

EPAC
Engineering Awards
Guidance Booklet

2022



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Purpose of Booklet

This awards booklet was written to provide additional information on the EPAC spring and fall awards in hopes of improving the prospects of deserving engineers receiving these awards. Please use this booklet as a reference to what awards exist and as a guidance document on how to write high quality award nominations. There are general tips as well as example write-ups and narratives (EPAC and Corps Awards). If you think someone deserves an award, we want to make sure the write-up is as strong as possible to help them improve their chances at being recognized.

The EPAC awards are highly competitive (11 awards for 600+ engineers). Each EPAC Award historically has had several nominees. The top nominees are typically a fraction of a point apart from the awardee. Therefore, if someone nominated isn't the awardee don't give up. Consider using the write-up and modify it for other similar awards. There are plenty of awards that have similar criteria and if you nominated someone for an EPAC award, you can modify that write-up to also nominate them for an individual honor or an organizational award such as:

- Federal Agency awards
- Commissioned Officer awards;
https://dcp.psc.gov/CCMIS/COAP/COAP_award_criteria_m.aspx
- AMSUS awards
- SAME awards
- Engineering Professional Organization awards (ASCE, NSPE, etc.)

Vise-versa, if you know someone who was nominated for an award listed above, rework the write-up and nominate them for an EPAC award! Make sure to read the criteria and write-up requirements for each award and tailor each write-up to match that awards criteria. Don't just submit the same write-up, a common pitfall the Awards subcommittee has witnessed during past award cycles.

Along with the booklet, the EPAC Awards subcommittee can assist in reviewing drafts of write-ups for both EPAC and non-EPAC awards to improve the quality and prospects of an award nomination. Please feel to reach out to the EPAC Awards subcommittee Chair or Vice Chair at any time for assistance with awards.



Quick Reference of All Awards

SPRING EPAC AWARDS (Call for Nominations in January):

Roger H. Lynch Outstanding Young PHS Engineer Award: Recognizes a junior level civilian engineer (GS-11 or lower) within an HHS agency of the PHS who has demonstrated exemplary work with specific accomplishments that advance the mission of their agency.

RADM Ian K Burgess Outstanding Young PHS Engineer Award: Recognizes exemplary work of a junior engineer who is a Junior Commissioned Officer of the USPHS (03 or lower) that has demonstrated exemplary work as evidenced by specific accomplishments toward the mission of the USPHS Commissioned Corps.

RADM John C. Villforth Leadership Award: Acknowledges outstanding engineers who exemplify and excel in leadership, professional conduct, and are committed to constant improvement in exhibiting the highest degree of character, technical excellence and competence.

RADM Robert C. Williams Engineering Literary Award-Peer Reviewed Category: Recognizes an outstanding written work by an engineer that was peer reviewed and published.

RADM Robert C. Williams Engineering Literary Award-Open Category: Recognizes an outstanding written work by an engineer that was published.

FALL EPAC AWARDS (Call for Nominations in August):

PHS Engineer of the Year: Recognizes a Commissioned Officer of the USPHS or Civil Service Engineer who has demonstrated outstanding leadership, innovation, dedication and service to the Federal Agency to which the Engineer is assigned.

PHS Engineer Responder of the Year: Recognizes a Commissioned Officer of the USPHS who has demonstrated outstanding achievements in disaster and emergency response, preparedness, recovery, and deployments.

RADM Jerrold M. Michael Engineer Award: Recognizes a Commissioned Officer of the USPHS or Civil Service Engineer who has demonstrated outstanding leadership and dedication to the development, education, training and mentoring of present and future engineers.

SAME Green Medal: Recognizes a Junior Commissioned Officer of the USPHS (03 or lower) or a Junior Level Civil Service Engineer (GS-11 or lower) who have demonstrated outstanding contributions to public health engineering and science.

SAME Hollis Medal: Recognizes a Senior Commissioned Officer of the USPHS (04 or above) or a Senior Level Civil Service Engineer (GS-11 or above) who have demonstrated outstanding contributions to public health engineering and science.

SAME Cumming Plaque: Recognizes a team of Commissioned Officer or Civil Service Engineers for outstanding contributions to public health engineering and science.

Roger H. Lynch Outstanding Young PHS Engineer Award

History: This award honors a career Indian Health Service (IHS) engineering professional. Roger Lynch had an amazing engineering story told through the lens of hard work, always being willing to learn and then unselfishly imparting his knowledge onto others to ensure success in their professional endeavors. Roger's career demonstrated a reverence for the engineering profession and a genuine regard towards his fellow engineers. In 25 years working for the Navajo Area IHS he progressed from Engineer Technician to District Engineer, earning his Professional Engineering Licensure 22 years after starting his career!

Purpose: To recognize a junior level civil service engineer (GS-11 and lower) employed within a U.S. Department of Health and Human Services (HHS) agency of the USPHS who has demonstrated exemplary work evidenced by specific accomplishments to their agency.

Eligibility:

- Active duty HHS Civil Service engineers at a grade of GS-11 or lower.
- In good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation.
- Has not previously been a Lynch awardee.
- Has not been recognized with an EPAC or SAME individual award in the 2 previous award cycles, spring or fall.
- Only work completed during the nominee's tenure within a U.S. Department of Health and Human Services (HHS) agency of the USPHS will be considered.

Form of Award:

- Plaque presented in person at the Engineer Category Day luncheon during the USPHS Symposium (or equivalent).
- Receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- CV cover page or resume (1-page max).
- Due in February of the Spring Awards cycle.
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria: The nominee must have demonstrated higher levels of responsibility and leadership. The nominator should focus on the nominee's impact as it relates to public health for each of the criteria.

1. Cited Engineering Achievement, 40 Points.
2. Consistent Superior Performance in the Accomplishment of Assigned Duties, 40 points.
3. Career potential, 20 points.

RADM Ian K Burgess Outstanding Young PHS Engineer Award



History: This award honors the 6th Chief Engineer of the USPHS RADM Ian “Ike” Burgess who served from 1973 to 1985. His work in facilities planning and management set a standard for effective application of engineering professionalism in the Federal Health Service. He changed the name of the sanitary engineer category to simply ‘engineer’ to bring more facilities and biomedical engineers into the USPHS.

Purpose: To recognize a junior level PHS engineer (03 or lower) who has demonstrated exemplary work as evidenced by specific accomplishments towards the mission of the USPHS.

Eligibility:

- Active Duty PHS Engineer Officers (03 or lower) at the time of nomination.
- In good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation.
- Has not previously been a Burgess awardee.
- Has not been recognized with an EPAC or SAME individual award in the 2 previous award cycles, spring or fall.
- Only work completed during the nominee’s tenure as a Junior Engineer Officer of the Commissioned Corps of the US Public Health Service will be considered.

Form of Award:

- Plaque presented in person at the Engineer Category Day luncheon at the USPHS Symposium (or equivalent).
- Receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- CV cover page (follow CCMIS template) (1-page max).
- Due in February of the Spring Awards cycle.
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the ‘Call for Nominations’ as well as Nomination due dates.

Selection Criteria: All activities that were completed while serving as an Officer of the USPHS can be used under the following criteria. The nominator should focus on how the nominee’s impact relates to public health.

1. Cited Engineering Achievement, 30 points.
2. Support of USPHS Commissioned Corps Mission, 35 points.
3. Consistent Superior Performance in the Accomplishment of Assigned Duties, 25 Points.
4. Career Potential, 10 points.

RADM John C. Villforth Leadership Award



History: This award honors the 7th Chief Engineer of the USPHS, John C. Villforth who served from 1985-1989. He is recognized as one of the most important radiological health specialists of the 20th century. He worked his entire USPHS career in the radiological health program progressively taking on more responsibility and leadership roles.

Purpose: To recognize outstanding engineers who exemplify and excel in leadership, have demonstrated exemplary professional conduct, and are committed to constant improvement in exhibiting the highest degree of character, technical excellence, and competence.

Eligibility:

- Active duty PHS Engineers and HHS Civil Service Engineers.
- In good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation.
- Has not previously been a Villforth awardee.
- Has not been recognized with an EPAC or SAME individual award in the 2 previous award cycles, spring or fall.
- Civil Service nominees: Only work completed during the civil service nominee's tenure within a U.S. Department of Health and Human Services (HHS) agency of the USPHS will be considered. PHS Officers: Only work completed during the nominee's tenure as an Engineer Officer of the Commissioned Corps of the US Public Health Service will be considered.

Form of Award:

- Plaque presented in person at the Engineer Category Day luncheon at the USPHS Symposium (or equivalent).
- Receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- CV cover page (follow CCMIS template) or resume (1-page max).
- Due in February of the Spring Awards cycle.
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria: Each nominee must have made outstanding achievements in engineering leadership and technical capacity throughout the course of a distinguished career. The nominator should focus on how the nominee's impact relates to public health.

1. Leadership Achievements, 25 points
2. Initiative, Responsibility, and Innovation, 25 points
3. Public Service, 25 Points
4. Professional Support and Development, 25 Points

RADM Robert C. Williams Engineering Literary Award-Peer Reviewed and Open Categories



History: This award honors the 10th Chief Engineer of the USPHS, RADM Williams who served from 1999-2005. He worked as an engineer managing public health implications on many superfund sites. He developed the White Paper: *Chief Professional Officer's Roles and Responsibilities*; co-developed the White Paper: *Recruitment and Retention* and authored the *Critical Review of Ready Reserve Report*.

Purpose: To recognize outstanding written works of engineers and to promote literary achievements of the authors covering such topics as engineering management, research, regulations, construction, engineering application and engineering publications.

Eligibility: Peer Reviewed

- The work must have been substantially completed by the author(s), not a contractor.
- Work must be published in a reputable and recognized scientific periodical by the date of submission.

Eligibility: Open Articles/Papers

- Work must be original and written by the author(s).
- Published in a reputable and recognized magazine, journal, newsletter, etc. with a public health and engineering focus.
- Interviews, blogs, and standalone engineering reports are ineligible.

Overall Eligibility:

- Active duty PHS Engineer Officers and HHS Civil Service Engineers.
- In good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation.
- Only works published within the last 24 months of the nomination submission due date are eligible.

Form of Award:

- Plaque presented in person to primary author or designated person at the Engineer Category Day luncheon at the USPHS Symposium (or equivalent).
- Receive signed letter/certificate from Chief Engineer for author and co-authors.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Copy of the paper within the publication.
- Documentation that the work has been peer-reviewed and accepted as written (peer reviewed only).
- Co-Author form (if applicable).
- Due in February of the Spring Awards cycle.

Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria:

1. Originality, 10 points
2. Knowledge and Understanding, 20 points
3. Practical Application, 25 points
4. Clarity and readability, 15 points
5. Impact on Public Health, 30 points

PHS Engineer of the Year Award (EOY)

Purpose: To recognize an engineer who demonstrates outstanding leadership, innovation, dedication and service to the Federal Agency they are assigned. They truly represent the ideals of service over self; going above and beyond the mission. The EOY not only strives for self-improvement, but also improves the abilities of their team members as well.

Eligibility:

- All active duty PHS Engineer Officers and/or civil service engineers from HHS agencies.
- Individuals must be in good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation
- Has not previously been an EOY awardee.
- Has not been recognized with an EPAC or SAME individual award in the 2 previous award cycles, spring or fall.
- Only nominee activities completed within the last 36 months of the submission deadline should be highlighted in the award write up.

Form of Award:

- Plaque presented in person during the USPHS Engineers Week (E-week) Ceremony (or equivalent).
- Receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- Due in November for the Falls Awards cycle.
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria: Only work completed within the last 36 months of the submission deadline should be highlighted. The focus should be on the impact to public health as it related to the following criteria:

1. Excellence in engineering and project management, 25 Points.
2. Consistent leadership in work and collateral duties, 25 Points.
3. Improvements to agency/division/office technical capacity that greatly enhances efficiencies, 25 Points.
4. Professional contributions/advancements that brings great credit to EPAC, the PHS and the agency, 25 Points.

PHS Engineer Responder of the Year Award (EROY)

Purpose: To recognize an engineer who demonstrated outstanding achievements in disaster and emergency response, preparedness, recovery and deployments. The EROY will automatically become the engineer category nominee for the PHS-wide responder of the year award.

Eligibility:

- All active duty PHS Engineer Officers.
- Individuals must be in good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation
- Has not previously been an EROY awardee.
- Has not been recognized with an EPAC or SAME individual award in the 2 previous award cycles, spring or fall

Form of Award:

- Plaque presented in person during the USPHS Engineers Week (E-week) Ceremony (or equivalent).
- Receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- List of completed training and education with dates. Training shall be applicable to disaster and emergency response, preparedness, recovery and deployments and courses shall have been completed within last 36 months of submission deadline.
- Due in November for the Falls Awards cycle
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria: Each nominee must have made outstanding achievements and contributions in disaster and emergency response, preparedness, recovery and deployment for local, regional, national and/or international public health threats. The focus should be on the impact to public health as related to the following criteria:

1. Career contributions to disaster and emergency response, preparedness, recovery and deployment including roles and public health impacts within the missions, 30 points.
2. Training and education applicable to disaster and emergency response, preparedness, recovery and deployment within the last 36 months of the submission deadline, 15 Points.
3. Leadership by mentoring fellow officers in disaster and emergency response, preparedness, recovery and deployment skills through publications, presentations and/or trainings that demonstrate a positive impact on public health within the last 36 months of the submission deadline, 20 points.
4. Engineering and management skills and knowledge related to disaster and emergency response, preparedness, recovery and deployments that achieved significant accomplishments in public health for communities or populations within the last 36 months of the submission deadline, 35 Points.

RADM Jerrold M. Michael Engineer Award



History: RADM Jerrold M Michael served as President of the U.S. Association of Schools of Public Health, was a founding member of the 35-nation, Asia-Pacific Academic Consortium for Public Health, Vice President of the World Federation of Associations of Academic Public Health, and a Diplomat of the American Academy of Environmental Engineers and the American Academy of Sanitarians. After retirement from the USPHS, he entered academia at the George Washington University where he assisted in chartering a new school of public health and encouraged many of his students to join the USPHS.

Purpose: To recognize an engineer who has demonstrated outstanding leadership and dedication to the development, education, training and mentoring of present and future PHS and Civil Service Engineers. The education and development of the federal engineering workforce is essential in exuding continual strength.

Eligibility:

- All active duty PHS Engineer Officers and/or civil service engineers from HHS agencies.
- Individuals must be in good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation.
- Has not previously been a Michaels awardee.
- Has not been recognized with an EPAC or SAME individual award in the 2 previous award cycles, spring or fall.

Form of Award:

- Plaque presented in person during the USPHS Engineers Week (E-week) Ceremony (or equivalent).
- Receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- CV cover page (follow CCMIS template) or resume (1-page max).
- Due in November for the Falls Awards cycle.
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria: Each nominee must have made outstanding achievements and contributions in the development, education, training and mentoring of current as well as future PHS and Civil Service Engineers and Architects. It should focus on impacts to public health as it relates to the following criteria:

1. Engineering Education, 35 Points.
2. Engineering Category Advocacy, 30 Points.
3. Engineering Mentoring and Recruitment, 35 point

SAME Green Medal

History: RADM Richard Stedman “Sted” Green was a specialist in water pollution control. He viewed his most significant assignment as the Director of the Office of Environmental Health for the Indian Health Service (IHS). He served as chief engineer from 1970-1973. The first Green Medal was awarded in the year 2000 to honor RADM Green.



Purpose: The Society of American Military Engineers (SAME) Green Medal recognizes a junior level Commissioned Officer of the US Public Health Service (PHS) or civilian employee of equivalent grade that are within an HHS agency who have demonstrated outstanding contributions to public health engineering and science in consonance with the SAME mission, vision and values.

Eligibility:

- All active duty, inactive or retired PHS Engineer Officers (rank of O-3 or lower) or active or retired Department of Health and Human Service (HHS) Civil Service Engineers (GS-11 or lower and defined as junior level by the Agency).
- In good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation.
- Not a previous recipient of the Green Medal.
- Has not been recognized with an EPAC or SAME individual award in the 2 previous award cycles, spring or fall.
Only work completed within the last 36 months of the submission deadline should be highlighted.

Form of Award:

- Presented Medal from SAME at the Joint Engineer and Training Conference (JETC) or other in-person event at the discretion of SAME.
- Receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- Due in November for the Fall Awards cycle.
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria: Each nominee must have made outstanding achievements and contribution in engineering and project/program management. Each nominee must have demonstrated an active leadership role in the progression of key project and program activities. It should focus on impacts to public health as it relates to the following criteria:

1. Project Scope and/or Complexity, 25 Points.
2. Initiative, Innovation and Creativity, 25 Points.
3. Project/Program Management, 25 Points.
4. Outcome and Impact, 25 Points.

SAME Hollis Medal

History: RADM Mark D. Hollis worked on projects related to Typhoid Fever and other communicable diseases and was appointed director of the newly formed CDC. He later served as the second Chief Engineer expanding engineering programs including water pollution control and sanitary engineering. Upon retirement from USPHS in 1961, he served as Director of Environmental Health for the WHO. The first Hollis Medal was awarded in the year 2000 to honor RADM Hollis, one of the most distinguished engineers and health administrators of the 20th century.



Purpose: The Society of American Military Engineers (SAME) Hollis Medal recognizes a senior level Commissioned Officer of the US Public Health Service (PHS) or civilian employee of equivalent grade that are within an HHS agency who have demonstrated outstanding contributions to public health engineering and science in consonance with the SAME mission, vision and values.

Eligibility:

- All active duty, inactive or retired PHS Engineer Officers (rank of O-4 or lower) or active or retired Department of Health and Human Service (HHS) Civil Service Engineers (GS-11 or higher and defined as senior level by the Agency).
- In good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation.
- Not a previous recipient of Hollis Medal
- Has not been recognized with an EPAC or SAME individual award in the 2 previous award cycles, spring or fall.
- Only work completed within the last 36 months of the submission deadline should be highlighted.

Form of Award:

- Presented Medal from SAME at the Joint Engineer and Training Conference (JETC) or other in-person event at the discretion of SAME.
- Receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- Due in November for the Fall Awards cycle.
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria: Each nominee must have made outstanding achievements and contribution in engineering and project/program management. Each nominee must have demonstrated an active leadership role in the progression of key project and program activities. It should focus on impacts to public health as it relates to the following criteria:

1. Project Scope and/or Complexity, 25 Points.
2. Initiative, Innovation and Creativity, 25 Points.

3. Project/Program Management, 25 Points.
4. Outcome and Impact, 25 Points.

SAME Cumming Plaque

History: Dr. Hugh S. Cumming served as the 5th Surgeon General from 1920 to 1936. It was under Dr. Cumming that the USPHS was first authorized to admit sanitary engineers. The first Cumming Plaque was awarded in the year 2000 to honor Dr. Cumming.



Purpose: The Society of American Military Engineers (SAME) Cumming Plaque recognizes the outstanding contributions to public health engineering and science by a USPHS agency, operating division or program, deployment team, section, unit or work group in consonance with the SAME mission, vision and values.

Eligibility:

- All units, groups, or teams that consist of active duty PHS Engineer Officers and/or civil service engineers from HHS agencies.
- Individuals must be in good standing with their assigned agencies, with no current or pending adverse actions on file or under investigation.
- No limit to the number of times you can be part of a team that receives the Cumming Plaque.
- Does not affect eligibility for other awards.
- Only work completed within the last 36 months of the submission deadline should be highlighted.

Form of Award:

- Presented Plaque from SAME at the Joint Engineer and Training Conference (JETC) or other in-person event at the discretion of SAME to the team leader or designated member.
- Each member will receive signed letter/certificate from Chief Engineer.

Submittal:

- Nomination form with signatures of nominators and endorser.
- Narrative write-up (2-page max).
- Complete list of team members with contact information.
- Due in November for the Fall Awards cycle.
- Awards Subcommittee will provide notification to the EPAC community as well as Agency Award Liaisons on the 'Call for Nominations' as well as Nomination due dates.

Selection Criteria: Each team must have made outstanding achievements and contribution in engineering, project/program management and/or emergency response. Each team must have demonstrated active leadership and dedication in progressing through a major program initiative, project and/or emergency response and recovery mission. It should focus on impacts to public health as it relates to the following criteria:

1. Project Scope and/or Complexity, 25 Points.
2. Initiative, Innovation and Creativity, 25 Points.
3. Project/Program Management, 25 Points.
4. Outcome and Impact, 25 Points.

General Tips for a Successful Write-Up

Do's

- Utilize annual PMAP, Commissioned Officer Effectiveness Reports (COER), Officers Statement (OS), Reviewing Officials Statement (ROS) and other documents as launching point.
- Show impact on public health qualitatively
 - How many people were impacted? Were there project savings? Did you finish ahead of schedule? How does this compare to expected results? What were the positive effects on public health?
- Have someone not connected with the accomplishments review the narrative; use a mentor, trusted colleague or fellow engineer officer.
- Bottom Line up front (Make it easy for the reviewer to identify the impact, especially in regards to public health).
- Make sure the award write-up matches the selection criteria. This is a common pitfall among many unsuccessful write-ups.
- Use agency awards or individual honor awards as a reference point for write-ups, e.g. modify engineer of the year award or Commendation Medal write-up for an EPAC Award.
- Use EPAC award write-ups as the basis for individual honor awards.

