

STATE CAPITOL CHEYENNE, WY 82002

Office of the Governor

December 9, 2013

The Honorable John Hines, Chairman The Honorable Tom Lockhart, Chairman Joint Minerals, Business and Economic Development Interim Committee c/o Legislative Service Office State Capitol Building Cheyenne, WY 82002

Dear Chairman Hines, Chairman Lockhart and Members of the Joint Minerals, Business and Economic Development Interim Committee,

Thank you for your October 30, 2013 letter requesting a plan for plugging abandoned and orphan oil and gas wells. In my budget recommendations, I include funding authority for an additional \$3 million to accelerate plugging abandoned wells. My recommendation is conditioned on authorization of a formal plan. Attached please find a draft plan for your review and input.

This plan has an aggressive four-year schedule to plug orphan wells, but is flexible – recognizing this goal may need to change depending on actual costs, contractor capacity and total number of wells.

Currently about 1,220 abandoned wells are on state and fee land. These wells must be plugged or converted to other uses. The Wyoming Oil and Gas Conservation Commission (WOGCC) will decide the status of 912 idle Luca/Patriot wells in the near future. Roughly 2,300 other idle wells may eventually need to be plugged. These numbers do not include idle or orphan wells on federal land.

The Wyoming Legislature created the conservation tax to finance the operations of the WOGCC and clean-up sites when an operator cannot. Operations of the WOGCC must facilitate an accelerated plugging program.

A coordinated approach between agencies is essential to resolving the current problem and to prevent it from escalating. The Department of Environmental Quality has jurisdiction and bonding authority over reservoirs associated with coalbed methane development. The Office of State Lands and Investments bonds wells on state land. The State Engineer's Office has jurisdiction over the conversion of reservoirs or wells for water uses.

Chairman Hines Chairman Lockhart December 9, 2013 Page 2

The cost of plugging abandoned wells is based on many assumptions. Using past expenses of plugging orphan wells and updated analyses, the estimated cost to plug the 1,220 orphan wells approaches \$7.7 million. The cost to plug the Luca/Patriot wells is estimated to be an additional \$5.9 million. The "at risk" wells could cost an additional \$18 million. These estimates will become more accurate (and could be lower or higher) as idle wells are converted, plugged by operators or actual costs are incurred. Clearly, whatever the actual cost, the problem is an expensive one.

The bonds in place are insufficient to cover all costs. The funding authorization I recommend in my budget will be sufficient, under most scenarios, for an accelerated plugging program through fiscal year 2017. It is incumbent that the WOGCC provide regular financial reports and projections to track the process and determine over time, if more money is necessary and if it is, to evaluate where it should come from.

I recommend steps to coordinate reclamation to minimize disturbance to landowners and to gain economies of scale in plugging abandoned wells. State agencies must actively engage with landowners in the prioritization and scheduling process. I also identify policy and reporting issues the WOGCC needs to address and I recommend a contract project manager to oversee plugging prioritization, scheduling and administration. The WOGCC must be active in evaluating bonding levels and in making adjustments to the bonds.

Energy production and environmental stewardship are inexorably connected. The Energy Strategy initiatives are directed at preventing situations like this from occurring in the future. We must support operators who meet State requirements and incentivize for good performance.

I look forward to receiving your thoughts and recommendations on the draft plan.

Sincerely,

TH O Matthew H. Mead

Matthew H. Mead Governor

MHM:md

Encl.

Wyoming Idle and Orphan Well Draft Plan

December 9, 2013

Table of Contents

Introduction	2
How many idle and orphan wells are there?	3
Recommendations	4
Federal Orphan Wells	5
Recommendation	6
What is WOGCC's past performance in plugging?	7
Recommendations	8
How much does it cost to plug a well?	9
What is the total estimated cost?	10
How many wells can be plugged over a period of time and at what cost?	13
Where does funding come from?	14
Recommendations	15
Are additional funding sources necessary under 4, 5 or 7-year plans?	16
Recommendations	17
Financials with a 4-Year Plan	18
Financials with a 5-Year Plan	19
Financials with a 7-Year Plan	20
How can the WOGCC reduce the number of idle or orphan wells?	21
Recommendation	22
How will the wells be prioritized?	23
Recommendation	23
Summary of Recommendations	24
Action Plan	26
Appendix A	30

Introduction

The problem of abandoned and orphan oil and gas wells in Wyoming requires an effective resolution. An accelerated program to plug these wells is but one of many actions that will be required to halt the current problem and ensure it does not reoccur.

Other actions include:

- Developing a prioritized schedule to plug abandoned and orphan wells.
- Developing minimum standards and schedules for associated with plugging activities.
- Developing effective inspection processes commensurate with staff availability.
- Selecting a project manager to develop and oversee an accelerated plugging plan.
- Identifying and addressing idle wells "of concern".
- Determining the bonding status of Class V injection wells.
- Collecting and sharing accurate data about idle and orphan wells on a regular basis.
- Developing and implementing plans and internal controls that assure WOGCC's compliance with its rules.
- Finalize guidance for landowners and operators for converting wells to agriculture or domestic water.

An aggressive four-year schedule to plug orphaned wells is recommended, recognizing this goal may change based on actual costs, contractor capacity, and the total number of wells plugged. Prioritization of the wells requires input from the public and a coordinated use of data and geographic information. The financial costs will be significant. Finally, resolution of this problem is dependent on a well-coordinated effort among agencies, the WOGCC, and the Governor's Policy Office.

How many idle and orphan wells are there?

There are approximately 14,000 producing coalbed methane (CBM) wells on state and fee land. Another 10,000 are not producing and are classified as "idle". When a well changes from a producing status to an idle status, increased bonds are required. Wells may not remain idle for more than 24 months unless an extension is granted by the Wyoming Oil and Gas Conservation Commission (WOGCC). The Supervisor of the WOGCC may require a mechanical integrity test to extend the idle status. Additional bonding requirements are placed on idle wells. Most of the 10,000 idle wells are fully bonded. These wells may go back into production, the operators may plug them, and some may be converted for agricultural or domestic water. "Orphan wells" are wells for which the WOGCC is unable to enforce its rules and regulations requiring operators to plug and restore the surface area and the operators have filed bankruptcy or abandoned them. Orphan wells then become the responsibility of the state to plug.

