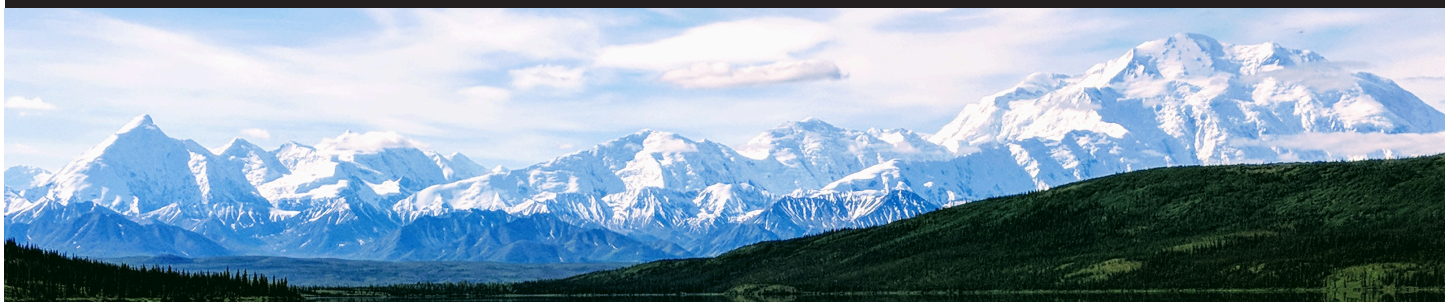
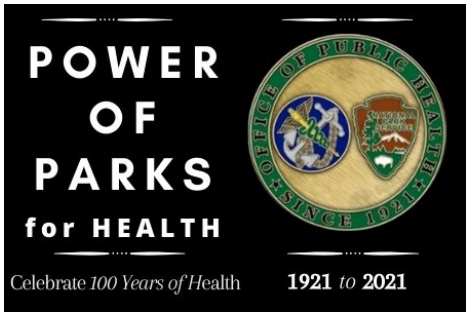
Power of Parks for Health

Office of Public Health
National Park Service
U.S. Department of the Interior





Celebrate 100 Years of Health!

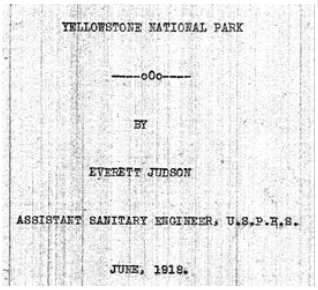
The year 2021 marks the 100th anniversary of an agreement between the United States Public Health Service (USPHS) and the National Park Service (NPS) to protect, promote, and advance health in our parks. This anniversary provides an invaluable opportunity for a year-long series of educational and celebratory events to share the history of the partnership, highlight the role of public health in parks and launch efforts to begin planning for a health focused future.

Join us at https://go.nps.gov/PoPforHealth or on social media by using the hashtag #PowerofParksForHealth as we celebrate the centennial partnership this year. For more information contact Centennial Planning Co-Chair LCDR Jessica Sharpe, jessica_sharpe@nps.gov.

Explore the history of the partnership:

- *One hundred years of Health in US National Parks*, George Wright Society, Nature & Health, special edition: January 15, 2021, by Diana Allen and CAPT Sara Newman, Link: https://escholarship.org/uc/item/8977g2b6
- *A Century of Support: Office of Public Health helps keep National Parks pristine*, Ranger Vol 37, No. 1, Winter 2020-21, by CAPT Sara Newman and Melissa DeVaughn, Link: https://www.nps.gov/subjects/healthandsafety/upload/Century-of-Support.pdf

Office of Public Health Deputy Director Sonya Coakley and Director CAPT Sara Newman stand untied.



YELLOWSTONE NATIONAL PARK

-----oOo-----

BY

EVERETT JUDSON

ASSISTANT SANITARY ENGINEER, U.S.P.H.S.

JUNE, 1918.

Sanitary Survey report cover from Yellowstone National Park archives.

