Office of Facilities, Environmental and Cultural Resources Management Summary

OCTOBER 2009

INDIAN AFFAIRS

American Recovery and Reinvestment Act of 2009

Hundreds of Workforce Training Employees to Benefit from OFMC Maintenance Program



Pine Ridge Agency Workforce Training employee Darrel Buckman (above) works on an employee quarters renovation project in South Dakota. Ray Kooyaquaptewa (below) paints the entryway to the

Hopi Rehabilitation Center in Arizona.

fter living away from home while working on a few roofing jobs in Flagstaff, Ariz., 24-year-old Ray Kooyaquaptewa is excited over being selected for a Workforce Training position: learning building maintenance with the Hopi Agency. The work is an easy commute from his Spider Mountain home on the Hopi-Navajo Partition lands. "I'm hopeful I can stay on permanently," said Kooyaquaptewa, who heads a family of four.

He is one of the hundreds of American Indians benefitting from the American Recovery and Reinvestment Act of 2009's Construction Workforce On-The-Job Training for Deferred Maintenance administered by OFMC's Division of Operations &

Maintenance. Its purpose is to create jobs to provide economic stimulus in American Indian communities, where unemployment rates are the highest in the U.S.—some reaching as high as 85% unemployment. An estimated 210 jobs are expected to be created through the OFMC program, which provides funding to create jobs and purchase supplies and materials for work on federal property.

The Construction Workforce On-The-Job Training for Deferred Maintenance provides BIA agencies and locations the opportunity to perform minor repair and maintenance needs while creating jobs and boosting local economies. It also provides opportunities for workers to gain and/or improve job skills that will increase their ability to find permanent employment.

Workers at Pine Ridge Agency



Amber Adams



Rodney Randall



Ben Walters

Environmental Audit Inspection Input Screen Will Help Develop Backlog Summary

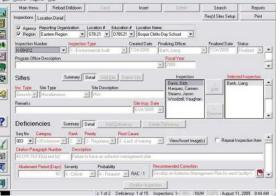
The Division of Environmental and Cultural Resources Management tronic record by entering it into the new FMIS Environmental Module and BIA regional environmental staff have begun using FMIS for the which facilitates tracking a location's environmental history and its enenvironmental audit program to promote continuity of audit reports and vironmental compliance progress. The information includes the root subsequent processes. The Environmental Compliance Audit program, causes, recommended corrective actions, and risk-based time frames which began in 2002, is conducted at locations within the 12 BIA re- to complete corrective actions for each finding identified in a location's

gions and the 22 Bureau of Indian Education line offices.

Environmental audits are conducted on a three-year cycle. The environmental auditors are using FMIS during their audit planning process to review information specific 2 to facilities at a location. After conducting the environmental audit, the environmental staff makes the audit a permanent elec-

environmental compliance audit. In addition, environmental and facilities managers can track assignments of work tickets for corrective actions and environmental backlogs submitted for funding.

The Environmental Module is consistent with the information system criteria established by OFMC and used by Division of Safety and Risk Management inspectors.



Briefs



Interior daylighting at St. Francis Indian School helps save energy by reducing the need for electric lighting.

St. Francis Indian School **Earns LEED Certification**

The U.S. Green Building Council has granted a Leadership in Energy and Environmental Design (LEED) certification to OFMC's replacement middle/high school project at St. Francis Indian School on the Rosebud Reservation in South Dakota. The school is the first LEED-certified school in South Dakota. The OFMC Project Manager was Gordon Rosby of OFMC's Great Plains Regional Office.

Hopi Communications Upgraded by OFMC



Telecommunications Operator Daryl Harvey operates the new communications deskboth surveillance cameras for the jail and voice communications for Law Enforcement Services—at the Hopi Rehabilitation Center. OFMC's telecommunications improvement project funded the upgrade.

