Place names are vital to orienting ourselves in the world. In ancient times, people must have had names for places like hunting grounds or berry groves. This act of naming roughly delineates geographic features which can be revisited and described to others, affixing an added cultural meaning to that place. Place naming has since come a long way. Official place names for the United States and its territories are managed by the United States Geological Survey (USGS), National Geospatial Technical Operations Center (NGTOC). This report details my experience working in the Geographic Names Unit. As a Pathways Career Intern, my main duties were to manage the Geographic Names Information System (GNIS), a database containing official place names for features outlined on federal topographic maps. Most of the work involved duplicate names; an issue where there are two name records for one feature, often indicating that one record is a copy and should be deleted. Sometimes the two records were not copies, and the correct locations were identified by visually analyzing historic and recent maps. The coordinates were then updated respectively in the GNIS. I gained valuable experience reading topographic maps, identifying features and managing a large database of geographic names.
NAMES AND GEOGRAPHIC FEATURES:
AN INTERNSHIP WITH THE U.S. GEOLOGICAL SURVEY

An Internship Report

Submitted to the
Faculty of Miami University
in partial fulfillment of
the requirements for the degree of
Master of Environmental Science
by
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2016

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This internship report titled

NAMES AND GEOGRAPHIC FEATURES:
AN INTERNSHIP WITH THE U.S. GEOLOGICAL SURVEY

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Dedication

To Alaskans whose long-standing fight on renaming Mount McKinley to its traditional native name, Denali, has finally succeeded.

&

To the professors who have inspired me to reach greater heights of achievement throughout my academic career.

Denali, Alaska (Booker, 2015)
Acknowledgements

I would especially like to thank the following individuals who have helped me during this internship experience and have provided valuable feedback on the editing of this report.

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CHAPTER 1: INTRODUCTION AND BACKGROUND

Introduction

The importance of standardized names for geographic features can be easily overlooked. How would we give directions or find our way to the berry grove, hunting grounds, or national landmarks if those places were not named? Humans may be distinct from other animals because we name places, creating delineated landmarks which can be revisited or used for orientation in one’s world. Naming a place and delineating its boundaries can also make it more tangible in our minds and communities, making it a place in the world with an added cultural meaning.

From a cultural anthropology perspective, features that are “out there” in the world may seem strange with their “shapes and colors and contours of the land, together with the shifting sounds and cadences of native discourse,” thus highlighting the need for ethnographers to understand distant places and names associated with them (Basso, 1988). This understanding can dissolve the barrier between self and other. From this perspective, geographic features become more than just places with names; they have attached cultural value and significance, and become socially transmitted amongst members of that society and indicate their “way of being” in the world (Basso, 1988). In essence, naming local features can also provide a sense of belonging to the world and knowing one’s place within it.

Names on maps often provide a historical account as well. Many names throughout the U.S. are of Native American origin or are reminiscent of the different languages spoken by early explorers and settlers (Orth, 1987). These names often symbolize the rough environment that explorers encountered during westward expansion. Naming features without a system in place led to confusion. For example, a name for a specific feature could be spelled different ways, there may be identical names for different features, multiple names for the same place, or a name can be applied to a feature in an unexpected way. This has become increasingly problematic as more and more people from greater distances have a reason to refer to a place (Campbell, 2014).

Standardization of naming became ever-more important during the last century due to the development of natural sciences, transportation and communication systems, special land, mineral, and water rights and highly accurate large-scale maps and charts (Orth, 1987). As such,
the proper naming of features and places is beneficial for environmental science and other applications. For example, when there are two different names for a conservation area or island, a decision must be made to choose one name as the dominant and the other as a variant. When a river meanders over time and erodes an island, the island name should be marked historical so that maps can be updated, omitting the now absent feature. As a result of the confusion in naming discrepancies, President Benjamin Harrison (Miami University alumnus) signed an executive order on September 4, 1890 establishing the Board on Geographic Names (BGN) to ensure geographic names uniformity on maps and charts issued by federal departments and bureaus.

**The Board on Geographic Names (BGN)**

The BGN was established in 1890 to ensure uniformity after the surge of mapping and scientific reporting that followed the Civil War and westward expansion (Campbell, 2014). In 1906, President Theodore Roosevelt expanded the responsibilities of the Board to not only adjudicating conflicts, but also to standardization of all geographic names for Federal use. This included the authority for name changes and new name proposals (Campbell, 2014). In 1947, Congress reorganized the Board by Public Law 80-242 and is directed to “establish and maintain uniform geographic name usage throughout the Federal Government (Orth, 1987).” Today, confusion is minimized because standardization has allowed agencies within the federal government to communicate with each other more clearly concerning places (Campbell, 2014).

The Board’s decisions on names are often followed by state and local governments as well. Naming actions are not initiated by the BGN, but rather the BGN responds to proposals received from Federal agencies; state, local and tribal governments and the public. The Board is composed of federal employees from various departments, providing a diverse representation for those concerned with geographic names (Campbell, 2014).

**Denali Controversy**

Naming disputes can sometimes turn into long-standing debates between stakeholders. One example was the debate to rename Mount McKinley in Alaska to Denali, a debate which began over a hundred years ago when a prospector proposed naming the mountain after President
McKinley. Denali was the most common original name used by Native Alaskans. Other local tribes used different names as well. For example there are 48 variant names for the feature, including native and Russian names (Howard, 2015). Denali is a Koyukon Athabaskan word meaning “the high one” or “the great one (Sinnott, 2014).”

