SOUTH DAKOTA BOARD OF REGENTS

Budget and Finance

AGENDA ITEM: 10 – D
DATE: June 22-23, 2022

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SUBJECT

SDSU Cottonwood Range and Livestock Field Station Preliminary Facility Statement (PFS)

CONTROLLING STATUTE, RULE, OR POLICY

SDCL § 5-14-1 – Classification of Capital Improvements
SDCL § 5-14-2 – Supervision by Bureau of Administration of Capital Improvement Projects – Payment of Appropriated Funds
SDCL § 5-14-3 – Preparation of Plans and Specifications for Capital Improvements – State Building Committees – Approval by Board or Commission in Charge of Institution
BOR Policy 6:4 – Capital Improvements
BOR Policy 6:6 – Maintenance and Repair

BACKGROUND / DISCUSSION

The Cottonwood Field Station is located near Phillip, SD, and consists of 2,640 acres at the home site with an additional 1,100 grazing acres near Sturgis, SD. The site includes appropriate utilities and access. The property includes areas suitable for all improvements needed to renovate and modernize the Cow/Calf Field Research and Education Unit including open pens, semi-enclosed holding pens, sorting pens, enclosed animal handling pens, commodity storage, and classroom/conference facilities.

IMPACT AND RECOMMENDATIONS

This project would transform the Cottonwood Field Station into a nationally recognized, innovative range beef cattle research and education site supporting ranchers and rangeland managers. It would enable the highest quality research possible, support the transfer of new information to the South Dakota beef industry, enable faculty to better compete for research grants and contracts, and facilitate industry collaborations. Upgrading the station would provide modern facilities for experimental research in beef production, handling, grazing, nutrition, breeding, and grassland management.

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DRAFT MOTION 20220622_10-D:

I move to approve SDSU's Preliminary Facility Statement for the Cottonwood Range and Livestock Field Station Renovations and Upgrades which will be funded by FY23 one-time general funds and private donations. A building committee representative should be appointed to oversee this project.

SDSU requests approval of this Preliminary Facility Statement to complete planning and construction of the Cottonwood Range and Livestock Field Station renovations and upgrades. We request the appointment of a building committee and selection of design/build consultants to provide design and construction services for this project.

Proposed Funding Source(s)

Legislative approval was granted for this project through Senate Bill 84 (SB84) during the 2022 legislative session. SB84 authorized $6.0 million in general funds. The project would be funded by the FY23 one-time general funds and private donations.

ATTACHMENTS

Attachment I – SDSU Cottonwood Range and Livestock Field Station Renovations and Upgrades Preliminary Facility Statement (PFS)

PRELIMINARY FACILITY STATEMENT
FOR

SOUTH DAKOTA STATE UNIVERSITY
COTTONWOOD RANGE AND LIVESTOCK FIELD STATION
RENOVATIONS AND UPGRADES; PHILIP, SD

DATE: April 5, 2022

SDSU requests approval of this Preliminary Facility Statement to complete planning and construction of the Cottonwood Range and Livestock Field Station renovations and upgrades. We request the appointment of a building committee and selection of design/build consultants to provide design and construction services for this project.

1. General Programmatic Needs to be Addressed:

This project would transform the Cottonwood Field Station into a nationally recognized, innovative range beef cattle research and education site supporting ranchers and rangeland managers. It would enable the highest quality research possible, support the transfer of new information to the South Dakota beef industry, and enable faculty to better compete for research grants and contracts, and facilitate industry collaborations. Upgrading the station would provide modern facilities for experimental research in beef production, handling, grazing, nutrition, breeding, and grassland management.

In addition to enhancing undergraduate animal science and natural resource management curricula, the field station would expand opportunities for graduate education and research. The multi-purpose building would support an expanded array of workshops, field days, and demonstrations to better serve the South Dakota beef industry. The modern facilities would enable expanded research in precision agricultural technology, sustainable strategies, genetics, general nutrition, and production efficiency that is currently limited in the outdated facilities. The new replacement building would also enhance the transfer of technology and information to the producer through demonstrated experience and to future producers through 4-H and Future Farmers of America youth programming. Finally, a new partially enclosed feedlot would enhance research and training capabilities.

