamation
(BOR)
Cooperating Funding Agency

Utah Department of Agriculture and Food
(UDAF)
Project Sponsor

McMillen, LLC
NEPA Project Manager/Concept Design

NRCS EWP Process Review

Norm Evenstad – NRCS

- Water Resource Coordinator

- Utah State: $70 million+ in 2012
- Flood, Wind and Fire Damage

NRCS - EWP Review

- Green River Diversion
- Damaged by Floods of 2011

Project Review

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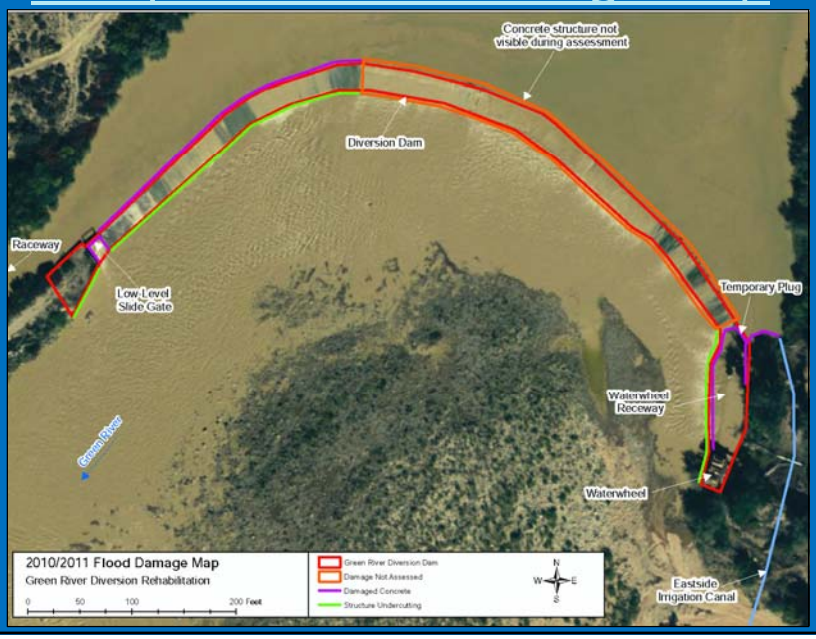
Dan Axness – McMillen, LLC
– Concept Design Project Manager

Project Vicinity Map

Project Overview Map

2010/2011 Flood Damage Map



Photos

West End of Diversion

East End of Diversion

Photos

East End of Diversion Damage to Waterwheel Raceway (looking u/s)

East End of Diversion Damage to Waterwheel Raceway (looking d/s)

Photos

West End of Diversion Damage to Diversion Dam (looking u/s)

West End of Diversion Damage to Diversion Dam (looking u/s)

Photos

Damage to Slide Gate West End of Dam (looking u/s)

Damage to Concrete West End of Diversion

Photos

Damage to Concrete West End of Diversion

Damage to Concrete and Entrance to Raceway West End of Diversion

Conceptual Project Alternatives

- No Action
- Rehabilitate Diversion (4 Options)
- Diversion Decommissioning
- Fish Passage Upstream/Downstream
- Boat Passage Upstream/Downstream
- Electric Fish Barrier

Conceptual Project Alternatives

- Rehabilitate Diversion Options
  - Repair Existing Diversion
  - Replace Existing Diversion
  - Replace Existing Diversion Downstream
  - Replace Existing Diversion Upstream

Electric Fish Barrier

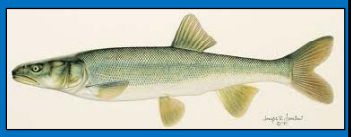
- Deter fish from swimming down powerhouse and irrigation canal raceway

EXAMPLE

Fish Passage

- Endangered and Threatened Fish Species
- Downstream: Notches in Dam
- Upstream: Passage System
- Electronic Tag Reader

Razorback Sucker


Colorado Pikeminnow

Humpback Chub

Bonytail

National Environmental Policy Act

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Greg Allington – McMillen, LLC
– NEPA Project Manager

National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190) and the Council on Environmental Qualities regulations at 40 CFR Parts 1500-1508

NRCS NEPA

- Environmental analysis required for major federal actions.
- The NRCS is the funding agency for the diversion dam rehabilitation project (75%).
- The project sponsor provides the remaining 25% cost-share for the diversion dam rehabilitation project.

