

THE UNIVERSITY OF WYOMING

BOARD OF TRUSTEES “SPECIAL” MEETING REPORT

August 27, 2009

3:00-4:30 p.m.

Conference Call in Old Main Boardroom

AGENDA

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I. AGENDA ITEM TITLE: Approval of CMAR for Visual Arts Building, Vinzant

CHECK THE APPROPRIATE BOX(ES):

- Work Session
 Education Session
 Information Item
 Other Specify:

BACKGROUND AND POLICY CONTEXT OF ISSUE:

The 2009 Legislature appropriated funding for the completion of the design and the construction documents for the Fine Arts facility first phase. The completion of the Fine Arts projects will be phased beginning with the Visual Arts facility. With Trustee approval, the design team of Malone Belton Abel of Sheridan, Wyoming in association with Thomas Hacker Architect of Portland, Oregon is nearing the completion of the initial design phase. To maximize the facility at the funding level recently authorized in the capital construction request, the acquisition of a CMAR to work in concert with the architect and planning team will permit the greatest opportunities for success of the project especially with the exploration of a zero net energy project.

The Facilities Planning Office advertised for CMAR qualifications June 2 through June 16, 2009. Eleven responses were received on June 23, 2009. The qualifications were narrowed to four firms by the Visual Arts planning team, the architect, and the Facilities Planning Office. Request for Proposals were issued to the four teams. In response, four proposals were received on August 4, 2009, and interviews of the four team occurred on August 14, 2009. The competing teams were provided the proposed construction budget and conceptual design of the architect that included initial materials and construction type selections.

The Visual Arts planning team, the architect, and the Facilities Planning office considered the qualifications of the CMAR firms' preconstruction personnel, construction personnel, financial stability, experience in higher education with emphasis on arts facilities (particularly visual arts), experience with LEED projects, the proposed construction time, and proposed fees to accomplish the project. Based upon the best qualifications and value, the recommended ranking of the CMARs for the final negotiations of an agreement is:

1. G. E. Johnson Construction Company, Jackson, Wyoming
2. M. A. Mortenson, Denver, Colorado
3. FCI Constructors Inc., Cheyenne, Wyoming

Prior Related Board Discussions/Actions:

- Approval of the Visual Arts site, November 19-21, 2008.
- Approval of the Visual Arts design team, January 24 -26, 2009
- Approval of capital construction request for Visual Arts, July 16, 2009

WHY THIS ITEM IS BEFORE THE BOARD:

This request of the Board is to permit use of a qualified CMAR with LEED accredited professionals to assist with the costs and constructability through the design process and to construct the Visual Arts Facility on the site south east of the Centennial Complex. The final guaranteed maximum price will be brought before the Board for approval prior to construction.

ARGUMENTS IN SUPPORT:

The funding is available to proceed with the project through the design and construction documents for the project including the preconstruction services of the CMAR. The CMAR will provide a preliminary guaranteed maximum price prior to the 2010 legislative session, confirming the construction portion of the funds necessary to complete the project. With legislative authorization for issuance of the bonds to complete the project, construction could begin in July 2010. The construction period proposed by the CMARs was between 14 and 17 months.

ARGUMENTS AGAINST:

None

ACTION REQUIRED AT THIS BOARD MEETING:

Trustee approval for the CMAR to assist with completion of the project design and construction document phases by the architect. The work will include the preconstruction phase by the CMAR and culminate in a guaranteed maximum price for eventual construction of the Visual Arts facility.

PRESIDENT'S RECOMMENDATION:

It is recommended that the Board of Trustees of the University of Wyoming authorize a contract with a CMAR utilizing the recommended ranking of the firms indicated above for the Visual Arts Complex.

II. AGENDA ITEM TITLE: Approval of GMP for Kendall House, Vinzant

CHECK THE APPROPRIATE BOX(ES):

- Work Session
 Education Session
 Information Item
 Other Specify:

BACKGROUND AND POLICY CONTEXT OF ISSUE:

In April 2006, the Haub School and Ruckelshaus Institute requested and received a match from the Legislature's facilities matching fund, which doubled the \$764,069 gift (to \$1.53M) from Donald and Bim Kendall to purchase, renovate and rename the Hitchcock House. The legislative match was requested for the design and construction of an addition to the Kendall House property along with the renovation of the existing house, which would meet space needs for current staff, provide spaces for projected staff and faculty, including a common meeting and teaching space, and meet ADA access requirements. The Kendall House addition would meet the current and future space needs of the ENR (Environment and Natural Resources) program. In addition to the Kendall gift, donations have been received and matched by the Legislature from the Kresge Foundation and Rocky Mountain Power (photovoltaic panels). Harold Bergman (former ENR Director) also provided a donation for a landscaped area on the site in his name. The total project budget of approximately \$1.9 million is intended to be a LEED (Leadership in Energy and Environment Design) certified project. The construction budget within the total project budget is \$1,080,000 and can be supplemented with up to \$35,000 of interest accumulated on the donations.