OFMC Issues List of Construction Contracting Firms Approved For Construction Task Orders

OFMC awarded indefinite delivery/indefinite quantity (IDIQ) contracts to 21 construction contracting firms to provide services to Indian Affairs, possibly through the year 2014. The firms that responded to the OFMC Contracting Office's request for proposals were reviewed for their capabilities and given one-year IDIQ contracts with up to four option years

"We set up the IDIQ contracts to make it easier for Central Office and for the field to get construction contracting services," said OFMC Deputy Director Emerson Eskeets. "The firms are already on board with OFMC, so there should be a smooth paperwork path in getting them on the job out in the field."

Field facilities officials can work with their Regional Contracting Office to use the IDIQ contracts.

Projects from \$3,000 to \$400,000

• M & H Enterprises

Apollo

Keers Remediation

Facility Build

Asset Group

McKinsie Construction

Imperial Roof System

Sacred Power

Ayala Construction

Deerfield

· Native American Services

· Diversified Construction of Oklahoma

MV Industries

Tri-City Seal

• Spray Systems Environmental Tempe, Ariz.

Schroeder Contracting

Las Vegas, Nev. Kennewick, Wash. Albuquerque, N.M.

Albuquerque, N.M. Oklahoma City, Okla.

Kansas City, Mo.

West Union, Iowa Albuquerque, N.M.

Albuquerque, N.M.

Albuquerque, N.M. Kellogg, Idaho

Edmond, Okla.

Albuquerque, N.M.

Tuttle, Okla.

Billings, Mont.

Projects from \$400,000 to \$3 million

Kraus-Anderson Construction Minneapolis, Minn.

Emerick Construction

· Lam/Rockford Construction

Portland, Ore.

Gallup, N.M.

Projects from \$3 million to \$25 million

Flintco

Tulsa, Okla.

 Arviso-Oakland Construction Joint Venture

Tempe, Ariz.

Bread Springs Day School Rises South of Gallup, N.M.

The Bread Springs Day School replacement campus (right) is rising amid juniper and pinon trees, one-half mile from New Mexico Highway 602, south of Gallup, N.M. The 32,192 square



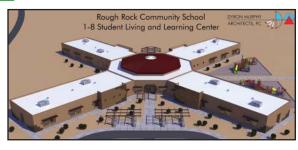
foot school will serve 150 students. The OFMC Project Manager is Melvin Tsethlikai of OFMC's Navajo Regional Office. He is a member of the Navajo Nation.

American Recovery and Reinvestment Act of 2009

OFMC's Rough Rock Community School Replacement Project Gets Off to a Fast Start

March 13, 2009

Anticipating Congress appropriating American Recovery and Reinvestment Act of 2009



(ARRA) funds, OFMC receives a faxed response to its Tribal Consultation letter. Both the Navajo Nation and the Rough Rock Community School Board indicate they are willing go forward with the replacement school project in Arizona if the funding comes through. Above: architect's rendering of a dormitory.

May 1, 2009

Indian Affairs receives ARRA funding.

June 10, 2009

Rough Rock Community School Board President Ritchie Nez

comes to Albuquerque to sign a Financial Assistance Pub. L. 100-297 Grant award letter.



Arizona Navajo Central Education Line Officer Jacqueline Holiday signs the grant award letter for the Bureau of Indian Education and OFMC Deputy Director Emerson Eskeets signs for Indian Affairs. The OFMC Project Manager is Phil Asmus.

June 15, 2009

Rough Rock Community School holds dawn ground breaking

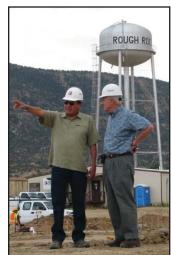


for Phase I.

August 5, 2009

Auditor Patrick Morrissey (right) from the Department of the Interior's Office of Inspector General views construction work with Jeremiah LaMesa, who serves as construction project manager for the Rough Rock Community School Board.

