
2002 USDA Forest Service Engineer of the Year Awards

Congratulations to the following winners of the 2002 U.S. Department of Agriculture (USDA) Forest Service Engineer of the Year awards:

- Managerial Engineer Gwendolyn Nishida from the Regional Office, R-5.
- Technical Engineer Randy L. Warbington from the Regional Office, R-8.
- Engineering Technician William T. Messmer from the Wrangell Ranger District, Tongass National Forest, R-10, and for
- Engineering Applications, C. Kenneth Brewer from the Regional Office, R-1.



National Forest System (NFS) Associate Deputy Chief Gloria Manning (far left), Director of Engineering Vaughn Stokes (far right), and NFS Associate Deputy Chief Gail Kimbell (center) are pictured with the 2002 Engineers of the Year. Ken Brewer, Randy Warbington, Bill Messmer, and Gwen Nishida (left to right) proudly display their award plaques.

The winners, selected from a list of excellent candidates, were honored at the USDA 2002 Forest Service Engineer of the Year award luncheon held in the Secretary of Agriculture's Dining Room in Washington, DC, on April 7, 2003. USDA Forest Service Associate Chief Sally Collins, National Forest System (NFS) Associate Deputy Chief Gail Kimbell, and NFS Associate Deputy Chief Gloria Manning welcomed the winners and applauded their achievements. The winners' families also attended the ceremony. Director of Engineering Vaughn Stokes presented each winner with a special plaque and cash award, commending them for their outstanding contributions. A summary of the winners' accomplishments appears on the following pages.

Congratulations also are extended to the regional candidates for the 2002 Forest Service Engineer of the Year awards. The finalists in all categories include the following:

Managerial Engineering	Technical Engineering	Engineering Technician	Engineering Applications
Arlin Krogstad, R-1	Beverly Young, R-1	Ralph Braden, R-1	Steve Hall, R-3
Terry Wong, R-2	Phillip Fessler, R-2	Adam Casados, R-3	Ron Broderius, R-4
Nancy Taylor, R-3	Dennis Stuhr, R-3	Ron Lange, R-4	Ken Surface, R-5
Aaron Howe, R-4	Thomas Gillins, R-4	Richard Ashe, R-5	Bob Goetz, R-9
Craig Miller, R-6	John Strauber, R-5	Dan Suptich, R-6	
Raleigh Meadows, R-8	Sandra Wilson-Musser, R-6	Dave Armstrong, R-8	
Roger Pekuri, R-9	Michael Knutson, R-9	Russell Christensen, R-9	
Larry Dunham, R-10	Ed Gilliland, SDTDC		

Gwendolyn Nishida

2002 Managerial Engineer of the Year



Gwendolyn Nishida is an engineering management analyst on the Region 5 engineering staff in Vallejo, CA. She has established a reputation as a seasoned engineer who is an innovative proponent of using nontraditional outreach techniques to attract a diverse group of highly qualified, motivated individuals to strengthen the U.S. Department of Agriculture (USDA) Forest Service engineering program and to improve the quality of life through engineering excellence.

Region 5 presented Gwen with the Managerial Engineer of the Year award, after honoring her with an extra effort spot award in 2001, selecting her as the Regional Office “TOP” supporter in 2000, and awarding her a Certificate of Merit as regional infrastructure manager in 1998. The Tahoe National Forest recognized Gwen with an extra effort spot award in 2000.

From 1990 through 1999, while assistant forest engineer on the Angeles National Forest, Gwen conducted numerous outreach events at preschools, as well as elementary, middle, and high schools. She hosted outreach events for on-forest youth camps and for the Santa Monica Mountains Conservancy outreach events, even convincing her husband to don the Smokey Bear costume for the preschoolers. Recognition from the Angeles National Forest included a 1991 quality-step increase and a 1994 Certificate of Merit. In 1995, Gwen became the first recipient of the African American Employee of the Year award for the Angeles National Forest.

Gwen’s long-term commitment to fostering career opportunities for students is chronicled in certificates of appreciation from Pomona High School (1999), Vineland Elementary School (1997), and Arrowview Middle School (1996 and 1997). Thank-you letters from the Mountain Education Program (1992) and the USDA Forest Service’s Region 5 director of personnel management (1991), and a letter of appreciation from the Inner City Youth Institute, Pacific Northwest Region, in 1998 further document her dedication.