Construction documents for the bidding of the project were completed by the architect in November 2008. The bids received from several local and northern Colorado bidders in December 2008 exceeded the construction budget by approximately 20%. To achieve the maximum project with the available budget, the recommendation to utilize a construction-manager-at-risk (CMAR) was approved in March 2009.

The approved CMAR (Drahota Construction), the architect (Architecture Plus), the Kendall House planning team, and the Facilities Planning office has reconsidered and redeveloped the scope of the construction project. Drahota Construction has proposed a base guaranteed maximum price of \$1,114,591 with a few bidding alternatives. Upon approval of the guaranteed maximum price (GMP), Drahota Construction will bid all subcontracts and major material supplies. The GMP will not be exceeded. The construction will be completed within six months of the notice-to-proceed following the receipt and evaluation of the bids.

Prior Related Board Discussions/Actions:

- Approval of the Architect, Architecture Plus, Fort Collins, CO and Cheyenne, WY, October 26-28, 2006
- Approval of CMAR, Drahota Construction, Fort Collins, Colorado, March 27, 2009

WHY THIS ITEM IS BEFORE THE BOARD:

This request of the Board is to approve the guaranteed maximum price for the Kendall House reconstruction and addition.

ARGUMENTS IN SUPPORT:

Funding is available from private donations and appropriated matching funds to proceed with the project. The Hitchcock House is vacant and available for the modifications and addition. The property is located at 8th and Fremont Streets approximately one block west of the classroom building.

ARGUMENTS AGAINST:

None

ACTION REQUIRED AT THIS BOARD MEETING:

Trustee approval for the guaranteed maximum price to initiate the construction phase of the Kendall House.

PRESIDENT'S RECOMMENDATION:

It is recommended that the Board of Trustees of the University of Wyoming authorize the Amendment to the CMAR Agreement with Drahota Construction for the construction of the Kendall House with a guaranteed maximum price of \$1,114,591.

III. AGENDA ITEM TITLE:

Appointment to the UW Research Corporation Board of Directors, Gern

CHECK THE APPROPRIATE BOX(ES):

- Work Session
 Education Session
 Information Item
 Other Specify:

BACKGROUND AND POLICY CONTEXT OF ISSUE:

The University of Wyoming Research Corporation Board of Directors are appointed annually by the UW Board of Trustees annually to serve a one year term. Board members may serve multiple, one year terms of appointment. This appointment period ends in June, 2010.

We recommend that the following individuals be appointed to the UWRC Board of directors.

- Dr. William A. Gern, Chairperson – is the Vice President of Research and Economic Development. Dr. Gern has done extensive work in the integration of research into economic development and is well versed in technology transfer and in federal/university research policy.
- Dr. Myron Allen – Provost and Vice President for Academic Affairs, University of Wyoming. He is the architect of the University's School for Energy Resources and an expert in the mathematics of heterogeneous fluid flow in porous media.
- Mr. Ronald Benson – of Houston, Texas, brings 30 years of management experience, including experience with natural gas and international oil companies. He now serves as a consultant with Haddington Ventures, LLC and as a member of the Board of Directors of Trans Texas Gas Corp.
- Mr. Ronald Collins – President of Pavement Technology, Inc., of Covington, Georgia, (in metro Atlanta). The company manufactures a broad line of laboratory sampling and testing equipment for the hot-mix asphalt and aggregate industry, which is sold through a worldwide distribution network
- Mr. Brent Erickson – is the Executive Vice President of the Biotechnology Industry Organization (BIO) of Washington, D.C. BIO, a trade association representing 1,100 biotechnology companies, academic institutions, state biotechnology centers and related organizations in 50 U.S. states and 31 other nations, provides biotechnology information, advocacy and business support.
- Mr. Rob Hurless – serves as Governor Freudenthal's Energy and Telecommunications advisor. He was formerly the chairman of the Wyoming Public Service Commission and publisher of the Casper Star-Tribune. He is active in economic development in the state

and in regional electric utility planning activities. Mr. Hurlless earned a Bachelor of Sciences in Chemistry and a Bachelor of Arts in History from Montana State University, an MA in Applied Economics from Stanford University and an MBA from Harvard University.

