



Second Quarter 2022

President's Message:

The 2022-23 California Parks Training Conference will be March 5th-9th, 2023 at the Rush Creek Lodge. We are planning to keep as many of our previously scheduled speakers and events as possible. We hope to share the schedule by early July. The room rate will be \$125 a night. On Sunday March 5th we have added an activity for the early arrivals, a hike on the historic Westside Trail in Tuolumne City. This rail trail follows the route of the legendary West Side Lumber Company's narrow-gauge railroad in the canyon of the North Fork of Tuolumne River.



The Westside Trail outside of Tuolumne City



Crypto Mining: A New and Different Take of the Resource

By: Mike Warner, Region 2 Director



Figure 1: Ranger Hapke with Crypto Mine.

On an overcast day in late February, Rangers Lindsay Contreras and Lead Ranger Alex Hapke with the Midpeninsula Open Space District were on patrol in the area of the Monte Bello Preserve near Palo Alto, California. As they passed a section of the tree line they noticed that something was off. Standing about seven feet tall, slim in build, and grey in color, their find had been wrapped in camouflage netting disguising itself from the rangers' ever-watchful eyes. Rangers Contreras and Hapke had found yet another crypto mine, the fourth to be found in the preserve in less than a year.

Many of us have heard or read the words of Stephen Mather, the first director of the National Park Service, when he wrote about the duties of a Ranger over one hundred years ago:

...Many and long are the duties heaped upon their shoulders. If a trail is to be blazed, it is 'send a ranger.' If an animal is floundering in the snow, a ranger is sent to pull him out; if a bear is in the hotel, if a fire threatens a forest, if someone is to be saved, it is



‘send a ranger.’ If a dude wants to know the why of nature's ways, if a sagebrusher is puzzled about a road, his first thought is ‘ask a ranger.’

While these words still ring true for rangers today, there seems to be endless additions that could be easily added to this paragraph. Rangers in the twenty-first century are adapting to new changes in technology and park uses, such as electric bicycles, social media, cell phone apps and now crypto mines.

Crypto is shorthand for cryptocurrency (which comes in many different types), and the act of mining is different than you might think. Unlike traditional mining where shovels and pickaxes are required, crypto mining is described by PC magazine as “the competitive process that verifies and adds new transactions to the blockchain for a cryptocurrency that uses the proof-of-work method. The miner that wins the competition is rewarded with some amount of the currency and/or transaction fees.”

Further, the proof-of-work method is defined as: “a challenge string is presented that has to be hashed together with an unknown number to derive a result that matches some criterion such as the first 20 bits must be zero. When that is reached, it proves that a certain amount of computer processing was undertaken. It takes an enormous number of calculations to find a number that proves the challenge, and miner hardware is rated in "hashes per second." Bitcoin, Ethereum and other cryptos use the proof-of-work (PoW) algorithm. However, proof-of-work uses massive amounts of electricity and is a very controversial subject.”

The diagram below helps explain this process as well.

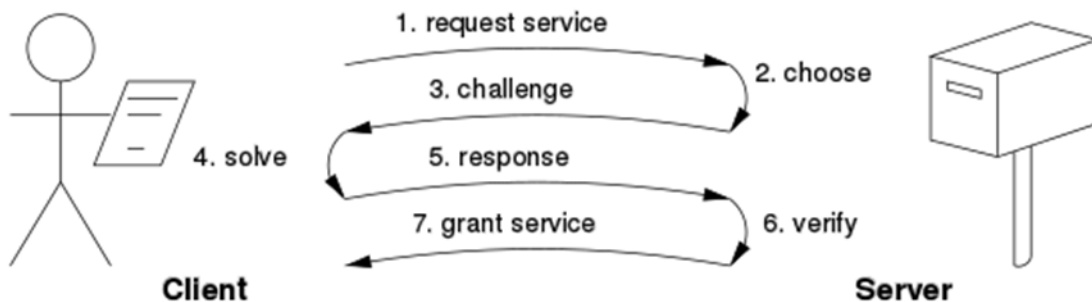


Figure 2: Proof-of-work diagram.

