

JAN - 7 2001

**LCMR Work Program 2001**

**Date of Report:** April 19, 2001

**Date of next status report:** December 1, 2001

**Date of Work program Approval:**

**Project completion Date:** June 30, 2003

**FINAL REPORT**

**I. PROJECT TITLE:** LCMR Final Work Program Report

**Project Manager:** Andrew Weaver

**Affiliation:** Stillwater Area High School

**Mailing Address:** Stillwater Area High School

5701 Stillwater Area High School

Stillwater, MN. 55082

**Telephone:** 651-351-1416

**E-Mail** [weavera@stillwater.K12.MN.US](mailto:weavera@stillwater.K12.MN.US). Project E-Mail falcon.stillwater.k12.mn.us

**Fax:** 651-351-8049

*Synopsis*

**Total Biennial Project Budget:** \$35,000.00

\$LCMR Appropriation: \$35,000.00

\$ Amount Spent: = \$35,000.00

Balance = \$0

**Legal Citation:** Laws 2001, First Special Session, Chapter 2, Section 14, Subd. 10(h)

**Appropriation Language:**

10(h) Raptor Propagation Student Education \$35,000

\$35,000 is from the future resources fund to the commissioner of natural resources for an agreement with Stillwater Area High School to build a captive breeding facility for raptors and develop associated education activities.

**II. PROJECT SUMMARY AND RESULTS:**

Peregrine falcons represent a species that has been at the brink of extinction and also brought back from the brink of extinction. This project will help students and other interested parties see the positive role humans can play in environmental problems.

This project will involve building chambers for three pairs of peregrine falcons in a courtyard at Stillwater Area High School. Video cameras will follow these birds as they go through their courtship behaviors and lay eggs. Following egg laying, students will be able to observe falcons incubating and hatching their eggs and raising young. This is the essence of how captive programs around the world were able to return peregrine falcons to the wild and remove the peregrine falcons from the endangered species list. All of these video images will be on the Stillwater Area High School web site for students and others to view. U.S. peregrine falcon natural history and specifically

Minnesota peregrine falcon history will accompany this web site. Several educational activities will also be part of this project.

This project will occur in three RESULTS. The first result involves building the facility. This should be completed by the end of Aug 01. The second result will involve installing the raptors. This result should be completed by Sept 01. The final result is the raptor education piece. This expenditure will occur by Nov. 01 but data retrieval will continue for a ten year period.

This project is allowed in part because of the cooperation of the US Fish and Wildlife Service (permit #MB037909-0) and the Minnesota Department of Natural Resources (permit #10077).

### **III. PROGRESS SUMMARY**

### **IV. OUTLINE OF PROJECT RESULTS**

#### **RESULT 1**

In result one, a 20ft by 28ft breeding building will be constructed in the science wing courtyard at Stillwater Area High School. This building will have three 10ft by 14 foot chambers and one observation room.

The building materials include green treated lumber, steel siding, conduit bars, doors and windows etc.

Materials Cost       \$4,100  
Labor cost associated with this construction will be       \$6,000

The camera technology part of this project involves four cameras, monitors, cables, video recording and delay equipment. computer with web link and server site. (Security Control Systems).

Material and labor cost       \$17,400

LCMR BUDGET \$27,500  
Balance       \$27,500

#### **RESULT 2**

In result two, three pairs of peregrine falcons will be installed into the chambers. These birds have been donated by several raptor breeders. Medical attention has been donated by the Raptor Center at the University of Minnesota.

Total cost \$0

Maintenance of these birds will require some additional technology and equipment that include a chest freezer for frozen raptor food, bath pans, jesses, hoods, perches, scale, leather, brooders, incubators, etc.

Total Cost \$5,500

(note: The cost of camera related technology and bird maintenance includes a movable computer for the education part of this project. How it factors into these two dollar categories is not solid yet (\$17,000 and \$5,500.)

LCMR BUDGET \$5,500  
Balance \$5,500

**RESULT 3**

Result three involves putting together the educational background to the web site and designing teacher activities using the raptor cameras. The Science Museum of Minnesota will be helping with the text and web links for this site.

Total Cost for 'projects club work' \$2,000  
LCMR BUDGET \$2,000  
Balance \$2,000

**V. TOTAL PROJECT BUDGET**

	<b>RESULT 1</b>	<b>RESULT 2</b>	<b>RESULT 3</b>
Personnel	labor \$6000.	\$0	Sci. Mus. \$2000.
Equipment	Facil/camer \$21,500	Falcon gear\$5,500	\$0
Development	\$0	\$0	\$0
Acquisition	\$0	\$0	\$0
Other	\$0	\$0	\$0

**TOTAL BUDGET (All Results) = \$35,000**

**VI. PAST, PRESENT, AND FUTURE SPENDING:** \$0 (note: land, birds, and medical attn donated. Also note Stillwater Area High School students will donate falcon food).

A) Past Spending: \$0

B) Current and future Spending: \$0

C) Project Partners

- 1) The Raptor Center at the Univ. of Minnesota. Medical needs for raptors
- 2) Victor Hardaswick and other raptor breeders. Falcons
- 3) The Science Museum of Minnesota - web text development
- 4) District #834 - Land and support

D) Time: No extra time anticipated.

**VII. DISSEMINATION:** The Stillwater Area High School web site will have a link to this web site. The web site will also have a 'stand alone' address. I hope to present activities at formal educational conferences including the Minnesota Science Teachers Association meetings.

**VIII. LOCATION:** Birds and web site will function from Stillwater Area High School.

**IX. REPORTING REQUIREMENTS:**

January 2002 will provide enough time to assure technology to be functional and birds installed.

July 2002 will provide a chance to report first year breeding success (this is more likely in May of 2003).

2001 Project Abstract  
For the period Ending June 30, 2003

**TITLE: Raptor Propagation**

**PROJECT MANAGER: Andrew Weaver**

**ORGANIZATION: Stillwater Area High School**

**ADDRESS: 5701 Stillwater Blvd. N.  
Stillwater, MN 55082**

**WEB SITE ADDRESS: falcon.stillwater.k12.mn.us**

**FUND:**

**LEGAL CITATION: Laws 2001, First Special Session, Chapter 2, Section 14, Subd.**

**APPROPRIATION AMOUNT: \$ 35,000.00**

**PROJECT LOCATION: Stillwater Area High School**

The project goal for this project is all about environmental education. My fear as a environmental biology teacher is that my students learn about a collection of human insults to the environment and therefore adopt attitudes and behaviors that reinforce that message. This project will allow students to SEE an example of a human success story aimed at the environment. Specifically, how DDT was outlawed and biologists bred and released peregrine falcons in order to reverse a near extinction.

Currently, at Stillwater Area High School we have constructed a facility with three falcon breeding chambers. We have installed internet cameras in each chamber that provide live images to anyone that wishes to visit our web site. Thus far, we have put two pairs of four year old falcons into two of the three chambers. We have also developed text for our web site.

No additional funding is needed to complete this project BUT the future will show visitors to our web site production of captive young peregrines being incubated, hatched, and fed by their parents. We also will have archive video clips showing various courtship behaviors shown by breeding peregrines. Young will be released into the wild or added to other captive breeding projects.

I will be presenting this web site at the MN Science Teachers Conference. The benefit to students across MN will be significant. I also will be showing this site to my students in my graduate education classes at both Hamline University and at The University of St. Thomas. Finally, In addition to the web site, I am developing a power point educational program for interested parties that will be available on a CD. This project will be in operation for a minimum of ten years.