- Dr. Robert Ettema – is the Dean of the College of Engineering and Applied Sciences at the University of Wyoming. He was a professor at the University of Iowa College of Engineering for 25 years and headed the Department of Civil and Environmental Engineering for 7 years. His research interests are civil engineering hydraulics applied to problems and processes in water-resources engineering and diverse aspects of cold-regions engineering.
- Mr. Richard Willson – of Palm Harbor, Florida, is an attorney specializing in intellectual property and technology transfer, including licensing, patents and trademarks and invention stimulation, for large multinational chemical and petroleum companies.
- Dr. Larry Monroe – of Birmingham, Alabama, manages Southern Company’s research programs related to combustion, fuels, and emissions. He is responsible for developing and implementing research program areas related to nitric oxide and sulfur dioxide reduction, fuel effects and air metals emissions. Dr. Monroe was previously manager of the pilot-scale combustion facility at Southern Research Institute. Dr. Mondroe has further research and engineering experience from Massachusetts Institute of Technology’s Energy Laboratory, E.I. Du Pont de Nemours and Company and 3M.

IV. AGENDA ITEM TITLE:

Insurance Structure for Intellectual Property – HPG-ATC, Miller

CHECK THE APPROPRIATE BOX(ES):

- Work Session
 Education Session
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 Other Specify:

BACKGROUND AND POLICY CONTEXT OF ISSUE:

GE Energy LLC understandably expects that UW would be liable as a private firm would be for unauthorized disclosure of GE's intellectual property associated with the HPG-ATC project. UW typically procures insurance to cover potential liability when it enters into contracts, consistent with Wyoming's Governmental Claims Act. Commercial insurance for claims of this type is not readily available. The likelihood that UW would wrongfully disclose such information is remote, but the consequences of such disclosure could be very detrimental to GE.

As such, UW has arranged for special insurance (called “fronting insurance”) through United Educators (UE), UW's primary insurance carrier. Under Wyoming law, it is essential that this arrangement take the form of insurance. GE Energy LLC, UW and United Educators are in the process of finalizing the terms of the coverage, which is only related to unauthorized disclosure of intellectual property. This will allow the project to proceed. Note: UE will provide insurance for the typical risks for a project of this type, as required by the Joint Development Implementation Agreement (JDIA) between GE Energy LLC and UW.

Pursuant to negotiations with GE Energy LLC, the coverage and UW's exposure for liability for IP claims is limited to \$15 million. Under this special insurance, UW would be responsible for the first \$14.9 million in claims in the unlikely event that a claim would arise.

With Board approval, UW will continuously commit \$14.9 million from its operating funds for this purpose consistent with UE's requirements for issuing the policy. This commitment will have no effect on UW operations, absent a claim. UW's operating funds will continue to flow into UW and be expended in accordance with authorized budgets.

If a claim were filed, it would be some time before the matter was resolved and any payment required. This would provide the opportunity to pursue discussions with policymakers to restore operating funds. Ideally, a process for such discussions would be in place before the commitment was made. However, the HPG-ATC project cannot be delayed until the Legislature convenes in February 2010.

Instead, UW proposes to act now to ensure the project stays on schedule, and then pursue the establishment of a process in case a claim arises with the 2010 Legislature. As a component of the Board's approval of this insurance structure, UW's administration would be directed to work with legislative leaders and the Joint Appropriations Committee to create such a process.

The text of the United Educator's insurance policy will be available to the Board of Trustees as soon as it is finalized.

Prior Related Board Discussions/Actions:

None on this issue, but numerous discussions of the HPG-ATC project have occurred.

WHY THIS ITEM IS BEFORE THE BOARD:

Commitments outside the authorized budget require Board approval.

ARGUMENTS IN SUPPORT:

The need for insurance of this type has been reviewed and is preferred by the State's Attorney General. Delaying action on this insurance arrangement until the 2010 legislative session will imperil the success of this project given that design and construction will be delayed by more than 6 months.

ARGUMENTS AGAINST:

There is the risk that the State would not act to address the impact to UW's operating budget as a result of a claim. But risking the success of this project is of greater detriment to the State.

ACTION REQUIRED AT THIS BOARD MEETING:

That the Board authorizes UW to enter into the insurance structure with United Educators as negotiated between UW and UE, which meets the requirements of GE Energy LLC to proceed with the project.

That the Board further directs the UW administration to work with state policymakers to establish a process under which claims under this specialized IP insurance are reported to the state so that impacts to UW's operating budget can be assessed and addressed.

PRESIDENT'S RECOMMENDATION:

The President recommends approval.