The mountain was named by a prospector as Mt. McKinley in 1896 (U.S. Geological Survey, 1981). The name was official and was used on federal maps from then on. Mt. McKinley was chosen in recognition of President William McKinley, an Ohioan, who reportedly visited the mountain once. Legislation has been introduced repeatedly to change the official name to Denali; however members of the Ohio congressional delegation have filed measures to block the proposed name change (Bohrer, 2012). These efforts to change the name to Denali began in 1975 (Davis, 2015). As a compromise, the park surrounding the mountain was named Denali National Park in 1980. This discrepancy underscores the naming conflict as the mountain was named McKinley while the surrounding park was named Denali. Ohio Republican Ralph Regula and other McKinley supporters argued that changing the name would be “an insult to the memory of President McKinley and to the people of my district and the nation who are so proud of his heritage (Sinnott, 2014).”

Oldham writes for the Georgia Political Review in What’s in a Name?: “The Denali controversy is indicative of the callous superiority that modern culture has leaned toward since Christopher Columbus arrived to “save” Native Americans so many years ago” (Oldham, 2014). Senator Lisa Murkowski, R-Alaska, further argues that “McKinley never set foot in our state,” identifying another controversy that some believe he never in fact visited the mountain (Oldham, 2014). E.J.R. David, a man married to a Koyukon Athabascan woman, argues:

[Naming it] McKinley instead of Denali perpetuates oppression. It sends the message that a White Man’s name is more official . . . insults many Athabascans and other Alaska Native Peoples . . . [and] honors someone who held racist and oppressive beliefs against non-Western or non-White peoples in a state as culturally and ethnically diverse as Alaska . . . My kids are Filipino, Athabascan, and American. All will be very important to their identities. Their self-esteem will be influenced by their colonized past and their society’s messages about their Filipino, Athabascan, and American characteristics (David, 2013).
This controversial naming issue was just one case involving conflicting values and beliefs between stakeholders. On August 30, 2015, Native Alaskans won this dispute as the mountain was officially renamed as Denali. With agreement from President Obama, U.S. Secretary of the Interior, Sally Jewell, signed secretarial order 3337 to make the name change official (Sec. Order No. 3337).

Record Keeping

From 1890 to the 1960’s, records of names and name decisions were kept as hard copies only. Information recording started to become automated in the 1960’s when a tape punch machine was used to record the name, description and application of every board decision (U.S. Department of the Interior, 1992). In the 1970’s, the Mag Card was used and the 80’s brought computers to the forefront. With further technological development, documents were also scanned and stored digitally. These documents included decision cards (Figure 1) and documents detailing correspondence between the BGN and parties proposing a name change or a new name for a previously unnamed feature. The Geographic Names Information System (GNIS) was created as the main method of recording and accessing place names. Its basic information structure was determined between 1968 and 1970 and the overall system design was completed in 1976 (U.S. Department of the Interior, 1992).

Figure 1 Decision card for Finns Point, asserting that there is no apostrophe in the name.

The GNIS has been continuously modified and refined ever since. It was created by the USGS for the BGN as a gazetteer to manage official place names for the U.S., its territories and
Antarctica to confirm name decisions made official by the BGN (U.S. Geological Survey, 2003). The USGS uses GNIS as the source for names in the National Map viewer and the BGN uses it to manage name changes. The National Map viewer is an interactive online tool which displays the National Map and its various layers; including topographic maps, transportation, structures, names, political boundaries, hydrography, land cover, elevation and imagery to name a few.

**Geographic Names Information System (GNIS)**

The GNIS is a digital database which contains over 2.5 million name records and was created as the main source for identifying official names of natural features, populated places, civil divisions and cultural features. It does not maintain names for streets or roads. Name records include the following information: 1) written form of the official or primary name, 2) feature class (river, lake), 3) location and extent of the feature by geographic coordinates, 4) USGS or other base series map on which the feature can be located, 5) elevation of the feature, and 6) variant names and spellings for the same feature. Name records within the database are ascribed a feature ID which can be used to search for a specific feature. Variant names are not considered official by the BGN; they are other names by which a feature is known. Different groups of people can have different names for a feature, leading to confusion. Choosing one name to be official limits this confusion and the other names are kept in the variant section of the record. Query results are provided in tabular, downloadable, printable and graphic forms. The general public can visit the [GNIS database](http://geonames.usgs.gov/) online at http://geonames.usgs.gov/ to view geographic features all over the United States, its territories and Antarctica (U.S. Department of the Interior, 2015a).
CHAPTER 2: INTERNSHIP RESPONSIBILITIES

Organizational Structure

*United States Geological Survey (USGS)*

The United States Geological Survey USGS is a bureau within the Department of the Interior. The USGS was founded on March 3, 1879, although it has roots dating back to the Land Ordinance of 1785, which sought to classify the public lands (originally including the land west of the Allegheny Mountains which were claimed by the colonies). At the close of the final session of the 45th Congress, President Rutherford B. Hayes signed a bill which appropriated funds for civil expenses under the Federal Government for the following fiscal year of 1879 (United States, 1989). Clarence King was appointed as the first director of the USGS and served from 1879-1881.

