

Fiscal Year 2006

May 2007



SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY

Environmental Protection & Natural Resources Division

FY2006 Program Accomplishments

Air Quality

Grants & Contracts

Land Use Clearances

Natural Resources & Range Management

Pesticide

Solid & Hazardous Waste

Water Quality



Community Development Department Mission Statement

To regulate and protect the Community's land, natural resources, and membership sustainable development to enhance economic integrity and quality of life.

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Introduction



Figure 1: EPNR 2006 Staff Photo (Pictured right to left)

Front Row: Marilyn R. Ethelbah, Angela Cruz, Christella Armijo, Regina Leverette.

Middle Row: Jeremy Phillips, Tudor Montague, Dezbah Hatathli, Ondrea Barber, Kari Morehouse.

Back Row: Wang Yu, Ira Jolley, Stan Belone, Randy Watkins, Daniel Daggett.

Not Pictured: Garfield King

EPNR Program Summary

The Environmental Protection and Natural Resources (EPNR) division of the Community Development Department (CDD) was established to enhance the quality of life within the Salt River Pima-Maricopa Indian Community (SRPMIC) by protecting and preserving the land, ecosystems, wildlife, history, and natural resources of the Community.

EPNR administers environmental regulatory programs, addresses environmental issues, and monitors growth and development to reduce the impact to the Community's natural resources. EPNR staff is frequently out in the Community performing site inspections, and monitoring activities. The division also manages and analyzes data, interprets consultative work, writes technical reports, and enforces environmental regulations.

Additionally, EPNR staff provides environmental outreach and education to increase awareness about the environmental issues that impact the Community. In an ongoing effort to strengthen the bond between the people of the Community and their land, presentations to the Community Council, Community schools, and the general public are available.

EPNR FY 2006 Major Accomplishments

We are proud to highlight the environmental accomplishments of the EPNR division for fiscal year 2006:

- In May 2006, EPNR was awarded a total of \$550,000 in Brownfield Cleanup and Assessment funds from the United States Environmental Protection Agency (US EPA)
- In May of 2006, EPNR was awarded the 2005 Water Reuse Project of the Year by the Arizona Water Pollution Control Association. This award was given in recognition of Environmental Protection and Natural Resources' Wetland Demonstration Project on May 4, 2006 during their Annual Conference awards banquet
- SRPMIC Pesticide Program received an outstanding review by the US EPA, Region 9 for overall programmatic excellence
- EPNR Air Quality Program completed installation of Differential Optical Absorption Spectroscopy (DOAS) monitors; the only Tribal, state or local agency in the southwest to utilize this technology to analyze air toxics
- Removed over 5,000 waste tires from the Community as part of West Nile Virus prevention efforts
- Transitioned two key EPNR positions from grant-funding to tribal funding
- EPNR changed names and locations to better serve the Community