AGENDA ITEM TITLE: Approval of 2010 Legislative Budget Request, Buchanan/Miller

CHECK THE APPROPRIATE BOX(ES):

- Work Session
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 Other Specify:

BACKGROUND AND POLICY CONTEXT OF ISSUE:

FY 2011-2012 UW Operating State Budget Request

The following is an overview of the state budget request for UW’s operations for consideration by the Board of Trustees. The Board of Trustees approved UW’s capital construction budget request for the upcoming FY 2011–2012 biennium at its last special meeting on July 16, 2009. That budget request has been submitted to the State Budget Office.

A. UW OPERATING BUDGET – STATE 067 BUDGET

Standard Operating Budget:

- UW’s “standard budget” is calculated by the state’s Budget Office and serves as the base budget. Requests for new funding beyond this standard budget are “exception” budget requests.
- UW’s standard budget for 2011-2012 is essentially the amount to sustain the “block grant” from the current (2009-2010) biennium minus the \$18.3 million in budget reductions directed by the Governor in June 2009.
- The Governor, through state Budget Office staff, has preliminarily included in each state agency’s budget, sufficient funding to sustain FY 2010 salary levels, the 85% employer contribution toward health insurance benefits, and necessary adjustments to cover the costs of other employer paid benefits, e.g., workers compensation. No increase is anticipated for salary adjustments for state, or UW, personnel within the standard budget.

[Note: Section II (UW self-generated revenue) funded employees will receive similar treatment with respect to the employer contribution toward health insurance benefits, to the extent funds are available. University charges and fees are used to fund these employees’ benefits, which may need to be adjusted to ensure comparable treatment.]

The UW exception budget requests for operations are in two categories. The first category contains exception requests to UW’s block grant, traditionally funded by the state’s general fund. The second section summarizes the exception requests related to UW’s energy initiatives which have been traditionally funded by AML (Abandoned Mine Land) funds. Both sections are in order of institutional priority.

Finally, there is a third category of items which contain items likely to be included in the state budget that relate to UW, directly or indirectly. However, for the reasons stated, no specific UW budget request is being made in these areas.

OPERATING BUDGET (Items typically funded by State General Funds)

1. Competitive Salaries (no exception request for FY 11-12)

UW's key priority is to ensure that employee salaries remain competitive to attract and retain a high quality workforce. In recent years, funding recommended by the Governor for salary adjustments has been included in the standard budget for each agency. Given the current state fiscal situation, salary adjustments have not been recommended for inclusion in the standard budget.

In view of the state's financial situation, no separate request is being made for salary funding. UW is confident that to the extent the state's fiscal situation improves, policymakers will revisit the issue of competitiveness of salaries.

2. Greater Western Library Alliance membership, Instructional Excellence Funding, and Tuition increases (no exception request for FY 11-12)

Libraries – As a result of many years of under-investment, the University's library resources are no longer competitive. Moreover, as UW expands its research initiatives in energy and supercomputing, Wyoming requires a modern, research library collection to serve students, faculty, and the people of this State. Recognizing these needs, during the 2008 budget session, UW requested and the Governor and Legislature approved an additional \$8.6 million (\$4.3 million) to begin UW's efforts to achieve membership in the Greater Western Library Alliance by 2012.

GWLA membership is not an end in itself. Membership in GWLA provides tangible benefits, in addition to the symbolic value of being recognized as a quality research library by an external review:

- Free and priority interlibrary loans with other GWLA research libraries.
- Significant discount on purchasing scholarly resources negotiated by GWLA.
- Collaborative training opportunities.
- Grant support for joint projects.
- Digital initiatives funded by GWLA.

As important as libraries are, to avoid impacting the academic workforce, the \$4.3 million annual increase approved in FY 2010 was deleted as part of the required FY 2010 budget reductions. Given the state's current fiscal situation, it is

unrealistic to expect that sufficient resources will be available to permit UW to successfully pursue GWLA membership in FY 2012.

Instead, UW plans to pursue GWLA membership in 2014 based upon a plan that includes committing revenue from regular tuition increases, as well as additional state support. If state revenues rebound, GWLA membership may be pursued more quickly. UW's proposed plan is outlined at the end of this section.

Instructional excellence - After providing for the competitiveness of UW's libraries, UW's next academic priority is to ensure that UW's non-personnel related budgets can support the level of forward-looking education that our students and Wyoming's citizens expect. While UW has aggressively and creatively managed its block grant to address these increasing costs over the last 15 years, the pressing needs to maintain faculty/student ratios and to restore competitive salaries have constrained the institution's ability to fund basic lab and studio equipment and supplies, teaching materials and equipment, student travel, and instructional technology and telecommunications costs.

During the 2008 budget session, UW received an increase of about ¼ of the amount it requested for instructional excellence - \$1.75 million annually. Like the increase for libraries, this \$1.75 million was deleted as part of the required FY 2010 budget reductions.

