Contract No.: 289

Agreement
Between
the Nebraska Department of Natural Resources
and
Board of Regents, University of Nebraska,
University of Nebraska-Lincoln,

This agreement ("the Agreement") is made and entered into by the Nebraska Department of Natural Resources, hereinafter known as NDNR, and the Board of Regents, University of Nebraska-Lincoln, hereinafter known as the University.

The State of Nebraska adopted comprehensive legislation, including but not limited to the Ground Water Management and Protection Act, and

The NDNR is in need of assistance in the form of research, analysis, reports, and consultation relating to implementing certain aspects of the Ground Water Management and Protection Act and other aspects of the legislation and NDNR functions relating to same, and

The type of assistance needed includes demonstration, education and implementation of activities which help irrigators maintain maximum value from a constrained water supply, and

The University is able to meet those needs of NDNR in relation to those topics through a project entitled: "Enhancing the Value of Water Through Management Education". The Principal Investigator for this project is Professor Ron Yoder, Biological Systems Engineering.

Therefore, the parties hereby mutually agree as follows:

1. Term

This Agreement shall be for a term commencing on April 4, 2008 and continuing thereafter until June 30, 2011 unless terminated: a) without cause by either party upon delivery to the other party of thirty (30) days prior written notice, b) with cause immediately upon written notice, or c) upon final completion of all services required to be performed by the University pursuant to the terms of this Agreement. Prior to June 30, 2011 the parties may extend the Agreement by written amendment signed by all parties. The existence of said right of extension does not create an obligation on the part of the NDNR to extend the Agreement nor create an expectation by the University that the Agreement will be renewed. Termination of this Agreement by either party for any reason shall not affect the rights and obligations of the parties accrued prior to the effective date of the termination of this Agreement.

2. Scope of Service

- A. Services: All services to be performed pursuant to this Agreement shall be performed in conformance with the work outlined in the Nebraska Environmental Trust Fund grant application attached to this agreement and marked "Attachment 1".
- B. Project Schedule: The University shall commence its work in accordance with the scope of work and shall meet all deadlines, completion dates, and timelines specified in the Scope of Work. The University agrees to participate in and attend, in person or by telephone, meetings as necessary, with the NDNR in Lincoln, for the purpose of discussing the Agreement and its progress. The University will, at each meeting, present a brief report on the status of any outstanding work and its recommended work plan for the future.
- C. Project Delays: In the event there are delays to the schedule specified in any work undertaken on the Project that are beyond the University's control, the parties shall mutually agree to adjust the schedule in writing to accommodate such delays. The University shall make reasonable efforts to avoid delays and to complete all Service in a professional and timely manner.
- D. Project Manager: The NDNR and the University shall designate a person as the University's Project Manager to direct work and to coordinate the University's work with any other participating entities. Communications shall be through the project manager and the NDNR Contract coordinator who shall be Steve Gaul.

Compensation

The NDNR shall pay, contingent upon the same amounts being received from a Nebraska Environmental Trust grant, the following amount: up to \$215,000. The NDNR shall also pay an additional \$10,000 from other sources. Therefore, total reimbursement from both sources shall be no more than \$225,000.

A. The University may be reimbursed for any actual expenses and costs incurred by the University in performance of the Agreement.

Reimbursement rates shall be in accordance with the State of Nebraska Accounting System Manual. Billings shall include the name address and federal tax identification number of the vendor and an itemized list of services or goods and the dates over which services occurred. Costs to be reimbursed will be listed by the budget categories found on the Environmental Trust application provided as Attachment #1 to this agreement.

