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# Department of Environmental Quality



Dave Freudenthal, Governor

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

John Corra, Director

RECEIVED

JUL 18 2007

July 16, 2007

Mr. Terry Griffith  
USEPA Region 8  
1595 Wynkoop Street  
Denver, CO 80202-1129

**RE: SEMI-ANNUAL PROGRESS REPORT: PI978078-01 -- "WATERSHED-BASED WYPDES PERMITTING FOR THE POWDER RIVER BASIN, WYOMING"**

Dear Mr. Griffith:

Please find attached the January 1 - June 30 2007 semi-annual progress report for the grant identified above. To date, the Wyoming Department of Environmental Quality, Water Quality Division (the Division) has not expended any funds related to this grant. However, the Division is in the process of assessing modeling and analysis "tool" needs related to watershed based permitting, and expects to begin utilizing these funds shortly.

If you have any questions, please contact me at 307-777-6682, or via e-mail at [kshrev@state.wy.us](mailto:kshrev@state.wy.us).

Sincerely,

Kathy Shreve  
Environmental Program Principal (Grant Manager)  
Wyoming Department of Environmental Quality  
Water Quality Division  
WYPDES Permitting Section

JUL 20 2007

Wastewa...

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**WATERSHED-BASED WYPDES PERMITTING**

for the

**POWDER RIVER BASIN, WYOMING**

**Quarterly Report**

for

**U.S. EPA Environmental Policy and Innovation Grant**

**PI978078-01**

*Prepared by:*

**Wyoming Department of Environmental Quality**

**Water Quality Division**

**Cheyenne, WY 82002**

**July 16, 2007**

## Environmental Policy and Innovation Grant

### *Watershed-based WYPDES Permitting for the Powder River Basin, Wyoming*

#### INTRODUCTION

The Water Quality Division (WQD) of the Wyoming Department of Environmental Quality (WDEQ) received a Grant Award from the U.S. Environmental Protection Agency (USEPA), Office of Environmental Policy and Innovation, for a grant covering the time period June 17, 2005 to June 30, 2008 to develop and implement a watershed-based WYPDES permitting process for the Powder River Basin (PRB) in northeastern Wyoming. This progress report presents a summary of project related activity from January 1 – June 30, 2007. Please note that all meeting summaries, draft and final general permits, comments, comment responses, presentations, etc. related to this project are available online at [http://deq.state.wy.us/wqd/WYPDES\\_Permitting/WYPDES\\_cbm/Pages/CBM\\_Watershed\\_Permitting/CBM\\_watershed\\_permitting.asp](http://deq.state.wy.us/wqd/WYPDES_Permitting/WYPDES_cbm/Pages/CBM_Watershed_Permitting/CBM_watershed_permitting.asp). Once this page is accessed, access to individual documents may be obtained by following the page links.

#### PROJECT ACTIVITY

##### 1) Pumpkin, Willow, and Fourmile Creeks

The Pumpkin Creek and Willow Creek General permits and the Fourmile Creek Permitting Plan were advertised in Public Notice February 16, 2006 until April 3, 2006. Extensive comments from the stakeholder committees were received.

Meetings (6<sup>th</sup> in this series) were held in Sheridan, Wyoming to apprise stakeholder committee members of the number and types of comments received on the General Permits/Permitting Plans. The Pumpkin/Fourmile Creek meeting was held on April 12, 2006, and the Willow Creek meeting was held on April 11, 2006. All of the meetings were preceded by a public notice stating the dates, times, places, and purpose for the meetings.

Based upon the comments received during the public notice and the post-PN stakeholder committee meetings, the permits/plan were revised. The General Permits/Permitting Plan were issued September 11, 2006. The General Permits/Permitting Plan were appealed by both operators and various environmental groups. These appeals are in the pre-discovery stage.

##### 2) Clear Creek and Fence Creek

For the Clear Creek and Fence Creek watersheds, the following meetings have been held since January 1, 2006-



**Clear Creek**

4<sup>th</sup> meeting – January 17, 2006

5<sup>th</sup> meeting – March 9, 2006

6<sup>th</sup> meeting – June 14, 2006

**Fence Creek**

4<sup>th</sup> meeting – January 18, 2006

5<sup>th</sup> meeting – March 8, 2006

6<sup>th</sup> meeting – June 15, 2006

All of the meetings, except for the 5<sup>th</sup> meeting of for both Clear Creek and Fence Creek, were held in Buffalo, Wyoming. The 5<sup>th</sup> meeting for both Clear Creek and Fence Creek was held in Sheridan, Wyoming. All of the meeting dates, times, places, and the purpose of the meetings were advertised in public notice.