BOR NEPA

- Upper Colorado River Endangered Fish Recovery Program
- The BOR is the funding agency for the electric fish barrier project (100%)
- The US Fish and Wildlife Service is providing technical oversight of the barrier

NEPA Requirements

- Environmental Assessment (EA)
  - NRCS and BOR NEPA requirements
  - Analysis looks at potential impacts to the natural and man-made environment

NEPA Requirements

- NEPA Process
  - Scoping
    - Express initial concerns and suggest alternatives to be considered
  - Draft EA
    - Public review of alternatives and environmental impacts
  - Final EA
    - Proposed alternative published to public
  - Finding of No Significant Impact (FONSI)
    - Project approval by NRCS and BOR

Typical Scoping Concerns

- Project Purpose and Need
- Design Alternatives
  - Including a No-Action Alternative
- Natural Environment
- Man-made Environment
- Mitigation

Scoping Comments

- Formal comments may be submitted by:
  - Email
  - Written Letter
  - Comment Card
  - Oral

- Scoping Report: Summarizes issues, alternatives and concerns from the public

Schedule

- NEPA Environmental Assessment
  - Start: September 2012
  - **Public Scoping Comment End: Nov. 30, 2012**
  - Draft EA Public Comment: March 2013
  - FONSI: Late Summer 2013
- Construction
  - Start: Late Fall 2013
  - End Early Spring 2014

NEPA Contact Information

- Please contact Greg Allington with McMillen project with questions and comments:

Phone: 208-342-4214

Fax: 208-342-4216

Email: greenriver@mcmillen-llc.com

Address: 1401 Shoreline Drive
Boise, ID 83702

Informal Questions

???

APPENDIX E

COMMENTS AND SCANNED SIGN-IN SHEETS

Commenters and Commenter Reference Numbers

Commentor #	Name	Organization	Phone	Address	City	State	Zip	Email	Comment Document
1	Kathy Ryan		435-820-4432	PO Box 571	Green River	UT	84525	kryan@greenriver.com	Comment Card
2	Thayne Mickelson	UDAF	801-608-7668	350 N. Redwood Rd	Salt Lake City	UT	84114	tmickelson@utah.gov	Comment Card
3	Dan Harrison		435-820-0288	PO Box 75	Green River	UT	84525	dharrison@etv.net	Comment Card
4	Kirk Dunham		435-820-4822/435-564-8876	PO Box 540	Green River	UT	84525	kpdunham@juno.com	Comment Card
5	Julie Zwahlen		435-503-1250					misstery13@yahoo.com	Email
6	Penny Riches							mvfood-pndhard@hotmail.com	Email
7	Von Bowerman		435-564-8133	PO Box 88	Green River	UT	84525	von73b@yahoo.com	Email
8	Pat Brady		435-820-6226	PO Box 406	Green River	UT	84525	pbrady@greenriverutah.com	Email
9	Kelly Dunham		435-564-8365	PO Box 451	Green River	UT	84525	kellyingr@gmail.com	Email
10	John Weisheit	Colorado Riverkeeper	435-259-1063	PO Box 466	Moab	UT	84532	john@livingrivers.org	Email
11	Chet D. Hunt			PO Box 501	Green River	UT	84525	chetdhunt@yahoo.com	Email