Well Type	Producing Wells	Idle Wells	Total Wells
Fee	10,976	8,440	19,416
State	3,034	1,576	4,610
State and Fee Total	14,010	10,016	24,026
Federal	24,266	9,169	33,435
Grand Total	38,276	19,185	57,461

Inconsistent Data. WOGCC tracks the total number of idle wells, including those on federal land; however, the count is not consistent. On the WOGCC website, the idle well count (for all well types) is calculated at 13,681. That number is not consistent with other information in the idle well section of the website. For example, the count of Luca/Patriot wells on the main page is shown as "0"; however, the accompanying link shows that idle Luca/Patriot wells total 1,361. The inconsistent accounting of numbers of wells is problematic.

Orphan, Luca/Patriot, and Wells of Concern. The table below shows, by mineral ownership, the number of: orphan wells, wells currently owned by Luca/Patriot, and an estimate of wells for which the WOGCC is concerned because the operators have not fully bonded the idle wells, are out of compliance with WOGCC rules, or have not conducted mechanical integrity tests on time. The numbers in this "Of Concern" column—a majority of which are CBM wells—may change in either direction over time. Associated reservoirs currently bonded by DEQ are not included.

	Orphan Wells	Luca/Patriot	Total Orphan and Luca/Patriot	Of Concern	Grand Total
Fee	1,139	815	1,954	2,120	4,074
State	79	86	165	150	315
Class V Injection	2	11	13	33	46
State and Fee Total	1,220	912	2,132	2,303	4,435

Class V Injection Wells Class V injection wells are wells are used to inject non-hazardous fluids underground. Most Class V injection wells are used to dispose of wastes into or above underground sources of drinking water and can pose a threat to ground water quality, if not managed properly. Class V wells are the jurisdiction of the Department of Environmental Quality (DEQ) under agreement by the EPA; however, they are not bonded.

Recommendations

- The Governor's Policy Office will form a work group with representatives of the WOGCC, DEQ, Office of State Lands and Investment (OSLI), and State Engineer's Office (SEO), to coordinate all efforts and information related to idle and orphan well plugging and reclamation plans.
- The WOGCC will take appropriate steps to account for and address the idle wells of concern to minimize future state liability.
- WOGCC and DEQ will determine whether Class V injection wells are currently bonded, or can be bonded, under current rules and regulations by either of the agencies. Additionally, WOGCC will determine whether abandoned Class V injection wells can be plugged using the Conservation Tax.
- WOGCC will update on a regular basis their count of idle and orphan wells, and provide current and accurate information on its website. This update is intended to be an ongoing activity.

Federal Orphan Wells

The responsibility to plug federal orphan wells is with the Bureau of Land Management (BLM). The BLM defines an idle well differently than the state. For the BLM, an idle well is a well that has been nonproductive for 7 years. Wyoming defines a well as idle if it has been shut in for any reason. The following table shows WOGCC data on the number of wells, by category, on federal land.

	Orphan Wells	Luca/Patriot	Total Orphan and Luca/Patriot	Of Concern	Grand Total
Federal	470	562	921	754	1,675

In 2011, the Government Accountability Office (GAO) reviewed BLM management of idle wells and bonding. "The number of oil and gas wells on leased federal land has increased dramatically. To help manage the environmental impacts of these wells, the Department of the Interior's (Interior) BLM requires oil and gas operators to reclaim disturbed land in a manner it prescribes. To help ensure operators reclaim leased land, BLM requires them to provide a bond before beginning drilling operations. BLM refers to oil and gas wells and leased land that will require reclamation as potential liabilities because BLM may have to pay for reclamation if the operators fail to do so. GAO was asked to determine (1) BLM's policies for managing potential federal oil and gas well liability, (2) the extent to which BLM has implemented these policies, and (3) the challenges, if any, BLM faces in managing potential oil and gas well liability."

Below are GAO's recommendations and status.

February 2011 United States Government Accountability Office Report on Oil and Gas Bonds Highlights "BLM Needs a Comprehensive Strategy to Better Manage Potential Oil and Gas Well Liability"

Recommendation: To better manage potential liability on federal land, the Secretary of the Interior should direct the Director of BLM to develop a comprehensive strategy to include implementing an approach for ensuring complete and consistent well records in AFMSS so that BLM field and state offices can better evaluate potential liability and improve decision making. **Status**: Open

Comments: BLM will implement a strategy to enhance the overall reliability of documentation within the Automated Fluid Mineral Support System (AFMSS) for bond adequacy reviews. BLM is currently in the process of conducting an internal control review of inspection and enforcement documentation and will integrate the findings from this review to improve the well

recordation in AFMSS. In addition, in the context of revising the bond adequacy review policy issued in 2010, BLM will develop methods to improve the completeness and consistency of well records in AFMSS.

Recommendation: To better manage potential liability on federal land, the Secretary of the Interior should direct the Director of BLM to develop a comprehensive strategy to include revising the bond adequacy review policy to more clearly define terms and the conditions that warrant a bond increase.

Status: Open

Comments: BLM will involve field personnel in revising the bond adequacy review policy issued in 2010 to provide additional clarity and greater specificity for field offices, including more clearly defining terms and the conditions that warrant a bond increase.

Recommendation: To better manage potential liability on federal land, the Secretary of the Interior should direct the Director of BLM to develop a comprehensive strategy to include increasing regulatory minimum bonding amounts over time to strengthen bonding as a tool for ensuring operators' compliance.

Status: Open

Comments: BLM will increase minimum bonding amounts through a rulemaking process after a thorough evaluation of the appropriate minimum bonding amounts.

Recommendation: To better manage potential liability on federal land, the Secretary of the Interior should direct the Director of BLM to develop a comprehensive strategy to include implementing an approach for better monitoring agency performance in conducting reviews for bond adequacy and idle wells.