- B. Compensation payments shall be made by the NDNR no more frequently than on a quarterly basis following submission by the University of a dated statement including description of services, budget category of service, and amount by budget category. Summary accounts by budget category shall be the same as the application budget summary found in Attachment 1 to this document. It is understood that NDNR will be submitting bills the Nebraska Environmental Trust by 30 days following the end of each quarter. University requests for payment shall be tied to a specific quarterly report as detailed in #5 of the Agreement and shall be submitted by no later that 15 days following the end of the quarter (June 30, September 30, December 31 and March 31) in order to allow the NDNR to place the information in its quarterly report to the Environmental Trust.
- C. The University will maintain detailed expenditure records. Those records shall be subject to inspection by the NDNR and any other agency of the State of Nebraska with responsibility for monitoring progress or auditing records pursuant to this Agreement. The NDNR shall have the right to audit billings both before and after payment, and payment under this Agreement shall not foreclose the right of the NDNR to recover excessive or improper payments.
- D. The University will indicate in writing at the time of its final billing that it considers it to be the final billing. Billings for work during the term of the agreement must be received within 90 days of the end of the term of the Agreement in order to be eligible for payment.
- E. The NDNR recognizes that University work is contingent upon University receipt of \$75,000 in cash contribution and \$75,000 in in-kind services from the Nebraska Center Pivot Manufacturers Association and the University is making these arrangements separately. If all or part of those contributions for any reason become unavailable, the University will notify NDNR and the partners will consult on how to proceed. This shall include a narrative description of all project activities, participants, outcomes, and variance and deviations from the project application provided as Attachment #1 to the Agreement.

4. Work Product

All writings, technical reports, sound recordings, magnetic recordings, computer programs, computerized data bases, data bases in hard copy, drawings, specifications, designs, reports, photographs, and other graphical representations (hereinafter referred to as "Data") prepared by the University hereunder are and shall be the property of the University. The University shall grant to NDNR a non-exclusive, royalty free, irrevocable-right to use, reproduce, publish or otherwise use, and to authorize others to use the copyrightable material for Sate or Federal Government purposes.

5. Publication

In keeping with its educational research mission, the University and its employees shall have the right, at their discretion, to release information or to publish any data, writings, or material resulting from the Research or to use such in any way for its own internal purpose. The University shall furnish the NDNR with a copy of any proposed publication or release of information at least thirty (30) days in advance of the submission of such proposed publication or release of information to a journal, editor or other third party. Within this thirty (30) day period, the NDNR may request the University, in writing, to delay such proposed publication or release of information for an additional sixty (60) days in order to protect NDNR Confidential Information and the potential patentability of any invention described therein. Such delay shall not, however, be imposed on the filing of any student thesis or dissertation.

6.Deliverables

The University shall provide the NDNR with the following products as evidence of project progress and completion. All products shall be geared to fulfilling items detailed in Attachment #1. Included shall be

- A) A project completion report describing accomplishments and level of success of the project by June 30, 2011
- B) Evidence of delivery of at least 42 project workshops, including 15 intermediate and 12 advanced workshops
- C) Evidence of manufacturer and dealer assistance in the educational process
- D) Evidence of development of educational material
- E) Evidence of development of fact sheets, brochures
- F) Evidence of development of at least two instructional DVDs
- G) Evidence of development of promotional and/or instructional material specific to fully and overappropriated areas
- H) Evidence of development of a web module component to the project
- I) Quarterly reports Reporting quarters shall end on September 30, December 31, March 31, and June 30. On a quarterly basis (by 15 days following the end of each quarter the University shall provide NDNR with evidence of progress on the project including data collected, presentations made, and educational materials produced. This shall include a narrative description of all project activities, participants, outcomes, and variance and deviations from the project application provided as Attachment #1 to the Agreement. The quarterly report shall also provide any in-kind contributions and their value as well as the information noted under 3 C.

7. Personnel

The University shall provide professional and technical personnel to perform the services indicated in Attachment #1. It is recognized that the exact named personnel may not be available in all instances. In those instances the University will endeavor to make any replacements with personnel of similar qualifications. Changes will be submitted to NDNR for approval.

8. Equipment, Material and Personnel

The University shall provide and maintain adequate support materials and equipment to permit timely completion of all Services and shall use materials which are in conformance with existing federal, state, and local laws and ordinances.

9. Amendments

The Agreement may be amended only by written agreement signed by all parties.