Current responsibilities for Gwen include program planning and decisionmaking for the Region 5 public use and facilities (PUF) leadership team. The team includes the directors of recreation and engineering, deputy director of recreation, assistant regional engineer, and budget program managers for both staffs. The two staffs manage approximately \$150 million in appropriated and unappropriated funds.

In spring 2002, Gwen completed the A-76 competitive sourcing inventories for the PUF staff. Her keen interest and immersion in the process led to targeted training for greater responsibilities; she will lead the competitive sourcing effort for Region 5’s recreation and engineering staffs and serve as

a regional team member to complete the fiscal year (FY) 2003 competitive sourcing study.

Gwen validated information for the 810 occupational classification series in the Avue electronic program for the region and the Washington Office (WO) Engineering staff. She employed Avue for classification and staffing needs, and encouraged forest engineers to use the tool by sharing her expertise.

In 2002, the Personnel Resources and Development Center of the U.S. Office of Personnel Management (OPM), selected Gwen as a subject matter expert (SME), knowledgeable and experienced with 1 or more of the 800 occupation classification series for 1 of 21 nationwide focus groups. The SMEs reviewed the tasks and competencies in which they had expertise, ensured that they were clearly written and adequately covered, and provided appropriate feedback.

Gwen also oversees engineering construction certification and training coordination for Region 5's engineering and recreation staffs. She continues to provide technical counsel to the national certification coordinator. Her customer service orientation is well suited to encouraging engineers to embrace the newly implemented electronic program. Gwen shares her technical expertise with engineers and recreation specialists from the office and the field, as well as with members of the region's natural resource management staff and staffers from the regional forester's office.

In another certification role, Gwen implements the new Department Regulation (DR) 5001-1. In 2000, the WO requested that Gwen and another regional engineering certification officer review the draft DR-5001. She has heightened awareness of these program changes in the region and worked closely with the regional acquisition management staff to finalize the USDA Forest Service supplemental directive for implementing the DR.

Also on the certification agenda is consideration for eliminating the USDA Forest Service buildings exam and replacing it with international residential code (IRC) certification. WO program managers chose Gwen to participate on a national team to evaluate the advantages and disadvantages of restructuring the certification program. The team will provide a recommendation to the regional engineers.

Gwen further exemplifies her commitment to a viable certification program by maintaining her own construction certification. Her designation as Contracting Officer's Representative (COR) on one of the research staff's construction projects helps her to keep up with breakthrough technology and construction techniques.

The Capital Investment Program (CIP) within Region 5, in which an interdisciplinary working panel reviews, advocates, and evaluates project proposals that meet National Environmental Policy Act (NEPA) regulations, is another critical regional project. Gwen volunteered substantial time and energy to evaluate project proposals on Region 5's behalf, which earned her an extra effort spot award in 2002.

As a member of the Region 5 recruitment team and a recognized resource for nationwide recruitment efforts, Gwen was nominated by the region to compete nationally as recruiter of the year 2002. Her excellent working relationship with the regional office human resource management (HRM) staff and with human resource specialists at the forest level for recruitment, relocation, and retention (3Rs) enables Gwen to convene and conduct evaluation panels for vacancies within the engineering and recreation staffs.

In 2000, Gwen convinced the regional staffing specialist to better use time, effort, and funding by advertising entry-level civil engineer vacancies in a regionwide announcement for four forests and the San Dimas Technology and Development Center (SDTDC). Of the 14 applicants, approximately 25 percent were ethnic minorities.

From 1994 to 1996, Gwen represented Region 5 on the Minority Engineering Program Industry Board at California Polytechnic Institute at Pomona. Gwen and her husband participated in many outreach and recruitment efforts, personally funding sponsorship of several students for an "Evening with Industry" and supporting a student scholarship.

In FY 2002, the American Society of Civil Engineers (ASCE) initiated a joint project with Region 5 to educate its membership in the greater Los Angeles area about work performed by civil engineers in the USDA Forest Service. As project coordinator, Gwen previewed career options for the ASCE membership and enhanced USDA Forest Service outreach capabilities. She worked with the forest engineer of the Angeles National Forest to present an overview of engineering in the Agency and to host a tour of noteworthy USDA Forest Service construction projects in the Los Angeles area.