Commenters and Commenter Reference Numbers

Comment Category	Comment	Commenter
Boat Passage	Don't Do	1
	Boat passage not needed, boat ramps up and downstream of dam	9, 11
	Government focusing on small sector of private boating so companies can get money, focus on what benefits the majority, not private companies	3
	Create boat ramp upstream of dam for boaters	3
Fish Passage	Concentrate on fish flow	1
	Did the current dam cause extinct/endangered fish species?	3
E Barrier	Maintenance, operations and liability directly to BOR and F&WL, not canal, conservation or local landowners	2
Sediment	Any alternative would still require a sluicing system, at high flows the gates will be left open 24/7 and low flows only bi-weekly	3
	Add gates by the pump house to remove sediment from the raceway quicker	7
	Large gates should be added so sediment can be washed downstream	7
Water Wheel	The water wheel should receive it's 60cfs at the height of the dam and with the dam having a matched curve to fit the water wheel to maintain energy flows	7
	Thaynes' sluicing doing more good before the generator than all smaller gates downstream	3
Funding	Spend the money where it benefits the most	3
	Do the dam with the funds on hand	4
	Fulfill other's wishes when funds become available	4
	The Bureau of Reclamation should be consulted to provide further funding opportunities via the WaterSMART	10
	Stay within grandfather clause with the fish protection expenses, cannot have any changes that will burden the Green River Canal Co.	7
	Comparative financial analysis of diversion dam vs. pumping station	10
Construction Alternatives	Replace existing dam or build new one downstream	3
	Green River needs to have their own dam, because they already have the rights.	5
	Power turbines should be added to the dam to supply power to Green River	6,7,11
	Desilting basin could be built above the flood plain to reduce cause of sediment removal and reduce wear to water works and sprinklers	10

Construction Alternatives	The City of Green River should pursue a hydro-power plant adjacent to the dam with the ability to expand into nuclear power in the future	8
	A pumping station would include saving from protecting the overall investment from the damages that may be caused by a maximum flood event, reduce fish mortality and drift wood snag	10
	Intermittent overflow from floods on a raised dam height can be handled by a raceway that can compensate for the increased height	7
	Repair existing dam only if it would remain effective, secure and stable	9
	Combine fish passage, boat passage and E-Barrier at the west side of raceway, add 5 gates downstream of the 125ft E-Barrier to flush sediment, the passage can also be used as a place to skim trash	7
	Widen the raceway to 75ft	7
	Include a pumping station alternative with the goal of decommissioning the current dam	10
	Replace the dam and move upstream away from the Tusher Wash drainage	10
Agriculture	Farms upstream can sustain flooding if water level was raised too much.	9
History	The Green River has experienced flood events far exceeding the 2011, 43,700 cfs flood and should be built to withstand 19th century flows projected at 100,000-300,000 cfs	10

NRCS

UDAF

NRCS Green River Diversion Rehabilitation Environmental Assessment

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Public Scoping Meeting Sign-In Sheet

November 15, 2012

Name	Phone	Address	Email
Von Bowerman	564-8133	Green River	von73B@yahoo.com
Norm Evenstad	801-557-7068	125 S. State St. - SLC, UT 84138	norm.evenstad@ut.usda.gov
Tony Beals	801-524-4358	125 S. State St. SLC, UT 84138	anthony.beals@ut.usda.gov
Thayne Mickelson	801-608-7668	350 N. Redwood Road SLC UT 84114	tmickelson@utah.gov
JOHN WEISHEIT	435-259-1063 " 260-2590	120 ARBOR DRIVE MOAB UT 84532	JOHN@LIVINGRIVERS.ORG
ED WHICKER	435-722-4621 x124	140 S HWY 40, ROOSEVELT, UT 84066	ed.whicker@ut.usda.gov
Terry Stroh	970-248-0608	2764 Compass Dr. Suite 106, Grand Jct, Co 81506	tstroh@usbr.gov
Bob Norman	970-248-0634	2764 Compass Dr, Suite 106, GJ, CO 81506	rnorman@usbr.gov
Pat Brady	435-820-6226	PO Box 406 GR.	pbrady@greenriverutah.com
Randy W Tucker	435.564.3305	PO Box 606 Green River	randygrvrguy@hotmail