10. Notices

Any notices required pursuant to this agreement shall be sent to: Nebraska Department of Natural Resources 301 Centennial Mall South 4th Floor, State Office Building P.O. Box 94676 Lincoln, NE 68509-4676 Attention: Steve Gaul

University of Nebraska-Lincoln Office of Sponsored Programs 312 North 14th Street, Alex West University of Nebraska-Lincoln Lincoln, Nebraska 68588-0430 Attn: Nancy Becker

| Nebraska Department of Natural Resources | Board of Regents, University of Nebraska-Lincoln |
|--|---|
| Brian Dunnigan, P.E., Acting Director Nebraska Department of Natural Resources | Jeanne Wicks, Director Office of Sponsored Programs |
| 4/28/08 Date | 4.21.8 Date |

AS TO FORM & CONTENT BY NDNR LEGAL COUNSEL



NEBRASKA ENVIRONMENTAL TRUST FUND APPLICATION COVER SHEET

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot H1. Project Sponsor: Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water Through Management Education

3. County(s) where project is located: Statewide with emphasis in Republican Basin and portions of Platte Basin upstream of Kearney

5. Total Amount Requested: \$215,000

4. Nearest town: NA

6. Years of funding requested (select one): 1 2 3

Contact Person:

7. Name: Steve Gaul

8. Title: Supervisor, Planning and Assistance Division

9. Organization: Nebraska Department of Natural Resources

10. Address, City, State & Zip: PO Box 94676, Lincoln, NE 68509-4676

11. Daytime Phone: 402-471-3955

12. Alternate phone: 402-471-2081

13. Fax: 402-471-2900

14. E-mail: sgaul@dnr.ne.gov

15. Sponsor web page: http://dnr.ne.gov

16. Is this a continuation request for a project previously funded by the Trust: Is this a resubmission of a project application previously not funded by the Trust:

YES NO:

17. Please indicate which category best describes the applicant:

Selections are: Individual City or County Natural Resources District Federal Agency Private for Profit Private Nonprofit Consortium School, Irrigation, Power or Development District State Agency Other (specify):

18. Will this project receive federal funds or require a federal review or permit? If yes, identify the agency(s) and its role:

19. Will this project receive other State of Nebraska funds or require a state review or permit? YES If yes, identify the agency(s) and its role:

The University of Nebraska will provide in-kind support for this project and conduct the bulk of the work for the effort. The Department of Natural Resources will provide \$10,000 in cash towards the project.

20. In 300 words or less provide an overview of the project for which you seek funding. If you are asking the Trust to fund only a portion of the project, indicate the components for which you seek funding.

This project will develop and deliver an organized water management educational program to provide irrigators, and those advising irrigators, with the knowledge and skills necessary to obtain maximum value from a constrained water supply. The program will be developed through the University of Nebraska Extension, Biological Systems Engineering Department with extensive input and assistance from Nebraska center pivot manufacturers, Lindsay Corporation, Reinke Manufacturing Company. Inc., T-L Irrigation Company, and Valmont Industries, Inc. Efforts will be made to involve Natural Resources Districts (NRDs). Although the program will be offered statewide, initial efforts will be concentrated in water short areas, including the Republican River Basin and the Platte River Basin upstream of Kearney. This program will differ from previous educational programs in emphasis, scope, marketing strategy, and will rely input from the center pivot manufacturers to reach a previously



NEBRASKA ENVIRONMENTAL TRUST FUND APPLICATION COVER SHEET

H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water Through Management Education

unreached audience. This will result in stronger delivery with a specific concentration on maximizing the value of a constrained water supply.

The need for this type of program has increased in recent years because the water resources in many of Nebraska's NRDs have been declared fully- or over-appropriated, and are subject to either moratoriums, or to restrictions on the amount of water that may be used. The program should help irrigators obtain maximum value from the water they use. If constraints on water useage result in water savings, these savings will provide flow levels that are likely to provide substantial environmental benefits as well as economic benefits from the delivery of this program.

This educational program will provide an introductory 3 to 4-hour module addressing basic principles for efficient irrigation: soil and water management, evapotranspiration (ET), and application uniformity and efficiency. It will also provide an intermediate-level module (3 to 4 hours) providing specialized hands-on instruction addressing such topics as soil water measurement, ET measurement and estimation, and measuring application efficiency and uniformity; an advanced-level module will address the use of state-of-the-art sensing, decision-making tools, and control technology (with demonstration of this technology).