Gwen is a leader in effectively applying old and new employment strategies. In 2000, she pioneered the use of the 3Rs bonuses and allowances to research and shepherd a number of staff requests through the approval process (earning her the 2000 "supporter of the year" award from forest engineers). By 2001, Gwen was working with Region 5 forests to employ the 3Rs. Also during 2001, Gwen resurrected the use of the "superior qualifications" appointment authority to hire individuals at above-entry-level status. Regions 3, 6, 8, and SDTDC (from which she received a Certificate of Merit in 2002), worked with Gwen to apply these techniques. Gwen also initiated work with a USDA Forest Service contractor to plan and arrange the 2002 student orientation while a newly assigned HRM staffer mastered his new responsibilities.

Gwen also seeks to nurture potential engineers by working through MentorNet, a nonprofit electronic industrial mentoring network for women in engineering and science. She mentored a young African American female civil engineering student studying at South Carolina State University.

Gwen's perceptive analysis and obvious commitment to student outreach programs persuaded the WO Student Educational Employment Program (SEEP) manager to reinterpret the guidelines to enhance program flexibility. Gwen personally provided bedding and assorted household items to students who rented unfurnished apartments. She loaned funds to one student for his first month's rent and paid an \$800 security deposit for another student.

Her energetic efforts to value diversity in outreach and recruitment, as espoused by the regional engineer and the USDA Forest Service chief, are well known. She has fostered interest in USDA Forest Service employment from underrepresented communities through posting advertisements with minority-sponsored professional organizations and in local newspapers that effectively reach underrepresented populations.

Gwen has posted Demonstration Project (DEMO) advertisements electronically and in print through the Society of Hispanic Engineers (SHPE), the National Society of Black Engineers (NSBE), the National Association of Asian American Professionals (AAP), the American Indian Science and Engineering Society (AISES), the American Institute of Architects (AIA), and the American Society of Civil Engineers (ASCE). She has also posted on Yahoo.com Job Board and JOBTRACK.com (a service that posts jobs online to more than 1,000 colleges and universities nationwide).

In 2001, the regional engineers established a national taskforce to develop a strategic plan for immediate and long-range recruitment and retention of engineers and related skills occupations. Gwen was appointed to the Engineering Workforce Strategy task force that worked in tandem with the National Recruitment Council. The task force-prepared draft was presented to the regional engineers in October 2001.

Also in 2001, Gwen discovered new regulations on the OPM Web site that would allow repayment of recruitment and retention incentives for student loans. She actively sought information to implement the new regulations from the Region 5 HRM director and the WO program specialist and touted its potential value. The implementation guidance, originally slated for FY 2003, was released in May 2002.

Gwen shared highlights of the Draft Engineering Workforce Strategy report with representatives of other agencies at the May 2002 meeting of the Professional Council of Federal Scientists and Engineers. At the meeting, Gwen learned of another potential recruitment tool, the Career Intern Program. In early summer of 2002, the USDA released the implementation guidelines. Gwen is working with the WO SEEP manager, through the region's HRM specialist, to pioneer the use of this new recruitment tool in the region.

Because of Gwen's efforts, Region 5 significantly advanced toward its workforce-hiring goal. She placed 12 of the 13 students requested by the regional forester for the engineering Student Cooperative Employment Program (SCEP) and successfully placed a student in another unit. Three African American males, four nonminority males, one Hispanic male, one nonminority female, two Asian males, and one Asian female, as well as one nonengineering student and several African American males in wildlife biology became USDA forest Service employees. In 2002, Gwen also helped place, and subsequently converted, two engineering SCEPs—one from Region 1 to the Cleveland National Forest and one from Region 6 to SDTDC.

To overcome the hurdle of providing housing during the summer months for students in the SCEP and STEP, as identified by the forests, Gwen personally contacted apartment managers, hotels, and temporary housing agencies, and secured housing for students on a number of units. She

worked with the regional purchasing agent to ensure that rents were paid. Gwen negotiated to meet housing or quarters requirements with quarters program managers to include the apartments in the quarters system, and facilitated quarters deductions from student paychecks by preparing SF-52s for the supervisors to submit to HRM. She expended extra effort on these forest responsibilities to enhance the success of the student employment programs.

Gwen's community service mirrors her dedicated Agency service. As a former member of a church building committee, she advised the church elders on proposed building projects. She and her husband worked with architects, engineering professionals, and city building officials on behalf of the church.

Gwen is also an advocate for community safety, especially for the neighborhood children. She serves as block captain for the community neighborhood watch and edits the quarterly newsletter, the Montevino Grapevine, in her housing development.