September 16, 2009 Assistant Secretary-**Indian Affairs Larry** Echo Hawk (right) and Navajo Nation President Joe Shirley are greeted in the Navajo language by students from Rough Rock's culture-based education program during the Phase II ground breaking ceremony.





Kayenta Community School Replacement Opens in Fall



Opening this fall in Kayenta, Ariz., the 103,000 square

foot, K-12

replacement school and dormitory (above) for Kayenta Community School will serve 442 students. The OFMC Project Manager is Phil Asmus.

Retro-Commissioning



Four Midwest Region Schools throughout the day despite being used sporadically. The Play with the **Energy Hand** They're Dealt

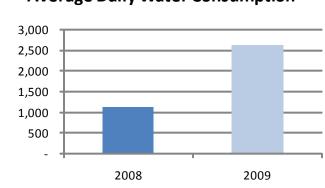
FMC retro-commissioning studies of Hannahville Indian School in Michigan, Flandreau Indian School in South Dakota, and Nay Ah Shing and Fond du Lac Ojibwe schools in Minnesota found minimal prospects of adding renewable energy alternatives at a cost that makes sense. The limited amount of wind and solar energy—and the large initial cost of installing ground source heat pumps—make adding these renewable energy sources cost-prohibitive.

However, much energy could be saved at each of the schools through more-affordable techniques, such as improving scheduling, keeping to a maintenance routine and enclosing building envelopes, according to retro-commissioning studies conducted by the Sustainable Engineering Group, LLC., and SHP Engineering and Architecture.

Hannahville Indian School

The flat-fee water/sewer contract for the school may not encourage conservation of water. For instance, the 2009 average daily water consumption at Hannahville was 2.3 times the average daily consumption of 2008. It is suspected that a water leak led to much of this disparity. The study also found that the school pays 7.6 cents per gallon of water (including sewer) while comparable Indian schools pay 2.3 cents per gallon (including sewer).

Average Daily Water Consumption



study suggested that installing a total of \$720 in "Vending Misers" to reduce electric consumption for the four machines will save \$55 a year in

electricity.

Overall, installing energy-saving lighting fixtures and room occupancy sensors and making scheduling



Hannahville vending machine.

Meanwhile, a domestic hot water pump at Hannahville

runs 24/7. The installation of a \$712 timer to schedule

the operation of the domestic hot water pump for peak usage could save \$555 annually. Similarly, four vending

machines are consuming constant amounts of energy

improvements, in which energy is available for peak usage and is then reduced for off-hours, could save Hannaville a total of \$28,000 annually, after an initial cost of \$171,000.

Flandreau Indian School

The relatively large number of individual buildings at Flandreau results in uneven energy use per square foot (called Building Energy Intensity). For instance, among the highest energy users is a 1,440 square foot unoccupied trailer. "The abnormal energy load is due to the high and unnecessary ambient temperature kept in the building, ranging from 72F to 82F," the study found. Water usage was up at Flandreau, as well, with the average daily water consumption almost double the average water use on typical school campuses.

As with most school gymnasiums, the energy use and air quality

is often calibrated based on peak usage, when a crowd is assembled in the facility. At Flandreau, the gym "ventilation system operation (is) not coupled with demand," the study found Implementing \$2,000 in **Demand Control Ventila-**



An infrared photo of the foundation of the Flandreau administration building

tion scheduling, along with optimizing and repairing ventilation equipment at a cost of \$2,250, would reduce energy consumption in the gym by \$4,513 annually.

Many of the buildings at Flandreau are losing energy due to the aging process. But maintenance of the building envelopes, i.e., installing weather stripping, replacing missing storm windows and installing insulation, can save thousands in energy costs. Even repointing brick mortar, such as in the foundation of the brick administration building, will reduce deterioration and extend the life of the building.

Nay Ah Shing School

The need for regular maintenance is exemplified at Nay Ah Shing.