It started with request for an Engineer, and that need continues today:

by CDR Kurt Kesteloot

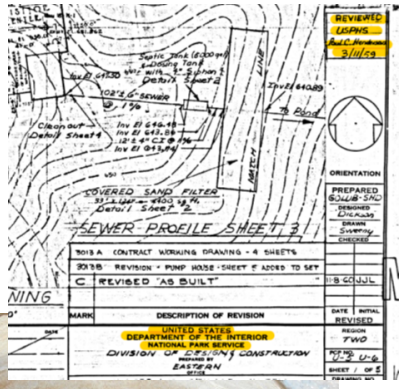
After inspecting over 500 drinking water and wastewater systems in over 80 National Parks it is clear why the United States Public Health Service (USPHS) and the Department of Interior, more specifically the National Park Service have worked closely with one another for over 100 years. According to the Sanitary Survey for Yellowstone National Park completed by Assistant Sanitary Engineer Everett Judson in June of 1918, the work hasn't changed much, if anything the need has grown with our visitation.

Just a few years after that first report, in September of 1920 Superintendent Albright received a telegram at Yellowstone National Park that Assistant Sanitary Engineer Harry B. Hommon was due to arrive at Yellowstone later that month or sooner if possible. This telegram request was sent to the USPHS by Superintendent Albright due to unsanitary conditions at the Park. As a result, many recommendations were made for drinking water and wastewater system improvements in a report that followed Assistant Sanitary Engineer Hommon in October of that year. Since then there have been many Public Health Officers that have evaluated drinking water and wastewater systems, created designs and reviewed plans. Some, if not many of those systems are still in use today, and USPHS Engineers like me are still evaluating them one at a time.

Continues on next page

Continued from previous page

In 2015, I was in a Park that mentioned they had a sewer system that would backup up periodically. The employee described how another employee would go to a manhole, pull a plug, and then the wastewater system would work again. That sounded suspicious and did not make sense. Thus, while conducting a sanitary survey I took a picture of the manhole and informed the park they could no longer remove that plug. After doing more research, I discovered the system was designed and approved by the USPHS in 1959. In 1959 the wastewater system met all requirements; however, after the Clean Water Act became law in 1974 the system should have been permitted or modified. The partially treated wastewater was coming from a slow sand filter that then discharged to a lagoon adjacent to the Mississippi River. After 1974 a discharge permit was needed to remove the plug. When the park stop removing the plug, wastewater backed up into the building within 3 short months. This proved my concern about non-permitted discharging and need for modification to the system. This is just one example of why the National Park Service continue to hire USPHS engineer officers over 100 years later.



Wastewater system design plans reviewed by USPHS Engineer in 1959 (left), Manhole photo taken in 2015 by CDR Kesteloot (below).

Sharing resources helps Navajo Nation serve more people

by CAPT Michael MarcAurele

During the months of October, November, and December 2020, as the COVID-19 pandemic impact was near its peak on the Navajo Nation (NN), 3 teams of USPHS Commissioned Corps Engineers and Environmental Health Officers (EHOs) predominately from the National Park Service (NPS) and Indian Health Service (IHS) as well as others from the FDA, CDC, EPA, and NIH were deployed to help accelerate the design and construction of on-site water and wastewater systems.

These deployments were the result of a decision made by the NN to best utilize their CARES Act funds to push forward an effort to serve homes that have never been served with basic sanitation needs of water and sewer. The lack of basic sanitation facilities in many tribal homes is considered one of the most important needs in the fight to lessen the impact of COVID-19 pandemic on the Navajo people.

Deployed officers get comfortable with field equipment at a Navajo home site near Gallup, NM, from left, LCDR Kachurak, LCDR King, CAPT MarcAurele

With equipment and guidance from Navajo Area Indian Health Service (NAIHS) and IHS Headquarters personnel, the teams put into use and helped NAIHS to develop mobile design tools that allowed teams to actually lay out systems for homeowners as well as collect relevant application data directly from homeowners on site in real time. This process greatly accelerated the collection of data to feed both the IHS Housing Information and Tracking System (HITS) system and the NN Cistern Project.

LCDR Kachurak digs soil profile at homesite near Cameraon, Az.

The NN covers more than 27 thousand square miles of land and is made up of 110 different Chapters. Officers spent many hours locating remote homes and interfaced directly with tribal members to determine site specific solutions for them. Data collected included GPS confirmed locations for homes and other relevant structures as well as soil sampling and analysis to confirm feasibility for on-site wastewater treatment systems. As logistical conditions changed, the teams also completed design packages ready for bid to local contractors and one officer embedded directly in the NN EPA to further the contracting effort. During the collection of data many construction projects to install cisterns and on-site wastewater systems were observed already under way or recently finished as a part of the Navajo Nation's greater effort in cooperation with the Navajo Engineering and Construction Authority's crews.