NRCS

UDAF

NRCS Green River Diversion Rehabilitation Environmental Assessment

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Public Scoping Meeting Sign-In Sheet

November 15, 2012

Name	Phone	Address	Email
Kathy Ryan	435-820-4432	Box 324 Green River 84525	Kryan@greenriver.com
Char D. Lupta[illegible]	435-630-6052	Box 303 G.R. UT.	Charlus@etv.net
Nancy Dunham	435-564-3536	Box 540 GR	dlandl@yahoo.com
Lee Thayn	435-3325	P.O. Box 447	
Randy Erwin	435-564-6572	Green River	
Judy Ann Scott	435-564-3366	" "	pignut@etv.net
Robert D. Scott	"	" "	"
Diane Mayfield	435-564-8233	" "	berrypatch007@live.com
Leon Mayfield	"	" "	"
Robert C Steuer	4355643226	BOX 169 84525-0169	steuers@m2c.com

NRCS

NRCS Green River Diversion Rehabilitation Environmental Assessment

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UDAF

Public Scoping Meeting Sign-In Sheet

November 15, 2012

Name	Phone	Address	Email
Robert Quist	435-564-3361	PO Box 116 G.R. Ut	bobquist@etv.Net
Kelly Dunham Ric Schmidt	435 564 8365	PO Box 451 GR Ut	Kellyingr@gmail.com
Lance Erwin	435-820-8131	Po Box 86 GR UT	Lancegatlewe@Hotmail.com
Jason Johnson	435-210-5578		jasonajohnson@utah.gov
Bo Harrison	801-573-7236	Box 43 GR 84525	bodaniel1@Yahoo.com
Tuffat	435 820 0157	Box 404 84525	
Eugene Swalberg	435 564 3633	BOX 637 84525	eugene.swalberg@utah.gov
Bruce Nelson	" " 3556	Box 537 84525- GR UT	
Kyle Dunham	" " 8876	Box 540 84525 GR UT	Kpdunham@juno.com
Chris Dunham	435 820 8202	Box 193 84525 GR UT	FARMING-500@YAHOO.COM

NRCS

NRCS Green River Diversion Rehabilitation Environmental Assessment

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UDAF

Public Scoping Meeting Sign-In Sheet

November 15, 2012

Name	Phone	Address	Email
Dan Harrison	435-820-0288	P.O. Box 75 Green River	dharrison@etv.net
Greg Vetere	435-820-8977	Po Box 131 Green River	GVetere@Hotmail.com
Roger Barton	435-749-2169	PO Box 1114 Castle Dale 84513	roger.barton@ut.nacdnet.net
Wayne Urie	435 820 4470		wayne.urie@ut.usda.gov
Greg Allington McMillen, LLC	208-342-4214	1401 Shoreline Dr Boise, ID 83702	greg.allington@mcmillen-llc.com
Dan Axness McMillen, LLC	208-342-4214	" "	dan.axness@mcmillen-llc.com

Commenter #1

NRCS

NRCS Green River Diversion Rehabilitation Environmental Assessment

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Public Scoping Meeting Comment Card

November 15, 2012

Name: Kathy Ryan

Address: Box 571 Green River, Ut 84525

Email: Kryan@greenriver.com

Phone: 435-820-4432

Comments:

I think don't do a boat passage in the dam concentrate on fish flow.

You can also provide comments by emailing them to greenriver@mcmillen-llc.com, faxing them to 208-342-4216, or by calling 208-342-4214.