The Louisiana Purchase of 1803 largely increased the public lands. As such, the first duty tasked to the USGS and King was the “classification of the public lands”, this time including the 2.1 billion acres west of the Mississippi, of which only 200 million acres had been previously surveyed. The West was still a frontier with a population of less than one per square mile. Most of these public lands were deemed to be in the Arid Region of the U.S. As such, water was a valuable resource. The second director of the USGS, John Wesley Powell, suggested that much of this land should be organized for irrigation and pasteurization districts. Aside from mineral resources, water became a sociopolitical problem early on, and later became more of a scientific one (United States, 1989).

The USGS has since been proud of its scientific history, developing 1) hydrologic techniques to gauge discharge in rivers and streams, 2) modeling the flow of ground-water and 3) training astronauts and many other scientific contributions (United States, 1989). Today, “The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life (U.S. Department of the Interior, 2009)” and one of their biggest projects is the National Map, which is produced annually. Environmental work by USGS biologists have transformed wildlife resource
management by allowing waterfowl conservation and recreational hunting to work together in an adaptive management technique, rather than competing.

**National Geospatial Technical Operations Center (NGTOC)**

The National Geospatial Technical Operations Center (NGTOC) is an organization within the USGS. NGTOC is split between two locations, one in Denver, CO and the other in Rolla, MO. Both are production, research and data management facilities which make maps and other cartographic data products. These data products support scientific endeavors including resource management and other environmental monitoring activities nationwide (U.S. Department of the Interior, 2015b). As part of the National Geospatial Program, NGTOC supports the production of the National Map. The National Map is a group of products which provide data in areas such as elevation, hydrography, geographic names, transportation, structures, boundaries, orthoimagery and land cover (U.S. Department of the Interior, 2015c). I did not work directly on the National Map; however the work I did contributes to place names that go on the map. NGTOC consists of multiple divisions. I worked in the Geographic Names Unit under the Cartographic Products Section.

**Denver Federal Center History**

My internship was at the Denver location, located in Lakewood, CO, near the foothills of the Rocky Mountains (U.S. General Services Administration, 2015). It contains 4 million square feet and is operated by the U.S. General Services Administration (GSA). The GSA rents this space out to various departments and bureaus. Visitors and employees are required to pass through gate checkpoints and furnish ID before entering the center. During World War II, the Federal Center was known as the Denver Ordinance Plant that produced munitions used during the war. However the site was cleaned up and a 20-year site plan study (including an Environmental Impact Statement) was conducted by the GSA. One of the key components in the study included preserving and enhancing natural systems and open space areas. Environmental initiatives at the center include a public bike share program, recycling and composting, a solar park and a farmers market which promotes healthy eating and living. The northwest corner of the center underwent a Landfill Cap Project, a remediation project for which clean fill dirt was brought in to cap an area historically used to burn materials. Building 810 was constructed in
1963 and was used to store munitions after the war. The USGS rents building 810, where NGTOC is located. Other tenants include the U.S. Forest Service, the Colorado Federal Executive Board and the Business Integration Office. Environmental activities at 810 include high efficiency motors, a photovoltaic solar array system on the building roof as well on the covered parking area and high efficiency LED exterior lighting. Many of the open space areas around the center are host to an array of wildlife, including prairie dogs, Canadian geese and rabbits (U.S. General Services Administration, 2015).

**Overview of Internship Duties**

My title for this internship was Career Intern. Some people enter the USGS as interns, eventually being hired as federal employees, while others enter as contractors. I found out about this position on USAJOBS.gov and it was classified as a student trainee position under the Pathways program, which seeks to provide students an opportunity to explore careers in the Federal government (U.S. Department of State, 2015). More specifically, I worked in the Geographic Names Unit of NGTOC within the USGS under supervision of Maria McCormick. Maria is a supervisory cartographer in NGTOC. Aside from managing the GNIS database, Maria also manages NGTOC employees, BGN work, new system developments and NGTOC budget. The typical duties associated with my position include analyzing pairs of name records identified as duplicates, and to discern which record should be deleted or to locate each of their correct locations. Other duties included locating “missing” geographic features and attending weekly meetings to update other members of NGTOC on progress and issues encountered. The teleconference meetings were held on Tuesdays at 9 am and included the names unit from our Denver office and the names unit at the Rolla location. People at the Rolla location mostly worked on BGN name issues, some of which involved the ongoing dispute of then-named Mount McKinley. The Denver location mostly provided updates on GNIS work. For example I stated how I was coming along on my current list of duplicates and would point out any interesting or challenging cases I encountered. “Missing” features are those, such as streams, whose names were previously not recorded on Alaska topographic maps. So for example the stream was drawn on a map but no name was affixed to it. The name however would be recorded in the Alaska place names book by Orth to help locate the stream so that the name could be applied to the stream later on maps. The USGS maintains these name records with textual information,
such as stream length or nearby cities, which was used to locate the “missing” features and update their coordinates in the GNIS record. Most of the work however involved fixing duplicate issues.

Duplicate problems occur when there are two geographic features in GNIS which share a name and/or are in close proximity of one another. Duplicates were identified by people in the U.S. Army Corps of Engineers Geospatial Research Laboratory in Washington D.C. An algorithm was used to search for name records that have similar coordinates and similar name spellings. Although sometimes two duplicates may be identified as only having similar coordinates but different names. Once identified, the duplicates were compiled in an Excel file and emailed to my supervisor, Maria McCormick. Maria then emailed the files to my technical advisor, Kevin Romero, who then sent me the files. While working through each row in the Excel file, I highlighted the row blue (indicating it was analyzed), highlighted one of the two records yellow (indicating it should be deleted) and highlighted any row red which required further attention by Kevin or Maria. Kevin is a geographer in the Geographic Names Unit of NGTOC and was my technical advisor during the internship. Some Excel files contained only 20 records, while others contained hundreds, stretching from Alaska to Cape Cod. When I completed the given file, I emailed it to Kevin so that he could commit the changes that I suggested to the GNIS. The suggested edits included updating feature coordinates, deleting records deemed to be a duplicate, fixing name spelling errors as well as transferring over any information from one record to its duplicate if one is to be deleted.