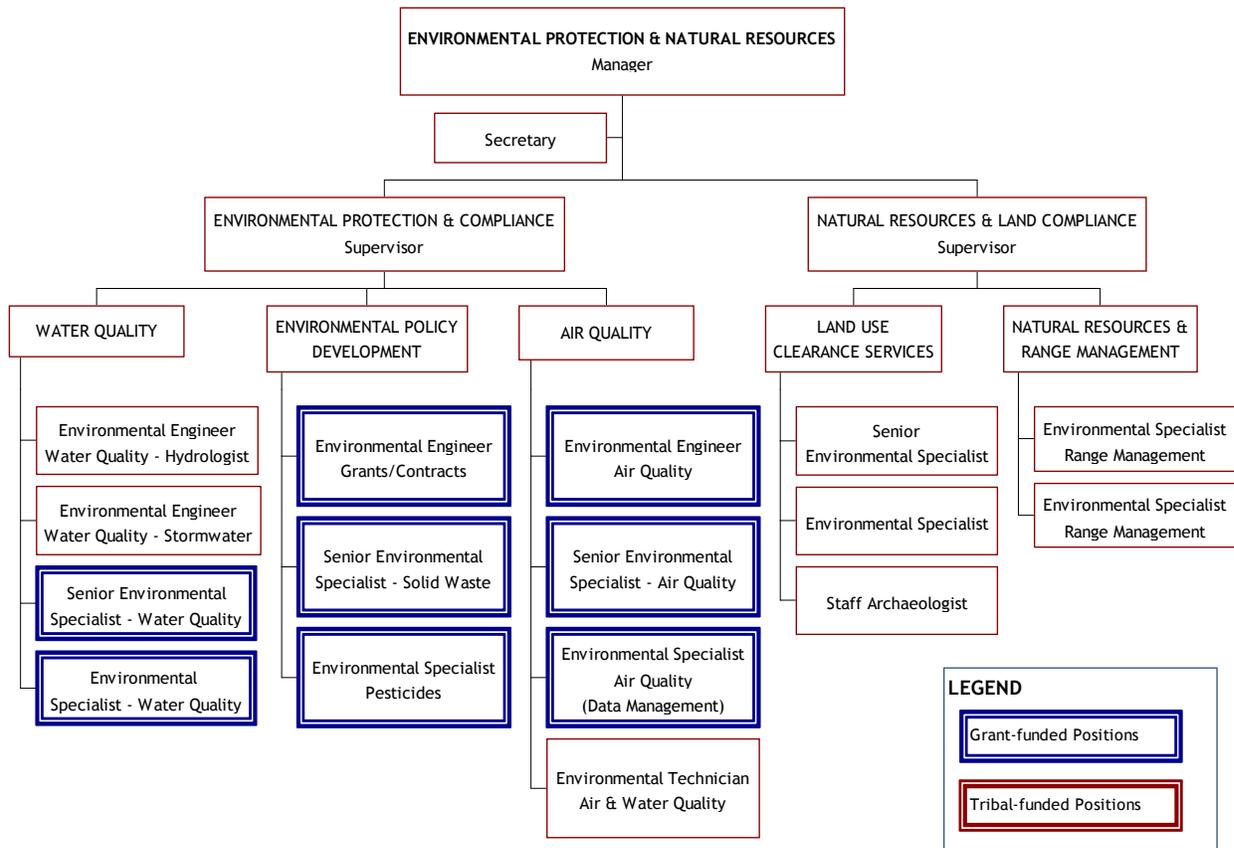


Figure 2: EPNR organizational chart

Air Quality



Figures 3-4: A. Cruz, Environmental Technician performing a filter exchange at the Lehi Monitoring Site; (R) Senior Center Monitoring Site monitoring for PM₁₀, PM_{2.5}, ozone, VOC, PM_{2.5} speciation and Met data

Program Summary

With the assistance of Section 103 Clean Air Act funding, the Community has developed an air quality program (AQP) to address and mitigate air quality issues within the Community such as the current non-attainment designation for Particulate Matter Ten (PM₁₀) and ozone (O₃). The AQP comprises two major components including a comprehensive ambient monitoring program and also a policy and regulatory component.

AQP Capacity Building

The AQP has developed and updated an emissions inventory to identify and quantify the various air pollution sources within the Community. AQP has also established an ambient air monitoring network to monitor for criteria and toxic air pollutants. In FY2006 the AQP completed installation of Differential Optical Absorption Spectroscopy (DOAS). The DOAS is capable of continuous monitoring for toxics and criteria pollutants. The SRPMIC AQP completed the installation of the DOAS monitoring equipment in September 2006. Proper siting and installation of DOAS equipment is extremely difficult, and required countless hours of coordination among several internal SRPMIC Departments and outside agencies. The SRPMIC AQP is currently the only agency in the southwest to utilize this technology to analyze air toxics.

AQP Tribal Implementation Program and Treatment as a State

Leveraging the AQP infrastructure, the Community seeks to reaffirm jurisdictional authority for sources of air pollutants located within the exterior boundaries of the reservation, and seeks to have various Federal Clean Air Act programs and provisions delegated to the Community by applying for and gaining an eligibility determination for clean air programs through the development of a comprehensive Tribal Implementation Program (TIP). The comprehensive eligibility determination application and package have been completed and are currently under review by the Community's Office of General Counsel. The AQP plans to submit the eligibility determination package to the U.S. EPA during FY2007.

AQP Accomplishments



Figures 5-6: ESC 8832 data logger; (R) SASS sampler

- During the second quarter of FY 2006, the Senior Environmental Specialist installed an ESC 8832 data logger at the Senior Citizen's Center site. This upgraded logger will facilitate better data exchange. In addition, a precipitation gauge was installed to expand the meteorological parameters measured at the site.
- SRPMIC purchased a SASS sampler with JATAP funds and installed the sampler at the Senior Center monitoring site.