Don't

- Use incorrect grammar or punctuation.
- Use language that does not match significance.
- Use technical language not understandable by multi-disciplinary board.
- Use extraneous and distracting information.
- Include too much information where the public health benefits get missed/excluded.
- Be vague.
- Include 'in progress' accomplishments.
- Use the exact same award write-up for multiple awards. A commonly witnessed pitfall.
- Wait until the last minute. A commonly witnessed pitfall.
- Give up if not recognized with an award you were nominated for. Almost all applicants are deserving and the awardee is selected by a narrow margin. In all likelihood there are many other awards (Commissioned Corps and others) that you would qualify for, with a high-quality write-up and endorsement.

Good vs Bad Example Narratives

These paragraphs are examples to compare and contrast what a section of a good write-up vs a bad write-up may look like for the same scenario. Notes are provided for what is good and what needs improvement.

Good

Due to extreme weather and wildfire events in California, the state implemented Public Safety Power Shutoffs (PSPS) to prevent further fire damage and loss of life. This resulted in the loss of power to Tribal water and wastewater facilities required to maintain sanitary conditions, for several days/weeks at a time¹. The IHS and EPA partnered to provide funding for these communities to install standby power generators to provide power to these critical pieces of infrastructure. CDR XXX managed the design, procurement, and installation of a total of 22 generators and funding of approximately \$1 million², benefitting approximately 640 homes and directly protecting the public health and improving the well-being of over 2,000 Tribal Residents³.

1. Easy to understand scenario even if not familiar with the situation prior to reading write-up.
2. Nominees contributions defined quantitatively.
3. Impact demonstrated quantitatively.

Bad

Due to extreme fire conditions in California, many facilities were without power¹. CDR XXX worked with the EPA to get funding to install standby power generators. Through superior and exemplary leadership, CDR XXX designed and managed procurement and installation of the project². They continue to work with EPA and Tribes with the hopes of installing more generators next year³.

1. No clear link to public health.
2. Using adjectives to describe nominee rather than demonstrating impact.
3. Future work cannot be considered in award write-ups.

Good

CAPT XXX most notable recent deployments include over a month deployment for Hurricane Maria in Puerto Rico working in logistics and six weeks as a COVID-19 Testing Site Lead in Houston, Texas. In Puerto Rico, CAPT XXX provided logistical support to remote and isolated parts of the island getting medical supplies and resources to eleven clinics and mortuary services. These medical supplies allowed clinics to stay operational in areas where no other medical facility was available for miles during the power outages¹. In Texas, approximately 20,000 tests were administered to the most vulnerable people to the virus at the Houston site under the leadership of CAPT XXX². As a result, Texas was leading the nation for amount of testing completed. Providing leadership and support during these mission's highlights engineers' ability to adapt and play multi-functional roles during emergency response where engineers are not typically deployed.

1. Clear public health impact
2. Qualitative data to show accomplishments

Bad:

The USPHS deploys many officers to help with deployments every year for national disasters and public health emergencies¹. CAPT XXX deployed to Puerto Rico for Hurricane Maria and to Houston, TX, for COVID-19. CAPT XXX role in Puerto Rico was to provide logistical support for medical supplies and resources to clinics and mortuary services. In Houston 20,000 PCR diagnostics¹ were administered as a result of his leadership³. Under the leadership of CAPT XXX, a lot of people were helped and he had a huge impact⁴. This highlights the ability of engineers to adapt and work in non-engineering roles during emergency responses.

1. Superfluous information irrelevant to nominee's accomplishments.
2. Technical language and acronyms may not be known to every reader.
3. Unclear language distracts from actual impact.
4. Vague language does not demonstrate impact.

Sample Write-ups

Society of American Military Engineers (SAME) Green Medal

LT XXX is the lead engineer for a large project portfolio with many complex designs and site environments. She provides leadership and management for an exceptionally large project portfolio with a budget totaling over \$23 million that have served over 2,100 Indian homes. Significantly, this workload is 235% higher than the IHS CA Area-level engineer peers. She is the lead engineer for the Tule River Indian Reservation, which has the largest and most complex projects in the Area requiring innovative engineering solutions. At Tule River, she provided engineering analysis and unique design approaches to construct a \$6.9 million, five-phased sewer system for a community with failing septic systems. The design used a hybrid of conventional gravity and low pressure sewer lines to overcome multiple constraints from subsurface rock and environmental and cultural property issues. The project provided service to 185 Indian homes and mitigated ground water contamination.

LT XXX continues to display initiative, innovation, and creativity while coordinating with stakeholders to develop and implement solutions, especially during emergency conditions such as the drought events. She provided critical leadership and engineering design skills to coordinate and complete an emergency drought relief project funded by the California Department of Water Resources. The \$1 million project provided iron and manganese removal for a new water well that yielded over 150 gallons per minute, which will increase water quality and quantity for 288 homes on the Reservation during the drought events. In addition, she analyzed water quality parameters and developed an engineering solution to reduce turbidity at the surface water treatment plant during the rainy season by designing a new 1 million-gallon water storage tank under a \$1.7 million project funded by the U.S. Environmental Protection Agency. The project achieves improved water supply and storage to 288 homes, especially during drought conditions.

In addition to the project/program management activities during the drought emergency, LT XXX also provides high level coordination with outside stakeholders and internal team members to achieve outcomes. She works well with senior IHS engineers, Tribes, contractors, other stakeholders. She currently is representing IHS on larger projects with other agencies. LT XXX helped secure IHS funding for the water infrastructure for new Homes for North Fork Rancheria allowing the Tribe to receive a \$16 million low-income housing tax credit (LIHTC) to build new homes that are currently under construction. LT XXX also is working with Big Sandy Rancheria, Rural Community Assistance Corps (RCAC), the State of California, and MKN Engineering to design and construct a community sewer to remove 49 homes from failing drain fields. The design is being funded through State of California (Prop 1) funding, while the construction is being funded through IHS. LT XXX not only has provided emergency services for local events, she has also responded to national-level events. She displayed critical emergency response services for California Indian communities. She provided emergency water services for homes during the COVID-19 pandemic and assisted with emergency repairs for a Tribal water system damaged by wildfires. In 2020, she deployed to the IHS Navajo Water Access Mission where she assisted with installation and training of chapter leaders on 59 new transitional water points that served over

9,500 homes without piped water. In 2021, she deployed on the PHS Unaccompanied Children Artemis Medical team as the only full-time medical translator ensuring that over 550 medical appointments were completed for medical attention.

LT XXX also continually strives for career and professional development. She recently has become a Professional Engineer (PE) in the State of California, and previously earned her Masters of Science in Civil Engineering from the University of South Florida.

SAME Hollis Medal #1

Background/Introduction: CAPT XXX, is herewith nominated for the Society of American Military Engineers (SAME) Hollis Medal for his decades of leadership and service as a Senior Project Manager overseeing the design and construction of several critical Indian Health Service (IHS) healthcare facilities built in several different states. Within just the past three years, CAPT XXX has managed the largest Design-build project ever constructed within the IHS, the Rapid City Health Center (\$130M) in Rapid City, SD, as well as recently commencing the design process for the new Alamo Health Center (\$75M) in Alamo, NM.

Project Scope, Project/Program Management: CAPT XXX's leadership and project management skills are unparalleled. As a Senior Project Manager, he has been tasked with overseeing the design and construction of vital healthcare facilities, often in isolated locations.

As Senior Project Manager, he successfully completed the 77,000 SF Fort Yuma Health Care Center located in Winterhaven, CA (\$50M) in 2018. He supervised the design and construction of the Fort Yuma facility over a period of five years. Because the previous design process had been halted four years prior, CAPT XXX had to bring the older partial design up to date with the latest codes and standards by modifying the contract. The design was updated to incorporate more rigorous structural standards (seismic considerations), adopt much higher-efficiency lighting systems, and add a \$1M photovoltaic array to the design.

In 2019, CAPT XXX also oversaw the design and construction of a critical left turn lane project at Sacred Oaks Healing Center, Yolo County CA. The introduction of this new facility in a largely rural location created the potential for traffic problems. During construction, the project team encountered a difficult soil stabilization issue in the subgrade. Due to his efforts, an engineering solution was developed and the project was completed under budget.

CAPT XXX is currently managing construction of the 203,000 SF Rapid City Health Care Facility located in Rapid City, SD (\$130M). This project is over 6 months ahead of schedule and currently under budget. Along with normal construction challenges, this is a Design-build project and as such requires a seasoned project manager to resolve many issues. His ability to diplomatically work with diverse stakeholders was evident in the coordination of demolition of 21 buildings across the Sioux San Campus during construction of the new facility.

In 2021, due to a shortage of Project Managers, CAPT XXX has taken on additional projects to alleviate staffing needs. CAPT XXX has completed planning and initiated design for the Alamo Health Center project, including the Statement of Work, procurement, and selection of a Contractor to prepare bridging documents equivalent to a 10% Schematic Design Submittal. He successfully negotiated/awarded the contract for the design of this 63,700 SF ambulatory health care facility to be located in Alamo, NM. He also recently organized the pre-design charrette, involving the design team,

owner's representatives, and stakeholders representing the end users. CAPT XXX is a demonstrated leader among all DES senior project managers. Initiative, Innovation, Creativity, Leadership: In addition to his outstanding management of a heavy project workload, CAPT XXX has consistently demonstrated his ability to lead and take initiatives above and beyond his normal duties. As a Professional Civil Engineer, CAPT XXX has provided his expertise for multiple projects for aspects related to site development, including environmental remediation, stormwater drainage, grading, and utility work. On the Rapid City Project during construction an unknown asbestos steam tunnel was discovered. CAPT XXX acted quickly and worked with the contractor, Tribes and the State of South Dakota to develop a plan that would not interrupt the construction and (at the lowest cost) fully remediate and remove the pipe. This involved remediation, testing, and removal of the asbestos pipe in phases. This work had to be done according to detailed specifications to insure the safety of the workers removing the pipe.

During construction of the Ft Yuma Health Center, the project team was presented with a unique challenge in construction when it was discovered that some of the large ducts could not fit in the plenum spaces provided by the design. Timing of the design preceded the adoption of BIM technology, therefore a significant redesign effort was required as well as a re-sequencing of construction efforts. CAPT XXX oversaw these simultaneous procedures and negotiated three Requests for Equitable Adjustment, saving over \$600K to the Federal Government through his efforts. The facility also earned a LEED Gold Certification and he provided technical support when needed to trouble-shoot equipment programming and configuration issues.