Reviewing name records included some research into the history and local use of feature names. Some records included official BGN correspondence letters which aided interpretation of name or coordinate discrepancies. Other cases involved looking at historical topographic maps to find out how land use change affected features over time. For example, the construction of dams and reservoirs can alter the flow of a river or flood a valley where a river once flowed. In this case a river may become “historic” and its name record would be marked as historic. Later, I provide examples of many of the issues encountered and how I resolved them.
Internship Projects

Locating Alaska Streams

The first project I worked on dealt with locating “missing” Alaska streams. This was a list containing streams in Alaska submitted by the National Hydrography (NHD) Unit to attach names recorded in GNIS to NHD stream features. These were features that were not labeled on USGS topographic maps. The objective was to locate the streams and update the coordinates within the GNIS. Once located, these streams could be included on future maps made by the USGS. There are many different feature classes in the GNIS and the coordinates for some features are recorded differently. A lake, for example, would have its coordinates recorded by placing a sequence point at the center of the lake. Streams have two sequence points, one at the mouth and the other at the source. A sequence point is a secondary point placed one point per USGS 7.5-minute map on the feature. It can be thought of as a flag or pin which can be dropped at a location on the topographic map viewer within the GNIS to record the coordinates of that location. Those coordinates can then be updated within the GNIS name record. Once I updated the GNIS record, the Word file containing the Alaska names was updated reflecting the changes that were made.

To locate these streams, I referred to the Dictionary of Alaska Place Names (DAPN) book, which contains feature names and descriptions of various geographic features in Alaska (Orth, 1967). The stream feature IDs for this list only had the mouth coordinates, so the source coordinates needed to be located. The name descriptions in the DAPN were helpful but required some patience when analyzing the topographic maps. Descriptions often detail nearby geographic features, what direction the stream flows, how long a stream flows or what city is nearby. So by looking at the other nearby related features and stream characteristics, the unlabeled stream could be found and its coordinates updated.

It was interesting to read some of the descriptions in the DAPN because many of the names have Native American influences. The descriptions can also tell story behind the naming, almost transporting one to that time and place. For example, Agriktagvik Creek (feature ID: 1893194) is located near Agriktavik bank, “so named because a man once rolled down the bank into the water.”
One feature that was difficult to locate was Kimikpeyat Creek because the mouth coordinates did not appear to be in the correct location. The DAPN description stated that the stream flows NE 10 mi. to Kivalina River. When I looked at the topographic map for this area, I noticed that the current location did not have it flowing NE. By looking at the topographic map, the point was on another stream. Figure 2 displays where the sequence point was placed on a section of the Kivalina River. I suggested moving the point north as the mouth of the Kimikpeyat Creek, flowing into Kivalina River. Figure 3 displays the extent of where I think the Kimikpeyat Creek is and where I suggested recording the mouth and source coordinates.

Figure 2 Kimikpeyat Creek only has one sequence point here (cross) but should have two, a mouth and a source. Based on the book description, I relocated the mouth coordinate to where the red arrow points, flowing into the Kivalina River from the west.
Figure 3 Where I located Kimikpeyat Creek, flowing NE to Kivalina River from its source (blue arrow), to its mouth (red arrow).
Working on some of the Alaska streams was puzzling because some streams had a description of running into another stream which was not listed on the topographic map. In order to find one stream, another stream had to be located first. For example, a description may read that Ilaigutigrak Creek flows SE into Agriktagvik Creek, although neither would be listed on a map. It was then helpful to first locate Agriktagvik Creek in order to find Ilaigutigrak Creek. The USGS Store provides maps available for download and is a good source that provides downloadable historic topographic maps, dating back to the 1800’s (The USGS Store, 2015). Historic maps are helpful because they sometimes have feature names that currently do not show up in the GNIS topographic maps. So if you are looking for a feature that is currently not displayed on a map, reviewing historic maps may reveal where that feature is or was because either the name was not transferred or something happened in the landscape making the feature itself historic. Altering the landscape can sometimes change or destroy geographic features, like re-routing a stream or flooding a valley by constructing a dam. Another good source for historic maps is the David Rumsey Map Collection. This collection is a database containing over 62,000 historic maps made by many different map makers and includes rare maps from the 16th to 21st centuries (Cartography Associates, 2015). These maps span geographic regions worldwide and are helpful because they can illustrate features not found in USGS topographic maps.