Figures 7-8: DOAS Transmitter near the Loop 101 & 202 Exchange; (R) DOAS data equipment

- The SRPMIC completed the installation of the DOAS monitoring equipment on September 21, 2006 in coordination with ADEQ, the City of Mesa, and Salt River Project. OPSIS, the equipment manufacturer, provided operation and maintenance training to ADEQ and SRPMIC AQP personnel. It is anticipated that the DOAS monitoring equipment will be operational by November 2007.
- Since the DOAS site has been established the equipment manufacturer, OPSIS, provided training on the operation and maintenance of the equipment to SRPMIC and ADEQ personnel the week of October 23, 2006. When established, SRPMIC will be the only agency in the southwest to utilize this technology to analyze air toxics.

AQP Accomplishments



Figure 9: S. Belone, Senior Environmental Specialist performing a filter exchange at the Salt River High School.

Figure 10: The new ambient temperature/ relative humidity sensor installed at the Lehi monitoring station.



- In the third quarter of FY 2006, the Early Childhood Education Center site was discontinued and the Salt River High School ambient monitoring site was established. The Salt River High School began collecting PM10 data on April 1, 2006.
- The Senior Environmental Specialist and the ITEP intern installed a new ambient temperature/relative humidity sensor at the Lehi ambient air monitoring site.
- In the fourth quarter of FY 2006, the AQP staff traveled to Sonoma Technology, Inc. for data management training. The network data collection software, E-DAS Ambient, was upgraded to facilitate data reporting to AIRNow website.

Grants & Contracts

Program Summary

The Grants and Contracts Management (GCM) program develops and manages each federal grant EPNR obtains to ensure compliance with all federal and Community regulations. The effective management of all contracts is important to guarantee a fair and ethical process from start to finish for all parties. GCM coordinates all grant-funded program reporting to the funding agencies including the progress of work plans, contractor management, and grant program budgets.

Feedlot Brownfields Cleanup and Assessment Grant Award

In May 2006, EPNR was awarded a total of \$550,000 in Brownfields Cleanup and Assessment funds from the United States Environmental Protection Agency (U.S. EPA). The grants total over \$500,000 for a three year period. Only 49 grants were awarded nationwide. SRPMIC was one of two tribal governments selected for this highly competitive grant opportunity. The project will help to fully assess and clean up the former feedlot area located within the north central portion of the Community between McDonald and Lincoln Roads, and Mesa Drive and Center Street. The funds and associated cleanup projects will provide opportunities for environmental remediation and potential economic reintegration of this site.

GCM Accomplishments

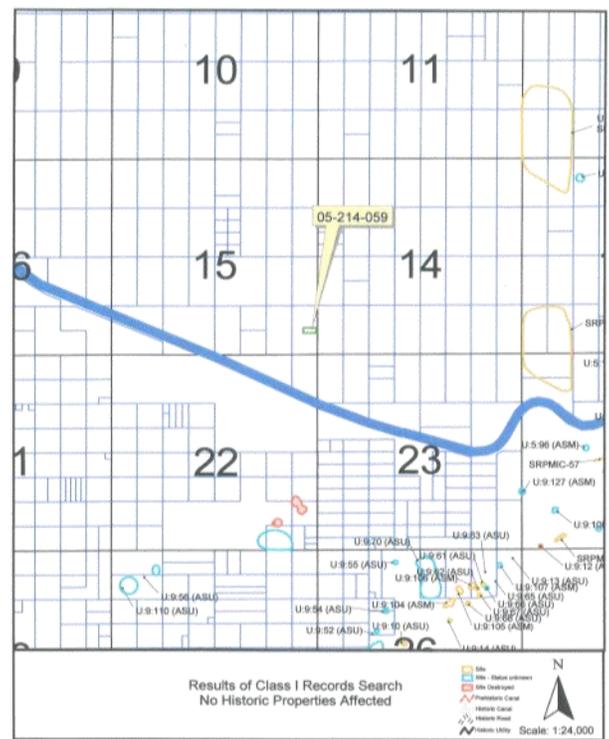
- During this fiscal year the GCM focused on learning and completing the proper procedures to utilize the SRPMIC internal accounting tool LUCY to assist in the development of contract management schedules, and grant reporting procedures and implementation.
- GCM researched possible new grants and wrote new proposals and processes.
- GCM also secured several new grants, such as the Brownfields Cleanup and Assessment Grant and the BIA Noxious Weed Grant.