The effort will include: developing the educational materials (for both on-site and distance delivery), coordination among the partners, organizing, scheduling and delivering on-site workshops, interfacing with client groups (including input from irrigators), active program promotion, access to irrigators through center pivot dealers, developing written and electronic program material, and dealers providing resources such as meeting venues, meals, promotional materials, and equipment. A project completion report will be provided.

| On behalf of the sponsor(s) named above, I hereby attachments, is true, accurate and complete. | y certify that the information contained in this | application, including all |
|--|--|----------------------------|
| Authorized Signature of Sponsor Organization | Title | Date |
| Ann Bleed | Director | |
| Typed or Printed Name of Authorized Signatory | Typed or Printed Title | |



NARRATIVE SECTION

H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

In five pages or less, provide a discussion of your project. Be sure to cover the points specified in the instructions.

Purpose

The purpose of this project is to develop and deliver an organized water management educational program to provide irrigators, and those advising irrigators, with the knowledge and skills necessary to obtain the maximum benefit from a constrained water supply.

Need for Program

This effort will deliver a program specifically targeted to maximizing the value of a constrained water supply, and will differ from previous efforts in emphasis, scope, marketing strategy, and will integrate use of center pivot manufacturers' dealer networks for disseminating information. The need for this type of program has increased considerably in recent years. The water resources in many of the NRDs in Nebraska have been declared fully- or over-appropriated, and subject to either moratoriums on new high capacity uses, or to allocations on the amount of water that may be pumped. If the program is successful, irrigators will be able to maximize the value of the ground water and surface water they have, while the potentially lowered water use would provide environmental benefits through maintaining required flows. With constrained water supplies, maximizing the economic benefit of the finite amount of water that can be pumped and/or consumed becomes even more important to landowners and natural resources districts. Furthermore, the crop demand generated by ethanol production has raised crop prices, raising the economic stakes for efficient water use. Finally, higher fuel prices have increased one of the costs of over-pumping. In short, Nebraska's water resource has become far more economically valuable in a time when environmental needs are also receiving more emphasis. Maximizing benefits for all parties requires knowledgeable and well-informed water users.

Project Objectives

Project objectives include:

- 1) Provide irrigators, and those advising irrigators, with instruction on basic principles of efficient irrigation water management. This will include fifteen or more 3 to 4-hour introductory-level workshops on basic irrigation water management principles with at least three of those workshops per year occurring in fully- or over-appropriated areas.
- 2) Provide advanced in-the-field instruction on efficient irrigation water management techniques using the full range of potential contributors including center pivot dealers and Natural Resources Districts. This will include at least five intermediate-level workshops and four advanced-level workshops annually for a total of 15 intermediate and 12 advanced workshops. At least three of each of these workshops will be held annually in fully- or over-appropriated areas.



H1. Project Sponsor: Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

- 3) Develop useful hands-on educational materials describing efficient irrigation water management techniques.
- 4) Tailor programs to water management needs specific to local areas with water use restrictions. Develop material specific for those areas, especially in the Republican River Basin and the overappropriated portion of the Platte River Basin.
- 5) Collaborate with center pivot manufacturers and dealers, and with Natural Resources Districts in workshops and program delivery to maximum extent possible.
- 6) Develop a marketing strategy to reach irrigators that have not previously attended water management educational programs, and to persuade irrigators with an intermediate level of knowledge to participate in the advanced level workshops.
- 7) Provide a project completion report detailing activities of project and success indicators. (Note: this will be a project completion report for purposes of the Environmental Trust grant only because this is expected to become a continuing program through other means if possible).