UW plans to address these instructional needs through commitment of tuition revenues as well as additional state support, and the plan is outlined at the end of this section.

Tuition - Academic year 2009-2010 is the third consecutive year that UW has not increased tuition for Wyoming resident undergraduates. The Hathaway Scholarship program began three years ago, and with strong financial support to UW from the state, UW was able to maintain resident tuition at a constant level. In fact, tuition and fees at UW are among the lowest for any public 4-year university in the country.

Historically though, resident undergraduate tuition has increased annually and by widely different amounts. The University's Academic Plan 3 (UP3) identifies having a consistent tuition policy as one of UW's key tasks moving forward.

UW plans to consider establishing a tuition policy, which would begin with the FY 2011 school year that would include regular, predictable adjustments to tuition for resident undergraduates. Other tuition categories have been adjusted regularly in recent years and those adjustments are expected to continue.

[Note: It is anticipated that to the extent UW receives ARRA State Fiscal Stabilization Funds, those funds would be used to offset the need for resident undergraduate tuition increases in FY 2011, as consistent with the provisions of ARRA.]

<u>Tuition increases and use</u>					
	FY 11		FY 12	FY 13	FY 14
5% increase plus four year Law & Pharm.D ramp up	--	*	\$1.8M	\$3.7M	\$5.6M
Used for:					
Library collections	--	*	(\$1.5M)	(\$3.1M)	(\$4.5M)
Instructional excellence	--	*	(\$0.3M)	(\$0.6M)	(\$1.1M)

- 5% est. to generate \$1.5M in FY 12 and \$1.6M in FY13 and 14
- Three year Law & Pharm.D ramp up est. \$300K in FY 12, 13 and 14

*ARRA SFSF funding of \$2M+ is anticipated for FY 11; therefore, first actual tuition increase would be in FY 12.

Library Collections budget approach – GWLA 2014

Restore Collections Budget to FY 2009 level of \$8.2M; requires increment of \$2M which will come from federal stimulus funding in FY 2011 only. In subsequent years, \$2M will be derived from tuition and reallocation as indicated in the table below.

	FY 11	FY 12	FY 13	FY 14
FY 2010 Budget Base	\$6.2M	\$6.2M	\$6.2M	\$6.2M
Incremental Revenue:				
Reallocation	--	\$0.5M	\$0.3M	--
Tuition (ARRA)	\$2.0M	\$1.5M	\$3.1M	\$4.5M
State Appropriations	--	--	\$1.7M	\$3.4M
Annual Collections Budget	\$8.2M	\$8.2M	\$11.3M	\$14.1M

GWLA application in Fall 2014 – Total state FY13-14 appropriation - \$5.1M

Instructional excellence – Requests for state support for instructional excellence in FY13 and FY14 will be addressed during the FY 2012 budget session.

3. Utilities (comparable consideration if other executive branch agency utility budgets are increased) UW does not usually make a separate budget request for increases in utility costs. Rather, if the Governor determines to recommend an increase to state agency budgets to cover increased utility costs, UW is typically included in that recommendation on a comparable basis.

While preparing the 2009 supplemental budgets, the state's fiscal situation was such that it was clear that no consideration would be given to increasing utility costs. Costs continue to escalate in terms of rates as well as additional usage due to increased building space.

UW is initiating efforts to monitor and reduce energy consumption, but increasing costs year upon year will impact other funding priorities. UW is providing the state budget office information about utility costs so that information about all state agencies is available. If funding to address utility costs is provided, UW requests comparable consideration as has been the practice in the past.

4. Brucellosis Testing Consortium (\$824,000) Development of an effective vaccine and more reliable diagnostic tests for brucellosis in elk and cattle is an expensive and long term project. According to “The United States Animal Health Association (USAHA) Laramie Agenda” (The Agenda) a workshop that developed a roadmap for improved vaccines, vaccine delivery, and testing, a long-term commitment involving multiple investigators will be needed to address this issue.

The benefits to the state of Wyoming of doing this research include development of improved testing for brucellosis, which will greatly facilitate both elk and cattle managers. A more effective vaccine has been identified as a critically-needed tool that must be in place if any hope is to be had of eliminating the disease in the Greater Yellowstone Area. The consortium will support experts from, Wyoming, and around the world to develop testing and a vaccine.

Though part of UW's block grant, UW proposes that these funds be separately accounted for much in the same manner as funding for UW's School of Energy Resources. While there are educational benefits to students that derive from this effort, those are incidental. The principle purpose of these funds is to lay the foundation for a national/international research effort regarding brucellosis research.