Outcome and Impact Summary: CAPT XXX has served in the IHS for over 29 years, and he has helped improve health services for thousands of Native Americans across the United States. His dedicated efforts and distinguished service have not only changed the lives of Native Americans, but improved the organizations where he has served. Through his exceptional project management skills and technical abilities, he has reached Native Americans in all areas of IHS and in the most remote locations of this country. All of the projects he has managed have generated some degree of cost savings, which in turn has led to higher quality services and more Native Americans served. As a Professional Engineer consultant, he has also served to improve delivery of health care through state-of-the-art facilities. CAPT XXX has also worked as a Sustainability Coordinator to influence the use of healthy and energy efficient technologies throughout IHS Health Care Facilities. His contributions as a Civil/Environmental engineer are also of great note as he has developed many solutions to improve the facilities, stormwater management, water and sanitary sewer systems. CAPT XXX is a mentor to several engineers and has recruited others into the IHS. His unselfish service and leadership have not only directly impacted the lives of the living Native Americans, but will benefit generations to come.

CAPT XXX's work to replace outdated facilities with state-of-the-art healthcare facilities has been vital in helping IHS meet its mission of raising the health of the American Indians and Alaska Natives to the highest level. His excellent skills in project management, leadership, and personal initiative have allowed him to have an extraordinary impact on the communities he serves. For CAPT XXX's outstanding

achievements and contributions in engineering and public health, he is proudly nominated for the SAME Hollis Medal.

SAME Hollis Medal #2

LCDR XXX is nominated for the Society of American Military Engineers (SAME) Hollis Medal for his leadership, initiative, and dedication in managing to completion projects for the Indian Health Service (IHS) Sanitation Facilities Construction Program in the California Area (CAO SFC). LCDR XXX is recognized for his exceptional service, high quality results and selfless acts to provide Native American Tribes with safe drinking water and sanitation facilities while being confronted with challenging and emergency conditions.

LCDR XXX was recently promoted to the position of Engineer Consultant/Deputy District Engineer in the Sacramento District CAO SFC Office (District). He also serves as the Districts Emergency Response Coordinator having assisted over a dozen Tribes since 2015 on water and wastewater response and recovery operations resulting from a longstanding drought and several devastating wildfires. In his new position LCDR XXX oversees both a community and scattered site water and wastewater portfolio encompassing 3 Field Offices, 46 Tribes and 60 active projects in a 38 County Area in Northern and Central California. The value of the portfolio is over \$30 million. The portfolio includes large scale water treatment, sewer treatment, sewer collection and water distribution projects. LCDR XXX communicates weekly with staff on project updates and ways that he can assist in efficiently moving the Districts workload forward. He also is sought out and mentors newer field engineers and staff on planning, design, grant writing, construction management and project closeout. This collaborative spirit, mentoring and fostering a team environment has vastly improved the morale of the District staff and has made them more efficient in completion of their work duties. An example of his effective mentoring is with a new engineer within the Ukiah Field Office. He mentored the engineer on construction management principles beginning his first day in the office. He counseled him on construction reports, field checks, Tribal communication, stakeholder communication, material submittal check, etc. The new engineer was able to effectively manage to completion a quarter million dollar sewer collection project for the Hopland Band of Pomo Indians within his first six months on the job.

LCDR XXX is effective at being able to adapt to unexpected and constantly evolving situations in defense of community public health. His effectiveness reflects his willingness to work hard, collaborate with partners and look outside the box for opportunities to address challenging situations. During wildfire response and recovery operations LCDR XXX was able to tour and assess wildfire damaged water and wastewater equipment and quickly organize which projects were considered short term and long term repairs. He was able to work with partner agencies, BIA, FEMA and State of California OES, to determine what agencies would fund which recovery component. This maximized the effectiveness of the IHS Emergency funds. He has written emergency grants that have resulted in the award of over \$500k to affected Tribes for rebuilding fire damaged water and wastewater infrastructure. As a follow up he has efficiently managed the construction of the facilities meeting all Tribal rebuilding

timelines and ensuring that the funds were appropriately spent. He has worked with local Tribes in remote and difficult areas, Round Valley, Stewarts Point, Manchester Point Arena and Middletown, to setup simple and cost-effective telemetry systems to automate water and wastewater system operation and provide critical system status information to Tribal operators via text message or e-mail. He actively works with Tribes on establishing composite as-builts, both for new and old projects.

LCDR XXX is highly committed to the effective, organized and efficient management of the Districts project workload. He has studied both short and long term anticipated Tribal water and wastewater needs in the District over a 15-year horizon and has compiled a list of potential projects that would have a high likelihood of getting funded over that horizon. He has gained this knowledge through over 10 years of service working collaboratively with Northern and Central California Tribes. This research is critical in assisting the District and CAO SFC program in determining appropriate staffing needs to complete the planning horizon workload in an efficient manner that meets the timelines of our Tribal partners. LCDR XXX is well regarded in the management of project finances keeping separate project as well as overall workload ledgers to ensure that expenditures are in line with project budgets and that Tribes are making contractor payments in a timely manner. He serves as the District Level II Contracting Officer Technical Representative (COR). The management encompasses 60 community projects for the District, the District scattered site program as well as District purchase card charges. He updates and reviews the ledgers weekly to ensure the most accurate and up to date information. LCDR XXX believes that teamwork and a collaborative approach is essential to providing the best possible infrastructure to the Tribes that we serve. In that vein, he works with Tribal operators, Tribal Utility Consultants, Engineer Technicians and other IHS Engineers as a team to provide the best possible system design that effectively addresses the community need while at the same time ensuring that a given Tribal community has the resources to operate the system effectively. An example of this collaborative approach is with a recent critical water project for the Manchester Point Arena Band of Pomo Indians that involves well and controls flood proofing, new telemetry controls, redwood water tank rehabilitation, new water transmission main and well pump soft starts to mitigate high system pressure challenges. The water project involved multiple IHS and EPA funded projects. LCDR XXX served as the team lead chairing bi-weekly planning and design review meetings with all participants to keep the team on task and to meet all parties concerns and needs. The team was able to prepare the set for CAO SFC construction bid review in under 3 years for the oldest project and under one year for the newest project. A remarkable feat for a heavy District workload. The emphasis that LCDR XXX has placed on collaborative working relationships, organized and efficient project management and stewardship of project finances has resulted in an 80% reduction in project and final report completion times. This has directly resulted in greater annual SDS project funding levels for the District, faster project completion times, more Tribal homes being served with critical water and sewer infrastructure as well greater Tribal confidence in the CAO SFC program.

LCDR XXX has demonstrated a high level of leadership, initiative, effective project implementation, and overall productivity that is beyond his rank. His extraordinary technical knowledge, expertise, and creativity have contributed to elevating the health status of Indian people to the highest possible level. LCDR XXX has performed heroically during wildfires between 2015-2020 resulting in the preservation of life and health of local Tribal communities. His service during the emergency drought and wildfire response and recovery combined with his normal project duties has had a major positive impact on the health status and well-being of hundreds of Indian people in the California Area. For his significant and high level merits, LCDR XXX is proudly nominated for the SAME Hollis Medal.

RADM JERROLD M. MICHAEL ENGINEER AWARD

CAPT XXX is nominated for the 20XX Jerrold M. Michael Award for his career contributions to the development and growth of engineers of the U.S. Public Health Service and engineers and public service professionals, more broadly. His contributions as a manager and supervisor, instructor, coach, and mentor form the basis for this nomination.

CAPT XXX is a career U.S. Public Health Service (USPHS) Commissioned Officer, serving nearly 27 years on continuous active duty. He started his career in 1993 as a COSTEP with Indian Health Service, and he began continuous active duty in 1995. He has served at four federal agencies and six geographic locations, and since 2007, he has served in supervisory and programmatic leadership roles at two federal agencies. From XXXX-XXXX, he served as the Director (acting and then permanent) for the Division of Sanitation Facilities Construction (SFC) for the Indian Health Service (IHS) in the Pacific Northwest, and from XXXX-present, he has served as the Chief of Permitting, Drinking Water, and Infrastructure Branch at EPA Region 10.

In his management positions, CAPT XXX has led and supported over 122 individuals (either as a supervisor or a higher-level manager). He has supervised 23 Engineering Officers of the USPHS. Through these supervisory and managerial roles, CAPT XXX has guided and supported the individuals' continuing education and development and provided teams and individuals with collateral or interim assignment opportunities. He has initiated or supported numerous awards for individuals, including initiating successful nominations for national-level recognition. With the involvement of his management team, in XXXX, CAPT XXX developed a core competency model for both the engineering staff and technical staff. He also organized a series of 17 webinars associated with the development of the staff before Zoom or MS Teams webinars were the norm.

Since transferring to the Environmental Protection Agency (EPA) in XXXX, CAPT XXX has continued to develop others. As a Branch Chief, he supervises two Section managers (engineers), both of whom were new to supervision before assuming their current managerial positions. CAPT XXX has focused his efforts on supporting their development and transition from technical experts to front-line leaders of teams. Additionally, he makes himself available to individual staff (for whom he's the reviewing official) to discuss their professional development and careers. At a Regional level he has been sought out and contributed as a speaker for the Region's leadership development program, and he has been twice sought out to independently evaluate sensitive personnel matters for other work units.

Outside of supervisory and management roles, CAPT XXX contributes to the growth and development of Public Health Service Commissioned Officers and public service professionals, more broadly. In XXXX, he was approached to serve on the Chief Engineer's Council of Captains, and in that role, contributed to a March XXXX panel discussion on professional development. He has served as a formal mentor or Engineer

Category counselor for ten Commissioned Officers (not under his supervision) and has informally served as a sounding board for many other officers and civil service staff.

Outside of the USPHS Commissioned Corps, CAPT XXX supports the profession through active involvement in professional organizations. A few recent examples illustrate: in XXXX-XXXX, he served as a mentor for an individual in the Society of American Military Engineers (SAME) Leadership Development Program (LDP); in January XXXX he developed and taught the communication course for the SAME LDP. In 2021, he was contacted by the Oregon Public Health Association to serve on a plenary panel at their annual conference, held in October XXXX, speaking to the public health professional community on topics related to drinking water challenges. For two years, he served as one of three panelists for the Oregon oral examination of engineers seeking Board Certification from the American Academy of Environmental Engineers and Scientists.

CAPT XXX has led learning efforts associated with emergency response and readiness. In 2008, while assigned to Portland Area Indian Health Service, CAPT XXX contributed to the Centers for Disease Control and Prevention's (CDC's) efforts to develop the Environmental Health Training in Emergency Response (EHTER) course. In June 2008, he taught the portion of The course on water at the pre-conference sessions at the USPHS Professional Symposium in Tucson, AZ. In December 2008, CDC sent him a letter of appreciation for developing this content and instructing. Following the unprecedented Oregon Wildfire season in late XXXX, CAPT XXX facilitated a series of lessons learned conversations with Oregon State officials, and separately, with Region 8 and Region 9 EPA officials who had been involved in water-related responses to the XXXX wildfire seasons. He used this information to shape the development of EPA's new Water Infrastructure Response and Evaluation (WIRE) team.