Continues on next page

Continued from previous page

Because of the impact of the pandemic, the teams operated under strict protocols to ensure the effort would not further contribute to the spread of Covid-19. These efforts were absolutely necessary as more than a few sites had confirmed Covid-19 patients fighting the effects of the sickness. Officers worked in N95 respirators 100% of the time they were outside their vehicles on tribal lands, conducted all work outside the homes concerned and sanitized the tablets used in the collection of data whenever the homeowners were required to sign applications on site. Even group meetings and coordination between Officers were generally conducted via electronic meetings to ensure safety of the teams and the households served. Working hours within the NN were limited to Monday at 5am through Friday at 5pm because of a shelter in place order each weekend for the entirety of the NN. The teams operated out of Gallup, NM as well as Winslow and Kayenta, AZ to maximize impact and reduce drive time required to reach such a large area.

Weather conditions varied greatly over the course of the deployment including beautiful sunshiny days as well as wind, snow and rain. Inclement weather posed real challenges to travel on the back roads necessary to reach most of the homes as well as making the use of tablets sometimes a bit more of an art than a science. During the course of the effort, more than 40 chapters and 600 individual homes were visited, and thousands of hours of travel were logged. Additionally, as a result of the personal visits conducted, many homes were identified that were not yet in the HITS system. Identification of new homes in the HITS system is important as it allows NAIHS to improve their data on the existing need for the area and help identify funding for this and further efforts for this region.

As one of several officers who was a prior Field Engineer on the NAIHS (Crownpoint 1997-2001), it is hard to convey just how rewarding it was to talk directly with so many homeowners that had been waiting many years for services to become available to them. To have the opportunity to directly assist families to move forward in the process toward construction of their systems was as enjoyable a deployment as could be hoped. It was also very satisfying to see how seamlessly and faithfully NPS officers took to the task of assisting these homeowners in their time of need regardless of any lack of prior experience with the IHS. This effort brings to light what a resilient resource the USPHS Commissioned Corps Engineers and EHOs are regardless of agency affiliation or assignment location and what possibilities exist for future agency cooperation.

Mission Team B group photo from left, CDR Hoeschele, CDR Kesteloot, CAPT Cowman, CAPT White, LCDR Buikema

CDR Nickels and LCDR Moore during NPS deployment in response to Hurricane Matthews.

More NPS Engineer Highlights...

- CDR Bret Nickels, Project Manager with Denver Service Center Design and Construction Division, 2018 E-week Profile. Link: **https://www.nps.gov/articles/bret-nickels.htm**
- CAPT Tracy Gilchrist Project Manager with Denver Service Center, 2018 E-week Profile. Link: **https://www.nps.gov/articles/tracy-gilchrist.htm**
- LCDR Kelly Kachurak Project Manager, from Southeast Regional Office, 2018 E-week Profile. Link: **https://www.nps.gov/articles/kelly-kachurak.htm**

USPHS Officers recognized by Secretary of Interior for Pandemic Response

In December 2020, former Secretary Bernhardt recognized 27 USPHS Officers assigned to the DOI for their outstanding suggestions, achievements, contributions, and exemplary leadership in service to the Department of the Interior (DOI). These "USPHS Officers suggested innovative solutions that required efforts beyond the performance of their normal duties and were instrumental in leading the DOI COVID-19 response. Through their extraordinary efforts, USPHS Officers developed protective measures that fostered a safe work environment for DOI employees and allowed DOI's national critical infrastructure operations to function efficiently during the COVID-19 pandemic response. "

Recognized officers: CAPT Glime, CAPT Handrigan, CAPT Newman, CAPT Proctor, CAPT Said, CAPT Ungerecht, CDR Bingley, CDR Blonk, CDR Buttke, CDR Fournier, CDR Hoeschele, CDR Kesteloot, CDR Larsen, CDR Lim, CDR Mason, CDR Nickels, CDR Parris, LCDR Carroll, LCDR Coffey, LCDR Corcoran, LCDR Dondzila, LCDR Gifford, LCDR Kachurak, LCDR King, LCDR Sharpe, LT Bridges, LT Kozler