Status: Open

Comments: BLM will issue a revised policy on conducting bond adequacy reviews. After issuance of the revised policy, the BLM will develop and implement an approach to better monitor agency performance in conducting such bond adequacy and idle well reviews. BLM will evaluate various options such as internal control reviews and bond program evaluations to better monitor its performance in conducting reviews for bond adequacy and idle wells.

Recommendation State agencies will coordinate with federal land management agencies in scheduling and other strategies to ensure coordination of efforts.

What is WOGCC's past performance in plugging?

Between 2004 and 2013, the WOGCC has plugged 183 CBM wells at a total cost of \$1.3 million. About 43% of this amount was paid for from the Conservation Tax Fund. Sixty-seven wells are scheduled to be plugged beginning in 2014.

		CI	CBM Orphaned Wells Plugged by WOGCC												
Year	Number	Depth	9	5/LF		Cost	Be	ond Amount	Pai	d from Conservation Tax Fund					
2004	8	2,400	\$	5.95	\$	14,305	\$	10,000	\$	4,305					
2008	8	10,696	\$	6.06	\$	64,863	\$	100,000							
2008	7	6,200	\$	6.76	\$	41,907	\$	171,587							
2010	41	29,904	\$	8.62	\$	257,798	\$	20,000	\$	237,798					
2010	83	90,336	\$	7.19	\$	649,692	\$	321,000	\$	328,692					
2011	4	6,000	\$	6.13	\$	36,800	\$	75,000							
2012	15	23,436	\$	4.61	\$	108,095	\$	201,352							
2013	17	23,208	\$	6.33	\$	146,988			\$	35,701					
Total	183	192,180.00	\$	51.65	\$	1,320,446.84	\$	898,939.00	\$	570,794.59					
Avera	ige Cost per	r well			\$	7,215.56									
Average Cost per LF					\$	6.87									

Costs. Plugging costs for the 2008-2012 years include plugging and surface restoration efforts in addition to other related reclamation needs.

Rules. Chapter 3, Section 16 (f) of the WOGCC rules state, "The Supervisor shall establish and maintain a well plugging schedule which prioritizes wells for plugging through an assessment of the well's potential to adversely impact public health, public safety, surface or ground waters, surface use or other minerals resources". This schedule has not been developed.

Inspections. Presently, there is no formal written inspection process or requirement within WOGCC rules or internal policy manual. It has been standard practice when the WOGCC conducts a plugging activity for an orphan well, for a WOGCC inspector to be on site for the duration of the plugging activity. When an operator is able to plug a well, a different field inspection process is followed. In those cases, when a company pays for plugging, an inspector is not required to be on site for the duration of plugging activity. Without refining the inspection process for wells plugged by the WOGCC, the scale and momentum needed to reclaim these wells will be difficult to achieve.

Recommendations

- WOGCC will submit an annual plan, according to its rules, that establishes a prioritized well plugging schedule and financial plan. This annual plan is due at the close of the Fiscal Year.
- A recommendation from the WOGCC supervisor on additional staffing needs should be included in the annual report at the end of the fiscal year. Discussions on annual staffing needs will lend WOGCC the ability to meet capacities of an accelerated plugging plan.
- WOGCC will develop plugging standards and inspection processes to reduce the amount of time necessary for on-site inspections, but will guarantee performance of the work.
- WOGCC will contract with a project manager (PM) to assist in developing and carrying out an accelerated plugging plan.

How much does it cost to plug a well?

According to WOGCC staff, plugging and restoration costs range from \$6.50 to \$10.00 per linear foot (LF). Past plugging costs verify this range. A conservative estimate based on increasing costs per depth is approximately \$7,400/well and \$7.40/LF.

	Average Plugging Cost based on Depths of Current Orphan Wells												
Wells	LF	Total LF	Total Costs			al Costs	A	verage Costs Per Well	Cost	per Foot	Average Cost Per Well		
1325	750	993,750	\$	6.50	\$	6,459,375.00	\$	4,875.00					
472	1,000	472,000	\$	7.50	\$	3,540,000.00	\$	7,500.00					
303	2,000	606,000	\$	8.50	\$	5,151,000.00	\$	17,000.00	\$	7.40	\$	7,430.12	
36	2,001	72,036	\$	10.00	\$	720,360.00	\$	20,010.00					
2,136		2,143,786			\$	15,870,735.00	\$	12,346.25					

What is the total estimated cost?

Applying the estimated cost per well of \$7.40/LF and \$7,400 per well generates two different numbers. The average of the two is the "Estimated Cost". Based on past expenses for plugging orphan wells and updated analyses, the cost to plug the 1,220 orphan wells may approach \$7.7 million. The cost to plug wells formerly owned by Luca/Patriot may require an additional \$5.9 million. The wells the WOGCC has characterized as "being "Of Concern" could cost as much as \$18 million. These estimates will change as idle wells are converted to water source wells, are plugged by operators, or as actual costs are calculated.

	Calculating Total Costs									
Orphan Wells										
	Count	Linear Feet	Co	ost Per Well	C	lost Per LF	Es	stimated Cost		
Fee	1,139	798,026	\$	8,428,600	\$	5,905,392	\$	7,166,996		
State	79	62,640	\$	584,600	\$	463,536	\$	524,068		
Injection	2	5,435	\$	14,800	\$	40,219	\$	27,510		
State and Fee Total	1,220	866,101	\$	9,028,000	\$	6,409,147	\$	7,718,574		

Luca/Patriot										
	Count	Linear Feet	Co	ost Per Well	С	ost Per LF	Es	timated Cost		
Fee	815	610,892	\$	6,031,000	\$	4,520,601	\$	5,275,800		
State	86	64,160	\$	636,400	\$	474,784	\$	555,592		
Injection	11	9,970	\$	81,400	\$	73,778	\$	77,589		
State and Fee Total	912	685,022	\$	6,748,800	\$	5,069,163	\$	5,908,981		

	Total Count Orphan and Luca/Patriot										
	Count Linear Feet Cost Per Well Cost Per LF Estimated Co										
Fee	1,954	1,408,918	\$ 14,459,600	\$ 10,425,993	\$ 12,442,797						
State	165	126,800	\$ 1,221,000	\$ 938,320	\$ 1,079,660						
Injection	13	15,405	\$ 96,200	\$ 113,997	\$ 105,099						
State and Fee Total	2,132	1,551,123	\$ 15,776,800	\$ 11,478,310	\$ 13,627,555						