GNIS Duplicates and Feature Classes

Duplicates occur when there are two feature ID’s with coordinates in the same location or very close to one another. The GNIS feature ID is a unique identifier that relates to only one entry in the database, providing a quick way to search for name records. Often, the two ID’s have the same name or there is a slight spelling difference (like Mud Creek and Mudd Creek). On the other hand, there can be two completely different names, like “Wet Creek” and “Dry Creek”, but the coordinates still place the two streams at the same (or close proximity) location. So, the first thing to do when checking a name record is to check each of the categories in each feature ID and update where necessary. Figure 4 displays a screenshot from a GNIS record, displaying the types of data stored in a name record. These data include feature ID, official name, feature class, name history, physical description, name citation, entry date, elevation, variant names, counties, and sequence points containing coordinates.
Feature Detail Report for: Kimikpeyat Creek

ID: 1895143
Name: Kimikpeyat Creek
Class: Stream
Definition: Eskimo name reported by E. S. Burch, in 1966, to mean “short ridge.”
Description: flows NE 10 mi. to Kivalina River, 24 mi. NE of Kivalina; Arctic Slope.
Citation: Orth, Donald J. Dictionary of Alaska Place Names. Washington, DC: GPO, 1967. This work is an alphabetical list of the geographic names generally including feature descriptions and often name origin information that are now applied and have been applied to places and features in Alaska. GNIS Library.
Entry Date: 23-Mar-2001
*Elevation: 190/58

*Elevations in feet/meters from the National Elevation Dataset

Variant Names

Variant Name
Kimichpayat Koogowrange Citation
Quimiqayaat Kuuqauzanqqa Citation

Counties

<table>
<thead>
<tr>
<th>Sequence</th>
<th>County</th>
<th>Code</th>
<th>State</th>
<th>Code</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Northwest Arctic</td>
<td>166</td>
<td>Alaska</td>
<td>02</td>
<td>US</td>
</tr>
</tbody>
</table>

Linear Feature (Stream, Valley, Arroyo) Mouth

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Latitude(DEC)</th>
<th>Longitude(DEC)</th>
<th>Latitude(DMS)</th>
<th>Longitude(DMS)</th>
<th>Map Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>68.0666667</td>
<td>-164.3000000</td>
<td>68°04'00&quot;N</td>
<td>164°18'00&quot;W</td>
<td>De Long Mountains A-4</td>
</tr>
</tbody>
</table>

Figure 4 Screenshot from GNIS record, displaying various data stored in a record.
When analyzing two duplicate name records, it was necessary to open each record separately on adjacent monitors and in different browsers (Chrome and Firefox) to compare side by side. If using the same browser, it was not possible to have two separate name records open at a time because of limitations of Oracle Apex in the GNIS. One record would be displayed in Google Chrome on the left monitor, and the second record would be displayed in Mozilla Firefox on the right monitor. If one record was deemed a duplicate and should be deleted, it was desirable to keep the smaller ID (123456) and delete the larger ID (e.g. 1234567). Larger IDs were deleted simply due to protocol.

Sometimes, the larger ID had BGN forms detailing correspondence between name proposal parties and the BGN or decision cards stating a decision on an official name. These forms are scanned and uploaded into GNIS to be provided within the name record on the decisions tab. Since the names unit at NGTOC did not have an application to transfer BGN forms or decision cards to the smaller ID, the smaller ID was deleted to keep the larger ID containing the forms. When an ID was deleted, it was important to transfer over any information that the smaller ID was missing in order to maintain detail, including variant names and their respective citations.

The following paragraphs provide examples of duplicate issues of various feature classes presented alphabetically. Note that for most feature classes, the primary sequence point should be placed at the center of the feature unless otherwise noted. Secondary sequence points should be placed in all adjacent quadrangles into which the feature extends. Many of these examples required further research beyond information contained within the GNIS. Some of the research revealed underlying geopolitical and social issues surrounding name decisions.

**Arches**

Arches are defined as “A natural arch-like opening in a rock-mass (aka bridge, natural bridge, sea arch) (U.S. Department of the Interior, 2015d).” For this feature class, I received an Excel file containing 18 records. One record was in California while the rest were in Arches National Park in Utah. The duplicate issue in California involved Chocolate Bridge and Hopkins Bridge. Both of these records had the same coordinates; however the names were not displayed on USGS topographic maps. The citations however referred to the Natural Arch and Bridge Society (The Natural Arch and Bridge Society, 2015). This site lists many arches; however it does not list every arch in each state. While Chocolate Bridge (Figure 5) was available, Hopkins
Bridge was not. Apparently, Chocolate Bridge formed from the “partial collapse of the basalt roof of the Hopkins Cave lava tube formed by the Mammoth Crater flow, which occurred about 35,000 years ago (The Natural Arch and Bridge Society, 2015).” This indicates that perhaps Hopkins Bridge should be reclassified as a cave or that Hopkins Bridge is a variant for Chocolate Bridge. Due to the lack of more information, we decided to leave these two records alone in GNIS and defer to the judgment of the individual who originally entered them in the GNIS as two separate records. Sometimes the status quo is better than permanently deleting a record.

There were 9 arches in Arches National Park (Utah) that exhibited duplicate issues. These included Oval Canyon Natural Bridge (Figure 6), Piano Leg Arch, Shadow Box Arch, Turban Head Arch, Queue Jughandle Arch, Surprise Arch, Twin Arch, Little Bridge and Webbing Arch. These Arches were essentially split into two groupings in the Devils Garden Area, one in the North and another in the south. Each grouping placed the relative arches at the same coordinate location. I used Google Earth to display a 3D view of the elevation in this area (Figure 7),
revealing that these arches were placed in a flat area, not on an arch formation. This discovery led me to conclude that these arches must have had incorrect coordinates.
The GNIS descriptions for these 9 Arch records state “approximate location, within the Devils Garden Grouping.” The citations for the names refer to an Arches National Park map, made by John F. Hoffman in 1981. However, we were not able to locate this map online and the map on the Arches National Park website did not have these arches identified. We were not able to locate these arches on topographic maps either so my supervisor instructed me to leave the coordinates as-is. One possibility was that the original cartographer was using a different scale, placing the arches in approximate, not exact locations. When transferring the coordinates to a higher resolution map, the arch coordinates evidently did not land on an arch. So in this case we opted to keep the inaccurate coordinates, rather than delete them. Sometimes place names just do not show up on USGS topographic maps or in other research but it is still important to keep the name records in the GNIS; even if the coordinates can’t be currently updated, the record serves as a placeholder so it is known that these features do exist somewhere in the vicinity. I was also curious to see if there were any other arches in the area conflicting with these so I downloaded the GNIS file containing all of the arches in the state of Utah and imported these into ArcMap from Excel. Figure 8 displays arches in the Devils Garden area but many of the Arches were displayed as “Mollie Hogans”, representing a perplexing issue that was not resolved during my internship.