- a. Continue Consortium Support (\$200,000)

In 2009, \$100,000 was appropriated to UW to initiate the consortium. It is requested that the same level of funding be made available for each year of the FY11-12 biennium to sustain the consortium effort.

Two teams are being assembled. A scientific advisory team will focus on developing research objectives and evaluate proposals to do research once

funding for research is identified. A stakeholder advisory team will help solicit funds for the project and will review proposals for research to assure they are targeted toward the overall goals of vaccine and test development.

b. Support ongoing brucellosis research at UW's College of Agriculture (\$400,000)

These funds will be used exclusively for brucellosis vaccine and test method development at the University of Wyoming. The research is intended to develop a rapid, easy to use, and more accurate, animal-side test for brucellosis in the first year and would support a challenge study investigating a different vaccine for brucellosis in the second year. An animal-side test would permit quick identification rather than holding animals, particularly wildlife, pending the results of lab tests.

c. Hire a bacterial microbiologist (\$224,000)

Currently, the University of Wyoming has an immunologist and a bacterial microbiologist working on brucellosis issues. The state has made a major investment in a Biosafety Level 3 addition to the Wyoming State Veterinary Laboratory to facilitate brucellosis investigations.

It is essential that UW build greater depth in bacterial microbiology to conduct the necessary brucellosis research. This position would be dedicated primarily to research. Teaching responsibilities of the position would be principally related to the research enterprise, e.g. graduate students who are preparing themselves to be tomorrow's researchers.

5. Wyoming Public Radio Expanded Coverage Deadline (\$481,000 in **one-time** funding)

a. Lingle tower (\$388,000)

Wyoming Public Radio is operated by the University of Wyoming. Operational funding is provided largely by listener support, but equipment has been largely funded by the State. Listener support is unable to cover the periodic expenditures for equipment.

In 2008, UW had the very rare opportunity to purchase an FCC permit from another broadcaster. To avoid missing that opportunity, UW purchased a permit for a radio frequency in southeast Wyoming at a cost of \$32,000. This permit will allow WPR to expand and improve broadcast coverage to an estimated 69,000 people in the communities of Lusk, Chugwater, Glendo, Guernsey, Fort Laramie, and neighboring areas

During the 2009 Session, UW requested \$388,000 to construct a tower and purchase related equipment to begin broadcasting under the permit. Given the state's fiscal situation, and the opportunity to consider this during the 2010 session, the request was not funded.

This permit will expire on May 22, 2011, unless construction is complete. As such, unless funding is made available during the 2010 budget session, construction cannot be completed by that date.

b. Kaycee modification (\$93,000)

In addition, UW has an opportunity to modify its permit so as to move to a different frequency and expand coverage in the Kaycee area. The requested funding would be expended for purchase and installation of equipment necessary to expand the coverage and improve service.

Operations – As indicated above, UW funds operational costs largely through listener support. So, no state funding is requested to cover the anticipated \$30,000 in annual operations expenditures for these two facilities.

6. Endowment Matching Funds (\$0 one-time funds)

During the current biennium (FY09-10), the University focus has been to obtain commitments for all outstanding matching funds appropriated to date – athletics matching funds, facilities matching funds, and endowment matching funds. UW anticipates finalizing commitments for all available matching funds previously appropriated by the end of FY10, if not well before. Furthermore, as part of the FY10 budget reductions, \$5 million in state matching funds was decreased from prior appropriations.

A number of University units and programs are very well positioned to aggressively pursue major commitments, despite the national and state economic downturn. If one-time funds are available, matching funds would provide the opportunity to continue to work with donors who have enthusiastically responded to this program over the past nine years, as well as provide incentives to donors for new endowments such as the one initiated by the State for the Wyoming Reclamation and Restoration Center, referenced in the AML Funding section of this budget request. Given the current fiscal situation, no funds are explicitly requested.

7. NCAR Continuation (one-time reduction \$1 million)

The NCAR project contemplates a \$1 million annual commitment from UW once final NSF approval is obtained. For the current FY09-10 biennium, \$2 million was appropriated for this anticipated obligation.

It is anticipated that NSF approval will be obtained in early FY10. As such, \$1 million of the current appropriation can be carried forward to the next biennium and applied to the \$2 million commitment.

OPERATING BUDGET (Items typically funded by AML Funding)

1. Continuation of SER – AML funds – (\$18.9 million) First authorized and funded by the Legislature in the 2006 Budget Session, the School of Energy Resources has three primary objectives: (i) provide nationally-competitive undergraduate and graduate instruction in energy-related disciplines, (ii) to advance Wyoming’s energy-related science, technology and economics research, and (iii) to support scientific and engineering outreach through dissemination of information to Wyoming’s energy industries, companies, community colleges, and government agencies. Succinctly, these objectives align with the overall mission of the University and include scholarship, research, and service in the energy resource area.