Early in his career, CAPT XXX's actions reflected a commitment to the development of others. In 2000, before the current Officer Basic Course was required of newly Commissioned Officers, CAPT XXX organized and volunteered to host a test site for the Basic Officer Training Course and the associated Independent Officer Training Course (IOTC). He was also a central figure in the early development of the Junior Officer Advisory Group (JOAG), helping write the bylaws for JOAG. For these early efforts to help form JOAG, he received the Outstanding Unit Citation.

Outside of work, CAPT XXX's activities reflect interest and a commitment to developing others and teaching. He's volunteered at a science fair and introduced engineering to elementary school kids. For five years, he volunteered as a swim coach for a developmental swim league designed to provide access to those intimidated by more rigorous competitive swimming programs. CAPT XXX's interest in developmental swim coaching ties to the USPHS mission. Giving youth confidence in the water reduces likelihood of drowning and provides them with health and wellness options as they age.

CAPT XXX has demonstrated consistent commitment to development of individuals, organizational learning (i.e. agencies), and the profession. For this career-long consistency and commitment to the development of others, he's recommended for the Jerrold M. Michael Award.

Roger H. Lynch Outstanding Young PHS Engineer Award

CRITERION 1: Cited Engineering Achievement

Since beginning her career in the summer of XXXX with the Indian Health Service (IHS) as a Field Engineer stationed at Phoenix Area's San Carlos Field Office with the Division of Sanitation Facilities Construction (DSFC), Jane Engineer has provided creative and productive engineering solutions for the San Carlos Apache Tribe's water systems.

The Bylas water system provides drinking water to 536 homes on the San Carlos Apache reservation. In September XXXX, the San Carlos Apache Tribe notified the IHS that there were 14 water main breaks in the San Carlos Apache Tribe's Bylas water system between January XXXX and September XXXX. This created a risk of bacteriological contamination of the drinking water for many hours to days following each break. Beyond the public health risk, these breaks cost the Tribe an estimated \$20,000 in emergency repair costs, public communications, and regulatory reporting.

In response to this continual health threat to the Bylas water system customers, Ms. XXX showed initiative, innovation, and creativity by designing a hydraulic water model of the system and designing a water system pressure monitoring system to identify the source of the water main breaks. Ms. XXX then coordinated with the San Carlos Tribal water system operations staff and installed the monitoring system. Following acquisition of the system pressure data in November XXXX, Ms. XXX identified the root cause of the water main breaks and wrote *Preliminary Engineering Report, Bylas Water System Improvements*. With this report, the Tribe was able to apply for and acquire \$285,000 in FYXX Drinking Water Tribal Set-Aside funding from the EPA, Region 9 to replace failed altitude control and air relief valves, the source of the pressure spikes creating the water main breaks. This effort showed Ms. XXX's judgment in being able to understand the public health significance of the problem and act quickly to coordinate all stakeholders, create a model, validate the model, and acquire funding to resolve the problem - *all in the extraordinarily short span of fewer than ten months*. In XXXX, Ms. XXX completed plans and specifications for water main, altitude control valve and strategically located pressure relief valves to ensure that the existing water main will not break from pressure spikes in the future.

In addition to the Bylas water breaks project, Ms. XXX coordinated an investigation into the cause of E-Coli contamination from the Bylas North well. As part of the field investigation, Marlana discovered about 10 old farm wells that were potential sources of contamination. She helped the Tribe apply for and receive an EPA grant to properly abandon those wells. The Environmental Protection Agency suspected the cause may be groundwater under the influence of surface water. Marlana worked with the Environmental Protection Agency on a plan to monitor the Bylas North and South well conductivity, TDS, salinity, and ambient parameters. She equipped the wells with multi-parameter probes and provides the data to a hydrogeologist. She coordinated the well

cleaning for these wells and provided better fitting well seals to prevent any possible surface intrusion. She will finalize the collection of data for this study in April XXXX when the micro-particulate analysis is completed. The results will determine the required measures to safely put the Bylas North well back online while ensuring safe drinking water is provided to the community. San Carlos is in drought conditions leading to a decline of water capacity. In XXXX, Ms. XXX assisted the Tribe with applying for a US Bureau of Reclamation grant for smart meters to a 100-home community as a pilot test. Metered rates will reduce water use ~1.2 million gallons per month.

CRITERION 2: Consistent Superior Performance in the Accomplishment of Assigned
Ms. XXX is an adept DSFC program and construction project manager. The San Carlos Apache tribe is unique within tribes served by the Phoenix Area IHS, as sanitation facilities installations are completed strictly through tribal force account (TFA) construction (i.e. the tribal construction crew and subcontractors complete all facility installations). Historically, methodology for advancing funds to the tribal construction crew was inaccurate, thus created cash flow challenges and difficult funds reconciliation at the end of construction projects due to disparities between allocated funds and expenditures. Ms. XXX recognized the problem and created an improved project management spreadsheet that accurately predicts construction costs, thus largely eliminating cash flow problems for the TFA and funds reconciliation at project completion. Further, Ms. XXX contributed significantly to the development of new guidelines which provide the structure for all TFA project and construction management for the Phoenix Area SFC program.

Ms. XXX expressed her project management and engineering acumen during the construction of a new \$800,000 drinking water well of over 1000' depth for the San Carlos Beverly Hills community of approximately 100 homes. This new well produces over 800 gpm and may be considered as an alternative water source for the San Carlos Regional Water System. As project manager, she is charged with completing projects on time and within budget. When a land assignment was claimed at the original well drilling site, she investigated alternative sites with a preliminary engineering report that included a flood plain analysis which she performed herself using HEC-RAS and GIS software. Further, as the well was drilled during the COVID-19 pandemic in the fall 2020, construction and material costs were significantly higher than the original project budget allotted. Through value engineering, alternative well casing materials were identified, and approximately \$100,000 in construction cost savings were realized.

CRITERION 3: Career Potential

Ms. XXX is a prolific project manager who carries an individual IHS DSFC project portfolio of over \$7 million. In XXXX-XXXX, she wrote eight statements of work for five new projects and three project amendments. Further in XXXX-XXXX, she closed out five construction projects. As project manager, she oversaw and managed the installation of a 125,000 gallon water storage tank and new well for Beverly Hills community on the San Carlos Reservation. Ms. XXX is an effective team leader who coordinates and facilitates bi-weekly meetings attended by Area, District, and Field staff. She is the office manager of the San Carlos OEH field office, and leads Monday morning meetings. She supervises two staff and provides all staff with assistance with

navigating the San Carlos project workflow. She assists in compiling reports of all San Carlos projects totaling over \$20M for monthly Tribal Council Meetings, IHS HQ, and Area office briefings. She calmly responds to tough questions in Tribal Council meetings and the San Carlos Apache Tribe has thanked the IHS field office for its high performance. Ms. XXX displays incredible career growth through her continued work in providing high quality sanitation facilities to those she serves.

Therefore, Ms. XXX is proudly nominated for The Roger H. Lynch Outstanding Young PHS Engineer Award for her demonstrated contributions to public health engineering and construction project management.

RADM John C. Villforth Leadership Award #1

CAPT XXX is an outstanding engineer and leader in the Commissioned Corps of the US Public Health Service and the Indian Health Service (IHS). He is strongly supported for the John C Villforth Leadership award based on his insight, analytical judgment and ability to develop strong working relationships with IHS colleagues and external stakeholders. The collaboration CAPT XXX fosters is integral to addressing the sanitation needs of American Indians and Alaska Natives, and set him apart from his peers. His support of the Commissioned Corps and our engineers elevate our Service and our category.

As Deputy Director of the Division of Sanitation Facilities Construction (SFC) Program, CAPT XXX is part of a national leadership team dedicated to raising the physical, mental, social, and spiritual health of American Indians and Alaska Natives to the highest level. His technical expertise, policy knowledge, and guideline oversight ensures the data reported to Congress accurately reflect the estimated needs of sanitation facilities in 2019 was \$2.6 Billion impacting over 413,000 Indian homes across the country. CAPT XXXs tenacious in his efforts to continuously monitor, review, and adjust directives to maintain support of the Agency's mission by utilizing the data collected across 12 Area offices to allocate approximately \$250 Million in IHS and contributed project funds annually for the construction of water, wastewater, and solid waste facilities in Indian communities.

CAPT XXX is forward thinking in his work and brings thoughtful insight on agency issues that draw on his previous duty station experiences and formal training in both engineering and public health. He constantly seeks out and cultivates relations with other state and federal governmental agencies and public health researchers to assist in contributing in meeting the sanitation needs of American Indians and Alaska Natives.

CAPT XXX has been the EPAC Chair and Chair of the Recruitment and Retention Subcommittee. His continued engagement as a leader in the category and on EPAC benefits all of his peers, from the Chief Engineer to new officers. While Chair of the Recruitment and Retention subcommittee, CAPT XXX refocused the subcommittee to provide voluntary support to Engineer Category PHS applicants. The EPAC Connectors he helped start has provided mentoring to the next generation of Engineering Category officers. His leadership of the EPAC in 2018 was particularly important during the Chief Engineer transition, as specifically highlighted by RADM Dieser. In addition to leading the work of subcommittees, he utilized the EPAC meeting to showcase the varied nature of work in the category through online presentations at different agencies. His efforts and critical analysis set new directions for EPAC and elevated its outcomes.

Additionally, CAPT XXX demonstrated his leadership skills in representing the Chief Engineer of the US Public Health Service as a liaison to Commissioned Corps Headquarters (CCHQ) on recruiting and hiring processes. CAPT XXX provided thoughtful feedback to CCHQ on issues associated with the existing appointment approach and offered solutions to address them. He also supported CCHQ through the 2011 USPHS Commissioned Corps Accountability Workgroup charged with

recommending change to the CCHQ structure and function. CAPT XXXs ability to recognize and promote collaborations with outside public health initiatives has truly made an impact on advancing the public health of the underserved population. In the last two years, his work has included:

Strong Heart Water Study: As a co-investigator with Johns Hopkins University, CAPT XXX works with other public health researchers focused on health education messaging to improve usage of point-of-use water treatment devices to limit arsenic exposure from private water wells. CAPT XXXs involvement was instrumental in coordinating participation between researchers and communities in this novel study.

Operations and Maintenance Cost Study The Infrastructure Task Force (ITF), a collaboration between the five federal agencies, identified operations and maintenance (O&M) as an access barrier to safe drinking water and wastewater disposal in Indian country. Data from this study lead by CAPT XXX will inform stakeholders on the O&M funding gaps some tribal utilities face while pursuing long term sustainability.

Open Dumps CAPT XXX helped develop a revised paradigm for federal government and tribal work to address solid waste disposal in Indian country. Solid waste management in many native communities identifying the barriers, and sustaining federal collaboration with tribes, will produce viable solutions for sustainable waste management programs.