The proof-of-work is not the only method of generating a cryptocurrency, but it is the most popular. Another method used by a company called Helium is the proof-of-coverage method, where users place devices to talk with one another. With more devices to communicate with the helium network expands and in return helium gives more rewards. See the example below:

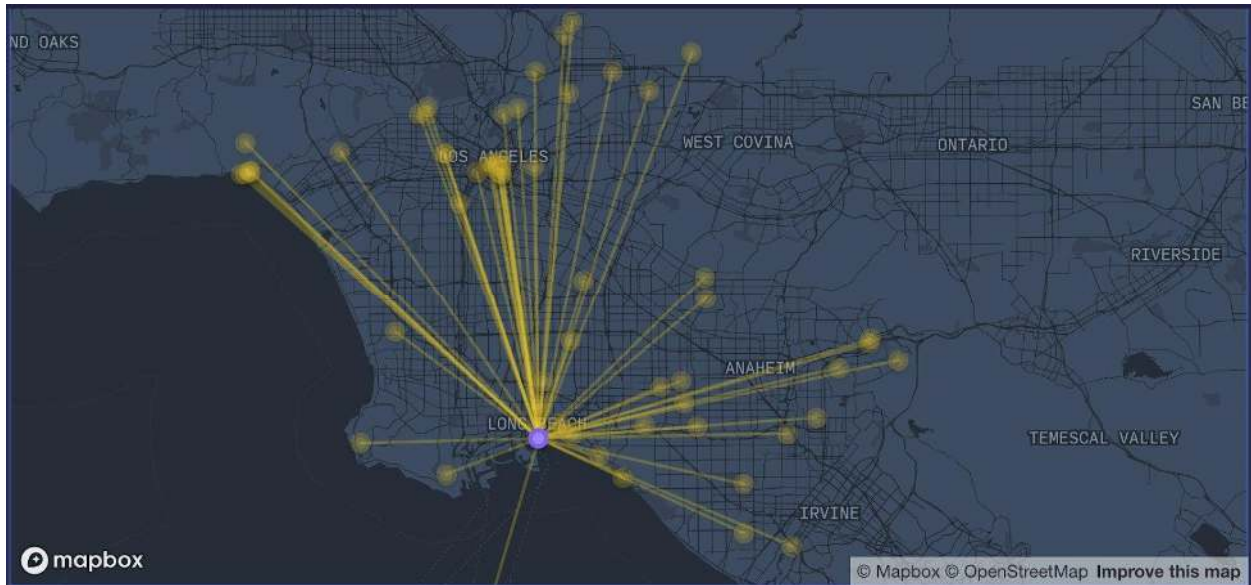


Figure 3: Proof of Coverage Diagram.

In many urban environments, residents don't have the space or the topography to set up a cryptocurrency mining rig. Instead, they turn to local parks and open spaces, often backpacking or cycling miles to an optimum area with their self-sufficient rigs, which cost several hundred dollars each. They attempt to hide these mining rigs as radio equipment, seismographs and weather stations with fake stickers they purchase online. Each rig comes complete with a synchro bit (the computer), solar panel, solar panel regulator, a cellular internet router and either lithium or acid style car battery.



Figure 3: Interior of a Crypto Rig



Some may wonder, what’s the big deal? What is the damage being done to the resource? “When people venture out to place these devices on public lands, they could create a potential fire hazard if faulty connections occur,” Ranger Contreras says. “The battery could become an environmental pollutant if damaged or not properly weather-protected. Additionally, hiking out to areas off trail can put the device owner at risk of injury or becoming a SAR callout. The off-trail component raises concerns of resource damage associated with the installation as well.”



Figure 4: Exterior of a Crypto Rig.