Design and Implementation

The educational program will be developed in three-levels (Levels One and Two will be three to four hours, and Level Three will be slightly longer) as follows:

- Level One (Introductory) three to four hours of instruction about basic principles for efficient irrigation: soil and water management, evapotranspiration (ET), and application uniformity and efficiency (five workshops per year -- minimum)
- Level Two (Intermediate) three to four hours of hands-on and case-study instruction using
 principles in Level One to manage irrigation water efficiently, e.g., soil water measurement, ET
 measurement and estimation, and measuring application efficiency (five workshops per year -minimum)
- Level Three (Advanced) six to eight hours of instruction on advanced irrigation water management including the use of state-of-the-art sensing, decision-making, and control technology (with demonstration of this technology) (four workshop per year -- minimum)

The educational program will be coordinated through an educator/marketer position(s) hired by UNL Extension for the program that will assist in developing the educational materials (for both on-site and distance delivery) in consultation with the partners, and be responsible for liaison among the partners, for coordinating presentations, for organizing and scheduling on-site workshops, for delivering portions



H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot

Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

of the workshops, and for interfacing with client groups, e.g., irrigation equipment dealers, consultants, crop advisors, NRDs, etc.

Additional aspects of the project are to include:

- 1) Development of detailed written educational material
- 2) Development of fact sheets and brochures
- 3) Development of at least two instructional DVDs
- 4) Use of actual equipment in demonstrations (with manufacturer and dealer assistance)
- 5) Development of promotional and/or instructional material specific to fully- and overappropriated areas
- 6) Development of additional instructional material related to consumptive water use
- 7) Targeting much of program delivery to fully- and over-appropriated areas in initial years
- 8) Close program coordination between UNL Extension, the center pivot manufacturers (and dealers), and Natural Resources Districts
- 9) Extensive use of center pivot manufacturer and dealer expertise and resources in the educational process
- 10) Web component (modules will be available on the UNL Water web site that is being developed)
- 11) Work with stakeholder groups to provide educational credits for course attendance
- 12) Project evaluation
- 13) Development of a project completion report detailing accomplishments and level of success of project

Specific educational components to be addressed include:

- 1) Basic principles of soil and water management for efficient irrigation
- 2) Evapotranspiration/crop water use
- 3) Evapotranspiration measurement/estimation
- 4) Consumptive use and water budgets
- 5) Soil water measurement
- 6) Irrigation scheduling
- 7) Application uniformity and efficiency
- 8) Measuring application efficiency
- 9) State-of-the-art sensing
- 10) The decision making process and decision making tools
- 11) Allocations and the decision making process
- 12) Control technology and demonstrations
- 13) Technology demonstration



H1. Project Sponsor: Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot

Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

Roles

University of Nebraska – through Nebraska Extension and the Biological Systems Engineering Department, provide a water management educational program, and coordinate the program with ongoing research efforts at UNL.

Center Pivot Manufacturers of Nebraska – actively promote program, provide access to irrigators through dealers, and provide resources such as meeting venues, meals, promotional materials, and equipment for Level Three. Provide technical instruction as appropriate. This group includes Lindsay Corporation, Reinke Manufacturing Company. Inc., T-L Irrigation Company, and Valmont Industries, Inc. and has committed \$75,000 cash and \$75,000 in-kind contributions for the project.

Nebraska Department of Natural Resources – actively promote program and coordinate information among various entities within the state of Nebraska. Provide \$10,000 cash contribution.

Natural Resources Districts – Natural Resources Districts will be contacted to help set local meetings; provide information on local regulations; promote workshops and water management educational program.

Project Evaluation

Expected techniques to evaluate project success will include: before and after workshop participant surveys to determine knowledge gained and behavior changed, testing following workshops, and certification. Statistics will also be kept on levels of participation and, when large-scale distributions occur, the amount of material distributed. Any electronic information such as program audience (for distance education) or web hits will be noted.

Pre Grant Work

Because the participants consider initiation of this effort so important, they are working to initiate a program this fall and winter to present at least some of the initial concepts that will be in the final program that is proposed in this grant application. This will enable testing of ideas prior to initiation of the Trust grant project, and will enable the new Trust project to have an accelerated start up next spring.

Expected Project Outcomes

- 1) More efficient and economic management of irrigation water, especially in areas with water use restrictions due to:
 - Delivery of at least 42 project workshops providing information related to efficient water use management

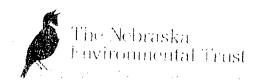


H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

- Development and delivery of a coordinated curriculum with a variety of written and electronic materials promoting better irrigation water management, including: detailed instructional material, fact sheets, brochures, DVDs, Web material, and promotional materials
- 2) Establishment of an ongoing educational program that can be used in different venues in the future, and used as a model for other programs
- 3) Establishment of better working relationships for educational delivery between Nebraska center pivot manufacturers, University of Nebraska Extension, and Natural Resources Districts
- 4) Provide the Nebraska Environmental Trust with a project completion report detailing project accomplishments
- 5) More water availability for surface water or environmental purposes either through reducing water demand in areas not fully or over-appropriated, or through helping water users to more efficiently use their allocations in fully or over-appropriated areas.