Health Impact Measure CAPT XXX partnered with the Centers for Disease Control (CDC) to develop an outcome based measure to estimate public health benefits associated with water and waste water infrastructure, CAPT XXX has utilized IHS data to develop a model that quantify the prevention of disease and associated savings in avoided healthcare costs. These results are currently used by the IHS to justify Congressional appropriations.

Deployments CAPT XXX deployed in 2017 to Puerto Rico following Hurricane Maria, He assisted developing a mission to train Applied Public Health Team #4 while in support of water system infrastructure development on the Pine Ridge Indian Reservation. He also deployed with the Navy's Operation Continuing Promise in 2010 to support environmental health missions in Guyana and Surinam and as a water/sanitation officer with the USAID Disaster Assistance Response Team response to an earthquake in Pakistan.

Communication CAPT XXX shares his insights from this work through peer reviewed publications and conferences. This includes a paper he co-authored on the effectiveness of drinking water regulations to inform public health following extreme precipitation events and a co-authored paper appearing in the Lancet Public Health journal demonstrating declines in arsenic exposure from drinking water attributed to the EPA standards. He has also served as a panelist on an Environmental Health Matters Workshop sponsored by the National Academies of Science, Engineering and Medicine. He has also been invited to speak at the Network for Public Health Law at their 2020 Public Health Law Conference.

CAPT XXX has also collaborated with academic organizations such as the Johns Hopkins School of Public Health, Columbia University Mailman School of Public Health and others. In addition to his two Master Degrees in Engineering and Public Health he is currently undertaking a Doctor of Public Health Degree after being named a Bloomberg American Public Health Fellow by Johns Hopkins in 2019. He has effectively leveraged academic organizations as a force multiplier in effectively advocating and engaging in for issues of concern impacting disadvantaged communities.

CAPT XXX is a mentor to all. While steadfast in the mission of IHS, his varied prior assignments enable him to support and mentor individuals with a variety of professional roles. Described as a servant leader by one of his protégés, he elevates others through leading by example, empowering to achieve, and removing roadblocks to success and deserving of the John C. Villforth Leadership Award.

RADM John C. Villforth Leadership Award #2

CAPT XXX is nominated for the RADM John C. Villforth Leadership Award for exceptionally distinguished service. CAPT XXX distinguished himself throughout his 30-year career in the Sanitation Facilities Construction Program assigned to Indian Health Service, Office of Environmental Health and Engineering, from February XXXX to February XXXX. The Indian Health Service Sanitation Facilities Construction (SFC) program provides preventative health services for American Indians and Alaska Natives through cooperative development of water, wastewater and solid waste infrastructure. CAPT XXX has served in five different positions of increasing responsibility in the SFC program, with duty stations in Spokane, WA, Globe, AZ, and Sacramento, CA. He concluded his career as the Director of the California Area SFC program, serving 105 Tribal communities in California, leading a staff of 35 engineers and technicians in six field offices.

LEADERSHIP ACHIEVEMENTS

Led or oversaw completion of 530 sanitation projects, valued at over \$176 million, preventing disease for over 86,000 Native American people. He has produced steady increases in project funding from \$7 to \$34 million per year over the last 10 years.

Design engineer or engineer-of-record for more than 50 Tribal water or wastewater projects valued at over \$20 million, preventing disease for over 15,000 Native American people. Projects included 10 miles of water or sewer main, six water storage tanks, and three wastewater treatment plants, some of the most complex projects done in SFC.

INITIATIVE, RESPONSIBILITY AND INNOVATION

Authored the *Project Engineer Manual* (2007) and the *Tribal Procurement Construction Contract Guideline Manual* (2009). The dissemination of these documents resulted in improvements in construction contract development efficiency and standardized many project engineering functions for 400+ SFC program staff across all 12 Areas of the IHS.

Built or expanded partnerships with three state partners, three federal partners and two non-governmental partners to increase resources for Tribal water and wastewater utilities during droughts in XXXX-XXXX and XXXX; wildfires in XXXX, XXXX, and XXXX; and flooding and landslides in XXXX, XXXX and XXXX, resulting in over \$10 million in additional funds.

PUBLIC SERVICE

CAPT XXX has distinguished himself in 20 different national/international deployments, many in a leadership role. Team Leader for the following deployments:

- 20XX Hurricanes Irma and Maria - U.S. Virgin Islands, conducted site assessments and scoped five projects to rebuild health care or critical facilities,

- 20XX Liberia Ebola, led the 17-member Preventative Medicine team of Monrovia Medical Unit-3,
- 20XX North Dakota Flooding, led assessment of 2,100 homes impacted by flooding, providing recommendations to homeowners for safe entry and home rehabilitation.

Team Leader for Applied Public Health Team-2 from June 20XX to February 20XX, a 60-member multi-disciplinary response team providing assistance to local health Authorities.

Other deployments include Guam Typhoon Chata'an (2002), Hurricanes Ivan and Katrina (2004, 2005), and USNS Comfort Humanitarian Assistance Mission (2007).

PROFESSIONAL SUPPORT AND DEVELOPMENT

CAPT XXX served as a PHS Associate Recruiter for eight years, preceptor to four COSTEPS and mentor to three junior engineers over the course of his career. CAPT XXX served as lead author of the EPAC guideline for conducting assessments of public health infrastructure and capacity building for international humanitarian assistance missions. CAPT XXX has demonstrated professional development throughout his distinguished career earning two Master's degrees, Professional Engineers (PE) Licensure and certifications as a Registered Environmental Health Specialist (REHS), Board Certified Environmental Engineer (BCEE), Diplomate Sanitarian (DAAS) and Certified in Public Health (CPH). CAPT XXX is also an active member of the following professional associations: American Water Works Association, Commissioned Officers Association, International Water Association, National Environmental Health Association, Water Environment Federation and Professionals in Humanitarian Assistance and Protection.

The singularly distinctive accomplishments of CAPT XXX culminate a long and distinguished career in the service of his country and reflect the highest credit upon himself and the United States Public Health Service. He is thus strongly recommended to receive the Villforth Award.

SAME Cumming Plaque

The Indian Health Service (IHS), California Area, Division of Sanitation Facilities Construction's Emergency Response and Recovery Team (Team) is nominated for the Society of American Military Engineers (SAME) Cumming Plaque. The Team is nominated for their outstanding contributions in public health engineering for emergency response and recovery services to Tribal communities impacted by wildfires and flooding in the State of California from January 2015 to October 2019.

Background: The 2015 wildfire season marked the beginning of a repetitive cycle of record breaking wildfires that continue to plague California. Since 2015 the average duration of the wildfire season has increased by an additional 105 days. The devastation is quantifiable by both the land burned and the loss of life and property. For example, in 2018 alone, the Mendocino Complex fire in July resulted in over 450,000 acres burned and the Camp Fire in November resulted in an additional 150,000 acres burned, over 18,000 structures destroyed and 86 fatalities. In addition to wildfires, extreme flooding has occurred throughout California most notably in 2019. Areas where wildfires have eliminated vegetation became highly susceptible to erosion and in certain areas landslides occurred as a result of flooding. During this time period, the wildfires and flooding impacted over 12 Tribes from damage and disruption of drinking water and sanitation facilities.

Emergency Response and Recovery: The Team's accomplishments and impacts include:

Valley Fire, 2015: Over 76,000 acres, 1,955 structures, 4 fatalities, and several Tribal members from the Middletown Rancheria lost their homes during the wildfire. The Team secured funding and coordinated emergency water hauling for the Tribe. During the recovery phase, the Team provided engineering services and funding assistance for installation of water and sewer services for eight new homes that replaced homes burned during the fires.

Tubbs Fire, 2017: Over 36,000 acres, 5,643 structures destroyed and 22 fatalities. The fire made national news as it devastated a portion of the city of Santa Rosa. Tribal members on the Graton and Lytton Rancherias lost homes and the Team coordinated with the Federal Emergency Management Agency (FEMA), the Bureau of Indian Affairs (BIA), California Office of Emergency Services (Cal OES) and local county officials to provide technical assistance to fire victims to help rebuild their homes.

Mendocino Complex Fire, 2018: Over 459,000 acres burned, 277 structures and 1 fatality. The Team drove through active fire zones to deliver and install a generator to the Upper Lake Rancheria that was out of power and could not deliver drinking water to their Tribal members. The Redwood Valley Rancheria lost five homes in the fire. The Team provided engineering services and funding assistance for new water and sewer services to fire victims relocated to new homes. Most significantly, several Team members provided emergency response services while being evacuated from the IHS offices and their homes.

Camp Fire, 2018: Over 150,000 acres, 18,804 structures and 86 fatalities. This fire devastated the city of Paradise making it the most destructive fire in California history; which included over a dozen burned Tribal homes on the Enterprise Rancheria. The Team assisted the Tribe with funding and coordinating emergency water hauling. During the recovery phase, the Team coordinated project funding and provided engineering technical assistance for water and sewer infrastructure for 15 new homes for Tribal fire victims.

Kincade Fire, 2019: Over 77,000 acres, 374 structures destroyed, and 4 fatalities. The wildfire affected the Stewarts Point, Manchester Point Arena, and Big Valley Rancherias. The electrical utilities implemented the Public Safety Power Shutoff (PSPS) program that resulted in loss of power for several days and impacted operations of the water and sewer systems serving homes on the Rancherias. The Team provided funding and coordinated water hauling for emergency drinking water supply. In addition, the Team led a multiagency effort with the IHS, EPA, Cal OES, and impacted Tribes to coordinate services and secure funding for emergency back-up power for future PSPS events that resulted in \$975,000 for the installation of generators at 21 Tribal water and sewer systems serving over 500 Indian homes.

Winter Flooding, 2019: Severe winter rain events resulted in flooding that impacted southern and northern California Tribes including the Lipay Nation of Santa Ysabel, the Cahuilla Indian Reservation, and the Yurok Indian Reservation. The catastrophic flooding at Santa Ysabel eroded portions of the Canyon water system causing the pipeline to rupture, drain the system, and impact supply to over 20 homes. The Team immediately conducted a rapid needs assessment and prepared the contract and procurement documents to repair and rebuild the water main that restored water supply to the Indian homes. On the Cahuilla Indian Reservation, the historic flooding resulted in 40 homes without power, damage to septic systems, and elevated the risk of contamination to water wells. The Team assisted the Cahuilla Band with identifying, disinfecting and sampling the high-risk water wells, and made emergency repairs to the septic systems; which restored service to the community. On the Yurok Indian Reservation, landslides isolated communities, threatened water systems and broke a water main supplying the Tribal community of Wautec. The Team provided emergency response that included rapid site assessments, preparing rapid technical designs to replace a fractured water main to restore water service to the 17 Indian homes at Wautec, and developing a preliminary engineering report that supported a funding request by the Yurok Tribe with FEMA for additional long-term improvements.