An avid collector of dolls, toys, and children's books, Gwen has more than 4,000 dolls and approximately 3,000 children's books. In 1997, she and her husband purchased and still own a commercial building that serves as their church's youth center and now accommodates another local minister for Bible studies and prayer meetings.

Gwen put her children's books to work in the "City of Readers" program for the City of San Bernardino. In one large room of the Nishidas' commercial building, she started and maintained a reading club for children ages 3 to 12 until accepting her Region 5 position in November 1999. She wrote a quarterly newsletter, the Bookmarkers, to publicize the club.

During the 1996 school year, Gwen volunteered for the School Site Council at her son's school, Arrowview Middle School. The council, which consisted of parents, interested community members, faculty, and student leaders, evaluated and selected proposals for spending special State funding allocations. Gwen supported proposals to expand the program for purchasing student computers and improved security for the computer lab. She continued her council work even after her son's graduation from Arrowview in 1998 by helping to review the school's effectiveness in teaching bilingual education. She was honored by the City Unified School District for her contributions to the council.

Gwen eagerly pursues professional development. She enrolled in evening classes to familiarize herself with personal computers when the Agency mandated their use. She avidly pursues inservice training and has completed 2 years of a 3-year USDA Graduate School certificate of accomplishment program for management analysis.

Gwen Nishida is dedicated to encouraging a diverse group of students, young adults, and professionals in a variety of fields to develop their full potential as engineering professionals. In her service to the community, in her professional affiliations, and in her USDA Forest Service responsibilities, she is a champion of the tangible contributions that the engineering profession contributes to the quality of life.

Randy L. Warbington

2002 Technical Engineer of the Year



Randy L. Warbington is the facilities engineering program manager for Region 8 in Atlanta, GA. Throughout his career Randy has strived to incorporate new ideas and concepts into his work by constantly searching for and implementing better, more practical solutions to facilities issues through industry technical papers, college and university training, and hands-on experience.

Randy's interest in construction began early, working with his father, a drywall contractor, at every opportunity. While participating in a variety of family projects, he constructed several houses, including his current residence, before, during, and after attending Abraham

Baldwin Agricultural College. After graduating with an associate's degree in forest technology, he studied engineering for a year at Georgia Southern College, worked as a surveyor and engineering technician for several consulting engineering firms, and later worked for a county water and sewer department. Randy married and successfully pursued a 1979 University of Georgia (UGA) Bachelor of Science (BS) degree in forest resources. He began his USDA Forest Service career in 1978 as a summer student on the Chattahoochee-Oconee National Forests. After graduating, Randy worked for 3 months as an intern forester with the International Paper Company. He enrolled in the engineering program at UGA, completing his academic work and serving as a USDA Forest Service engineering coop student. Upon receiving his 1981 BS in agricultural engineering, he returned to the Chattahoochee-Oconee National Forests full time. Randy progressed from a trainee to a professional level while working in a variety of jobs there, including stints in roads (preconstruction, construction, and transportation planning) and facilities. In 1987, Randy became an Atlanta Regional Office staff engineer responsible for heating, ventilation, and air conditioning (HVAC) and electrical design. In 1990, he earned a license to practice civil/sanitary/structural engineering in the State of Georgia. Randy has worked in the facilities arena in Atlanta ever since, serving as unit leader for infrastructure design and managing the facilities, environmental, bridge, and construction certification programs from 1996 until becoming facilities program manager in 1999.

He has received numerous awards throughout his career, including Superior Performance Awards for the years 1989, 1991, 1992, 1993, 1994, 1996, 1997, 1998, 1999, 2000, 2001, and 2002.

While on the Chattahoochee-Oconee National Forests, Randy partnered with coworker Dan McReynolds to create a set of automated field design and data collection programs for laying out and staking timber haul roads in mountainous terrain. Several of the Region 8 Appalachian forests ran these

HP-41CV programs for about 10 years. Randy and Dan wrote a 1987 *Engineering Field Notes* article describing this system, which was showcased at the Ithaca, NY, 4th International Low Volume Roads Conference.

Over the past decade Randy has designed many innovative and complex HVAC systems in various USDA Forest Service buildings. His HVAC systems include the following: hydronic radiant floor and infrared radiant heating systems; indirect evaporative cooling, under-slab forced air distribution, and heat-exchanger ventilation systems; welding shop ventilation, commercial kitchens with compensating hoods, laboratory ventilation systems, carpenter shop dust collection systems, and direct gas-fired makeup air systems for a Job Corps paint shop; condensing and modulating gas-fired boilers, energy-efficient chillers, advanced “glazing systems,” “suntracker”-controlled lighting, and radiant barriers; dehumidification, building moisture control, HVAC and halon systems for protecting sensitive documents; and NFPA 13, 13R, and 13D fire-suppression systems. Few USDA Forest Service engineers have implemented this many on-the-ground applications of practical technology for a safer, more sustaining, and more comfortable work environment.