APPLICATION BUDGET SUMMARY

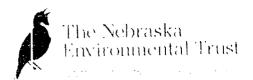
H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

BUDGET YEAR: SUMMARY *= In-Kind Donations

| Column A | Column B | Column C | Column D | Column E | 1 71 |
|--------------------|---------------|--------------|---------------|---------------|-----------|
| 1. Source of Funds | Nebraska | Nebraska | University of | | Column I |
| | Environmental | Center Pivot | Nebraska | NE Dept of | |
| | Trust | Mfgs Assoc | Nemaska | Natural D- | TOTALS |
| 2. Budget Category | | THE THROC | | Resources | <u> </u> |
| Y | | | | | |
| 3. Personnel and | \$150,000 | \$75,000 | | 05.000 | |
| Fringe Benefits | , , , , , , | Ψ75,000 | | \$5,000 | \$230,000 |
| 4. Program | \$5,000 | \$45,000* | \$3,000* | #5 000 | |
| Promotion, | , | \$ 15,000 | \$5,000 | \$5,000 | \$58,000 |
| Meeting Venues, | | | | | |
| Meeting Costs | - | | ĺ | | |
| . Material, | \$30,000 | \$30,000* | \$5,000* | | |
| Publications and | | 420,000 | \$5,000 | | \$65,000 |
| Equipment/Equip | | | | | |
| nent Use | | | | | |
| Indirect Costs | | | \$43,500* | | |
| | | · | SPT.2,.7(7() | | \$43,500 |
| . Other Direct | \$30,000 | | dio soud | | |
| losts Including | 0.00,000 | | \$8,500* | | \$38,500 |
| ravel | | j | | | |
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| TALS > | \$215,000 | \$150,000 | \$60,000* | \$10,000 | 0.425 |
| | | | 2000,000) | \$10,000 | \$435,000 |

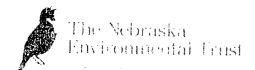


H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

| Year 1 Column A | Column B | Column C | Column D | Column E | Column F |
|--------------------|---------------|--------------|---------------|------------|-----------|
| | Nebraska | Nebraska | University of | NE Dept of | |
| . Source of Funds | Environmental | Center Pivot | Nebraska | Natural | TOTALS ▼ |
| | Trust | Mfgs Assoc | | Resources | |
| . Budget Category | 11400 | | | | |
| Dauget Category ▼ | | | | | |
| 3. Personnel and | \$57,497 | \$25,000 | | \$2,000 | \$84,497 |
| Fringe Benefits | 444 | | | | |
| I. Program | \$2,500 | \$15,000 | \$2,000 | \$2,500 | \$22,000 |
| Promotion, | , | | | | |
| Meeting Venues | | | | | |
| and Meeting Costs | | | | | #20 000 |
| 5.Material, | \$20,000 | \$10,000 | \$2,000 | | \$32,000 |
| Publications, and | | | | | İ |
| Equipment/Equip | | | | | |
| ment Use | | | | | \$17,150 |
| 6. University | | | \$17,150 | | \$17,130 |
| Financial and | | | | | |
| Admin Overhead | | | 1 | | \$15,850 |
| 7.Other Direct | \$14,000 | | \$1,850 | | \$15,650 |
| Costs Including | | | | | |
| Travel | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11 | | | | | |
| 12. | | | | | |
| TOTALS ▶ | \$93,997 | \$50,000 | \$23,000 | \$4,500 | \$171,497 |