Land Use Clearances

Program Summary

The Land Use Clearances (LUC) section facilitates compliance for all home sites, rights-of-way, commercial development and other ground-disturbing construction projects within the SRPMIC. LUC conducts environmental and cultural resource surveys prior to lease approval to ensure the protection of the Community's natural and cultural resources. Multi-agency collaboration is necessary to ensure compliance with applicable Federal and Tribal legislation dealing with the environment and historic preservation.

Figures 11-12: The Community's natural and cultural resources as depicted on ArcGIS mapping software



LUC Accomplishments

LUC Program staff became familiar with new ArcGIS 9.1 mapping software (Figure 11) and implemented it into their workflow processes. This newer version replaces the antiquated ArcView 8.3 system and allows for inclusion of an aerial photograph of the Community as a layer in addition to sites, projects and linear features such as canals, historic roads, power lines, etc. The new ArcGIS 9.1 will serve as an essential tool in historic preservation planning for the Community.

Natural Resources & Range Management



Figure 13: SRPMIC wild mustangs by the Verde River

Program Summary

The Range Management Program (RMP) was created as a result of a Community Ordinance set forth in 1995 which protects wild horses on the Community from sale and slaughter. It also requires RMP to reduce and prevent overpopulation, and to ensure the general health of the herds. The RMP also manages a herd of Community-owned bison, located in Clarkdale, Arizona.

Wild Horse Adoption Program

Since 2005, the Community has accepted applications from parties interested in adopting colts selected from the wild horse population. Prior to adoption, all available colts are examined and vaccinated by a veterinarian.

Those interested in adopting and caring for up to four colts may submit an application for adoption. Should the application be approved, ownership of the colt(s) is conditional for one year during which time site visits are conducted by the Program to ensure that proper care is being given to the horse(s). After completing the conditional ownership period, and upon approval of the RMP, the adopter receives a certificate of ownership of the mustang(s).

Bison Management

In 1995, the Crow Nation of Montana donated a small herd of five buffalo to the Community in appreciation for assistance that the SRPMIC had provided to that Nation. By 2007, the herd numbered 26 animals. The bison are utilized by the Community for cultural gatherings and ceremonies throughout the year, and the RMP provides support and resources to manage the herd.

RMP Program

Collaborations

The Range Management Program also provides many other services to organizations and departments within the Community, such as mentoring of youth in the Juvenile Detention Program of the Salt River Department of Corrections. The young people gain hands-on experience in the care of the Community's wild mustangs, while learning about the benefits of a strong work ethic. In addition, collaboration with the Salt River Police Department Ranger Division takes place through clearing and thinning vegetation to reduce fire hazards. The Arizona Game and Fish Department is also a close collaborator with the Range Management Program, annually monitoring the bald eagles that inhabit the Community during their breeding season.



Figures 14-15: Rescued baby javelina; (R) SRPMIC bison herd

RMP Accomplishments

- Saving and relocating animals from imminent destruction including orphaned javelina pups, turtles and a great horned owl.
- SRPMIC was inaugurated into the Inter-Tribal Bison Cooperative (ITBC), an inter-tribal not-for-profit alliance of Indian Nations whose goal is "to restore bison to Indian Nations in a manner that is compatible with their spiritual and cultural beliefs and practices."
- Researched, drafted, and submitted a comprehensive management plan for the SRPMIC bison, including a needs assessment for creating a larger, self-sustaining herd for the ITBC.
- RMP participated in a multi-agency effort to mitigate fire dangers on the Community. This included selecting specific areas to be trimmed and/or cleaned of dead and downed vegetation in collaboration with the SR Fire Department. Once the area was assessed and properly marked for cutting, a crew consisting of Range Management, Community Garden, and Engineering and Construction Services (ECS) staff began pruned the site. Several of the recreation areas along the Verde River. Poles 1, 2, 16, and 17 were thinned and cleared of dead and downed fuels during the thinning projects.

Pesticide

Program Summary

The SRPMIC Pesticide Program Environmental Specialist is a Federal EPA Inspector, which authorizes the ES to conduct federal inspections and investigations, as needed. The ES also conducts agricultural and non-agricultural inspections under Community authority, and inspects pesticide storage facilities within the Community.