Furthermore, in other counties, rangers have discovered some rigs have even been installed on established radio communication sites, constituting a theft of electricity from the site owners.



Figure 5: A Crypto rig (proof-of-coverage) illegally placed on tower site.



The resources of our parks and preserves will always face new challenges and threats brought by visitors. It should be a part of our culture as rangers to constantly be learning about these new trends and technologies to stay one step ahead. As Stephen Mather said all those years ago, “though small in number, their influence is large. Many and long are the duties heaped upon their shoulders.” We may all struggle with many duties, but as stewards and guardians of parks and preserves we should strive to be forever students in learning about how to best protect these resources in our charge.

Under the Flat Hat

By: Matt Cerkel, President



For the past few years, I’ve been hearing the idea of “Ranger First” circulate in the park ranger profession. To understand the idea of “Ranger First” and what it means for individual park rangers is to understand how this concept is beneficial to the profession as a whole.

The Florida Park Service Ranger Association defines the Ranger First attitude as: “service to the land and to the public who use the land and service above self.”





Virginia State Parks states, “our focus is on ensuring everyone has an enjoyable and safe visit while protecting our resources, supporting our belief in being "Ranger First."

Lewis Ledford, executive director of the National Association of State Park Directors, said the “Ranger First” idea “instills in park staff an ethos of servant leadership, dedication, teamwork and passion for conservation efforts.”

Mark Caughlan, the Chief Ranger of Wyoming State Parks and Past President of the Park Law Enforcement Association said this: “park professionals have seen many changes and increased demands for service over the last decade. But our core values have not changed: our duty to serve and protect natural resources and visitors with a “Ranger First” philosophy remain priority. The title ‘park ranger’ is commonly used to cover a wide variety of responsibilities. To unionize this, the “Ranger First” philosophy was established to provide a more authoritative influence of the park ranger while simultaneously promoting voluntary compliance among visitors.”

These definitions of “Ranger First” all share a similar idea of providing service to park resources and park visitors, while often providing for safety and using voluntary compliance where possible.

So where did the idea of “Ranger First” originate? The idea started with West Virginia State Parks in 2013, when Scott Durham, a park superintendent at the time, and other park superintendent were working on a project to better define the role of the law enforcement officers within the agency. At that time there were conflicting pressures from internal and external constituents about what roles “rangers” should play in law enforcement in West Virginia State Parks. While researching the issue Durham determined in most cases law enforcement rangers in parks perform a type of community-oriented policing. Durham said the public knows what a ranger is, and they want rangers, not police, running the parks.

As Scott Durham stated (on the Park Leaders Show podcast) “with park ranger set as a universal term, the “Ranger First” philosophy was established to clarify authoritative influence and promote voluntary compliance. Since its inception, benefits have emerged specifically through community-oriented policing and accountability among rangers and superintendents.”

The idea has expanded to all park operations, not just law enforcement. So ultimately, the goal of “Ranger First” is to “create and maintain a well-kept, safe, secure and orderly area and use all methods available to create a culture of voluntary compliance with park users and park guests.”



The “Ranger First” program has six parts to implement.

1. Build relationships between the park, the community and park visitors. Once people become invested in that relationship, they are inspired to follow the rules and regulations to protect land they value. In turn they may exert peer pressure on people they know that also value the park.
2. Rangers and other park employees should “use their positions and personal credibility to influence to, educate, and communicate to the public on what acceptable behavior is in the park, which then helps lead to voluntary compliance
3. To create a safe, secure, and orderly park the broken windows theory must be recognized and as is the importance of maintaining a park. If a park is well run, clean and orderly that helps create a culture of voluntary compliance.
4. Enforcement of “minor” park rules and regulations which also leads to safe, secure, and orderly parks. By enforcing park rules and regulations we establish a low level of violation tolerance. It can normally be done through education and warnings. This also helps build relationships with the community. Minor enforcement is a critical part of “Ranger First.”
5. Good judgment:
 - look at the person’s actions and intent and use that to guide the response to their actions (intentional or lack of awareness).
 - Use a sliding scale of enforcement (time to be strict vs. time to be more lenient).
 - Know when to switch from being a ranger to being a police officer
6. Establish operations to help establish that sense of voluntary compliance:
 - Incorporate the first five steps into daily operations.
 - Make physical improvements (signs, gates barriers, lighting).
 - Educate and have conversations with the park users, which can help build on the idea of voluntary compliance.
 - Enforce the park rules and regulations through patrolling, uniformed presence, verbal/written warnings, and use of eviction. You still can take law enforcement actions, when needed.