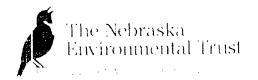


H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

| Column A | Column B | Column C | Column D | Column E | Column 1 |
|--|------------------------------------|--|------------------------|------------------------------------|-----------|
| I. Source of Funds ▶ | Nebraska Environmental Trust | Nebraska Center Pivot Mfgs Assoc | University of Nebraska | NE Dept of Natural Resources | TOTALS |
| 2. Budget Category ▼ | | THE TRIBUTE | | Resources | |
| 3. Personnel and Fringe Benefits | \$44,477 | \$25,000 | | \$1,500 | \$70,977 |
| 4. Program Promotion, Meeting Venues, Mecting Costs | \$1,250 | \$15,000 | \$500 | \$1,250* | \$18,000 |
| 5.Material, Publications and Equipment/Equip nent Use | \$5,000 | \$10,000 | \$1,500 | | \$16,500 |
| . University Financial and Admin Overhead | | | \$12,998 | | \$12,998 |
| Other Direct Costs Including Travel | \$8,000 | | \$3,502 | | \$11,502 |
| | | | | | |
|). | | | | | |
| | | | | | |
| • | | | | | |
| OTALS > | \$58,727 | \$50,000 | \$18,500 | \$2,750 | \$129,977 |



H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

| Year 3 Column A | Column B | Column C | Column D | Column E | Column F |
|--------------------|---------------|--------------|---------------|---------------|------------|
| 1. Source of Funds | Nebraska | Nebraska | University of | Other Sources | |
| . Source of runus | Environmental | Center Pivot | Nebraska | (NRDs and | TOTALS ▼ |
| | Trust | Mfgs Assoc | | DNR) | |
| 2. Budget Category | | | | | |
| ▼ | | | | | (17.4.50.4 |
| 3. Personnel and | \$48,026 | \$25,000 | | \$1,500 | \$74,526 |
| Fringe Benefits | | | | 01.050V | #10.000 |
| 4. Program | \$1,250 | \$15,000 | \$5000 | \$1,250* | \$18,000 |
| Promotion, | | | | | |
| Meeting Venues, | | | | | |
| Meeting Costs | | 410.000 | d 1 500 | | \$16,500 |
| 5.Material, | \$5,000 | \$10,000 | \$1,500 | | \$10,500 |
| Publications, | | | | | |
| Equipment/ | | | | | |
| Equipment Use | | | \$13,352 | | \$13,352 |
| 6. University | | | \$13,332 | | Ψ10,002 |
| Financial and | | | | | |
| Admin Overhead | *** | | \$3148 | | \$11,148 |
| 7.Other Direct | \$8,000 | | \$5146 | | |
| Costs Including | | | | | |
| Travel | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |
| 11. | | | | | |
| 12. | | | | | |
| TOTALS ▶ | \$62,276 | \$50,000 | \$18,500 | \$2,750 | \$133,526 |

The Nebraska Environmental Trust

NEBRASKA ENVIRONMENTAL TRUST FUND

APPLICATION BUDGET JUSTIFICATION

H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

1. Have other sources of funding not listed in the Budget Worksheet been approached for project support? If yes, name them and explain the outcome of your request.

Eight Natural Resources Districts were approached about the possibility of partnering on this project. As of the time of application we have not received responses

2. Are all of the matching funds in the Budget Worksheet confirmed? If not, please identify those entities and list the date when confirmation is expected. Explain how you will implement the project if these sources do not confirm participation.

Yes, all amounts have been confirmed.

- 3. If any of the project costs identified in Column B of the Budget Worksheet have been expended or if debt has been incurred for these costs or a sponsor or partner is obligated for these costs in any other way: List these costs here. Explain clearly why Trust grant funds are requested for these costs.
- 4. For each line item in column A of the Budget Worksheet, justify the basis for the dollar amount indicated for that item.

| CATEGORY/COMPONENT (from Column A of the Budget Worksheet) | BASIS USED TO DETERMINE COST | Attachment? Y or N | ATTACHMENT LABEL |
|--|---|-----------------------|---------------------|
| 3. Personnel and Fringe Benefits | Actual salaries of some personnel and amount of time each is expected to spend on project | No | |
| 4. Program Promotion, Meeting Venues | Estimate based upon number of expected workshops and average estimated cost of as well as estimated travel expense and very rough estimated of materials/publications cost | No | |
| 5. Material, Publications and Equipment/Equipment Use | Rough Estimate of Material Cost | No | · |
| 6.Direct Costs | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |



PROJECT SPONSOR FINANCIAL INFORMATION

H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot

Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

Please see the instructions for section C-3. Attachments to this document may be necessary to complete this section. Include these attachments with your hard copy submission.