Commenter #2

NRCS

NRCS Green River Diversion Rehabilitation Environmental Assessment

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Public Scoping Meeting Comment Card

November 15, 2012

Name: Thayne Mickelson

Address: 350 N. Redwood Rd. SLC UT 84114

Email: tmickelson@utah.gov

Phone: 801-608-7668

Comments:

E Barrier Maintanence + operations as well as liability clearly stated as the responsibility (with signiture of acceptance through contract or agreement) of the F+WL and BOR with no liability to canal, conservation districts or local landowners

Commenter #3

NRCS

NRCS Green River Diversion Rehabilitation Environmental Assessment

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Public Scoping Meeting Comment Card

November 15, 2012

Name: Dan Harrison

Address: P.O. Box 75 Green River, UT 84525

Email: dharrison@etv.net

Phone: 435-820-0288

Comments:

Fish issues: The existing diversion dam is over 120 years old. How is it all the endangered fish are still alive when no special consideration was given to protecting these fish? Are there any extinct species of fish that went extinct because of the dam? Most fish migrate up stream to spawn in the spring when high water is present. Could this be why these endangered fish continue to exist - they can move upstream without any special Dam modifications? Build the dam to last let nature adjust!

Boat issues: This should be a dead issue. Since when does the gov. care about providing a living for private group. River trip companies are in it for the money. Boaters are only on the river for about 5 months out of the year. during 3 of those months the water flow is too low to use below the dam. Boaters have never had use of this area of the river, why now? The extra money spent on the this small, select group of people does not give the tax payer a very good pay back.

You can also provide comments by emailing them to greenriver@mcmillen-llc.com, faxing them to 208-342-4216, or by calling 208-342-4214.

You can't be everything to everybody. Spend your money where it benifits the most.

over

Boats going up the river can launch above the dam. just install a ramp from shore.

Of the 4 construction options; either the dam replaced where it is or a new dam just below the existing. Either way it will require an active slousb system. when water is high the gates can be left open 7/24. when low it will have to be exercised at least bi-weekly. Thaynes are currently sloushing the race-way just before their generator. That gate is doing more good than all the small ones down stream. The Canal Co. owes Lee a big hug for helping them.

Dan Hamm

Commenter #4

NRCS

NRCS Green River Diversion Rehabilitation Environmental Assessment

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UDAF

Public Scoping Meeting Comment Card

November 15, 2012

Name: Kirk Dunham

Address: Box 540 Green River Utah 84525

Email: kpdunham@juno.com

Phone: 435 - 820 - 4822 / 435 - 564 8876

Comments:

I believe we need to repair/modify the existing structure for the following reasons:

#1 It is a proven design. It has served 106 years. If it weren't for the bureaucratic encumbrances the community would have repaired it already.

#2 We don't want to incurr a large debt to pass on to water users for future generations. I resent the remark that the farmers are un able to do it them selves, they built it themselves 106 yrs ago. My son is an engineer with the Bureau of Reclamation in Grand Junction office, He has talked with his Uncle Chris about this extensively. If a simple design can be developed it could be done with the funds

on hand.

Draw in options for everyone - wishes should funds become available.

Lets get it Done

Kirk Durham

Commenter #5

From: greenriver@mcmillen-llc.com on behalf of misstery13
To: greg.allington@mcmillen-llc.com
Subject: Green River
Date: Monday, November 26, 2012 11:43:16 AM

Green River Need to have their own dam for power since they already have the rights to it first. Not somebody else coming in to do one.

Thanks
Julie Zwahlen
4355031250

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Commenter #6

From: greenriver@mcmillen-llc.com on behalf of Penney Riches
To: greg.allington@mcmillen-llc.com
Subject: green river diversion project
Date: Tuesday, November 27, 2012 3:30:38 PM

Green River Diversion Project
The diversion dame does need to be replaced and I would love to have power turbans installed for the purpose of producing power. This could be a good way to help pay for keeping the dame updated and do repairs,
Penney Riches
Green River, Utah

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Commenter #7

From: Von Bowerman
To: Dan Axness
Subject: Re: FW: Draft email to project team - Green River/Tusher Wash
Date: Sunday, November 25, 2012 8:28:34 AM

Hi Dan

The public meeting on Nov. 15, 2012 went well. Good work conducting the meeting.
These comments are my own and are not voted on by the Green River Canal Board.