The study found that "filters are extremely dirty at both the Upper and Lower School" buildings. Dirty filters don't clean the air properly and cause more energy use by circulation system fans. Also, dampers that con-



Dirty air filter at Nay Ah Shing.

trol outside air flow were not shutting completely,

Testing for carbon dioxide levels found that several outside air dampers were not adjusted correctly and several fan belts were slipping/missing, resulting in reduced outside air delivered to the spaces served by these air handlers. One classroom in the Lower School exceeded the ASHRAE limits for carbon dioxide from 9 a.m. until noon—the time it was occupied by 15 students and two staff members. "This is a direct effect of inadequate ventilation provided to the classroom," the study found.

Overall, the study found that by spending \$89,000 for energy improvements, the Upper School could save nearly \$18,000 a year in energy costs, and spending another \$76,000 at the Lower School could save \$17,000 annually.

Fond du Lac Ojibwe School

The proverbial tug-of-war between teachers and facilities staff over comfortable classroom temperature was supposedly satisfied by designers of the school, who included small windows that



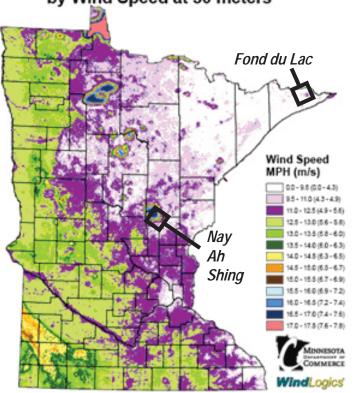
By opening small windows, Fond du Lac second grade teacher Meredith Martin can vary her classroom's temperature.

could open manually if a teacher felt the classroom temperature needed adjustment. However, the study found those windows to be energy inefficient due to "air leaking through the open window." It recommended to "close the window and secure latch" and to "educate staff on energy conservation measures."

The alternative energy prospects at Fond du Lac limited payback on up-front dollars spent on installing alternative sources of energy typify the four schools. For

instance, Fond du Lac has minimal wind resources and due to surrounding trees, a wind turbine would have to be mounted on a 100 to 130 foot tower. Payback on initial investment for solar energy would take too long, as well, though Minnesota Power does have incentives for improvement measures that save kilowatts.

Minnesota's Wind Resource by Wind Speed at 30 meters



Focus

From FACCOM to FMIS to MAXIMO: Indian Affairs' Database Will Survive

In the 1990's, The BIA FACCOM database was re-engineered into the Indian Affairs' Facilities Management Information System (FMIS). Soon, the client-server FMIS will transition to a Department of the Interior Enterprise Maintenance Management System, MAXIMO. The advantages of FMIS's advanced reporting, which is a key asset in managing Indian Affairs facility-based programs, are expected to continue even after Indian Affairs transitions to MAXIMO.

Department officials are expecting the transition to begin in FY2010. A major benefit for the Department is that all data stored in MAXIMO will be standardized, rather than each Bureau having its own standard for its facility related data storage.

Indian Affairs' move to MAXIMO will assist OFMC's on-going business process engineering by improving the use of current information technology. Also, the determination of funding and program asset priority needs for every location through Site Specific Asset Business Plans (SSABP) will be enhanced because Indian Affairs' real property asset management will be integrated with facilities management and major program missions at both the Indian Affairs and the Departmental levels.

Continued on Page 7.

2009-2010 School Year Preceded by Five Replacement School

Red Water Elementary School





Mississippi Choctaw Indian Princess Tia Faye Anderson (left) opens Red Water Elementary School, built for 119 students in grades K-8. OFMC Division of Planning & Program-



ming Chief Margie Morin (above) addresses the June dedication crowd. The OFMC Project Manager is Eastern Regional Facility Manager Johnny Parham.

Muckleshoot Tribal School







OFECR Director Jack Rever (above) addresses the crowd at the September dedication of the Muckleshoot Tribal School in Washington. The school, which is oriented toward nearby Mt. Rainier, will serve up to 500 K-12 students. The OFMC Project Manager is Phil Saraccino, a member of Laguna Pueblo.