2. Analysis of the Student Body or Constituents to be Served:

With over 80 years of recorded pasture stocking density data, the Cottonwood Field Station unit plays a vital role in the research of traditional livestock and grassland management practices with innovative precision agricultural technologies for the promotion of sustainable, regenerative, and profitable range livestock production systems for the benefit of Western South Dakota range beef producers.

Graduate students and researchers gain hands-on education in precision technology, beef

nutrition, management, breeding, genetics, cattle evaluation, animal welfare, and low-stress handling. Local K-12 schools, 4-H, and FFA students would have the opportunity to learn about agricultural research, and utilize the modern facilities annually for workshops, judging contests, and other scholastic programs.

3. ADDITIONAL SERVICES TO BE OFFERED:

The upgrades would be designed to model low-stress animal handling which cannot be carried out with the current facilities. The upgrades would allow for research related to precision technology to transform it into a modern "laboratory" that would enhance the ability to address challenges facing range beef cattle producers and grassland managers. The expanded modern facilities would increase the competitiveness of faculty for grants, contracts, and industry collaborations and be a magnet for outstanding students and faculty.

4. COMPLIANCE WITH CAMPUS MASTER PLAN:

The upgraded facility aligns with the university's strategic plan. The facility would enhance the research and outreach capabilities of the university. It would further advance the goals of the university to remain the flagship research institution in the State of South Dakota, provide contemporary educational opportunities to students, and attract renowned faculty in their fields of study.

5. ANALYSIS OF NEEDS ASSESSMENT BASED ON THE FACILITIES UTILIZATION REPORT:

Not applicable

6. LOCATION:

The Cottonwood Field Station is located near Phillip, SD, and consists of 2,640 acres at the home site with an additional 1,100 grazing acres near Sturgis, SD. The site includes appropriate utilities and access. The property includes areas suitable for all improvements needed to renovate and modernize the Cow/Calf Field Research and Education Unit including open pens, semi-enclosed holding pens, sorting pens, enclosed animal handling pens, commodity storage, and classroom/conference facilities.

7. REALLOCATION OF OLD SPACE, IF ANY:

The Cottonwood Field Station underwent minor renovations in 2013 that included a new office, shop, hoop structure, and existing horse barn renovations. In 2020 a severe windstorm destroyed the hoop structure and damaged many structures including the calving barn, working barn, windbreaks, and holding pens. The damage has created life and animal safety concerns and limited research capabilities.

In addition to new facilities, the work at Cottonwood Field Station would include upgrades to existing facilities. The working barn, feedlots, and holding pens would benefit from upgrades to increase animal welfare and handling.

8. PROPOSED FUNDING SOURCE/SOURCES:

The project would be funded by FY23 one-time general funds and private donations.

9. BUDGET FOR DEVELOPMENT OF A FACILITY PROGRAM PLAN:

The cost for preliminary planning services to complete architectural and engineering programming and preliminary design is estimated to be $80,000.

10. BUILDING DESIGN CONCEPTS AND ELEMENTS INCLUDED:

There would be one fully enclosed and climate-controlled building added to the site that would include a classroom/conference area, locker rooms, calving area, cattle handling area, laboratory, office, and a wash area. Semi-closed structures would include a monoslope feeding barn, machine shop, holding pens, and a commodity shed.

Existing facilities would be upgraded for animal welfare including the current working barn. Upgrades would include new working chutes, sorting pens, and dry feedlots.

Essential specialized equipment for cattle operations would be included with this project. Examples include loading and catching chutes, scales, waterers, feed mixers, bulk feed storage, automated feeding systems, and loaders.

End of Report