1) The most important issue is to stay in the grandfathered clause with the fish protection expenses. We can not have any changes that will put the burden to the G.R.Canal Co., or any water rights before 1988 date.

2) Low water height, to raise the diversion dam a foot has a long list of benefits. With the only down fall is the high water level that only happens about every ten years and this can be handled with by having a over flow area along the raceway bank on the green river side that is long enough to compensate for the increased height.

3) The water wheel has first right to Its 60 C.F.S.,it needs a slot the will let out that flow rate at a low river level. But i think that the water wheel would work best if the wheel receives the 60 c.f.s.at the height of the dam and had a curve that matched the wheel in order to keep the energy from the water it is getting, put to better use. If the people owning the water wheel will agree to receiving the 60 c.f.s at a higher level it would be better for everybody, but that is not our problem, just the slot at the dam.

4) Sediment up stream of the dam needs to be able to be flushed down stream at some point in time when the sediment gets buildup, like right now. So some large gates that could be opened in low river flow to accomplish letting the sediment wash down river. Dropping the sediment out first in the river and having the raceway be the second place to catch sediment , the canals be the last place to have to deal sediment would be a big improvement.

5) E-Barrier, gates, trash skimmer, boat passage, and fish passage on the west side at the head of the race way will work best if combined together. A) The E-Barrier needs to be long enough, so the flow is slower for the fish to get away easier. Also it can not hinder the flow into the raceway. B) If the e-barrier was 125 feet long and we put five, 25 foot radial gates a few feet up stream of the e-barrier, this would work as gates to the raceway and then we could flush the sediment off of the e-barrier by opening one gate at a time to remove sediment that will get build up. Also, we could use the same radial gates as the skimmer for trash coming down the river by lowering the radial gates a foot or so down in the top of the water. C) Having the boat/fish passage in line with the e-barrier, so the slot in the dam for the boat/fish can double as a place for the trash from the skimmer to pass over the dam easier. D) Sediment collected in the raceway needs to be handled faster when we need to flush it out. So if we had a large gates placed down by the pump house, this would help in removing sediment in the raceway, also when we have a flooding problem this gate would help relieve water height passing over the dam. In 2011 the small radial gates that we have now do not come clear out of the water and have more of a problem getting plugged up. That also makes them a lot harder to clean trees and other trash away from the gates.

6) I feel the raceway needs to be wider, from 50 feet to 75 feet at least down to where the hill starts becoming a issue. Now the 50 foot structure with the 8 gates is a bottle neck in the flow we need. In 2011 flooding, the 8 gate structure became plugged with trees and junk that came from the river, this caused the dam to have more flow going over it, that added to more flooding problems up river. How ever if the trees and trash was not caught at the 8 gates it would of plugged up are small radial gates at the pump house. That could of been even a bigger problem, if the raceway may of not held the extra pressure from the water height in the raceway. This is also a benefit to having a large gate at the pump house area to handle more water during flooding times.

Please let me know if you got this e-mail. Thanks Von

Commenter #8

From: greenriver@mcmillen-llc.com on behalf of Pat Brady
To: greg.allington@mcmillen-llc.com
Subject: power plant addition
Date: Thursday, November 29, 2012 9:59:03 AM

Hello,

Since our meeting it has been brought up that the City of Green River should pursue putting
in a hydro-power plant along side the dam.

Therefore, I would appreciate it if you also draw up plans that would include a power plant
suitable to sustain our town and projected growth with the Nuclear Power plant addition.

Any questions, please feel free to write or call.

Sincerely,

Pat Brady
Mayor, City of Green River
435-820-6226

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Commenter #9

From: kelly dunham
To: greg.allington@mcmillen-llc.com
Subject: Green River Diversion Dam Comments
Date: Thursday, November 29, 2012 10:39:46 AM

Greg,

I would like to send an official comment concerning the improvements to the GR Diversion Dam.

I am a local farmer/water user and commercial river rafter.