Dedications in Indian Country Meskwaki Settlement School Celebrating the August opening of Meskwaki Settlement School in lowa's new wing for up to 400 students in grades 7-12 are OFMC Deputy

Director Emerson Eskeets (left), along with kindergartener Romeo Buffalo, and seventh-grader Dacia Morgan (top). The OFMC Project Manager is Andy Robinson, a member of the Northern Cheyenne Tribe.

Dilcon Community School





Dilcon Community School students sing for the dedication crowd during the school's July dedication in Arizona. The school will serve 307 students in grades K-8. OFMC Project Manager is Phil Asmus.

Cherokee **Central Schools**

Cherokee Middle School student Ellie Bradley (right) tours the campus during the August dedication of the Cherokee Central School complex in North Carolina, which will serve 800 K-12

Project Manager is A n d yAcoya Laguna

Pueblo.

The OFMC students.







Continued from Page 6.

However, the major adjustment will be in aligning with Interior-wide enterprise real property and facility applications. There are functions of Indian Affairs such as stewardship of tribally owned assets and Indian Affairs' Operations & Maintenance formulas—which may call for a parallel system, even when all Indian Affairs data are migrated to MAXIMO.

"We have enjoyed some nice advantages with FMIS, but there are some opportunities for savings and streamlining that will come from the transition of FMIS to MAXIMO, as well," said OFMC Deputy Director Emerson Eskeets. "However, there are also many unique relationships with tribal entities inherent in Indian Affairs' functions that would not transition well to a Department-wide database."

Eskeets said the solution is to move full force into MAXIMO without jeopardizing OFMC's responsibility to tribes. "That may take some sort of parallel database that allows us to upload our information to MAXIMO on a regular schedule," he said. With regular uploading of information to MAXIMO, Indian Affairs can still participate in Department-wide reporting. That will allow Indian Affairs to review OFMC's data—now housed in FMIS—in the expanded context of the entire Department.

Living in Tornado Alley Prompts Emergency Preparedness at Haskell, Riverside



Haskell Indian Nations University President Linda Sue Warner receives a simulated storm warning on her cell phone and prepares to broadcast a tornado warning message via a new audio alert system.

Haskell Indian Nations University in Lawrence, Kan., has installed a severe weather alert system in key buildings on campus to keep students and staff informed if the campus is threatened by a tornado or by severe thunderstorms. For after-hours announcements, a pre-recorded message can be activated remotely by authorized staff members. The system includes the college's residential halls, the education and administration buildings and will soon be expanded to include the library, dining hall and gymnasium complex, using funds from the American Recovery and Reinvestment Act of 2009. An emergency "text message" system is also in place for students who have cell phones.

Also, with its new cafeteria operating, Riverside Indian School in Anadarko, Okla., is renovating its campus storm shelter in the basement of the old cafeteria. The upstairs section will become a student center.

Solar Roof **Project Atop** SIPI Gym **Energy Award**

The photovoltaic project on the gymnasium roof at the Southwestern Indian Polytechnic Institute (SIPI) in Albuguergue, N.M., (right) has been selected for a 2009 Federal Energy and Water Management Award by the Department of Energy. The 70 kilowatt building-integrated photovoltaic roofing system has offset SIPI's overall electricity consumption by an esti-Earns National mated 127 megawatt-hours annually. It is the largest photovoltaic system of its kind in New Mexico. The OFMC Project Manager is Andy Robinson, a member of the Northern Cheyenne Tribe.



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Office of Facilities, Environmental and Cultural Resources Assistant Secretary-Indian Affairs

DEPARTMENT OF THE INTERIOR UNITED STATES

and the Division of Environmental and Cultural Resources Management. Facilities Management and Construction, the Division of Safety and Risk Management, The Office of Facilities, Environmental and Cultural Resources oversees the Office of