	Wells of Concern										
	Count	Linear Feet	Cost Per Well	Cost Per LF							
					Es	stimated Cost					
Fee	2,120	2,466,241	15,688,000	18,250,183	\$	16,969,092					
State	150	196,748	1,110,000	1,455,935	\$	1,282,968					
State and Fee Total	2,270	2,662,989	16,798,000	19,706,119	\$	18,252,059					

	Total Orphan, Luca/Patriot, and Wells of Concern										
	Count	Linear Feet Cost Per Well Cost Per LF Estim									
Fee	4,074	2,019,810	30,147,600	28,676,177	\$	29,411,888					
State	315	190,960	2,331,000	2,394,255	\$	2,362,628					
Injection	13	25,375	96,200	113,997	\$	105,099					
State and Fee Total	4,402	2,236,145	32,574,800	31,184,429	\$	31,879,614					

Wells of Concern										
	Count	Linear Feet	Cost Per Well	Cost Per LF						
					Es	stimated Cost				
Fee	2,120	2,466,241	15,688,000	18,250,183	\$	16,969,092				
State	150	196,748	1,110,000	1,455,935	\$	1,282,968				
State and Fee Total	2,270	2,662,989	16,798,000	19,706,119	\$	18,252,059				

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Fee	4,074	2,019,810	30,147,600	28,676,177	\$	29,411,888					
State	315	190,960	2,331,000	2,394,255	\$	2,362,628					
Injection	13	25,375	96,200	113,997	\$	105,099					
State and Fee Total	4,402	2,236,145	32,574,800	31,184,429	\$	31,879,614					

Recommendation WOGCC will review these costs and provide updated calculations, as necessary.

How many wells can be plugged over a period of time and at what cost?

The following tables calculate how many wells per year it will take under plans to plug known and possible orphaned wells in 4, 5 and 7 year scenarios. These costs apply only to fee wells. Bonding for state wells must be examined.

4 Year Plan											
Category		Fee	State		Injection		Totals				
	Wells	Costs Per	Wells	C	Costs Per	Wells	С	osts Per	Total Wells	To	tal Cost Per
	wens	Year	wens		Year	weits		Year	Per Year		Year
Orphan Wells	285	\$ 1,791,749	20	\$	131,017	1	\$	6,877	305	\$	1,929,643
Orphan and Luca/Patriot	489	\$ 3,110,699	41	\$	269,915	3	\$	26,275	533	\$	3,406,889
Orphan, Luca/Patriot & Wells of Concern	1,019	\$ 7,352,972	79	\$	590,657	3	\$	26,275	1,101	\$	7,969,904

5 Year Plan											
Category		Fee			State		Injection		Totals		
	Wells	Costs Per	Wells	C	Costs Per	Wells	Costs Per		Total Wells Per	To	tal Cost Per
	wens	Year	wens	Year		wens		Year	Year		Year
Orphan Wells	228	\$ 1,433,399	16	\$	104,814	0.4	\$	5,502	244	\$	1,543,715
Orphan and Luca/Patriot	391	\$ 2,488,559	33	\$	215,932	3	\$	21,020	426	\$	2,725,511
Orphan, Luca/Patriot & Wells of Concern	815	\$ 5,882,378	63	\$	472,526	3	\$	21,020	880	\$	6,375,923

7 Year Plan										
Category		Fee		State		Inje	ction	Totals		
	Wells	Costs Per	Wells	C	Costs Per	Wells	Costs Per	Total Wells Per	Total Cost Per	
	weits	Year	wens		Year	weils	Year	Year	Year	
Orphan Wells	163	\$ 1,023,857	11	\$	74,867	0.3	\$ 3,930	174	\$ 1,102,653	
Orphan and Luca/Patriot	279	\$ 1,777,542	24	\$	154,237	2	\$15,014	305	\$ 1,946,794	
Orphan, Luca/Patriot & Wells of Concern	582	\$ 4,201,698	45	\$	337,518	2	\$15,014	629	\$ 4,554,231	

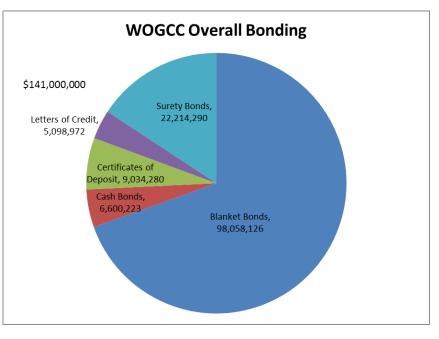
Where does funding come from?

Conservation Tax. The WOGCC's primary funding source for operations is a conservation tax (Wyo. Stat. § 30-5-116 (b)) currently set at four (4) mills. The mill levy has been adjusted over time and was last changed in 2008. This mill levy is paid by oil and gas producers on every barrel of oil and thousand cubic feet of gas produced. At the current rate, the WOGCC collects approximately \$5.5 million annually.

The WOGCC currently maintains a total account balance of \$16.1 million dollars. Approximately \$6.6 million of that amount is cash bonding held on behalf of operators. These bonds will be returned to operators, or in the case of wells becoming orphaned, the bonds will be revoked and available by the WOGCC for plugging efforts. Approximately \$2.8 million of the \$16.1 million is considered the "rainy day" orphan well plugging fund created and funded many years ago. The standard budget authorization for plugging orphan wells has been \$1 million (The WOGCC presently has \$572,000 carry forward funding from past years plugging budgets.) Governor Mead recommends approval of an additional \$3.0 million for orphan well funding. His recommendation is conditioned on a formal plan and its authorization. The remaining \$6.8 million is available to the Commission upon approval through the budget process.

Bonding. WOGCC rules require an owner operator to have a good and sufficient bond running

to the state of Wyoming and, to be in compliance, each well shall be operated and maintained in such a manner as not to cause waste or damage to the environment. Currently, WOGCC holds \$141 million in bonds from all operators. Of the total, \$6.6 million is held in cash bonds. Other forms of bonds which make up the \$141 million include surety bonds, letters of credit, certificates of deposit and assurances. There is \$5.6 million dollars of bonding in place for the wells of concern.