I have talked with fellow river rafters along with local jet boat operators and everyone agrees that there is no need for "up stream" travel for any water crafts. As long as there is some kind of slot for down stream floating that is sufficient. No need to spend much additional time or funds.
When the river levels are "low" (say below 3-5,000 cfs) there are too many rocks down stream of the dam for any water craft to even access the dam area. In the event of a rescue situation, boats can launch from the Swasey's boat ramp up stream or from the Green River State Park down stream.

Another concern that I have would be to maintain the current up stream water level. The farms up stream from the diversion dam could sustain flooding if the water level was raised much.

My vote would be to repair the existing dam if it would remain effective, secure, and stable, instead of replacing it.

Thank you for your concerns and effort with this project.
Feel free to email or call me if you have any questions.

Kelly Dunham
435-820-4828

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Commenter #10

From: John Weisheit
To: greenriver@mcmillen-llc.com; greg.allington@mcmillen-llc.com; dan.axness@mcmillen-llc.com
Cc: John Weisheit; Terence Stroh; Kevin McAbee
Subject: Scoping for Green River Diversion Rehabilitation Project
Date: Friday, November 30, 2012 2:52:52 PM

November 30, 2012

Green River Diversion Rehabilitation Project
c/o McMillen, LLC – Greg Allington
1401 Shoreline Drive
Boise, ID 83702
Email: greenriver@mcmillen-llc.com
Phone: 208-342-4214
Fax: 208-342-4216

Re: Scoping for Green River Diversion Rehabilitation Project

Dear Mr. Allington,

This letter is submitted by Living Rivers and Colorado RIverkeeper, which is based in Moab, Utah. Our organization works on many issues related to water resource management in the Colorado River basin that is shared by people and wildlife in seven states and Mexico.

INTRODUCTION

This diversion dam was built in 1906 and originally constructed of wood cribs filled with large rocks. In 1936 the diversion dam was capped with a concrete slab about 12 feet wide. The components of the facility include a water wheel on the east side, a gravity-fed canal on the west side, and a pumping station and power plant on the west side.

The snowmelt of 2011 damaged the diversion dam and water works and the dam is thus slated for rehabilitation or replacement. There are concerns about reducing the "take" of endangered fish, and creating a passage for boats to improve navigation, and to reduce the build-up of driftwood snags and trees during the annual snow melt, or summer cloudbursts.

The preferred action would appear to include the repairing of the dam, install a boat passage, and install an electric fence to reduce mortality of

endangered fish. It is not arbitrary to state that the status quo operations of the diversion dam are not in the public interest, as it relates to protecting endangered fish and preventing navigation accidents.

GEOMORPHIC AND HYDROLOGIC CONCERNS

The peak flow for 2011 occurred on June 14 and the discharge was 43,700 cubic feet per second (cfs). Since the diversion dam has endured higher floods in the past, such as the 1917 peak of 65,500 cfs, it is correct to provide a solution to this aging infrastructure problem. However, even with a new or repaired diversion dam, it must be appreciated that the 20th century was generally kind when it came to large flood events. The 19th century actually had more extremes of hydrology and with greater frequency.

For example, it is generally accepted that a flood of 100,000 cfs flowed through the Gunnison Valley in 1884, following the eruption of Krakatoa in Sumatra. When it was decided to build Hoover Dam, the spillways were designed to accommodate the flood volume of the 1884 snowmelt at that location. The volume of that flood was determined by measuring the height of the driftwood that accumulated on the margins of the river channel (approximately 300,000 cfs). On the Colorado River above the Confluence with the Green RIver, the flood of 1884 was measured by gages below Grand Junction and the peak flow was determined to be 125,000 cfs.

According to various pioneer diaries (especially John Doyle Lee), a regional storm lasted 44 days from December 1861 to February 1862, and though the total yield of this storm is not yet known, the driftwood snags from this flood were photographed in Cataract Canyon by John Wesley Powell during his second expedition in 1871. The photograph was matched in the 1990's and the location of the camera station indicates that the combined flow of the Green and Colorado rivers was at least as high as the flood of 1884, and possibly higher. Slack water deposits were analyzed in Cataract Canyon by the University of Arizona in the summer of 2012. Unfortunately the analysis of the data has not yet been finalized; perhaps in a few more months the data can be shared with the public.