The Clear Creek and Fence Creek General permits were advertised in Public Notice April 15, 2006 until May 31, 2006. Extensive comments from the stakeholder committees were received. No comments from persons outside of the stakeholder committees were received.

WDEQ is in the process of evaluating the comments at this time, and has not determined a timeline for issuance of the General Permits. The WDEQ has completed evaluating comments received during the public notice process, and has completed final general permit edits resulting from these comments. At this time, issuance of these general permits has been delayed due to appeals filed on the Pumpkin, Fourmile, and Willow Creek permits. The WDEQ prefers to wait until these appeals are complete before proceeding on additional watershed-based general permit issuances, in order to incorporate the outcome of these appeals, if appropriate, into the outstanding watershed permits.

As part of the Fence Creek watershed permitting process, a channel survey was conducted. Requests for proposal were solicited, and a contractor was selected May 19, 2006. The final report/information was submitted to the WDEQ on July 31, 2006.

A channel survey was deemed unnecessary in the Clear Creek watershed permitting process by the watershed permitting committee.

**3) Lower Tongue River**

Since the last report period, the WQD has initiated a third set of watershed meetings – the Lower Tongue River. This watershed includes:

Prairie Dog Creek and tributaries thereof,  
Hanging Woman Creek and tributaries thereof,  
Badger Creek and tributaries thereof,  
Big Goose Creek and tributaries thereof,  
Ash Creek and tributaries thereof, and  
Fool Creek and tributaries thereof

For the Lower Tongue River watershed, the following meetings have been held:

1<sup>st</sup> meeting: April 26-27, 2006

2<sup>nd</sup> meeting - June 8, 2006

3<sup>rd</sup> meeting - July 26, 2006

All of the meetings were held in Sheridan, Wyoming. All of the meeting dates, times, places, and the purpose of the meetings were advertised in public notice. The WQD anticipates that two general permits will be issued to cover CBM discharges within the Lower Tongue River watershed, one for discharges into the Prairie Dog Creek sub-basin, and another to cover discharges into the remaining sub-basins, which differ from Prairie Dog Creek in that they are all intermittent, ephemeral class 3 drainages, while Prairie Dog Creek is a perennial class 2AB drainage.

The WQD sent out a request for proposal (RFP, # 0468-N) to hire a contract agent to perform channel surveys within the drainage with the intent of mapping possible constriction points (locations that may be restricted in the amount of additional flow that can be handled without causing undue erosional or other damage), the opening date for the RFP was July 17, 2006. Interviews were held with the three companies that submitted bids on August 4, 2006. The bid from Ayres Associates was selected to perform the Lower Tongue River watershed channel survey assessment on August 4, 2006. Total costs from the channel survey will be \$124,997.00. However, the WDEQ has chosen to utilize funds from a different source than this grant to cover these expenses.

The Lower Tongue River channel survey is nearly complete. At this time, the WDEQ is reviewing the final Phase II report, which was submitted on July 2, 2007. The contract was renewed/amended since the last report to include an additional analysis not described in the original RFP. As the WDEQ has a significant amount of data from previously-completed channel surveys in addition to the Lower Tongue River channel survey, the WDEQ has asked the contractor to attempt to develop an analytical tool (a model or a set of equations) to correlate various aspects of stream channel geometry to incipient motion flows (those flow volumes that would cause stream bank instability). Currently, the methodology being utilized by the WDEQ to obtain this information is very time-consuming and costly, and depends upon the amount of access allowed by various often difficult to contact and uncooperative landowners. The current process is also at the mercy of the often mercurial Wyoming weather. The purpose of this additional work is to develop a cost and time effective method for estimating the maximum flow that a stream channel can handle before experiencing problems related to channel instability such as erosion, bank undercutting, etc. that is not as dependent upon weather or landowner access. The contractor is in the process of evaluating this information, and has stated that they believe that the report will be completed by July 20, 2007. This additional work will cost \$7,822.00. The WDEQ proposes to utilize funds from this grant to cover this portion of the revised/amended RFP.