Conclusion: The Team demonstrated exemplary service, composure and dedication during the California wildfire and flooding emergencies that has contributed to the protection of public health and safety, a reduction in vulnerability and increased capacity of many Tribal communities. Many of the Team and their families were directly impacted by the emergency events themselves, having to evacuate from active fire zones, but still managed to report to duty every day and provide emergency response to the impacted Tribal communities. For their significant and high-level merits, the Team is proudly nominated for the SAME Cumming Plaque.

RADM Ian K. Burgess Outstanding Young PHS Engineer

LT XXX serves as a Medical Device Specialist / Investigator in FDA's Office of Regulatory Affairs (ORA), Office of Medical Devices and Radiological Health Operations (OMDRHO) and is nominated for the RADM Ian K. Burgess award for his outstanding achievements and contributions to the USPHS Commissioned Corps and the FDA.

1. Cited Engineering Achievement: Most notably, LT XXX led a team inspection of a medical device manufacturer found to be distributing a microneedling device intended to be used with various drugs and biologics in violation of federal law as the manufacturer did not have FDA pre-market clearance or approval to distribute the device in the U.S. LT XXX leveraged his experience from his previous position as an engineer / pre-market lead reviewer with FDA to identify the violations and provide suitable evidence to support regulatory action. As a direct result of the inspection, a Warning Letter was issued to the firm to provide notification of the violation and the manufacturer was added to FDA's Import Alert Red List in December 2021, which prevents the violative products from being imported and distributed in the United States. Approximately 60,000 violative devices and 1,000 violative serums were being sold annually by the firm, representing approximately \$6.2 million in annual sales.

In 2018, at his previous duty station with the FDA Center for Devices and Radiological Health (CDRH), LT XXX served as the foremost expert in FDA for leading the pre-market review of CT/MR automated contrast injector systems, of which there was no precedent through international consensus standards or FDA guidance documents. These devices presented a significant challenge in that several devices were inadvertently cleared by FDA to be used on multiple patients from the same contrast agent container, representing a cross-contamination issue. LT XXX successfully guided three (3) CT/MR injector systems to market by leading the manufacturer through multiple iterations of contamination control and microbial ingress studies to demonstrate the risk of contamination was minimized. They also worked with FDA's Center for Drug Evaluation and Research to address cross-labeling of the device/drugs. This work directly led to the protection of public health by increasing the assurance of safety of the millions of U.S. patients each year that are subject to a medical procedure involving these devices.

In 2021, LT XXX led a subcommittee within a strategic priority work-group to develop a communication campaign aimed at medical device industry stakeholders. On behalf of FDA, LT XXX gave the presentation, titled *Uncovering and Maximizing the Value of FDA Inspections*, at four (4) medical device industry conferences to over 500 attendees consisting of national and international stakeholders. LT XXX has also engaged in several other collateral duties, such as participating in OMDRHO's medical device recall termination backlog effort (for which they earned a FY2021 ORA Honor Award), leveraging his expertise to develop a reference document to be used by other FDA investigators when conducting medical device inspections of ethylene oxide sterilization process validation assignments, and voluntarily detailing to FDA/CDRH as a pre-market lead reviewer and completing approximately 650 hours of engineering review work

during a pause in inspectional activities due to COVID-19. In addition, LT XXX supported an intra-FDA deployment to the COVID-19 FDA Contact Tracing Program and earned two (2) FY2021 FDA Honor Awards for contributions to the accomplishments of the program.

2. Support of USPHS Commissioned Corps Mission:

LT XXX has supported four (4) Corps deployments during his four years in the Corps and has taken on leadership roles during each deployment. Specifically, he served as Deputy Chief for the I&I Section of the CCHQ Command Cell (2021) for a portion of his deployment and was responsible for maintaining and improving the data systems used to roster and track officer deployments along with developing and producing daily SITREPs for dissemination to USPHS and top federal leadership. In addition, while serving as a Safety Officer for Operation Artemis in Texas (2021), he was responsible for creating and implementing a COVID testing program for all 40+ on-site federal staff and justifying the merits of the program during an audit by Office of Inspector General investigators. He also developed and gave training to 200+ EIS staff on N95 respirator and donning/doffing procedures. LT XXX is currently serving in a second term as JOAG Voting Member and as Co-Chair for the JOAG Professional Development Committee. LT XXX was awarded the 2021 JOAG Excellence Award, selected amongst 26 candidates, for demonstrating outstanding commitment to JOAG through committee participation. LT XXX was previously appointed to serve as JOAG/EPAC Liaison (2019-2020) and Co-Lead for the Peer-to-Peer Network Program (2020-2021), which facilitated peer mentoring for 110 junior officers in OY20-21. LT XXX also presented at the December 2020 AMSUS Annual Meeting on *Leading as an Engineer in the USPHS Commissioned Corps* on behalf of JOAG.

Within EPAC, LT XXX serves within the EPAC Events Subcommittee (2020-Present) and Recruitment & Retention Subcommittee (2021-Present). Specifically, he served as Co-Lead for 2021 E-week Award Ceremony and serves as an advisor for the 2022 Change of Command Ceremony and E-week, and represents EPAC in inter-PAC recruitment efforts and assisted planning and execution of four engineer listening sessions with the Engineer CPO in 2021.

3 & 4. Consistent Superior Performance in Assigned Duties & Career Potential: LT XXX seeks out opportunities to take on additional responsibility. LT XXX was recently interviewed and appointed to an O-5 billet Medical Device Specialist / Investigator position. He has risen from an O-3 billet to an O-5 billet in just over three (3) years in FDA/ORA, a testament to the high impact he has demonstrated through accomplishing his assigned duties. LT XXX is routinely enlisted by FDA to conduct highly technical medical device inspections, including those that are following up to previous official action by the Agency and manufacturers currently under FDA injunction. LT XXX strives to go above and beyond his regular position duties. For example, while on detail with FDA/CDRH in 2020, LT XXX reviewed and worked interactively with a manufacturer to reach FDA approval for a critical software design change to an automated external defibrillator in only 19 days (71 days before the FDA due date). Early approval of this design change allowed the manufacturer to avoid disruptions to the commercial availability of the device due to COVID-19. In addition, FDA management received a

thank you email from the President of the company for LT XXX's work in addressing several outstanding questions that were preventing approval. At his previous duty station, LT XXX was considered the foremost expert in FDA for leading the pre-market review of CT/MR automated contrast injector systems. He also served as a subject matter expert for conducting engineering and bench testing reviews for coronary stent and delivery systems and was often consulted by other staff to review this information in pre-market submissions.

USPHS Commendation Medal (2021)

The Commendation Medal is awarded to LCDR XXX for continuous superior leadership, initiative, and dedication in managing to completion sanitation projects, and emergency response activities. LCDR XXX distinguished himself as the Senior Field Engineer assigned to the Indian Health Service (IHS), California Area, Sanitation Facilities Construction Program from September 2012 to September 2020. LCDR XXX has served in the Ukiah Field Office and has continually produced outcomes and impacts well beyond his rank; which are demonstrated by his effectiveness in project development and management. LCDR XXX has been at the forefront of emergency drought and wildfire response and recovery activities throughout Northern and Central California.

ACCOMPLISHMENTS AND IMPACTS:

- High level of management and leadership for an exceptionally large project portfolio with a budget totaling over \$34 million and facilities that have served 2,665 Tribal members. Significantly, this workload is 260% higher than Area-level peers.
- Completed over 50 water and wastewater community infrastructure projects that provided improved sanitation services to over 10,000 Tribal members.
- California was at exceptional drought conditions (highest severity); impacting six at-risk Tribal systems located within the Ukiah Field Office, affecting an estimated population of over 5,000 people. He conducted rapid assessments and developed engineering reports documenting the impacts of the drought on the Tribe. Consequently, LCDR XXX was able to successfully secure over \$450,000 to assist Tribes with securing their water supply sources.
- Demonstrated leadership as the Local Emergency Operations Section Chief during California Wildfires that have occurred in Lake, Mendocino and Sonoma Counties from 2015-2019. During these events, LCDR XXX provided daily updates to multiple Federal and State stakeholders on the wellbeing of IHS staff and Tribes, fire activity, damage reports, and sanitation and public health need assessments. In this capacity, LCDR XXX secured over \$662,000 in emergency funds to construct replacement water and sewer services to 28 new Indian homes. In addition, in this role, he assisted in the coordinated response to maintain electrical service to utilities that serve 176 Indian homes.
- In 2018 during the Mendocino Complex Fire, LCDR XXX drove into an active fire area to deliver and connect a generator to ensure the continued operation of a tribal water system serving 300 Tribal members on the Upper Lake Rancheria. On the same trip he assisted local fire fighters in extinguishing an active fire to prevent damage to 11 tribal homes and infrastructure. LCDR XXX completed rapid needs assessments, which resulted in securing \$300,000 in emergency recovery funds that provided new water and sewer services for 6 tribal fire victims and rehabilitation of the fire damaged community water storage tank on the Redwood Valley Rancheria.

The singularly distinctive accomplishments of LCDR XXX reflect the highest credit upon himself and the United States Public Health Service.

USPHS Unit Commendation (2021)

The Public Health Service Unit Commendation is being awarded to the Emergency Fires and Flooding Response Team (EFFR Team) assigned to the Indian Health Service (IHS), California Area, Office of Environmental Health and Engineering from October 2015 to February 2019.

The 2015 wildfire season began a cycle of record-breaking fires. Extreme flooding occurred most notably in 2019. Events impacted over 12 Tribes from damage and disruption of facilities.

Valley Fire, 2015: EFFR Team secured funding and coordinated emergency water hauling for the Middletown Rancheria. During the recovery phase, Team provided engineering services and funding assistance for installation of water/sewer services for eight new homes.

Tubbs Fire, 2017: Graton and Lytton Rancherias lost homes and the EFFR Team coordinated with the IHS National Supply Service Center, Federal Emergency Management Agency, Bureau of Indian Affairs, and the California Office of Emergency Services to provide technical assistance to fire victims to help rebuild their homes, and distributed over 6,000 N95 respirators and 90 room sized air purifiers.

Mendocino Complex Fire, 2018: EFFR Team drove through fire zones to install a generator to the Upper Lake Rancheria to continue water service. Redwood Valley Rancheria lost five homes. Team provided engineering and funding assistance for water/sewer to new homes. Distributed over 5,000 N95 respirators, surveyed a tribal emergency shelter and responded to a Norovirus outbreak at a tribal emergency shelter.

Camp Fire, 2018: Fire burned Tribal homes on the Enterprise Rancheria. EFFR Team assisted with coordinating emergency water hauling, engineering technical assistance, and funding for water and sewer infrastructure for 15 new homes, surveyed a tribal emergency shelter, distributed over 18,000 N95 respirators and 250 room sized air purifiers, procured and provided technical guidance for 16 air scrubbers on behalf of 2 tribal clinics for safe operations.