It is also generally accepted, anecdotally, that the snowmelt that followed the 1816 eruption of Mt. Pinatubo in Sumatra ("the year of no summer"), had at peak flow that was probably greater than the flood of 1884.

This information is useful for three reasons: 1) the 20th century escaped the consequences of a 100-year flood, but the 19th Century had at least three 100-year events; 2) the frequency and magnitude of a 100-year flood event is poorly understood (but improving) in the Colorado River basin; 3) it is likely that a flood(s) of 100,000 cfs or greater can be expected in the lifetime of this diversion dam and it should be properly constructed to withstand such volumes of water.

To better understand the nature of probable maximum floods in the Colorado River basin, please refer to the following publication (and references): "The Moab Mill Project: A technical report towards reclaiming uranium mill tailings along the Colorado River in Grand County, Utah. 2005." http://www.riversimulator.org/Resources/Hydrology/MoabMillProject.pdf

The other concern is the location of the diversion dam near the mouth of Tusher Wash. The debris flow (gravel bar) directly below the dam indicates that a massive cloudburst in the East Tavaputs Plateau (Book Cliffs) could create damaging debris flows from the Tusher Wash drainage. It is recommended that should the dam be replaced, that the location is moved further upstream and out of harms way.

PUMPING STATION ALTERNATIVE

An economic analysis should be presented with the goal of weighing the costs of the water delivered via diversion dam, versus the costs of water delivered via pumping station, and with the goal of eliminating this low-head dam altogether and combining this alternative with the dam decommissioning alternative.

The expenses of dam construction would include (not a conclusive list): the building of the dam (or rehabilitating the existing dam), demolition of the old dam (or not), the cost of repairs or replacement from damages caused by a probable maximum flood, long-term maintenance costs, endangered fish protection costs, and other such expenses.

The expenses of a pump station would include (not a conclusive list): removal of the dam, construction of screened intakes and pumps on both sides of the river, the cost of electricity, the cost of a pipeline to deliver water to the irrigation ditches and the Thayn Hydroplant, the cost of land purchases or exchanges, and other such expenses.

The benefits of a pump station, provided the pump station is perched above the floodplain, would include savings from protecting the overall investment from the damages incurred by a probable maximum flood, reduction of fish mortality and driftwood snags.

Perhaps a desilting basin could also be built above the floodplain, to reduce the cost of sediment removal in the ditches, and to reduce wear to water works and sprinklers.

We would also recommend that the Bureau of Reclamation be consulted to provide further additional funding opportunities for the project via the WaterSMART program, or other similar community investment programs.

Thank you for this opportunity to provide information and possible alternatives for this project. Please do not hesitate to contact me if you have any questions or concerns.

Sincerely yours,

/s/ John Weisheit

Living Rivers
Conservation Director
Colorado RIverkeeper
PO Box 466
Moab, UT 84532
435-259-1063
john@livingrivers.org

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Commenter #11

From: greenriver@mcmillen-llc.com on behalf of Chet Hunt
To: greg.allington@mcmillen-llc.com
Subject: Green River Diversion Rehabilitation Project
Date: Saturday, December 01, 2012 9:09:46 AM

To Whom It May Concern,

The dam should be put in the same spot. It's already the right level for east and west side irrigation canals. A place for the boats to come over is not neccesary because of the boat dock just above the dam, and there is a boat dock just below the dam. I think that turbance should be put in for power generation for the city of Green River at the time of the rebuilding. The little city's power bill is just below $100, 000 a year, and the city should have done that 100 years ago when the dam was put in the first time.

Chet D. Hunt
1345 East 500 South
Green River, UT 84525
435-820-1665

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