Forfeited Bonds. Forfeited bonds are another source of funds available to plug wells and when received they are put in WOGCC's general account for future use to plug orphan wells. The WOGCC will consider in December the \$3.2 million in of bonds held by Luca/Patriot.

Chapter 3 Section 4 of the WOGCC rules specify idle well bonding amounts as follows:

- For wells less than 2,000 feet, an individual bond in the amount of \$10,000
- For wells 2,000 feet or greater, an individual bond shall be \$20,000
- As an alternative, a blanket bond of \$75,000 is acceptable.
- The WOGCC requires increased bonding (above the normal blanket bonding requirements) when wells become idle. Under certain circumstances, the Supervisor may require an increased bonding level up to \$10 per foot for idle wells. This rate is currently being applied unless specific well conditions warrant a higher or lower rate.
- Per rule, the idle bond amount will be increased every three years by the percentage change in the Wyoming consumer price index.

Recommendations

- The WOGCC will develop internal controls to ensure compliance with WOGCC Rules, Chapter 3, Section 4 (c) which states, in part, "The [idle well] bond amount will be increased every three years by the percentage change in the Wyoming consumer price index."
- The WOGCC will develop policies related to the use of the \$2.8 million "rainy day fund" if they were not legislatively defined.

Are additional funding sources necessary under 4, 5 or 7-year plans?

Following are recommendations showing a number of financial scenarios. The scenarios take into account plugging schedules for different well categories (orphan, Luca/Patriot, wells of concern). Only wells on fee land are considered in these analyses because of complexities in accounting for bonds held by OSLI. All scenarios contain financial assumptions, are limited in accuracy, but do provide an analysis of potential funding requirements. Financial outlooks in this plan are intended to create a baseline understanding of where the state stands in terms of possible financial scenarios. These numbers should be evaluated and updated on a regular basis.

Financial outlooks presented in this plan are likely to change and depend on a number of factors. As the accelerated plugging program is implemented, additions and changes to this financial model will be considered.

Assumptions

- Standard operating costs for the WOGCC are in the area of \$4.0 million annually.
- Plugging cost estimates are from page 13.
- Contracting costs are set at \$100,000 for a Project Manager.
- Other administrative costs may be used for other administrative expenses, such as land service contractors.
- Governor Mead has approved \$3.0 million in budget authority for the WOGCC to conduct plugging activities for each of the next two fiscal years effective immediately. There is no assumed additional funding in BFY 17-18 beyond the standard \$1 million/yr.
- The available fund balance represents monies amalgamated through excess mill levy funds and may be applied to reclamation activities. The Governor's approved budget authority is included in this figure.
- Conservation tax revenue is the projected amount of funding to be received from the 4 mills.
- Current bonding levels are bonds that could be revoked. The actual amount will depend on the actions of operators and the Commission.
- The carry forward represents available non-committed funds through the WOGCC from the previous year's surplus or deficit figure.
- Additional funding necessary notes fiscal years where additional money may be required. These numbers are in yellow highlighted text color.
- Total available is the amount of funding able (including any additional funds) to be applied to plugging and reclaiming activities.
- The Surplus/ Deficit line item defines where funds will be able to be carried over to upcoming years.

Recommendations

- The project manager, in conjunction with the WOGCC, will provide regular updates on work completed.
- The financial analysis does not indicate a Conservation Tax increase at this time. The dynamics of this project require annual evaluation to ensure timely completion of the plugging schedule.

4 Year Plan for Orphan Wells												
	FY14	FY15	FY16	FY17	Total							
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	16,233,210							
Plugging Costs	1,791,749	1,791,749	1,791,749	1,791,749	7,166,996							
Contracting Costs	100,000	100,000	100,000	100,000	400,000							
Other Administrative Costs	50,000	50,000	50,000	50,000	200,000							
Total Costs	5,864,214	5,998,896	5,998,896	6,138,201	24,000,206							
Available Fund Balance Conservation Tax Revenue Bond Forfeitures	3,700,000 5,609,357 -	3,445,143 5,193,845 -	2,640,092 5,193,845 -	1,835,042 5,177,926 -	3,700,000 21,174,973 -							
Total Available	9,309,357	8,638,988	7,833,937	7,012,968	24,874,973							
Carry Forward	3,445,143	2,640,092	1,835,042	874,766								

Financials with a 4-Year Plan

4 Year Plan for Known and Luca/Patriot (Fee wells only)												
	FY14	FY15	FY16	FY17	Total							
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	16,233,210							
Plugging Costs	3,110,699	3,110,699	3,110,699	3,110,699	12,442,796							
Contracting Costs	100,000	100,000	100,000	100,000	400,000							
Other Administrative Costs	50,000	50,000	50,000	50,000	200,000							
Total Costs	7,183,164	7,317,846	7,317,846	7,457,151	29,276,006							
Available Fund Balance	3,700,000	5,326,193	3,202,192	1,078,192	3,700,000							
Conservation Tax Revenue	5,609,357	5,193,845	5,193,845	5,177,926	21,174,973							
Current Bonding (Luca)	3,200,000	-	-	-	3,200,000							
Bond Forfeitures	-	-	-	-	-							
Additional Funding Necessary	-	-	-	1,250,000	1,250,000							
Total Available	12,509,357	10,520,038	8,396,037	7,506,118	29,324,973							
Carry Forward	5,326,193	3,202,192	1,078,192	48,966								