![Figure 8: These Arches have close proximity coordinates and are named Mollie Hogans, representing a duplicate issue.](image)
Bars

This Excel file contained 73 bars records and their 73 corresponding records marked as duplicates. These features were located along the coast of the United States. Bars are defined as a “natural accumulation of sand, gravel, or alluvium forming an underwater or exposed embankment (AKA ledge, reef, sandbar, shoal, spit) (U.S. Department of the Interior, 2015d).” One common issue when working on duplicates was that the feature name or the feature itself was not present on the topographic map. For example, Klondike Bar (historical) with feature ID 1450412 did not show up in the map provided by GNIS (Figure 9). This could be why the feature is marked as historical. Perhaps the feature once existed but the landscape has since been altered? Perhaps the sand bar has since been eroded or maybe it was present during low water levels during certain seasons. In either case, we opted to delete the record not marked as historical because the recent maps suggested that the landscape has in fact changed, flooding the sand bar.

![Figure 9 Klondike Bar is a sand bar, represented by the red flag but with no name on the map](image)

Bays

This Excel file contained 63 records for bays located all over the United States. Bays are defined as an “indentation of a coastline or shoreline enclosing a part of a body of water; a body of water partly surrounded by land (AKA arm, bight, cove, estuary, gulf, inlet, sound) (U.S. Department of the Interior, 2015d).” Sahdbush Cove (871035) and Shadbush Cove (871041) in New Hampshire
provide an example of a spelling error. The coordinates for these two coves placed them in the same area, causing the duplicate issue. However, the map listed “Shadbush Cove” and the history for Shadbush Cove was listed as “Named for the shadbush, a local name for the Juneberry of the genus Amelanchier, which grows on the shore of the cove.” It was determined that the Sahdbush Cove ID was likely a typographical error that should be deleted. Shadbush (Figure 10) is known to have been used by Native American tribes (High Point State Park, 2010), including the Lenape Tribe (Messenger, 2007).

Shadbush was used as a food source to make pemmican by crushing the berries with dried meat, nuts and melted fat. The berries were also used as medicine and were eaten by Iroquois women to regain strength after child birth. The berries were also used as a laxative and for liver trouble, and the inner bark or roots helped ease diarrhea. There was also an economic significance to the berries, as they were traded with early European settlers. The wood is also very strong and close-grained, making is a good source for arrow shafts, and handles for tools and equipment (Frye, 2015).
**Bends**

Another file contained 57 duplicate records of bends, located in Texas, Georgia, Virginia, Oklahoma, Utah, Idaho, Arizona, Iowa, Louisiana, Tennessee, Oregon and Kentucky. Bends are defined as a “Curve in the course of a stream and (or) the land within the curve; a curve in a linear body of water (AKA bottom, loop, meander) (U.S. Department of the Interior, 2015d).” A good example of how geographic features can change over time, this time due to human modification, is Buzzard Bend (547157). In this case, there two records, Buzzard Bend, and Buzzard Bend (Historical) identified as duplicates. The goal was to determine if the feature was in fact historical. If so, then the non-historical record would be deleted. Figure 11 displays a historical topographic map displaying Buzzard Bend just east of Brushy Creek, in the Sabine River. Figure 12, however, displays a more recent map post-dam construction on the Sabine River, creating the Toledo Bend Reservoir, thereby flooding the area and making the River and Buzzard Bend historical. Figure 13 combines the two images to illustrate how the bend matches in the two maps.
Figure 13 Buzzard Bend Historical map and post-dam map combined. It appears that Buzzard Bend can be seen relatively matched up in the same location. Historic waterways are often drawn onto new maps indicating they were once there.
Capes

This file of duplicates contained 125 cape records located throughout the United States. Capes are described as a “Projection of land extending into a body of water (AKA lea, neck, peninsula, point) (U.S. Department of the Interior, 2015d).” One cape duplicate issue I worked on, Finn’s Point (215323) and Finns Point (876341) is located in Delaware (Figure 14). This map illustrates the land projecting out into the water, forming a point. Normally, you would keep the smaller feature ID number and delete the larger number, but in this case the larger ID (876341) had a BGN decision card attached to it (Figure 15). This decision is an official name change to remove the apostrophe. The BGN decided to eliminate apostrophes from place names, to avoid indicating ownership. Early settlers often named features after people to create a sense of place and to remember that individual’s contributions, even if that person did not own the land (Orth, 1987).