Pesticide Compliance Inspections and Policy Development

Due to increased economic development within and surrounding the SRPMIC, pesticide usage has also increased. Structural, commercial and new construction (pre- and post-termiticide treatments) applications have increased within the exterior boundaries of the Community. For this reason, the SRPMIC Pesticide Program has revised its Pesticide Ordinance to address these and other growth-related issues that impact the Community. The draft pesticide ordinance and the draft structural ordinance have been approved by Office of General Counsel on April 14, 2006. The next step will be to submit the ordinances to SRPMIC Tribal council for final approval.

Integrated Pest Management (IPM)

The Pesticide Program continues to develop and implement its Integrated Pest Management (IPM) program at SRPMIC schools in cooperation with Public Works and school maintenance staff. The IPM methods for pest-proofing the Community schools include installing glue boards, tin cats, bird spikes, bird netting, fly lights and bug lights. Additionally, IPM educational outreach continues at the tribal schools with Community youth and staff members.

The Environmental Specialist will continue to foster cooperative working relationships with state agencies and the Arizona Department of Agriculture, and the Structural Pest Control Commission during their routine inspections. The Pesticide Program will continue to render technical support to other tribal nations as necessary.

Pesticide Accomplishments

The SRPMIC Pesticide Program received an outstanding review by the U.S. EPA, Region 9 for overall programmatic excellence.

Figure 16: Certificate of Programmatic Excellence from the U.S. EPA

Solid Waste

Program Summary

The Solid Waste Program protects human health and the environment by reducing risks associated with exposure to solid waste. The SWP coordinates with the Community Council, the Office of General Counsel, and Administration to approve enforcement documents and implement policies. The SWP responds to incidents in the Community involving solid waste, including hazardous materials and illegal dumping, and develops mitigation plans for their cleanup. Household hazardous waste collection and removal is also managed through the Solid Waste Program. The Solid Waste Program also coordinates with Community members to remove and recycle inoperable vehicles and waste tires free of charge for Community residents.

The Solid Waste Program monitors the regulatory compliance activities of the Community's active landfills and administers Title V Permit compliance requirements for the Community's closed landfills. Additionally, the SWP serves as the liaison between the Administration and Salt River Landfill for the development of its bioreactor operation.

Accomplishments

This year, West Nile Virus prevention efforts continued and the SWP implemented a second waste tire collection event. This event removed and recycled over 2,700 tires from Community and brings the total to over 5,000 tires removed and recycled this fiscal year.



Figure 17: Waste tires removed and recycled from SRPMIC

Water Quality



Figure 17: Photo of the Salt River

Program Summary

The EPNR Water Quality Program (WQP) has been very active in its stewardship and protection of one of the Community's most precious resources: water. Additionally, 2006 was busy with extensive development of the necessary policy and administrative infrastructure to protect and safeguard the Community's water resources for future generations. The current policies and standards are under development and evaluation:

- Surface Water Quality Standards to be reviewed by management and Office of General Counsel (OGC) prior to submitting to the SRPMIC Council for approval. These standards support the Treatment-As-State status that SRPMIC seeks to obtain.
- Treatment-As-State (TAS) document, developed concurrently with the surface water quality standards must be reviewed and approved by U.S. EPA, Region 9. Once approved by the U.S. EPA, the Community will have the authority to administer its Water Quality Programs
- Aquifer water quality standards (groundwater), which will be used for groundwater remediation purposes.
- Draft soil remediation standards, which will be used for soil remediation purposes.

WQP Database Development

Additionally, the WQP has created comprehensive databases to monitor and store data related to the health and quality of the Community's water resources and soils. These databases include:

- Groundwater Quality Database
- Soil Contamination Database
- Surface water database for the SRPMIC, which contains data from the Verde and Salt River samplings and the Cottonwood Wetland samplings.

Water Quality

WQP Capacity Building

Other WQP activities included procuring funding from the Bureau of Indian Affairs (BIA) to begin a pilot project which would remove tamarisk (an invasive, noxious weed) from the upstream portions of the Verde River, and completing the required environmental assessment for this project. Additionally, the WQP developed and implemented a standard operating procedure (SOP) for use of the WQP's monitoring equipment and also served as water quality monitoring instructors during an EPA-sponsored training on May 16, 2006.

Accomplishments

The highlight of the year was receiving the 2005 Water Reuse Project of the Year award by the Arizona Water Pollution Control Association in recognition of the SRPMIC Cottonwoods Wetland Demonstration Project.