4 Year Plan for all O	rphan, Luca/Pa	triot and Wel	ls of Concern	(Fee wells onl	y)
	FY14	FY15	FY16	FY17	Total
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	16,233,210
Plugging Costs	7,352,972	7,352,972	7,352,972	7,352,972	29,411,888
Contracting Costs	100,000	100,000	100,000	100,000	400,000
Other Administrative Costs	50,000	50,000	50,000	50,000	200,000
Total Costs	11,425,437	11,560,119	11,560,119	11,699,424	46,245,098
Available Fund Balance	3,700,000	7,583,920	1,217,646	51,373	3,700,000
Conservation Tax Revenue	5,609,357	5,193,845	5,193,845	5,177,926	21,174,973
Current Bonding (Luca)	3,200,000	-	-	-	3,200,000
Bond Forfeitures	6,500,000	-	-	-	6,500,000
Additional Funding Necessary	-	-	5,200,000	6,500,000	11,700,000
Total Available	19,009,357	12,777,765	11,611,491	11,729,299	46,274,973
Carry Forward	7,583,920	1,217,646	51,373	29,874	

5 Year Plan for Orphan Wells										
	FY14	FY15	FY16	FY17	FY18	Total				
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	4,196,452	20,429,662				
Plugging Costs	1,433,399	1,433,399	1,433,399	1,433,399	1,433,399	7,166,995				
Contracting Costs	100,000	100,000	100,000	100,000	100,000	500,000				
Other Administrative Costs	50,000	50,000	50,000	50,000	50,000	250,000				
Total Costs	5,505,864	5,640,546	5,640,546	5,779,851	5,779,851	28,346,657				
Available Fund Balance	3,700,000	3,803,493	3,356,792	2,910,092	2,308,166	3,700,000				
Conservation Tax Revenue	5,609,357	5,193,845	5,193,845	5,177,926	5,177,926	26,352,899				
Bond Forfeitures	-	-	-	-	-	-				
Additional Funding Necessary	-	-	-	-	-	-				
Total Available	9,309,357	8,997,338	8,550,637	8,088,018	7,486,092	30,052,899				
Carry Forward	3,803,493	3,356,792	2,910,092	2,308,166	1,706,241					

Financials with a 5-Year Plan

5 Year Plan for Known and Luca/Patriot (Fee wells only)											
	FY14	FY15	FY16	FY17	FY18	Total					
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	4,196,452	20,429,662					
Plugging Costs	2,488,559	2,488,559	2,488,559	2,488,559	2,488,559	12,442,796					
Contracting Costs	100,000	100,000	100,000	100,000	100,000	500,000					
Other Administrative Costs	50,000	50,000	50,000	50,000	50,000	250,000					
Total Costs	6,561,024	6,695,706	6,695,706	6,835,012	6,835,011	33,622,458					
Available Fund Balance	3,700,000	5,948,333	4,446,472	2,944,611	1,287,526	3,700,000					
Conservation Tax Revenue	5,609,357	5,193,845	5,193,845	5,177,926	5,177,926	26,352,899					
Current Bonding (Luca)	3,200,000	-	-	-	-	3,200,000					
Bond Forfeitures	-	-	-	-	-	-					
Additional Funding Necessary	-	-	-		375,000	375,000					
Total Available	12,509,357	11,142,178	9,640,317	8,122,537	6,840,452	33,627,899					
Carry Forward	5,948,333	4,446,472	2,944,611	1,287,526	5,440						

5 Year Plan fe	5 Year Plan for all Orphan, Luca/Patriot and Wells of Concern (Fee wells only)											
	FY14	FY15	FY16	FY17	FY18	Total						
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	4,196,452	20,429,662						
Plugging Costs	5,882,378	5,882,378	5,882,378	5,882,378	5,882,378	29,411,890						
Contracting Costs	100,000	100,000	100,000	100,000	100,000	500,000						
Other Administrative Costs	50,000	50,000	50,000	50,000	50,000	250,000						
Total Costs	9,954,843	10,089,525	10,089,525	10,228,830	10,228,830	50,591,552						
Available Fund Balance	3,700,000	9,054,514	4,158,834	13,155	12,250	3,700,000						
Conservation Tax Revenue	5,609,357	5,193,845	5,193,845	5,177,926	5,177,926	26,352,899						
Current Bonding (Luca)	3,200,000	-	-	-	-	3,200,000						
Bond Forfeitures	6,500,000	-	-	-	-	6,500,000						
Additional Funding Necessary	-	-	750,000	5,050,000	5,050,000	10,850,000						
Total Available	19,009,357	14,248,359	10,102,679	10,241,081	10,240,176	50,602,899						
Carry Forward	9,054,514	4,158,834	13,155	12,250	11,346							

Financials with a 7-Year Plan

	7 Year Plan for Orphan Wells										
	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total			
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	4,196,452	4,340,542	4,340,542	29,110,745			
Plugging Costs	1,023,857	1,023,857	1,023,857	1,023,857	1,023,857	1,023,857	1,023,857	7,166,999			
Contracting Costs	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000			
Other Administrative Costs	50,000	50,000	50,000	50,000	50,000	50,000	50,000	350,000			
Total Costs	5,096,322	5,231,004	5,231,004	5,370,309	5,370,309	5,514,399	5,514,399	37,327,744			
Available Fund Balance	3,700,000	4,213,035	4,175,876	4,138,718	3,946,334	3,753,951	3,425,438	3,700,000			
Conservation Tax Revenue	5,609,357	5,193,845	5,193,845	5,177,926	5,177,926	5,185,885	5,185,885	31,538,784			
Bond Forfeitures	-	-	-	-	-	-	-	-			
Additional Funding Necessary	-	-	-	-	-	-	-	-			
Total Available	9,309,357	9,406,880	9,369,721	9,316,644	9,124,260	8,939,837	8,611,324	35,238,784			
Carry Forward	4,213,035	4,175,876	4,138,718	3,946,334	3,753,951	3,425,438	3,096,925				