Randy also leads the Agency in the practical application of ground-coupled heat pump systems. Since his first ground-coupled system installation in 1990 for the Daniel Boone National Forest, Morehead Ranger District (RD) office, he has designed systems for the Ouachita National Forest, Choctaw RD office; the Chattahoochee-Oconee National Forests, Oconee RD office; and the Davy Crockett RD office in Texas. He championed the technology throughout the Southern Region and wrote a 1993 *Engineering Field Notes* article describing Region 8’s experiences with the ground-coupled systems. A dozen of those systems are currently in place or under construction throughout the USDA Forest Service national forests.

In addition to working in HVAC and mechanical engineering, Randy has designed a wide variety of electrical systems: single- and three-phase services with up to 1,200-amp emergency and standby generator systems; uninterruptible power supply systems; transient protection and lighting protection systems; “advanced” grounding electrode systems; elevators, static and rotary phase converters, and power factor correction capacitors; fire alarms and detection and security systems; and sewage lift stations.

Agency facilities that Randy designed include many full-service campground water and electrical systems located in the Southeast; an Olympic-sized, zero-depth entry swimming pool; and several onsite sewage treatment systems (drain fields and sand filters). Currently, he is working on air tanker bases, heliports, and other facilities in support of the fire program, including vertical-volume recovery systems for detention and treatment of storm water in areas of the country with sandy soils and high water tables.

Randy’s peers, supervisors, and national program managers consistently consult him for advice and counsel for his knowledge and common sense approach to difficult and complex issues. For example, to improve the skills and credibility of the USDA Forest Service workforce servicewide, Randy works to develop and enhance construction certification and encourage the professional registration of engineers.

Since 1990, coworkers Bill Speer and Ron Stanley, have collaborated with Randy to prepare and maintain the buildings certification exam. Randy is leading the effort to adopt some components of the International Code Council (ICC) to further improve the training and competence of USDA Forest Service building inspectors.

As an advocate of the professional registration of engineers, Randy wrote a draft of Forest Service Manual (FSM) 7100, a comprehensive document of issues related to professional registration for Agency engineers. He is a team member for a national initiative to refine the proposal before making final recommendations to the regional engineer for Region 8.

Since becoming the program manager for facilities in the Southern Region, Randy has used an interdisciplinary team to formulate a 5-year construction program using the “Choosing by Advantages” methodology. Each year he leads a number of Choosing by Advantages sessions for both the National Forest System and research staffs. His efforts have made this decisionmaking methodology a household word throughout the Agency.

In terms of overall project dollars, Randy plans and oversees the largest and most diverse facilities program in the Agency. He has increased the use of architectural/engineering (A&E) contracting and promoted design-build methods in an effort to “Do More—Better—With Less.” These contract techniques have migrated to the forest level, where using design-build methods is becoming more accepted and better understood, thus yielding more for the dollar, on the ground. His advice and counsel is sought after on A&E-related issues, such as the master plan for Mississippi’s Okhissa Lake Project.

Randy is the driving force in the vision, negotiation, development, and actual construction of the Southern Region air tanker base program. He has initiated work with airport authorities in Chattanooga, TN; Fayetteville, AR; and Lake City, FL, to build three additional bases. As the contact for all associated staff areas, including procurement and fire, he and the national air tanker base coordinator work together to ensure that the program is proceeding smoothly and on schedule.

While serving as unit leader, Randy created a “Customer Service and Teamwork” performance element for unit employees. He edited the R8 Architecture and Engineering Services Guide, the source for basic specifications for in-house work and for Region 8’s multidisciplinary A&E service contracts, which have been in use for the past 10 years.

In 1999, as dean of the very successful Eastern/Southern Region University, Randy added engineering-related courses to the curriculum and increased the level of program participation. He has initiated many external training sessions for Region 8 employees, primarily related to building science and codes, and created and taught several sessions of “Electrical Design and Construction” for the Agency. The course workbook is still used throughout the region. Randy also wrote the Region 8 FSM Supplement 7600 Electrical Engineering and was active on a committee to develop this document into FSM 7600, the Agency policy and direction for electrical engineering.