Figure 19: SRPMIC WQP receives the 2005 Water Reuse Project of the Year from the Arizona Pollution Control Association



Earth Week 2006

Outreach Summary

Over the past three years, EPNR has coordinated Earth Week events by completing various educational outreach events with the Community schools and organizing one Community clean-up activity. This year EPNR expanded the focus of Earth Week and coordinated with other Community departments to plan and complete events in honor and celebration of the internationally-celebrated Earth Day (April 22nd).

EPNR first created an internal Earth Week Planning Committee to plan and coordinate events occurring throughout the Community. This committee comprises CDD staff members from EPNR, Economic Development (EDD), Planning & Architectural Services (PAS), and staff from the Cultural Resources Department (CRD). Many Community departments and individuals, including SRPMIC Tribal Council, SRPMIC schools, and Public Works, among others, participated in this year's events which helped to ensure that Earth Week was a memorable and worthwhile event within the Community.

Earth Day is a designated day that is officially acknowledged, both nationally and globally on the 22nd of April. This year, EPNR determined that "Earth Week" would take place from April 17-22nd, concluding on Earth Day itself with a celebratory Community Cleanup event. The theme for SRPMIC Earth Week 2006 was "Bringing Back the Balance" and consisted of the following outreach events:

- School Poster and Written Expression Contest for K-12; winners announced April 18th
- EPNR Open House/ Environmental Fair on April 18th
- Wetland Field Trip and Pole Planting on April 19th
- School Presentations in SRPMIC K-12 classes on April 20th and 21st
- Community 2nd Annual "Team Up & Clean Up" Challenge on April 22nd the 35th Anniversary of Earth Day

EPNR and others on the Earth Week Committee presented the planned activities to the Community Council in early April 2006. In addition to presentations to the Community Council and at district Meetings, information regarding Earth Week was disseminated through four *Au-Authum Action News* publications (March, April, May and June), several announcements via the SRPMIC Intranet, and via flyers and posters distributed throughout the Community

Sponsors of the activities included: P&M Nursery, Salt River Landfill, Salt River Devco, Salt River Materials Group, Agate Construction, A&A Materials, Saddleback Communication, LA Fitness, Guitar Center, Casino Arizona, Claire's and BookStar.

Earth Day 2006 Activities

SRPMIC School Poster and Written Expression Contest for K-12; Winners announced April 18th



Figures 20-21: (L) A sampling of poster entries received; (R) Trash cans decorated by the SR Kindergarten

EPNR Open House/ Environmental Fair on April 18th



Figures 22-23: AM O. Barber and President Ramos unveil EPNR's new name; (R) SES T. Montague, ES E. Anderson and ES J. Phillips lend a hand to distribute EPNR outreach materials.

Wetland Field Trip and Pole Planting on April 19th



Figures 24-25: Garden Coordinator J. Butler and AM O. Barber prepare for planting; (R) ES G. Leverette and SES K. Morehouse address the class about the Wetlands Project.

Earth Day 2006 Activities

School Presentations in SRPMIC K-12 classes, April 20th & 21st, 2006



Figures 26-27: (L) ES G. Leverette leads an experiment at the SRHS
(R) ES G. King discusses the Range Management Program's activities to attentive high school students

School Presentations in SRPMIC K-12 classes on April 20th & 21st



Figures 28-29: (L) SES K. Morehouse speaks to SR Elementary students;
(R) Liberty Wildlife introduces a Swainson's Hawk.

Community-wide "Team Up & Clean Up" Challenge, April 22nd
35th Anniversary of Earth Day



Figure 30: Participants in the 2nd Annual "Team Up & Clean Up" Challenge



Conclusion

EPNR Administration

And finally, the fourth quarter of 2006 was a time of transition with a new name and a new home for the EPNR division. Our new office location has served well for improving our communication within the Community Development Department with respect to large projects and the daily inquiries regarding status and clearance-related issues.

As this fiscal year winds to a close, we can reflect on our accomplishments for the year including an approved budget with new needs. The SRPMIC Council approved most of EPNR's FY2007 budget request, which reflects positive changes to several key positions, including transitioning the Environmental Program Supervisor position and the Environmental Engineer (Stormwater) position from grant-funding to tribal funding. SRPMIC Council also approved funding for a new vehicle for EPNR for field work, and an increase of \$5,000 to the Outreach and Education line item to expand EPNR's annual Earth Week activities.

We thank everyone for their support of our activities and we look forward to a productive 2007!