	7 Year Plan for Known and Luca/Patriot (Fee wells only)											
	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total				
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	4,196,452	4,340,542	4,340,542	29,110,746				
Plugging Costs	1,777,542	1,777,542	1,777,542	1,777,542	1,777,542	1,777,542	1,777,542	12,442,794				
Contracting Costs	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000				
Other Administrative Costs	50,000	50,000	50,000	50,000	50,000	50,000	50,000	350,000				
Total Costs	5,850,007	5,984,689	5,984,689	6,123,994	6,123,994	6,268,084	6,268,084	42,603,540				
Available Fund Balance	3,700,000	6,659,350	5,868,506	5,077,663	4,131,594	3,185,526	2,103,328	3,700,000				
Conservation Tax Revenue	5,609,357	5,193,845	5,193,845	5,177,926	5,177,926	5,185,885	5,185,885	26,352,899				
Current Bonding (Luca)	3,200,000	-	-	-	-	-	-	3,200,000				
Bond Forfeitures	-	-	-	-	-	-	-	-				
Additional Funding Necessary	-	-	-	-	-	-	-	-				
Total Available	12,509,357	11,853,195	11,062,351	10,255,589	9,309,520	8,371,412	7,289,213	33,252,899				
Carry Forward	6,659,350	5,868,506	5,077,663	4,131,594	3,185,526	2,103,328	1,021,129					

7 Year Plan for all Orphan, Luca/Patriot and Wells of Concern (Fee wells only)								
	FY14	FY15	FY16	FY17	FY18	FY19	FY20	Total
Operating Costs-Unit 0101	3,922,465	4,057,147	4,057,147	4,196,452	4,196,452	4,340,542	4,340,542	29,110,745
Plugging Costs	4,201,698	4,201,698	4,201,698	4,201,698	4,201,698	4,201,698	4,201,698	29,411,886
Contracting Costs	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
Other Administrative Costs	50,000	50,000	50,000	50,000	50,000	50,000	50,000	350,000
Total Costs	8,274,163	8,408,845	8,408,845	8,548,150	8,548,150	8,692,240	8,692,240	59,572,631
Available Fund Balance	3,700,000	10,735,194	7,520,194	4,305,195	934,970	64,746	58,392	3,700,000
Conservation Tax Revenue	5,609,357	5,193,845	5,193,845	5,177,926	5,177,926	5,185,885	5,185,885	36,724,670
Current Bonding (Luca)	3,200,000	-	-	-	-	-	-	3,200,000
Bond Forfeitures	6,500,000	-	-	-	-	-	-	6,500,000
Additional Funding Necessary	-	-	-	-	2,500,000	3,500,000	3,500,000	9,500,000
Total Available	19,009,357	15,929,039	12,714,039	9,483,121	8,612,896	8,750,632	8,744,278	59,624,670
Carry Forward	10,735,194	7,520,194	4,305,195	934,970	64,746	58,392	52,038	

How can the WOGCC reduce the number of idle or orphan wells?

Conversion to water wells. Upon request, orphaned wells are considered, case by case, for transfer from operators to landowners for use as water sources. The WOGCC coordinates with the landowner and the SEO to conduct a review and approval of the transfer. The goal of the SEO is to properly manage the state's water resources. WOGCC rules require plugging to the top of a coal bearing aquifers.

Liability. When a well is transferred, there is no bond for future well plugging and reclamation of that well. Any future plugging costs plugging become the responsibility of the landowner.

Process

- The operator must file a Notice of Intent to abandon (as a gas well), whether plugged or not, to the WOGCC using Form 4. This will include:
 - A fluid level must be measured before any plugs are set.
 - A plugging plan based on the configuration of each well. The operator owns the wells and may not want to leave the well completely unplugged. (Most operators do set plugs).
- The operator must submit to the WOGCC a signed and notarized Landowner Release Form indicating the landowner's acceptance of the well in an agreed upon condition and his acceptance of the placement of a seal at the surface with an extended vent for gas. The release must also show the landowner's acceptance of responsibility for the ultimate plugging and abandonment of the wellbore.
- In the event a landowner wants to initiate a wellbore transfer to another use, that landowner should begin by contacting the CBM operator and the WOGCC.
- Landowner (or Owner/Operator on behalf of landowner) is then required to submit an application (SEO Form UW5) to the SEO.
- The operator/landowner notifies the SEO of the request to transfer by sending the following:
 - 1. Written statement from WOGCC indicating the well is appropriate for conversion.
 - 2. Copy of landowner release, including the landowner's acceptance of responsibility for ultimate plugging and abandonment of the wellbore.
- SEO sends an approved permit to applicant and a copy to WOGCC.
- The operator files a Subsequent Report of Abandonment with WOGCC Form 4. This signed and notarized original of Form 4 will include: a cementing report, including the plugging procedure followed and an approved copy of the SEO permit issued in the landowner's name.

- The WOGCC will review the well files for all documents required through the life of the well. If the records are complete, the WOGCC will consider release of the well bond depending on the type of bond and bonding requirement status.
- The converted well will no longer be considered a gas or CBM well. It will be considered a water well owned by the landowner under terms of the permit issued by the SEO's office.
- The SEO will require a Statement of Completion, Form UW6 from the landowner.

Recommendation WOGCC and SEO will finalize joint guidance for landowners and operators about the conversion of wells to agricultural or domestic water purposes clearly describing the process, liability and standards for plugs.

How will the wells be prioritized?

WOGCC rules require an annual plugging schedule which prioritizes wells for plugging through an assessment of wells':

- The wells potential to adversely impact public health
- Safety
- Surface or ground waters
- Surface use
- Other mineral resources

In 2007, the BLM issued guidance on the priority ranking of federal orphan wells. Those priorities are based on a scoring of the following factors:

- Well leaking at the surface
- Well bore configuration
- Age of well
- Presence of surface contamination
- Presence of vessels containing fluid (storage tanks)
- Hydrogen sulfide concentration
- Proximity to surface water
- Proximity to water wells
- Contaminated water
- Proximity to residence or public buildings
- Sensitive environmental resources and other land use priorities
- Other environmental and safety concerns
- Cost

Appendix A contains a state and vicinity map with the locations of orphan wells and Luca/Patriot wells.

Recommendation Agencies will develop explicit prioritization systems, with input from the public, that address current WOGCC priorities (above) as well as:

- Minimizing disruption to landowners
- Economies of scale
- Sage-grouse habitat considerations (both sage-grouse core areas and non-core areas)
- Environmental considerations

Summary of Recommendations

An aggressive four-year schedule to plug orphaned wells is recommended, recognizing this goal may change based on actual costs, contractor capacity, and the total number of wells plugged. The financial costs will be significant. Prioritization of the wells requires input from the public and a coordinated use of data and geographic information. Finally, resolution of this problem is dependent on a well-coordinated effort among agencies, the WOGCC, and federal partners.