The Nebraska Department of Natural Resources has a FY 20087 appropriation of about \$21 million. Of the appropriated amount, about \$11.1 million is for pass through funds and about \$9.9 million is for contracts and agency expense.



H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot

Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

| Month/Year | Task Description: | | | | |
|--------------|--|--|--|--|--|
| September | Work on pre-grant Extension irrigation water management information project begins. The budget for | | | | |
| 2007 | this is not included as part of this project but it should make grant project implementation easier | | | | |
| March 2008 | Pre-grant Extension irrigation water management information project ends | | | | |
| April 2008 | Environmental Trust Grant Begins | | | | |
| April 2008 | Project dedicated extension educator hired or assigned | | | | |
| April 2008 | Work on Objective 3 and Objective 4 begin | | | | |
| May 2008 | Work on Objective 1 begins - Initial Workshop dates set, publicized | | | | |
| August 2008 | Work on Objective 2 begins | | | | |
| August 2008 | Work on Objective 5 begins | | | | |
| March 2011 | Work on Objective 6 begins | | | | |
| June 2011 | Work on all Objectives completed for purposes of Grant. Work on Objectives 1 to 5 becomes part of a continuing post-grant effort | | | | |
| June 30 2011 | Environmental Trust Grant ends | | | | |
| | | | | | |
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H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

| Partner | Contribution |
|--|---|
| Lindsay Corporation | Part of mfg. group providing \$75,000 cash and \$75,000 in-kind. Assists with setting up meetings, instruction, participation and project promotion |
| Reinke Manufacturing Company, Inc. | Part of mfg. group providing \$75,000 cash and \$75,000 in-kind Assists with setting up meetings, instruction, participation, and project promotion |
| T-L Irrigation Company. | Part of mfg. group providing \$75,000 cash and \$75,000 in-kind Assists with setting up meetings, instruction, participation, and project promotion |
| Valmont Industries, Inc. | Part of mfg. group providing \$75,000 cash and \$75,000 in-kind Assists with setting up meetings, instruction, participation, and project promotion |
| University of Nebraska Extension/Biological Systems Engineering Department | \$60,000 worth of in-kind. Also provides major work for grant funds received |
| Department of Natural Resources | \$10,000 in cash and support of meetings and publicity |
| | |
| | |
| | |

The Nebraska Environmental Trust

NEBRASKA ENVIRONMENTAL TRUST FUND

REAL ESTATE / SITE PLAN

H1. Project Sponsor:

Nebraska Department of Natural Resources (in partnership with the Nebraska Center Pivot Manufacturer's Association and the University of Nebraska Cooperative Extension)

H2. Project Name: Enhancing the Value of Water through Management Education

This section will not apply to every project. Please see instructions for section F. Attachments should be sent with the hardcopy submission.

| Legal Description | County | #Acres |
|-------------------|--------|--------|
| NA | | |
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STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES Brian P. Dunnigan, P.E.

Acting Director

April 29, 2008

IN REPLY TO:

Office of Sponsored Programs 312 N. 14th Street, Alex West University of Nebraska-Lincoln Lincoln, Nebraska 68588-0430 ATTENTION: Nancy Becker

Dear Nancy,

Enclosed are fully signed copies of separate research agreements between the Board of Regents, University of Nebraska and the Nebraska Department of Natural Resources for two projects:

1) "Enhancing the Value of Water through Management Education", and 2) "Quantifying Evaporation, Crop Evapotranspiration and the Water Balance for Tilled and Untilled Fields". Thank you for your help in drafting the agreements and we look forward to working with you and the principal investigators as the projects proceed.

Sincerely,

Steve Gaul

Supervisor, Planning and Assistance Division

cc: Ron Yoder (with copy of #1)

Suat Irmak (with copy of #2)