SER funding was part of UW’s block grant but was to be separately accounted for. After first year funding, SER has been funded from AML funds, which by their nature, are separate from UW’s block grant. Funding for the 2009-2010 biennium is \$19.4 million, consisting of \$17.4 million in AML funds and a carry forward from the preceding biennium of about \$2 million.

The request for the 2011-2012 biennium is the same as for the 2009-2010 biennium, with a request to carry forward approximately \$1.5 million from the 2009-2010 biennium, for a total of \$18.9 million. Consistent with other state agencies, no salary increases are included, and the differences in the budgeted amounts related directly to the ramp up of academic, research, and outreach activities.

This appropriation would support 23.5 full-time positions, 25 to 30 graduate assistantships annually, and the expectation of three visiting faculty/industry researchers, annually throughout the biennium. A summary breakdown of the budget, in the format similar to that used for the FY 2009-2010 biennium, is provided below:

Budget Category	Brief Description	Biennial Request
Academic faculty	Academic director, SER faculty salaries and benefits and start-up commitments	\$6,231,027
Academic support	Curriculum development, inter university collaboration, travel and office support	\$410,000
Visiting professors	3 visiting faculty/researchers per year – salaries, benefits and moving allowances	\$1,075,200
Graduate assistantships	Support for 25 to 30 graduate assistantships annually including stipend, tuition and fees, and fringe benefits	\$2,103,667
Energy Summer Program for high school students	Faculty, mentors, and travel, room and board for participating students	\$200,000

Research Centers	Continuation of six research centers: Carbon Management; Energy Economics; Clean Coal Technology; Enhanced Oil Recovery; Subsurface Flow; Wind Energy; and new research seed money	\$2,515,800
Grant matching pool	Funds to provide institutional matching required for research grants from some federal agencies, etc.	\$2,300,000
Research staff	Carbon Management Director and Enhanced Oil Recovery Institute Director salary and benefits	\$834,900
Outreach	Three personnel (outreach director, staff assistant, energy extension coordinator) salaries and benefits, workshops, distinguished speakers, publications, travel, support, sponsorships	\$1,645,468
Administration	Four personnel (director, staff assistant, business manager, and contract administrator) salaries and benefits, office support costs, facility support costs	\$1,589,698
State Funded Biennial Budget		\$18,905,760

2. Wyoming Carbon Sequestration Major Research and Demonstration Initiative – (\$30 million in **one-time** AML) During the 2009 General Session, the Legislature appropriated \$8 million in AML funds for CO₂ sequestration research and demonstration. UW has leveraged that critical state appropriation with both federal and private resources to expand the demonstration effort. In addition, the University of Wyoming and the Wyoming State Geological Survey have commenced an array of initial research and investigations on various legal, mapping, geologic, chemical, and siting questions.

The goal is to work toward an aggressive research and demonstration effort for the sequestration of CO₂ in appropriate geological formations in one or more sites in Wyoming. As was done with the prior appropriation, additional efforts will leverage this appropriation via competitive federal funding through the Department of Energy, specific federal appropriations, and financial and in-kind relationships with industry partners from the following areas: (i) coal-fired electrical generators, (ii) carbon dioxide producers, and (iii) oil and gas extraction companies.

On June 26, 2009, Governor Freudenthal and UW President Buchanan jointly created a Wyoming Carbon Sequestration Steering Committee, consisting of representatives from UW's Office of Research and Economic Development, the School of Energy Resources, the Wyoming State Geologic Survey, as well as the Governor's Energy and Telecommunications Advisor. The Steering Committee is to provide continuous, coordinated oversight of the state's research efforts for sequestering CO₂. Moreover, it will work to insure close cooperation among state agencies, including UW, Wyoming State Geological Survey, Wyoming Department of Environmental Quality, and Wyoming Oil and Gas Conservation

Commission to help ensure success. Additional members, for example those representing industry collaborators, may be appointed to the committee as appropriate

Achieving tangible milestones in such a complex endeavor as sequestering CO₂ depends upon factors in addition to mastery of scientific and technical challenges, including assignment of liability, development of regulation, and legislative measures that affect economic incentives to sequester carbon dioxide. Success will come through the achievement of many small and large milestones and ultimate success will take time, expertise, and financial resources.