The Governor's Policy Office will form a work group with representatives of the WOGCC, DEQ, Office of State Lands and Investment (OSLI), and State Engineer's Office (SEO), to coordinate all efforts and information related to idle and orphan well plugging and reclamation plans.

The WOGCC will take appropriate steps to account for and address the idle wells of concern to minimize future State liability.

WOGCC and DEQ will determine whether Class V injection wells are currently bonded, or can be bonded, under current rules and regulations by either of the agencies. Additionally, WOGCC will determine whether abandoned Class V injection wells can be plugged using the Conservation Tax.

WOGCC will update on a regular basis their count of idle and orphan wells, and provide current and accurate information on its website. This update is intended to be an ongoing activity.

State agencies will coordinate with federal land management agencies in scheduling and other strategies to ensure coordination of efforts.

WOGCC will submit an annual plan, according to its rules, that establishes a prioritized well plugging schedule and financial plan. This annual plan is due at the close of the Fiscal Year.

A recommendation from the WOGCC supervisor on additional staffing needs should be included in the annual report at the end of the fiscal year. Discussions on annual staffing needs will lend WOGCC the ability to meet capacities of an accelerated plugging plan.

WOGCC will develop plugging standards and inspection processes to reduce the amount of time necessary for on-site inspections, but will guarantee performance of the work.

WOGCC will contract with a project manager (PM) to assist in developing and carrying out an accelerated plugging plan.

The WOGCC will develop internal controls to ensure compliance with WOGCC Rules, Chapter 3, Section 4 (c) which states, in part, "The [idle well] bond amount will be increased every three years by the percentage change in the Wyoming consumer price index."

The project manager, in conjunction with the WOGCC, will provide regular updates on work completed.

The financial analysis does not indicate a conservation tax increase at this time. The dynamics of this project require annual evaluation to ensure timely completion of the plugging schedule.

WOGCC and SEO will finalize joint guidance for landowners and operators about conversion of wells to agricultural or domestic water purposes clearly describing the process, liability and standards for plugs.

Agencies will develop explicit prioritization systems, with input from the public, that address current WOGCC priorities as well as:

- Minimizing disruption to landowners
- Sage-grouse habitat considerations (both Core areas and non-core areas)
- Environmental considerations

Time Frame	Activity/ Description	WOGCC	Project Manager	OSLI	DEQ	SEO
	Coordination: Form a work group to coordinate all efforts and information related to CBM idle and orphan well					
Q4 2013	plugging and reclamation plans. State agencies will coordinate with federal land management agencies in scheduling and other strategies to ensure coordination of		✓	✓	~	~
	Contracting: Contract with a project manager to assist in developing and carry out an accelerated plugging plan.	✓	✓			

Action Plan

Time Frame	Activity/ Description	WOGCC	Project Manager	OSLI	DEQ	SEO
	Minimizing Future Liability: Take appropriate steps to account for and address the wells that are "Of Concern" and other idle wells for which there is concern that they may be abandoned.	✓		✓		
	Prioritization: Work across agencies and with landowners to identify clusters of wells and reservoirs in common areas. These clusters will minimize disturbance to landowners and allow prioritization of these wells to occur.	✓	Lead	✓	✓	~
Q1 2014	Class V Wells. Determine whether Class V injection wells are currently bonded, or can be bonded, under current rules and regulations by either of the agencies. Additionally, WOGCC will determine whether abandoned Class V injection wells can be plugged using the Conservation Tax.	V			~	
	Budget The WOGCC will develop policies related to the use of the \$2.8 million "rainy day fund" if they were not legislatively defined.	✓				
	Public Outreach: Develop a coordinated outreach plan for affected landowners and the public at large. Conduct public meetings as necessary.	✓	Lead	~	~	✓
	Supportive Operations: Develop minimum plugging standards and inspection process which reflect limited staffing capabilities for duration long plugging. Without a refinement to the inspection process, the scale and momentum needed to reclaim these wells will be difficult to achieve.	✓				

Time Frame	Activity/ Description	WOGCC	Project Manager	OSLI	DEQ	SEO
Q1 2014	Public Outreach: Develop a coordinated outreach plan for affected landowners and the public at large. Conduct public meetings as necessary.	✓	Lead	~	~	✓
	Supportive Operations: Develop minimum plugging standards and inspection process which reflect limited staffing capabilities for duration long plugging. Without a refinement to the inspection process, the scale and momentum needed to reclaim these wells will be difficult to achieve.	✓				
	Bonding Review: WOGCC and DEQ must develop a plan for bonding Class V injection wells for CBM operations. WOGCC must evaluate its rules to determine if abandoned and unbounded Class V injection wells can be reclaimed using the Conservation Tax.	~		~	~	
	Reduce Idle and Orphan Wells: Finalize guidance to landowners and operators about conversion of wells and reservoirs for agricultural or domestic water purposes.	√			~	~
Time	Activity/Description	WOGCC	Project Manager	OSLI	DEO	SFO

Time Frame	Activity/ Description	WOGCC	Project Manager	OSLI	DEQ	SEO	
Q2 2014	Bidding: Prepare first bid documents for contracting services	✓ (Administer Bids)	✓ (Develop Bid Documents)			~	

Time Frame	Activity/ Description	WOGCC	Project Manager	OSLI	DEQ	SEO
On-Going	Annual Report: Submit an annual report on orphan well plugging at the end of the fiscal year. Details include amount of wells plugged, financial update, and next year's plugging plan.	✓				
	Schedule: Submit an annual plan at the end of the fiscal year highlighting the plugging schedule for the next fiscal year.	✓				
	Quality Control: Update on a regular basis count of idle and orphan wells, and provide current and accurate information on agency website	✓				
	Public Information Update on a regular basis their count of idle and orphan wells, and provide current and accurate information on its website.	✓				
	Reporting: Attend Legislative Meetings as necessary to report on status of orphan well plugging plan	✓	~	√	~	~
	Quarterly Report: Develop and submit a quarterly report on plugging and reclamation activities.		✓			

Appendix A