Over the years Randy has always jumped at the chance for professional development. He has been a member of the National Association of Civil Engineers for a number of years, and in October 2002 became ICC-certified as a residential building inspector, completing exams in building, electrical, plumbing, and mechanical inspection. Randy has been certified in most of the USDA Forest Service construction contract administration and technical categories.

Randy and his wife, a special education teacher at Canton Elementary School, have two teenage daughters at Cherokee High School. Randy has worked in the local Community Club as treasurer for 2 years and as a youth basketball coach for 5 years. He is a longtime member of the Mt. Zion Baptist Church orchestra, where he plays piano, keyboard, guitar, and banjo. Randy continues to enjoy church projects such as rehabilitating small church facilities in upstate New York.

Randy L. Warbington has excelled throughout his career in adapting, developing, and engineering better applications for safer, more sustainable, more comfortable facilities by applying knowledge derived from industry technical papers, college and university training, and hands-on experience. Coworkers and peers within the USDA Forest Service, associates in other agencies, professionals in the private sector, and individuals in his community recognize his dedication to seeking and ensuring high-quality workmanship.

William T. Messmer

Engineering Technician of the Year



William T. Messmer is the head of the Wrangell Ranger District staff, Tongass National Forest, in Wrangell, AK, in Region 10. Bill is an acknowledged technical expert with outstanding contributions in road design, contract preparation, and roads management.

Throughout his career, Bill has developed, applied, and shared new technological ideas and concepts. Often he has been selected to lead certification panels and participate in special roads committees to develop regional standards and to review and recommend processes and approaches for implementing road construction and maintenance strategies in Region 10.

His extensive field investigations on beaver behavior and habitat preferences have established Bill as a recognized expert on beaver control structures for culverts on the Wrangell Ranger District and as the only Tongass employee to receive the Beaver Eradication Award. Bill shares his accomplishments and challenges with his coworkers on the forest level. He has incorporated data from his extensive field investigations in designing devices to control and minimize damage to roads.

Bill was instrumental in developing hourly equipment rental performance contracts to foster increased production and lower costs for road maintenance. The contracts are now in use for all districts in the Tongass National Forest. These flexible contracts cover a host of maintenance needs and have saved the Government substantial funds over the years.

Sustained, exceptional engineering support for the USDA Forest Service's ecosystem and resource management distinguishes Bill's nearly 30 years of work as an engineering representative on timber sales (TS), often on several districts at the same time. He is a master performer, managing whatever contract is required to implement district work. Resource specialists value his extensive background, insight, and counsel for engineering concerns and arenas well beyond the engineering program. He has mentored many young engineers and technicians, teaching them how to locate, design, and build roads that meet all resource needs. His commitment carries over to work with facilities, trails, and numerous other activities that are reflected in the best-managed district engineering program of the Tongass National Forest.

On several TS development projects, Bill was selected as the interdisciplinary team (IDT) leader for his ability to work well with many different disciplines and individuals with contrary opinions and to resolve difficult issues

quickly. His awareness of roles and responsibilities at all levels of the organization and his wide range of skills, open-minded approach, and excellent communication skills make him an effective group leader. Bill has mentored, advised, and assisted numerous people throughout his career in his role as an equal employment opportunity (EEO) counselor and civil rights representative on the forest's Civil Rights Action Group.

Although most of Bill's career has been at the district level, his ability and credibility as an engineering professional enable him to relate well at all levels of the organization. He has contributed significantly to the cross-pollination of ideas for improved processes and project results regionwide. His contributions in road design, contract preparation, and roads management are displayed in the work of the many engineers and technicians he has trained and in the condition of the roads and facilities on the Wrangell Ranger District, which are second to none.

Bill has a solid record of outstanding community service through public office, committee memberships, and plain hard work. He received a Distinguished Service Award for being an outstanding school board member from the Wrangell Board of Education and was named Member of the Year by the Wrangell School Board for 1996. For 8 years, from 1988 to 1999, he was president of the Wrangell School Board. He also received the State Superintendent's Award from the Alaska School Board.

Bill also served on the Wrangell Planning and Zoning Commission from 1978 to 1980; lobbied for the city as a member and past chairman of the Wrangell Legislative Liaison Committee through 2000, as well as mentoring new members; and completed a term on the Wrangell City Council from 1999 to 2000. His affiliations include membership in the Island of Faith Lutheran Church and envoy membership in the Xi Phi Chapter of Beta Sigma Phi.

To meet his social needs and those of his community, he has been a member of the Benevolent and Protective Order of the Elks #1595 since 1978—on the steak committee as cook for 22 years, as chaplain for 5 years, and currently as a trustee. (He was named Elk of the Year in 1986.) Bill is a charter member of the Wrangell Gold Club and member of the tournament committee. In cooperation with the Wrangell Chamber of Commerce, he has chaired the Fourth of July Logging Show, announced logging events for many years, and sold tickets for the Fourth of July Royalty Committee. He also serves on the Stikine Sportsmen board of directors.

William T. Messmer's contributions in road design, contract preparation, and roads management; his ability to share those concepts and practical applications; and his willingness to work long and diligently to serve others have earned the respect of his coworkers and peers within the USDA Forest Service, with other agencies, in the private sector, and within his local community.

C. Kenneth Brewer

2002 Engineering Applications Employee of the Year



C. Kenneth Brewer is a remote sensing specialist with the regional engineering geospatial group in Missoula, MT. For more than 2 decades, Ken has amassed a long list of awards from the USDA Forest Service, other agencies, and outside groups for remote sensing and ecological modeling applications to support ecosystem and resource management and implementation.

From the USDA Forest Service, Ken received special recognition from the regional forester in 1988 and from individual ranger districts (RDs) in 1990, 1991, and 1994. USDA presented Certificates of Merit and cash awards to Ken in 1986, 1987, 1989, 1996, and 1997 for contributions to the Interior Columbia Basin Ecosystem Management

Project, the regional strategic planning strategy, integrated resource and National Environmental Policy Act (NEPA) analysis, and analysis of timber stand data and mountain pine beetle mortality modeling. In addition, he was honored by the University of Montana in 2000 with the President's Award of the Bertha Morton Fellowship, by the Society of American Foresters in 1994 for Outstanding Service to the Society, by the Montana Society of American Foresters as Forester of the Year in 1991 and 1993, and with the First Line Supervisors Safety Award, Tally Lake RD, in 1987.

Through conference presentations, regional training programs, technology transfer service visits, and published documents, Ken shares concepts for remote sensing and ecological modeling applications to support ecosystem and resource management and implementation. He has pioneered in implementing and concept proofing of E-cognition software, which is currently being used in Region 1's vegetation mapping, R1-VMP. R1-VMP uses E-cognition software for the image segmentation of Landsat 7 TM imagery.

Ken also handles technical applications support for ecosystem and resource management for the USDA Forest Service. He chaired the Vegetation Council in 2001 and participated in the Inventory and Monitoring Working Group and Ecosystem Management Core Team for the Northern Region in 1998. He also supported teams for the FS 2090 Manual and Handbook revisions in 2002, for National Remote Sensing in 1998, and for the Interior Columbia Basin Ecosystem Management Project in 1996. Currently, he is involved with vegetation mapping for the western Montana and northern Idaho portion of the Northern Region.

Ken has consistently used an interdisciplinary approach regionwide by involving silviculturists, ecologists, wildlife biologists, and soil scientists in project design and development to accomplish the Agency's mission effectively. He is well known for his guidance in developing, writing, and promoting consistency on the National Vegetation Classification and Mapping protocol development team and in resolving longstanding vegetation classification issues through his leadership of the Northern Region Vegetation Council.

Ken's community also has benefited from his dedication. For many years he has been involved with volunteer fire departments, both as a member and as a trustee. He has been a member and president of his local church board, has coached youth soccer teams and is a certified referee for youth and interscholastic programs; and has served as a resource advisor for the Flathead Land Trust.

To support international development programs, Ken volunteered in 1992 as an agro-forestry/land reclamation advisor for the Future Forest Foundation in Honduras, Central America. In 1994 he provided silviculture and genetics instruction for the Department of Forestry in Belize, Central America.

Ken is active in a variety of professional groups, such as the Society of American Foresters, where he has served as the Montana Society Science and Technology Committee Chair, as the Flathead Chapter Chair, and as a member of the Montana Society Executive Committee. Other memberships include the National Forest Ecology Working Group; the National Remote Sensing Working Group; the American Society of Photogrammetric & Remote Sensing; the Ecological Society of America; and the American Water Resources Association.