Kincade Fire, 2019: Fire affected the Stewarts Point, Manchester Point Arena, and Big Valley Rancherias. Electrical utilities implemented shutoffs that resulted in loss of power for several days, and impacted operations of water and sewer systems. Team provided funding and coordinated emergency drinking water hauling. Team led a multi-agency effort to coordinate water/sewer services and secure funding for emergency power serving over 500 Indian homes.

Winter Flooding, 2019: Flooding impacted the Santa Ysabel, Cahuilla, and Yurok Indian Reservations which eroded the water system causing loss of supply to 20 homes, resulted in 40 homes without power, damaged septic systems, and caused landslides that broke a water main to 17 Indian homes. Team conducted rapid needs assessment, prepared designs, assisted with disinfecting and sampling, and emergency repairs to restore water/sewer service to the homes.

The singularly distinctive accomplishments of the EFFR Team reflect the highest credit upon themselves and the United States Public Health Service.

RADM Robert C. Williams Engineering Literary Award-Open Category

TME

The Military Engineer

42 Protecting & Preserving Marine Wildlife in the Pacific

46 Supporting Mission Resilience through Natural Infrastructure

53 Mitigating Waterborne Illness Risks in Facilities

66 Creating a Seabees Skills Mentoring Program

68 Leading the Way in a Crisis Event



The Safe Water Access Mission reduced the average round trip to a transitional water point in the Navajo Nation from 52-mi to 17-mi. PHOTO BY LT. MIKE BUCKLEK, USPHS

Effective Partnering Increases Access to Water on the Navajo Nation

Engineers with the U.S. Public Health Service carried out a series of missions in the Navajo Nation during the coronavirus pandemic to increase water access and public health through the construction of centralized watering points.

By Capt. Kris Neset, PE, M.S.A.M.E., USPHS, Capt. Troy Ritter, Ph.D., REHS, DAAS, USPHS, Lt. Cdr. Ross Hanson, PE, USPHS, and Cdr. Roger Hargrove, PE, M.S.A.M.E., USPHS

On March 11, 2020, the Navajo Nation declared a public health emergency after identification of SARS-CoV-2 in surrounding areas. Like other acute respiratory infections, transmission of COVID-19 is disrupted by a convenient and plentiful water supply for handwashing and cleaning surfaces. However, American Indian and Alaska Native populations have the highest percentage of homes without indoor plumbing of any U.S. racial or ethnic group—and the Navajo have the highest number of homes without indoor plumbing of

any U.S. Tribe. About 30 percent of Navajo residences lack piped water. Residents without piped water rely on centralized distribution water points. In order to increase access to water and aid in the prevention of COVID-19, the Navajo Nation invited the Centers for Disease Control & Prevention (CDC) to provide technical assistance. This work is an example of the effective partnering between engineers, environmental health officers, and epidemiological and surveillance personnel from CDC, the Indian Health Service (IHS), and the Navajo Nation that has been carried out during the pandemic.

PRIORITIZING NEEDS

In April 2020, a team composed of four members of CDC's Division of Environmental Health Science & Practice and one member of the IHS Division of Sanitation Facilities Construction (DSFC), deployed to the Navajo Nation. Their focus was on identifying communities without access to piped water; recommending interventions to address lack of water access; advising on the implementation of recommendations to improve water access; and working with Navajo Nation contributors to develop informative messaging for safe water collection.

The team partnered with DSFC and IHS Navajo Area staff to develop and deploy a survey to collect water access information. Surveyors visited all 110 Chapters of the Navajo Nation to identify chapter-owned water points and determine their operational status. The survey findings informed actions to increase water access. Some recommendations at each site were modified over time as more information was gathered.

By August 2021, many of the critical needs identified by the survey have been addressed. The *Coronavirus Aid, Relief, and Economic Security Act* appropriated funding to IHS to install 59 transitional water points, the provision of 37,000 water storage containers, and 3.5 million doses of disinfection tablets, along with outreach to increase public knowledge about the new water services available. These efforts were guided by a ranking system developed by the team that prioritized water access interventions in chapters with the highest rates of COVID-19 and lowest level of household water service.

STRATEGIC COORDINATION

After sites were prioritized by the first response team, a second phase of work began. Several four- to five-person field teams of engineers from the U.S. Public Health Service were deployed



Public Health Service officers deployed to the Navajo Nation to provide technical assistance, survey and design water point sites, and then train local chapter officials on operating water points. PHOTO BY LOCAL GALLUP, NM, RESIDENT

in 30-day rotations from May 2020 to February 2021. These engineers performed services at each chapter location in need of a transitional water point.

Engineering field teams began with site visits to each location to meet with chapter officials, educate them on the mission goals, and perform a topographic survey of the site. The chapters are located throughout the Navajo Nation's vast 27,000-mi² footprint (roughly the size of West Virginia). Teams needed to strategically coordinate and plan with chapter officials to ensure the effective use of time.

While field work was taking place, efforts also were underway at the deployment field office to develop specifications, scope of work, cost estimates, construction details, and user agreements.

Maps of the existing water distribution system were made available by coordinating with local IHS staff and incorporated into the site design background imagery within the construction plans.

The engineering field team lead was directed from IHS Headquarters by a teleconferencing app.

After field reconnaissance was complete, engineers used data to design site plans for each water point. Maps of the existing water distribution system were made available by coordinating with local IHS staff and incorporated into the site design background imagery within the construction plans.

Soon after site designs and related project documents were complete, procurement of the materials began. Public Health Service engineers inspected products to ensure conformance

with the project specifications. Construction by the Navajo Engineering Construction Authority began immediately after costs and agreements were finalized.

Engineers then inspected construction and project management from start to finish. Construction included connecting to the existing water line and installing a watering point that would be easily accessible to chapter members.

EDUCATION AND TRAINING

After construction was completed, Navajo chapter officials were trained on how to use the new watering points. Ultimately, the chapter is responsible to operate the new facility, ensure accessibility, and maximize use by the Navajo people.

Public Health Service environmental health officers, along with engineer officers, were deployed in the later stages of the mission. These teams, which included environmental health specialists, industrial hygienists, and occupational safety and health specialists, informed chapter staff about the program, how to safely operate facilities, and how to report usage and operational issues. Several field teams also set up a support network to respond to reports of operational issues and continued to advise

The Navajo Safe Water Access Mission surveyed, constructed, and educated personnel on proper operation of distribution water points to increase the availability of clean water and support public health throughout the Navajo Nation. PHOTO BY CAPT. KRIS NESET, USPHS



participating chapters about the benefits of the program.

Engagement and Outreach. Public Health Service officers were engaged with 106 Chapters of the Navajo Nation and provided training on the operation of water points and safe collection and hauling procedures, including disinfection of hauled water. Engineers provided direct, onsite response to 27 water point facilities that reported operational issues while other supporting efforts helped establish a network of trained local Navajo personnel.

As a follow on to the Safe Water Access Mission, Public Health Service engineers assessed over 600 Navajo homes, categorized their onsite water and wastewater systems, and completed construction bid packages for priority sites. PHOTO BY CAPT. STEVE BOGLEWICZ, USPHS



Additionally, the Public Health Service supported four training sessions with 29 Navajo Nation and Navajo Area IHS staff members to establish a network of personnel who could provide long-term response to operational and maintenance issues. Participants consisted of DSFC staff in the four districts spanning Navajo Nation. Another training session included staff from Navajo Engineering Construction Authority, which was a major partner in the construction portion of the mission. Officers conducted three more training presentations to strengthen local environmental health officer capacity and provide consultation and technical

support to chapters about Navajo Safe Water Access Programs. The participation of environmental health officers demonstrated the capacity of the Public Health Service to deploy a wide range of health professionals who respond swiftly and effectively to public health emergencies and emergent concerns.

SURVEYING HOME SITES

The success of the Water Access Mission led the Navajo Nation to request an additional Public Health Service response in September 2020. In the Cistern and On-Site Wastewater Mission, engineers and environmental health officers collected field data and designed site plans for individual onsite water and wastewater systems at Navajo homes lacking these facilities.

A total of three teams assessed over 600 Navajo homes from September 2020 to December 2020 and completed construction bid packages for 78 sites that will be ready for construction once funding resources are fully available. Team members collected homeowner information; developed GPS surveys of each home site using ArcGIS; and conducted a household assessment of plumbing that included enumerations of household residents, bedrooms, bathrooms, and status of electrical power. They also conducted a soil analysis for septic system design and designed water cistern and on-site septic systems. Information and photos were entered into the Survey123 Program for engineering reports.

Tiered Grading System. Home sites were categorized by a three-tier system. Tier 1 (30 percent) had indoor plumbing and were ready for construction of individual water and wastewater facilities. Tier 2 (45 percent) did not have indoor plumbing ready and/or a home site lease was not filed. Tier 3 (25 percent) were homes that were ineligible because they were already served with water and wastewater facilities, were abandoned, or were no longer located on the site.

Engineer officers provided the Navajo Nation with a full design package for the 78 completed Tier 1 home sites. The remaining 370 Tier 1 and Tier 2 sites have the necessary information to develop

future design packages for construction once the original 78 Tier 1 sites have onsite water and wastewater facilities installed. It is important to note that not all home sites were ready for exterior water and wastewater facilities because their indoor plumbing was not ready for connection outside the home.

ADVANCING WATER ACCESS

Hauling water for drinking and sanitation adds another layer of complexity to life in the Navajo Nation. Time spent to drive to water points, fill up containers, and return home prevents families from engaging in other important activities. Facilities offering water hauling must assure that services are operational and dependable when customers arrive; otherwise, they will gain a reputation for being unreliable and residents may not use them.

The work completed resulted in a significant reduction of travel time to and from watering points for households without piped water. Prior to the Safe Water Access Mission, an average household round trip to a watering point was 52-mi. This was reduced to 17-mi. The Public Health Service officers demonstrated how a practical, hands-on engineering and public health focused response can improve critical sanitation deficiencies during a major infectious disease event.

These deployments during the pandemic showcase the roles and impact of Public Health Service engineers working closely with tribal leaders, and their dedication in advancing water access and public health in the Navajo Nation.

TIME

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control & Prevention or Indian Health Service.

INCREASING WATER ACCESS

SURVEY FINDINGS	NUMBER	TEAM RECOMMENDATION TO INCREASE WATER ACCESS
Water points open and in good condition	54	Notify residents of days and times of operation
Chapters without a water point, but with most homes having piped water	13	No action needed; most homes have piped water
Water points closed due only to COVID-19 concerns	4	Contact chapter and determine how to address concerns
Water points not operational (minor repairs needed)	13	Quickly repair water point or install transitional water point
Water points not operational (major repairs or new water point needed)	35	Install transitional water point