“Ranger First” is more than an idea: it is an umbrella attitude centered on protecting the park and developing healthy park operations and visitor behavior. It is my belief more agencies should adapt the “Ranger First” idea to help protect the parks while building public support.



Peelian Principles and Park Rangers

By Matt Cerkel, President

The Peelian Principles were developed from the ideas of the father of modern policing, Sir Robert Peel, for whom the English “bobbies” are named. Peel was a 19th Century political statesman and social reformer. “Peel's Metropolitan Police Act 1829 established a full-time, professional and centrally-organized police force for the Greater London area, known as the Metropolitan Police.” The nine principles were set out in the “General Instructions” and have been issued to every new police officer of the Metropolitan Police since 1829.

The core idea of the Peelian Principles are:

- The goal is preventing crime, not catching criminals. If the police stop crime before it happens, we don't have to punish citizens or suppress their rights. An effective police department doesn't have high arrest statistics; the result is a community with low crime rates.
- The key to preventing crime is earning public support. Every community member must share the responsibility of preventing crime, as if they were all volunteer members of the force. They will only accept this responsibility if the community supports and trusts the police.
- The police earn public support by respecting community principles. Winning public approval requires hard work to build reputation: enforcing the laws impartially, hiring officers who represent and understand the community, and using force only as a last resort.

The Nine Peelian Principles

1. To prevent crime and disorder, as an alternative to their repression by military force and severity of legal punishment.
2. To recognize always that the power of the police to fulfill their functions and duties is dependent on public approval of their existence, actions and behavior, and on their ability to secure and maintain public respect.
3. To recognize always that to secure and maintain the respect and approval of the public means also the securing of the willing cooperation of the public in the task of securing observance of laws.
4. To recognize always that the extent to which the cooperation of the public can be secured diminishes proportionately the necessity of the use of physical force and compulsion for achieving police objectives.



5. To seek and preserve public favor, not by pandering to public opinion, but by constantly demonstrating absolute impartial service to law, in complete independence of policy, and without regard to the justice or injustice of the substance of individual laws, by ready offering of individual service and friendship to all members of the public without regard to their wealth or social standing, by ready exercise of courtesy and friendly good humor and by ready offering of individual sacrifice in protecting and preserving life.
6. To use physical force only when the exercise of persuasion, advice and warning is found to be insufficient to obtain public cooperation to an extent necessary to secure observance of law or to restore order, and to use only the minimum degree of physical force which is necessary on any particular occasion for achieving a police objective.
7. To maintain at all times a relationship with the public that gives reality to the historic tradition that the police are the public and that the public are the police, the police being only members of the public who are paid to give full-time attention to duties which are incumbent on every citizen in the interests of community welfare and existence.
8. To recognize always the need for strict adherence to police-executive functions, and to refrain from even seeming to usurp the powers of the judiciary of avenging individuals or the State, and of authoritatively judging guilt and punishing the guilty.
9. To recognize always that the test of police efficiency is the absence of crime and disorder, and not the visible evidence of police action in dealing with it.

The principles are still relevant today and are directly applicable to park rangers with law enforcement duties.

These principles tie in directly to the philosophy of "Ranger First".





Park Rangers Association of California-The Signpost



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Thanks for reading! Please [let us know](#) if you have ideas for what you would like to see in future issues of *The Signpost*.