4) Crazy Woman and Dead Horse Creek



The WDEQ has begun watershed permitting in the Crazy Woman and Dead Horse Creek drainages. Stakeholder meetings have been held on the following dates in Buffalo, Wyoming:

October 10, 2006	Preliminary interest/information meeting for both drainages
November 8, 2006	1 <sup>st</sup> Dead Horse Creek stakeholder committee meeting
November 9, 2006	1 <sup>st</sup> Crazy Woman Creek stakeholder committee meeting
January 3, 2007	2 <sup>nd</sup> Dead Horse Creek stakeholder committee meeting
January 4, 2007	2 <sup>nd</sup> Crazy Woman Creek stakeholder committee meeting
March 15, 2007	3 <sup>rd</sup> Crazy Woman Creek stakeholder committee meeting
April 11, 2007	3 <sup>rd</sup> Dead Horse Creek stakeholder committee meeting
April 18, 2007	4 <sup>th</sup> Crazy Woman Creek stakeholder committee meeting
June 19, 2007	4 <sup>th</sup> Dead Horse Creek stakeholder committee meeting

All meetings were preceded by public notice advertisements in the local newspapers.

At this time, the WDEQ has not scheduled any further meetings for these two watersheds, but plans to do so.

- 5) The WDEQ is in the process of evaluating/estimating needs related to ArcHydro implementation. The WDEQ expects to complete this process within the next 6-8 weeks. This portion of the watershed permitting process is a portion that the WDEQ expects to utilize the funds associated with this grant. As a further update on ArcHydro implementation, the WDEQ plans to send one staff member to ArcHydro training in Redlands, CA in October of 2007 as a further aid in assessing the applicability of ArcHydro implementation. Costs related to this training/travel of approximately \$2,700.00 will be covered by this grant.

6) **Additional Information:**

Additional information related to the meetings, channel surveys, draft general permits, public notices, and other items mentioned above may be located on the WQD website at

[http://deq.state.wy.us/wqd/WYPDES\\_Permitting/WYPDES\\_cbm/Pages/CBM\\_Watershed\\_Permitting/CBM\\_watershed\\_permitting.asp](http://deq.state.wy.us/wqd/WYPDES_Permitting/WYPDES_cbm/Pages/CBM_Watershed_Permitting/CBM_watershed_permitting.asp)

- 7) The project is on schedule.
- 8) No funds from the Grant have been spent to date.
- 9) At this point, projected costs for the entire Powder River Basin Watershed-based permitting effort, containing 30 individual watersheds, are approximately \$2.5 million. Facilitation costs per set of stakeholder committee meetings (ranging from 2 to 3 watersheds), with 4 to 5 meetings planned, has ranged from approximately \$60k to \$103k. Data collection and facilitation expenses has been absorbed to date by the WDEQ. However, the WQD is preparing to initiate the ArcHydro portion of the grant proposal, and plans to utilize a significant portion of the grant funds to acquire and set up the ArcHydro program within the WQD, and in training staff to utilize the program. (see "Next Steps")

#### NEXT STEPS

The WDEQ plans to initiate channel surveys for the next series of general permits – Wild Horse Creek, Bitter Creek, and West Side, Powder River within the next month. This group of channel surveys includes the following drainages:

Wild Horse Creek	Bitter Creek	LX Bar Creek
SA Creek	Flying E Creek	Indian Creek
Kinney Draw	Coal Gulch	Deadhorse Creek
numerous small, ephemeral tributaries of the Powder River		

The WDEQ has developed a draft RFP for this proposal, it is currently in the review process. Once the channel surveys are well on their way to being completed, the WDEQ will begin planning the next series of stakeholder committee meetings for these drainages.

Complete evaluation/estimation of ArcHydro implementation.

Complete Lower Tongue River Channel Survey.

Complete watershed permitting process for the Lower Tongue River.

Issue general watershed permits for Clear Creek and Fence Creek.



# FAX

DATE: 08-09-07

TO: Joey Filbin MAIL CODE \_\_\_\_\_  
National Center

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REMARKS: