

February 14, 2007

Mr. Mark Gordon
Wyoming Environmental Quality Council
Chairman
122 W. 25th Street
Herschler Bldg., Rm. 1714
Cheyenne, WY 82002

FILED

FEB 14 2007

Terri A. Lorenzon, Director
Environmental Quality Council

RE: Citizen Petition for Rulemaking – Ag Use Protection Policy

Dear Mr. Gordon:

I am writing to voice my concern with the upcoming rulemaking and policy decisions relating to Appendix H of section 20, Chapter 1 of the Wyoming Water Quality Rules and Regulation

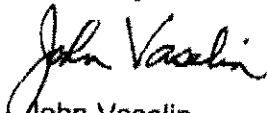
This policy would disallow the use of a large number of existing and proposed reservoir locations in the Powder River Basin, and place substantial restrictions on how reservoirs can be used to contain produced water. Further, these decisions propose to set water quality limits that CBM produced water cannot meet

Reservoirs containing CBNG produced water are beneficial to both the surface owner and wildlife in most situations. A wide variety of wildlife can benefit from the additional water sources including small non-game species. Attached with this FAX is a copy of the *Northern Leopard Frog Monitoring (Year Two)* report, prepared by Thunderbird Jones & Stokes for J.M. Huber Corporation's Cutler Draw POD, a CBNG project in Campbell County. This five year survey was a condition of approval by the BLM to monitor the potential project impacts to a BLM sensitive species. After the second year of surveys, this case study states that the data "may also suggest that certain CBNG reservoirs properly placed within the appropriate watershed could possibly have substantial benefits for several amphibian species and the overall diversity of aquatic wildlife". I present this to you so that you are aware of the extent that reservoirs containing CBNG produced water are monitored, along with the encouraging results in this particular case.

Finally, I am greatly concerned that this rule making would halt CBNG development in the Powder River Basin. The negative result would be staggering to the local and state economy, and is unjustified.

Thank you for considering my concerns to this policy.

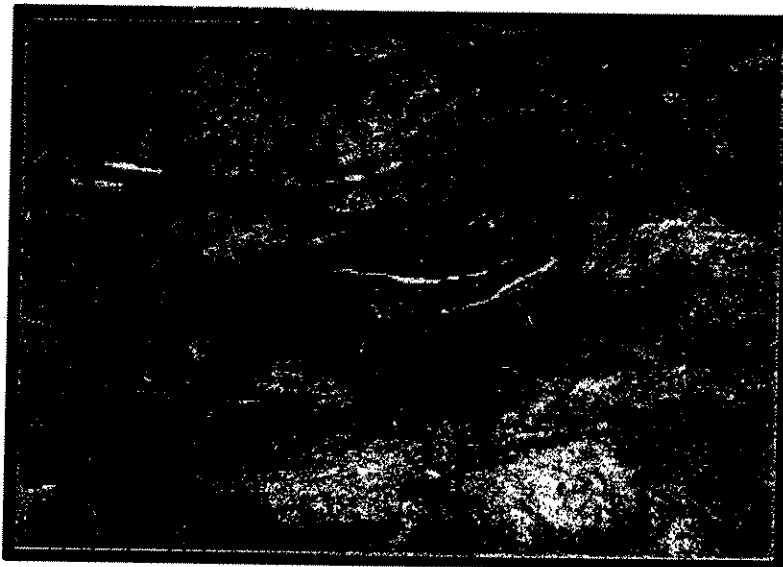
Sincerely



John Vasolin
211 McKinney
Buffalo, WY 82834

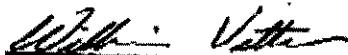
ATTACHMENT (15 PAGES)

**J.M. HUBER CORPORATION
CUTLER DRAW PLAN-OF-DEVELOPMENT
NORTHERN LEOPARD FROG MONITORING
(YEAR TWO)**



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30 November 2006

INTRODUCTION

J.M. Huber Corporation's approved Cutler Draw plan-of-development (POD) includes approximately 42 wells for extraction of federally owned coal bed natural gas (CBNG) underlying private and federal lands in northwest Campbell County, Wyoming. The Cutler Draw POD also includes the discharge of groundwater, a byproduct of gas extraction, via pipelines into new and existing reservoirs in the area. The potential effects of discharged CBNG water to local wildlife populations are not yet fully understood, but the Powder River Basin Final Environmental Impact Statement (FEIS), Biological Opinion (BO), and Biological Assessment (BA) acknowledge the potential for both benefits and negative impacts.

The effects of proposed CBNG development on the northern leopard frog (*Rana pipiens*) (a special status species for the Bureau of Land Management's (BLM) Buffalo Field Office area) in particular, are largely unknown. Negative influences such as water management instability and water contamination have led to declines in northern leopard frogs elsewhere and may have contributed to documented declines in Wyoming over the last two decades. The discharge of CBNG water may exacerbate those conditions. However, habitat loss has also negatively influenced leopard frog populations in many western states, and CBNG-related water resources may provide significant increases in amphibian breeding habitat. Inventories and long-term monitoring of northern leopard frog populations in areas of CBNG development may help define the impacts of those activities in the Powder River Basin.

Northern leopard frogs were documented at a single location within the Cutler Draw POD on 9 September 2004, and the conditions of approval for the project stipulate that a monitoring plan be implemented (starting in 2005) to evaluate the potential project impacts on that species. In accordance with that stipulation, J.M. Huber contracted Thunderbird - Jones & Stokes (formerly Thunderbird Wildlife Consulting) in December 2004 to design and implement a monitoring protocol to quantify the presence and reproductive status/success of leopard frogs within the Cutler Draw POD. The protocol (*Cutler Draw Plan-of-Development Northern Leopard Frog (Rana pipiens) Monitoring Plan*, February 2005) was approved by BLM, Buffalo Field Office biologist Bill Ostheimer. The monitoring plan may be adapted, as required by the BFO, based on their review of the annual reports. After three years, the results and objectives of the study will be reevaluated, but it is expected to continue for five years (through 2009).

METHODS

In the first year of monitoring (2005), we inventoried the wetland habitats within the Cutler Draw POD in early April to identify potential survey sites. The entire POD was searched, with additional emphasis on drainages and existing or new/improved reservoirs. At that time, four survey sites were identified. During 2005, and in conjunction with the on-going development of the Cutler Draw POD, three additional survey sites were established and included.

Because of on-going construction during spring 2006, we re-inventoried wetland habitats within the POD on 13 April to confirm that all possible wetland sites were included in the monitoring program. At that time, one additional survey site (8) was established and information (a qualitative description of the vegetation, general topography, and water availability and quality) similar to that collected for the previous seven sites (see *Cutler Draw Plan-of-Development Northern Leopard Frog Monitoring - Year One* report for description and photographs of those sites) was recorded. In addition, universal transverse mercator (UTM) coordinates were recorded at the survey point using a hand-held global positioning system (GPS) receiver, and photographs were taken to document the overall wetland conditions (Figure 1). Of the eight sites surveyed during 2006, three (5, 7, and 8) were impoundments constructed or improved to contain CBNG water discharge, three (1, 2, and 6) were historic impoundments primarily fed by precipitation runoff or a natural spring, and two (3 and 4) were located along a creek supplemented by CBNG discharge (Exhibit 1).

Two nocturnal call surveys were conducted during the period of spring emergence (approximately 10° C water temperature) between sunset and four hours after sunset on 26 April and 11 May 2006. Surveys were conducted when favorable listening conditions and mild weather prevailed (i.e., calm winds and no precipitation). All eight sites were surveyed on 26 April, and all but site 6 were surveyed on 11 May.

Each call survey was initiated with a five-minute waiting period and followed by a five-minute listening/recording period. A simplified call index was used to measure the relative abundance of all calling male anurans by recording either the estimated number of individuals determined from non-overlapping calls, the estimated number of individuals from distinguishable but overlapping calls, or an undetermined amount of individuals from a continuous chorus of overlapping and indistinguishable calls. Although light conditions

decreased the potential for visual detections, all amphibians (and other vertebrates not targeted by the surveys) seen were documented. After each survey, habitat and survey conditions (water temperature, flow, clarity, turbidity, and estimated maximum depth, emergent vegetative cover, air temperature, wind speed, and cloud cover/precipitation) were recorded.

Diurnal visual surveys occurred from one-half hour to six hours after sunrise on 20 May and 9 August 2006. As no suitable wetland habitat was present at site 2 on the final date or at site 6 on either date, no visual surveys were conducted at those locations during those times. All other sites were included in both the 20 May and 9 August 2006 surveys.

Visual surveys were also conducted during mild weather conditions (i.e., light to moderate winds and no precipitation) and consisted of a careful pedestrian search around the perimeter of each wetland to search for mature frogs, tadpoles, and egg masses. Survey sites along the creek were inventoried by walking 50 m along the creek contour in both directions of the survey point. Search effort was standardized, but total survey time varied for each site due to the size of the wetland and the attributes of the habitat. Shallow sunlit areas were targeted for egg mass searches, and areas of submersed and emergent vegetation were examined for tadpoles. Observations of all amphibians (adult, young of the year, tadpoles or larvae, egg masses, and dead) were recorded. All water, air, and habitat variables described for the call surveys were recorded at the end of each visual survey. The primary water source (CBNG or natural), maximum water depth, substrate, and wetland persistence (permanent or ephemeral) were also documented during the last visual survey.

RESULTS

Habitat and Weather Conditions

A summary of the surveys conducted and the habitat data collected at each of the eight sites in 2006 along with changes in the wetland habitats (water depth and percent vegetation cover) from year one (2005) are provided in Table 1. Surface water levels were slightly more consistent in year two, with overall increased water availability at all previous sites except 2 and 6. The percent of wetland vegetative cover was similar to year one for most sites, but noticeably greater at sites 2 and 3.

As in the first year of monitoring, not all sites were suitable for surveys during each visit in 2006 due to fluctuations in surface water levels throughout the area. Sites 1, 3, 4, 7, and 8

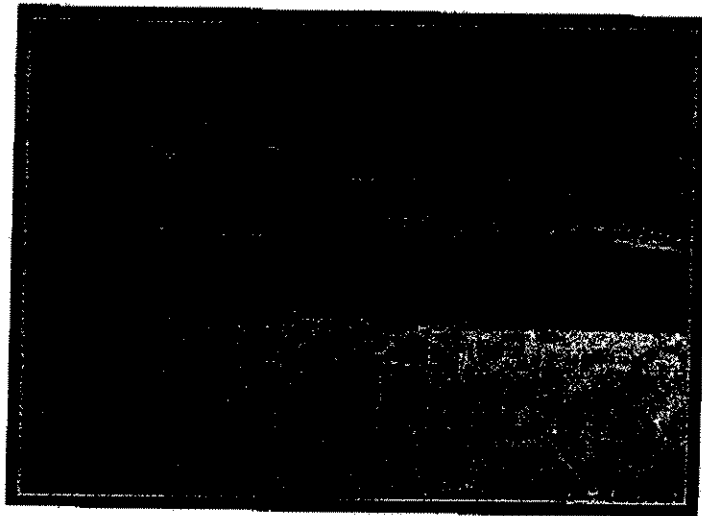


Figure 1. Northern leopard frog survey site 8 (August 9, 2006) at the Cutler Draw POD.

were surveyed on all visits (two call surveys and two visual surveys). Suitable wetland habitat and available surface water were present at sites 2 and 5 on all but one survey date. Although significant wetland vegetation remained, the substrate at site 2 was cracked and completely dry during the final visual survey. During the second call survey, little surface water (<8 ft²) and no surrounding wetland vegetation was present at site 5. Although surveys were conducted at both sites on the respective dates, the results of those surveys were likely indicative of the lack of suitable wetland habitat at that time and the results were omitted from the overall analysis.

Finally, site 6 was completely dry during all surveys except for the first call survey.

Both call surveys were conducted under clear skies with a combined average air temperature of 11.4° C, water temperature of 14.0° C, and wind speed of 0.4 knots. Both visual surveys were also conducted under clear skies with a combined average air temperature of 23.5° C, water temperature of 17.8° C, and wind speed of 1.3 knots.

Northern Leopard Frogs

A total of 85 leopard frogs were documented (heard and/or seen) at five of the eight survey sites during all surveys at the Cutler Draw POD in 2006 (Table 2). By comparison, only 18 leopard frogs were documented at three sites during 2005. As with year one, breeding northern leopard frogs (calling males) were confirmed only at site 1. Nearly half (41 of 85) of all

Table 1. Summary of surveys conducted and habitat data collected in 2006 and the difference in wetland habitat from year one (2005) at eight survey sites on the Cutler Draw POD in northwest Campbell County, Wyoming.

Survey Sites	Water feature/primary source	Wetland persistence	Call surveys	Visual surveys	Flow	Estimated range/average water depth	Change in average water depth from 2005	Water quality	Estimated range/average vegetation cover	Change in average % vegetation cover from 2005
1*	Impoundment, fed by spring	Permanent	2	2	None	62 to 67 inches, 63 inches	+ 5 inches	Clean and clear	1-10%, 6%	- 1%
2	Impoundment, fed by runoff	Ephemeral	2	1	None	9 to 14 inches, 7 inches	- 2 inches	Clear and stained	50-85%, 71%	+ 45%
3*	Creek, supplemented by CBNG discharge	Permanent	2	2	Slow to moderate	14 to 19 inches, 15 inches	+ 2 inches	Clear to cloudy and stained	5-70%, 49%	+ 26%
4*	supplemented by CBNG discharge	Permanent	2	2	Slow to moderate	12 to 24 inches, 17 inches	+ 8 inches	Clear to cloudy and clean to stained	10-45%, 31%	+ 1%
5*	Impoundment, supplemented by CBNG discharge	Semi-permanent	2	2	None	5 to 40 inches, 28 inches	+ 21 inches	Clear to cloudy and clean to stained	0-40%, 14%	+ 1%
6	Impoundment, fed by runoff	Ephemeral	1	0	None	0 to 14 inches, 3 inches	- 4 inches	Clean and clear	0-25%, 9%	- 5%
7*	Impoundment, fed by CBNG discharge	Permanent	2	2	None	66 to 72 inches, 67 inches	+ 13 inches	Clean and clear to cloudy	5-20%, 13%	- 2%
8	Impoundment, fed by CBNG discharge	Permanent	2	2	None	10 to 66 inches, 46 inches	NA (not established in 2005)	Clear to cloudy and clean to stained	5-35%, 15%	NA (not established in 2005)

* Sites with documented northern leopard frog occurrence in 2006.

Table 2. Northern leopard frog occurrence during the first two years of monitoring at eight survey sites on the Cutler Draw POD in northwest Campbell County, Wyoming.

Survey site	Year	1 st call survey	2 nd call survey	1 st visual survey	2 nd visual survey	Total leopard frogs
1	2006	1 calling male	0	6 adults	1 adult, 8 juveniles	16
	2005	0	2 calling males	4 adults	2 adults, 2 juveniles	14*
2	2006	0	0	0	No habitat present	0
	2005	0	0	0	3 juveniles	3
3	2006	0	0	0	1 adult, 6 juveniles	7
	2005	0	0	0	0	0
4	2006	0	0	1 adult	2 adults, 7 juveniles	10
	2005	0	0	0	0	0
5	2006	0	No habitat present	0	8 adults, 3 juveniles	11
	2005	No habitat present	0	0	No habitat present	0
6	2006	0	No habitat present	No habitat present	No habitat present	0
	2005	No habitat present	No habitat present	0	No habitat present	0
7	2006	0	0	4 adults	4 adults, 33 juveniles	41
	2005	No habitat present	No habitat present	No habitat present	1 adult	1
8	2006	0	0	0	0	0
	2005	No habitat present	No habitat present	No habitat present	No habitat present	0

* Includes four leopard frogs observed at site 1 during the habitat inventory on 12 April 2005.

leopard frogs documented in 2006 occurred at site 7, and 33 of those were young of the year observed during the last visual survey. However, seven or more combined adult and juvenile leopard frogs were also recorded in 2006 at sites 1, 3, 4, and 5.

Leopard frogs were not recorded at three survey sites during 2006. Those included site 8, which was a recently constructed CBNG reservoir; and sites 2 and 6, which were dry during some or most of the surveys. However, leopard frogs were recorded at site 2 during the first year of monitoring when surface water was sustained throughout the entire survey period.

As in year one, tadpoles were abundant during the first visual survey (20 May), but many more were likely undetected because of turbid waters at most sites that resulted from the previous night's rain. As species identification at the tadpole stage is challenging and requires close visual inspection (i.e., mouth parts, digestive structures, and orientation of the eye), we did not attempt to identify all individuals that were seen. In addition, no egg masses were identified during either of the visual surveys in 2006. Visibility of egg masses during the first visual survey was also likely hindered by cloudy water conditions at most sites.

Diversity and Relative Abundance

Six amphibian species have been recorded during the first two years of monitoring at the Cutler Draw POD, and the results at each survey site are detailed in Figure 2. Northern leopard frogs and four other species of amphibians were documented during 2006. Those include the boreal chorus frog (*Pseudacris triseriata*), Woodhouse's toad (*Bufo woodhousii*), plains spadefoot (*Scaphiopus bombifrons*), and tiger salamander (*Ambystoma tigrinum*). The only species documented in 2005 and not 2006 was the Great Plains toads (*Bufo cognatus*). In addition to numerous unidentified tadpoles, nine unknown adult frogs/toads and one likely unknown juvenile were observed escaping into deeper water before they could be identified. No anuran egg masses were found during either of the visual surveys in 2006, but water conditions were less than ideal during the first survey.

Site 2 exhibited the greatest species richness in the first year of monitoring, but was among the lowest in 2006. In 2006, the greatest species richness was recorded at sites 4 (along the creek) and 7 (a recently constructed CBNG reservoir) with four and five total species, respectively. All six amphibian species documented on the Cutler Draw POD in two years of monitoring have been recorded between sites 4 and 7, which share a common drainage and are

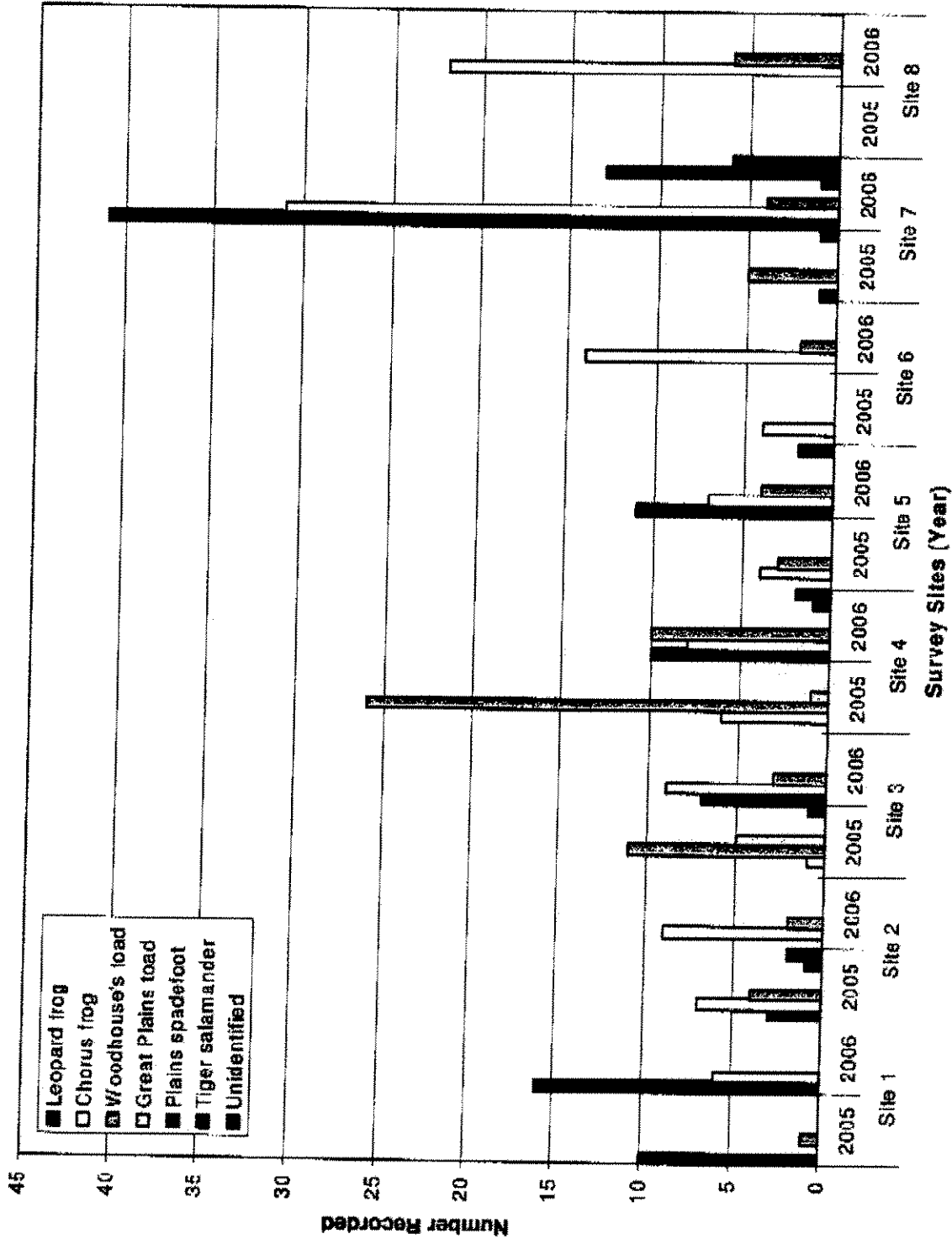


Figure 2. Amphibians recorded during northern leopard frog monitoring (2005-2006) at eight survey sites at the Cutler Draw POD in northwest Campbell County, Wyoming.

in relatively close proximity (~ 0.3 mile apart). With the exception of site 2, where two fewer species (leopard frog and tiger salamander) were recorded in 2006, species richness at all sites was similar (sites 1 & 3) or higher (sites 4 - 7) than in year one. However, the species composition varied between years at sites 1 and 3.

The overall relative abundance of amphibians at each survey site (standardized by search time) in the first two years of monitoring at the Cutler Draw POD is detailed in Table 3. The greatest numbers of calling male amphibians were at site 5 in year one. In 2006, site 5 was much less productive with only three chorus frogs recorded during both call surveys. Interestingly, two Woodhouse's toads were observed copulating at that site during the visual survey on 20 May. Although only one call survey (26 April) was conducted at site 6 in 2006, it hosted the most calling anurans. Other sites with relatively high abundance during call surveys in 2006 included sites 7 and 8.

In addition to numerous living amphibians recorded during the visual surveys in 2006, several dead individuals were also documented. On 20 May, 13 dead tiger salamanders (1 adult and 12 large larval/neotenic stage) were found floating or beached at site 7. The cause of mortality for all could not be discerned, but the adult was relatively desiccated and appeared to have been dead for an extended period. The larval/neotenic salamanders were better preserved, as they were primarily in the water, and appeared to be more recently deceased (< 1 week). Also on that date, a dead adult salamander was recorded along the north shore of the creek at site 4. Past disturbance of the surrounding wetland vegetation indicated recent human foot traffic and the cause of mortality appeared to be from trampling. One dead adult Woodhouse's toad was also observed nearby at site 4, but it had become quite desiccated and the cause of mortality could not be determined. Finally, an additional adult Woodhouse's toad was found on the northeast shoreline of the site 8 reservoir. The cause of mortality for that individual was also unknown, as it was desiccated and appeared to have been dead for an extended period.

After standardizing for search time during visual surveys in 2006, salamanders and mature or metamorphosed frog/toads were seen most frequently at site 7. That was largely due to the number of dead tiger salamanders recorded during the first visual survey on 20 May, but also reflected the numerous adult and juvenile leopard frogs (4 and 33, respectively) documented during the second survey on 9 August. In year one, the greatest rate of visual amphibian encounters occurred at site 4, where numerous juvenile Woodhouse's toads were recorded on

Table 3. Relative abundance¹ of all amphibians in the first two years of monitoring at eight survey sites on the Cutler Draw POD in northwest Campbell County, Wyoming.

Survey sites and size of wetland survey area	Type of survey ²	Amphibians recorded per minute of survey time ³	
		2006	2005
1 (0.6 acres)	Call surveys (4)	0.70	0.20
	Visual surveys (4)	0.25	0.15
2 (0.5 acres)	Call surveys (4)	1.10	0.40
	Visual surveys (3)	0	0.26
3 (includes 50m upstream and downstream, ~ 0.3 acres)	Call surveys (4)	1.10	0.70
	Visual surveys (4)	0.19	0.15
4 (includes 50m upstream and downstream, ~ 0.3 acres)	Call surveys (4)	1.00	1.10
	Visual surveys (4)	0.35	0.34
5 (1.1 acres)	Call surveys (2)	0.30	1.40
	Visual surveys (3)	0.31	0
6 (2.4 acres)	Call surveys (1)	3.20	0.16
	Visual surveys (1)	—	—
7 (2.3 acres)	Call surveys (2)	2.70	—
	Visual surveys (3)	0.78	0.28
8 (2.3 acres)	Call surveys (2)	2.20	—
	Visual surveys (2)	0.07	—

- 1 Tiger salamanders do not vocalize and cannot be detected during call surveys.
- 2 Due to periodic dry conditions that eliminate suitable wetland habitat and the on-going construction on the POD, not all call and visual surveys were conducted at each site in the first two years of monitoring. The numbers in () indicate the combined total surveys conducted to date for each type of survey.
- 3 Standardized across survey sites by search time. All call surveys included a five-minute listening period, but visual surveys differed in time due to wetland size, shape, and the surrounding habitat. Detection rates do not include observations of tadpoles.

the last survey. Site 4 again had a high rate of visual detections in 2006, but was more uniformly divided between leopard frogs and Woodhouse's toads. Relative abundance during visual surveys in 2006 generally increased from year one at all sites except # 2, and was considerably higher at sites 5 and 7.

Overall tadpole counts during the first visual survey on 20 May were slightly less than in the first year of monitoring. As mentioned above, those results were likely influenced by murky water conditions at most sites that resulted from heavy rain runoff during the previous night. In the first year of monitoring, the greatest numbers of tadpoles (>1000) were observed at site 5. However, water conditions at that site during the first visual survey in 2006 were possibly the worst of all the sites and no tadpoles were observed. The greatest number of tadpoles (>1000) documented in 2006 occurred at site 8, where shallow, flooded upland grasslands hosted numerous individuals. Sites along the Quarter Circle Prong of Bitter Creek (3 and 4) also hosted significant numbers of tadpoles (67 and 128, respectively) on that date.

Other poikilothermic (cold-blooded) vertebrates documented during surveys in 2006 included Western painted turtles (*Chrysemys picta belli*) seen at sites 1, 7, and 8. On 20 May, two painted turtles were observed at site 1 and three others were recorded at site 8. On 9 August, one painted turtle was documented at site 7.

CONCLUSIONS

Although the occurrence of northern leopard frogs at the Cutler Draw POD in the first year of monitoring was relatively limited, colonization and/or migration to new sites within the POD was considerable in 2006. The total number of leopard frogs recorded during the course of surveys in spring/summer 2006 represented a 472% increase over 2005 results. Additionally, three new sites (3, 4, and 5) hosted leopard frogs in 2006, amounting to six of the eight total survey sites utilized by leopard frogs during the first two year of monitoring. Interestingly, several leopard frogs were recorded at the creek sites (3 and 4) in 2006. While those individuals were found primarily adjacent to pools and the slower waters along the creek, their occurrence there is noteworthy because the species is generally not associated with lotic (moving) waters during emergence and cannot effectively winter in those habitats (Wagner 1997 and Wright and Wright 1995, but also see Kendall 2002). Documented breeding (calling males) of northern leopard frogs was again minimal in 2006 (recorded at only site 1 in both years), but the presence

of adult leopard frogs during visual surveys at several other sites suggests greater breeding efforts than revealed by the call surveys alone. Considerable numbers of adult leopard frogs (> 2) were documented at three sites (1, 5, and 7) in 2006, with lower totals (< 2) recorded at two additional sites (3 and 4). Furthermore, several of the reservoirs associated with the Cutler Draw POD were sufficiently deep to potentially host wintering leopard frogs.

The only site where leopard frogs were documented in 2005 and not 2006 was site 2. Although wetland vegetation was more prevalent at site 2 in 2006, availability of surface water declined dramatically after call surveys and the site was completely dry during the last visual survey. In addition, cattle were present at or near the site during three of the four surveys and evidence of heavy cattle use (tracks, trampled vegetation, feces, stained water) was present in and around the wetland on all visits.

No leopard frogs were documented in either of the first two years of monitoring at sites 6 and 8. Site 6 has only hosted surface water and suitable wetland habitat during two of the eight survey dates in those years. Site 8 was the most recently established suitable habitat, as it was constructed and did not begin receiving discharge water until after the 2005 surveys.

As in the first year of monitoring, the relative abundance of other amphibian species at the Cutler Draw POD in 2006 was not strongly correlated with the relative abundance of northern leopard frogs. Although most sites where leopard frogs occurred in 2006 (with the exception of site 1) generally hosted several other species (primarily chorus frogs and Woodhouse's toads), the greatest species richness did not necessarily coincide with greater occurrences of leopard frogs. While site 7 boasted the highest diversity and the greatest number of leopard frogs, the site with the second highest leopard frog counts (16) hosted only one additional species.

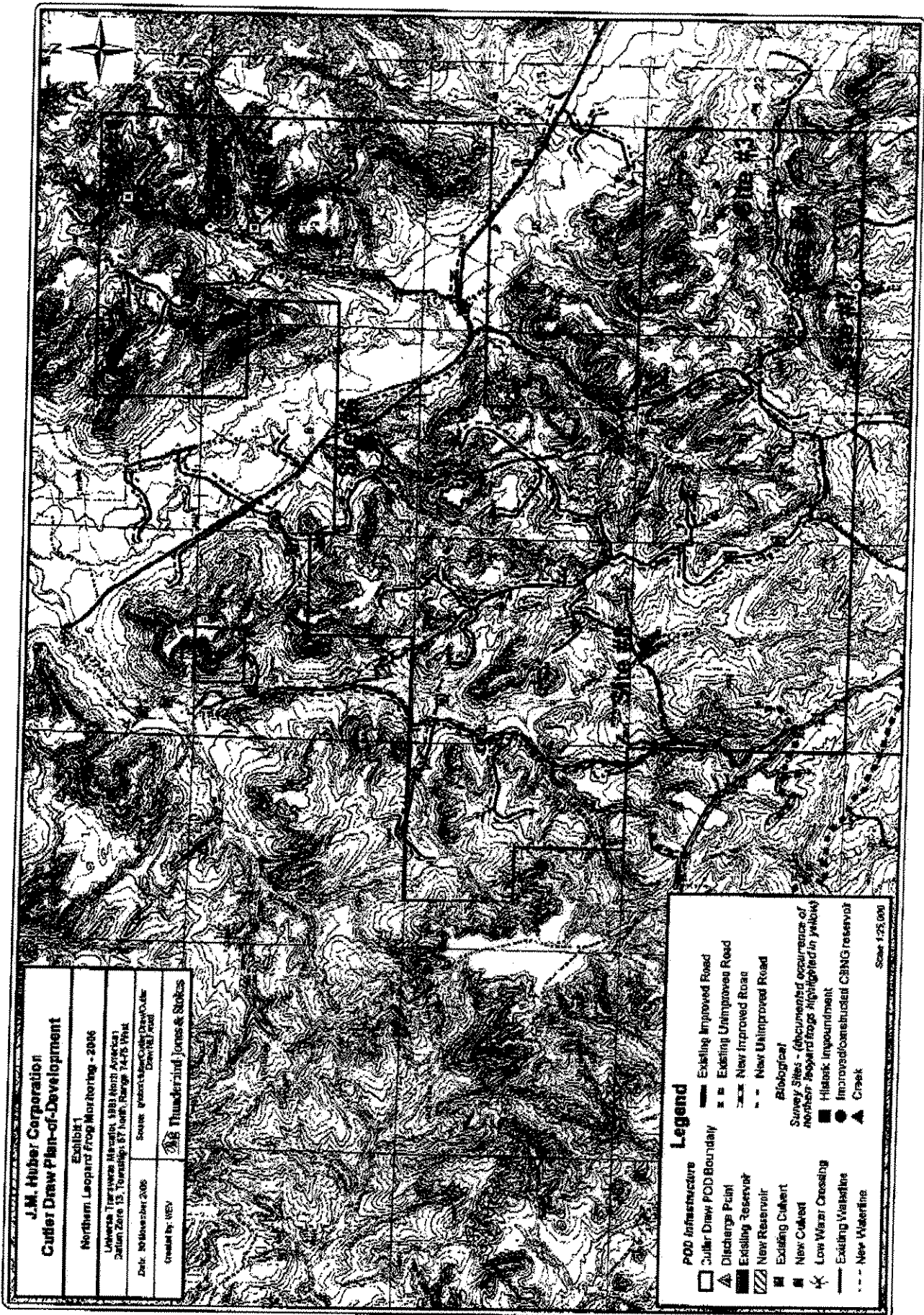
All sites except site 2 boasted equal or increased species richness during the second year of surveys. Sites 4 and 7 were particularly rich, with every amphibian species expected in the region occurring between those two sites. More importantly, it may also suggest that certain CBNG reservoirs properly placed within the appropriate watershed could possibly have substantial benefits for several amphibian species and the overall diversity of aquatic wildlife.

As stated in the previous report, several aspects of this project constrain present and future analyses, and the potential for extrapolating results across a broader geographical range. Without statistical compensation for the differences in detectability among habitats, species, and

even life stages of a single species, comparisons among those factors must be done with caution. Moreover, this study design has a limited capacity to address mechanisms (CBNG related or otherwise) that may regulate amphibian populations. Effects specific to water chemistry, parasite loading, pathogens, and predation are important considerations that are beyond the scope of this project.

LITERATURE CITED

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- Wright, A. H. & Wright, A. A. 1995. Handbook of frogs and toads of the United States and Canada. Comstock Publishing Company, Ithaca, New York. 640 pages.



J.M. Huber Corporation
Culler Draw Plan-of-Development

Exhibit 1
 Northern Leopards Frog Monitoring - 2006

Address: Fairview Mountain, 1981 North American
 Station Lane 15, Torrington VT 05478, Range 74-16 West

Date: 20 November 2006
 Source: ground truth data, DTM, aerial
 DEM, 1:25,000

Created by: MEV
 J.G. Thunderbird Jones & Stokes

- Legend**
- POD Infrastructure
 - Culler Draw POD Boundary
 - Discharge Point
 - Existing Reservoir
 - New Reservoir
 - Existing Culvert
 - New Culvert
 - Low Water Crossing
 - Existing Waterline
 - New Waterline
 - Existing Improved Road
 - Existing Unimproved Road
 - New Improved Road
 - New Unimproved Road
 - Biological
 - Survey Sites - (documented occurrence of
 northern leopard frog highlighted in yellow)
 - Habitat Impoundment
 - Improved/constructed CSBG reservoir
 - Creek
- Scale: 1:25,000