Ken has kept his skills up to date through continuing education. He earned a Masters degree in 1989 and has nearly completed his Ph.D. on his own time, while working full time for the Agency. He also serves as an adjunct faculty member for the Boise State University Graduate School. As a peer-reviewer for Springer-Verlag publishing and for Photogrammetric Engineering and Remote Sensing (the journal of the American Society of Photogrammetric & Remote Sensing), Ken continues to assimilate state-of-the-art concepts and apply new technology in his own career.

Ken has written or coauthored many articles for technical journals and peer-reviewed publications, such as those listed below, to share the concepts, development, and applications of new technology.

Brewer, K., D. Berglund, C. Jacobson, and J. Barber. 2002. "Northern Region Vegetation Mapping Project." In Proceedings of the Ninth Forest Service Remote Sensing Conference. Edited by Jerry Dean Greer. American Society of Photogrammetry & Remote Sensing.

Gmelin, M., and K. Brewer. 2002. "Operational Change Detection-Based Fire Severity Mapping Using Landsat TM+ Data." In Proceedings of the Ninth Forest Service Remote Sensing Conference. Edited by Jerry Dean Greer. American Society of Photogrammetry & Remote Sensing.

Brewer, K., C. Winne, R. Redmond, D. Opitz, and M. Mangrich. In review. "Classifying and Mapping Wildfire Severity: A Comparison of Methods." *Photogrammetric Engineering and Remote Sensing*.

Brewer, K. 2002. (July/August) "Plowing Through the Challenges of Technology Transfer." *Imaging Notes: The World's Guide to Commercial Remote Sensing*. 17(4): 22.

Jensen, M.E., I. Goodman, N.L. Poff, P.S. Bourgeron, and C.K. Brewer. 2001. (October) "Effectiveness of Biophysical Environment Criteria in the Hierarchical Classification of Drainage Basins." *Journal of the American Water Resources Association*. 37(5): 1155-1167.

Coppin, P., K. Nackaerts, L. Queen, and K. Brewer. 2001. "Operational Monitoring of Green Biomass Change for Forest Management." *Photogrammetric Engineering and Remote Sensing*. 67(5): 603-612.

Jensen, M.E., and P.S. Bourgeron, tech. eds. 2001. "Ecological Classification and Mapping of Aquatic Systems." In *A Guidebook for Integrated Ecological Assessments*. New York: Springer-Verlag.

Gmelin, M., and K. Brewer. 2001. "Mapping Fire Severity and Redelineating Timber Stands on the Bitterroot National Forest Following the Fires of 2000." In *Proceedings of the USDA Forest Service Geospatial Conference*. USDA Forest Service Electronic Publication.

Brewer, D., K. Brewer, and L. Queen. 2000. "Monitoring Change in Forest Ecosystems: Satellite Remote Sensing or Aerial Detection Surveys and Stand Records." In *Remote Sensing and Geospatial Technologies for the New Millennium; Proceedings of the Eighth Forest Service Remote Sensing Conference*. Edited by Jerry Dean Greer. American Society of Photogrammetry & Remote Sensing.

USDA Forest Service Advisory Team. 1999. "Implementation of Remote Sensing for Ecosystem Management." *USDA Forest Service Remote Sensing Applications Center*. EM-7140-28.

Brewer, K. 1999. *Taxonomic Classification Logic and Rules for Forest Vegetation of the Northern Region*. Northern Region Electronic Publication.

Jones, J., K. Brewer, G. Enstrom, and J. Caratti. 1998. *Documentation of the Modeling of Potential Vegetation Settings and Vegetation Response Units Using Topographic Variables*. Northern Region Electronic Publication.

Jensen, M., I. Goodman, K. Brewer, T. Frost, G. Ford, and J. Nesser. 1997. "Biophysical Environments of the Basin in an Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins." *General Technical Report PNW-GTR405*.

Quigley, T.M., R.W. Haynes, and R.T. Graham, tech. eds. 1996. "Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins." *General Technical Report PNW-GTR382*.

Science Integration Team. 1994. Scientific Framework for Ecosystem Management in the Interior Columbia River Basin. Interior Columbia Basin Ecosystem Management Project.

Brewer, K., and P. Callahan. In review. "Interior Columbia Basin Watershed Delineation Guidelines." General Technical Report PNW-GTR000.

Kenneth Brewer's professionalism, commitment, attention to detail, and leadership in conceptualizing and developing workable solutions to the application of remote sensing and ecological modeling technology have earned the respect of his coworkers and peers within the USDA Forest Service, with other agencies, and throughout the private sector.