The BGN has since established principles governing the use of naming a feature to commemorate an individual. Currently, there are only five commemorative names in use, Martha’s Vineyard is one. These principles can be viewed in appendix A of this report. Since the decision card did not state why there was no apostrophe in Finns Point (876341), I decided to do some research to discover the origin of the name. Apparently, Finns Point was purchased by the U.S. government in 1837 to establish a defensive battery to support two nearby forts; Fort Delaware and Fort DuPont. Eventually, nearby land was used as a burial ground for Confederate prisoners of war and became a National Cemetery in 1875, known as Finn’s Point National Cemetery (United States, 2015). It appeared that Finns Point was originally named after a group of settlers from Finland as they settled across the East Bank of the Delaware River just south of Wilmington (Genealogical Society of Finland, 2015). It is known as Finns Point today due to the BGN decision to remove the apostrophe.

Figure 14 Finns Point, originally named Finn’s Point.
Falls

This Excel file included nine records and 9 duplicate records of waterfall features in Michigan, Idaho and New Hampshire. According to the GNIS Feature Class Definitions, Falls are a “Perpendicular or very steep fall of water in the course of a stream (AKA cascade, cataract, waterfall) (U.S. Department of the Interior, 2015d).” Sometimes, a falls feature was indicated on the GNIS topographic map, but was not represented in satellite imagery. Even though it was present in the map, I thought that satellite imagery provided a better view of the feature.

I was also curious to see if a waterfall may have receded over time, for example if the map was older than the satellite image or if construction may have altered stream morphology. If the satellite image was more recent and the feature still not present, I thought that it could indicate that either the feature was no longer present, and should be marked historical, or the coordinates were originally in the wrong place. One of the falls in this file, Quiver Falls (located on Menominee River on the border of Wisconsin and Michigan) seemed to be in the wrong place. The alternatives were that it was once there when the topographic map was made and is no longer present, or the satellite imagery did not display the falls for some reason, maybe due to seasonal high water.

I then wondered if Quiver Falls should be marked historical. Maybe the stream was damned up, causing the water level to rise and hide the falls? Upon further examination, it was determined that the falls name label should be moved downstream (to the south), running through the
Pemebonwon Islands (Figures 16 & 17). This conclusion ruled out the possibility that the falls migrated upstream due to erosion over time. Figure 16 features a topographic map showing where the falls were originally placed as well as the updated location. Figure 17 displays satellite imagery showing smooth water in the area where Quiver Falls was originally placed.

The satellite imagery reveals the remnants of a constructed dam just north of the Pemebonwon islands (where the topographic map shows a perpendicular line running across the image). However, it appears the dam has since been dismantled and should not raise the water level all that much. Further, the map indicates that the constructed dam did not affect the Quiver Falls if they were upstream, because both the dam and falls were present in the map. It appeared that the Quiver Falls name label was incorrectly placed so we relocated the coordinates to the area around the Pemebonwon Islands. This video (https://www.youtube.com/watch?v=1m2hs72CRjY) shows some local residents exploring the falls as they move through the islands on a fishing trip (Cantwell, John, 2008).

Figure 16 The blue arrow signifies the original location of Quiver Falls. The red flag indicates the updated location. There appears to be a quarry and drainage ponds to the west, potentially affecting the groundwater in the area.
Islands

Islands are described as an “area of dry or relatively dry land surrounded by water or low wetland (AKA archipelago, atoll, cay, hammock, hummock, isla, isle, key, moku, rock) (U.S. Department of the Interior, 2015d).” In this file, two records identified as duplicates were Kings Island (1404734) and Cowanesque Rock (1419793) (Figures 18 & 19), located in the Bering Strait between Russia and Alaska. Each of these records had coordinates located on the same island; however neither the GNIS nor the USGS store had topographic maps available for this area. One explanation could be that sometimes certain areas in Alaska have not yet been mapped in as much detail as the contiguous U.S. Another possibility is that maps were not yet uploaded to the USGS store for this area. The David Rumsey Map Collection, however, did have a historical map available. Figure 18 displays a 1785 chart map titled “Chart of Norton Sound and of Bherings Strait made by the East Cape of Asia and the West Point of America (Cartography Associates, 2015).” This map was engraved by Lieutenant Henry Roberts and details James Cook’s (1728-1779) “Voyage to the Pacific Ocean, undertaken by the Command of His Majesty,
for making discoveries in the Northern Hemisphere.” This map shows Kings I (Island) in the bottom left.

![Map of James Cook's voyages to the Pacific Ocean](image)

*Figure 18 Kings Island is in the bottom left in this 1785 map of James Cook's voyages to the Pacific Ocean.*

The GNIS record for Kings Island states that it was discovered by James Cook on August 6, 1778 and named after Lieutenant James King, a member of his party. Also, in 1900 the Eskimo name was reported as “Ukiwuk” by E.W. Nelson, U.S. Signal Service via Sarichev 1826 map 6, Imperial Russian Navy (IRN). The duplicate record, Cowanesque Rock, has a citation from a 1985 National Oceanic and Atmospheric Administration (NOAA) Nautical Chart and makes no reference to James Cook’s voyage or the Eskimo reference. The Kings Island ID does however have BGN files attached to it. One BGN correspondence file states that “The natives have expressed a wish that their own name for the Island be adopted, rather than the name of a man who only saw the island for a few hours. The Eskimo name is Uviuvok (the big winter).” The official name remains Kings Island, however and the BGN decision in 1952 was stated as; “Although the recognition of native names has some favor, the retention of the “old” name is recommended here. The position of the island makes it of importance to more than the local inhabitants and its name of concern to others.” Perhaps this island’s location during the Cold War had some influence on the naming decision (Figure 19). Maybe the BGN’s stance of retaining the “old” name was faulty, because the Native inhabitants of the island had a much older name. A group of Inupiat, calling themselves Ukivokmiut (people of the sea), lived on the island for thousands of years in the village Ukivok in houses built on stilts on the side of the island (Figure 20) (Jerreat, 2013). The community has since been disbanded due to the lure of better jobs and healthcare in the mainland town of Nome, but also because people were relocated...
due to the threat that a boulder would roll down the hill and crush the school (Jerreat, 2013). That boulder still has not moved 50 years later (Jerreat, 2013).