A \$30 million appropriation would allow for sufficient investment for the following set of deliverables:

- Permitting and construction of the first CO₂ injection well. (A temporary use permit for a selected state-owned section in Sweetwater County has been completed.)
- Construction of a pipeline and compression unit to inject CO₂ into the injection well.
- Completion of one or more water production wells so that subsurface fluid pressures can be managed to avoid any fault ruptures or other anticipated potential failures.
- Geophysical seismic and electromagnetic (EM) surveys and other necessary monitoring, verification and accounting (MVA) activities that will be required as a condition of successful risk assessment.

Upon completion of this research and demonstration activity, it is the intent that the full site would be prepared for commercial use and the entrance of a commercial CO₂ producer would be sought in order to pursue geologic carbon sequestration on a full, commercial scale.

3. Wyoming Reclamation & Restoration Center (WRRC) – (\$666,000 in AML funds) The Wyoming Reclamation and Restoration Center (WRRC) is an interdisciplinary program housed at the University of Wyoming. Its mission is to develop, collect, and disseminate impartial, scientifically-based information related to the reclamation, rehabilitation, and restoration of disturbed lands in high-altitude, arid regions of Wyoming and western US. These topics are critical to the economic well being of the state. Activities of the center include training of students about reclamation ecology, research into best practices in reclamation of disturbed lands and water, and extension and outreach for practitioners of reclamation ecology in the energy industry, state, and other interested agencies and businesses.

WRRC is particularly interested in expanding research about wildlife habitat, paying special attention to sage grouse habitat. Other activities to be expanded include in-depth studies about the properties of disturbed soil and how such perturbation might be minimized or mitigated in advance. Investigation of the

economic choices and economic impacts of various policies are ongoing and will also require future support. These activities are essential to the energy industry, because the opportunity to extract coal, gas, and other subsurface resources from Federal and State lands is closely tied to the ability to reclaim, mitigate, manage endangered species habitat, and otherwise maintain Wyoming's landscape.

During the 2009 supplemental budget, \$500,000 in AML funds was appropriated to fund the Center. In addition, \$1.5 million in AML funds was designated to seed an endowment with a goal of \$10 million, to provide ongoing support.

A portion of the 2009 appropriation was expended on start-up expenditures during FY 2009. The annual budget envisioned for WRRRC in FY10 is \$333,000 as follows and will consume the balance of the appropriation:

	2010
Budget Items	
Personnel (Director, staff)	\$75,000
Field ext./Research coord.	\$60,000
Graduate Assistants	\$80,000
Extension Activities/publications	\$18,000
Industry liaisons	\$15,000
Special topics workshops	\$10,000
Annual restoration workshop	\$15,000
Annual workshop in field	\$10,000
Analytical, research support	\$50,000
TOTAL	\$333,000

An additional \$666,000 in AML funds is requested to maintain the FY10 effort during the FY11-12 biennium.

4. Multidisciplinary Major Equipment to support energy research and education (\$985,000 in one-time AML funding)

Research Nuclear Magnetic Resonance Spectrometer (NMR; \$985,000)

Some major equipment is sufficiently expensive, and the instructional excellence budgets are sufficiently limited, that no one department or

consortium of UW departments can pool their resources to purchase the equipment. UW has aggressively pursued federal funding for other major equipment, e.g. electron microscope, mass spectrometer, all in the range of several hundred thousand dollars. However, a source for an NMR spectrometer has not been identified.

A research nuclear magnetic resonance (NMR) spectrometer is a powerful tool that will provide UW a competitive advantage in both research and education in the fields of Chemistry, Chemical/Petroleum Engineering, Molecular Biology, and Pharmacy. In simple terms, it enables the study of very large molecules, e.g. pollutants, composite materials, biological materials in sophisticated ways. UW's lack of major instrumentation (e.g., a NMR) negatively affects the university's ability to recruit and retain faculty and students. This proposed one-time investment would substantially strengthen UW's education and research programs in these highly competitive areas.

5. AML fund substitution provision

UW requests that language similar to that contained in the 2009 supplemental budget bill, 2009 Wyoming Sessions Laws, Chapter 159, Section 339(d) and (e), be inserted into the 2010 budget bill to the extent that AML funds are authorized for UW programs, including clean coal research as administered by the Clean Coal Task Force. This provision creates the flexibility to substitute UW block grant funds for AML funds where the use of AML funds for the purpose intended by the Legislature would be prohibited or impractical due to federal restrictions.

The Governor approved \$13,245,218 in such substitutions with regard to AML funds authorized in the supplemental budget bill.

In addition, of the total \$50 million authorization for the High Plains Gasification - Advanced Technology Center, authority to substitute UW block grant funds for AML is authorized for \$10 million. This substitution ensures that intellectual property contained in the design of the facility is not subject to disclosure due to the use of federal funds.