Figure 19 This Cold-War era map displays King Island and its location between U.S.S.R. and Alaska (Muñoz, 2015).

Figure 20 Ukivokmiut houses built on stilts on the side of the island.
**Islands and In-Part Variants**

Another issue that occurred with islands was in-part variants, highlighted by the Shumagin Islands (Figure 21), an island chain in Alaska. The history for this GNIS record (1412412) states it was:

Named by Captain Commander Vitus Bering, Imperial Russian Navy (IRN), for one of his sailors, who died of scurvy and was buried here August 30, 1741. Father Veniaminov (1840, v.1, p. 255) reported the Aleut name as "Kagigun" and Golovin said the Aleuts called the islands "Unga," from the name of the largest of the group (1862, voyage 1, p. 174). The name was published in French as "I(les) Choumagin" or "Shumagin Islands" by Admiral Krusenstern (1827, map 20), Imperial Russian Navy (IRN).

There were many islands in this island group, and I encountered a handful in the islands duplicate file I was working on. These included Kaisik, Kauatka, Kulyugayak, Sauluktouchikh, Schumachinskaia, Sitymkan, Tungulik, Kagai Island and Atniliak Island. Each of these islands are part of the Shumagin Islands grouping so it was necessary to go into each record and add Shumagin Islands as an in-part variant, and then add that specific island to the Shumagin Islands record as an in-part variant, thereby linking each island to the grouping and vice versa.

![Figure 21 The Shumagin Islands are marked with red sequence points.](image-url)
Lakes

For the lakes feature class, I worked on multiple Excel files containing a total of 882 duplicate cases. A lake is a “natural body of inland water (aka backwater, lac, lagoon, laguna, pond, pool, Resaca, waterhole) (U.S. Department of the Interior, 2015).” One Excel file had many issues; about half of the records were not editable for a number of reasons. One reason is that both records were conflated so neither could be deleted nor edited. In this case the records were highlighted in the Excel file and the reason noted in the comments section of the Excel file. Also, conflated files cannot have their coordinates updated because it would alter the merged feature as well. A second reason was that both records had BGN forms and we did not have an application to allow the reassignment of attached files from one ID to another. Third, one record was conflated while the other had BGN forms attached. In this case neither file can be deleted.

Normally, I would sort through the records and suggest deleting the duplicate with a larger feature ID number, but in this situation many of the records could not be deleted. Another issue was that one record had one name, while its duplicate had another. In many cases, neither name was on the GNIS map nor was I able to find information online or in other maps. In this case we would keep both records instead of deleting one with potentially important information. Once a record is deleted, it was very hard to retrieve it again as there was an IT process at NGTOC that was problematic and lengthy.

In other situations, I was able to find both of the names on a map so I updated the coordinates for each and suggested deleting neither of the duplicates. For example, Big Round Pond (213663) and Little Round Pond (214241) in Delaware were identified as duplicates; however each pond was present on the map (Figure 22). Therefore, one of these ponds actually

![Diagram of lakes with two ponds marked with red arrows](image)
was not a duplicate because both existed, albeit very close to each other. I edited the coordinates for Little Round Pond but was unable to update the coordinates for Big Round Pond because it was conflated, so I entered the new coordinates in the Excel file so they could be updated later by someone with the authorization.

**Rapids**

For rapids, there were two excel files yielding 60 records marked as duplicates. These rapids were located in Idaho, Nevada, Arizona, Wisconsin, Oregon, Illinois, Georgia and New York. Rapids are defined as a “Fast-flowing section of a stream, often shallow and with exposed rock or boulders (AKA riffle, ripple) (U.S. Department of the Interior, 2015d).” A good example of a duplicate issue includes Feature ID 1119017 (Cleveland Rapids) and Feature ID 1132987 (Leatherwood Rapids) in Oregon (Figures 23 & 24). At first, I thought that Leatherwood Rapids should be a variant name under Cleveland Rapids, because the map only displays Cleveland Rapids at that location (Figure 23). However, I discovered Leatherwood Rapids at an upstream location on the map (Figure 24). I was unable to update the coordinates for Leatherwood Rapids in GNIS however, because the ID is
conflated, meaning that I did not have access to edit the ID. A record is conflated when it has been merged with a vector record and shares attributes with it (U.S. Geological Survey, 1988). So coordinates cannot be updated since the record is conflated and the spatial information is held with the vector layer. So, the vector layer is where the changes are made. GNIS maintains names, not vector layers. To solve this, updated coordinates are forwarded to someone working with vector layers to edit the record in the future.

Ridges

Another Excel file included 75 ridge records and their corresponding duplicate records. Most of these ridges were in the Appalachian Mountains region although there were a few on the west coast. Ridges are defined as “Elevation with a narrow, elongated crest which can be part of a hill or mountain (AKA Crest, cuesta, escarpment, hogback, lae, rim, spur) (U.S. Department of the Interior, 2015d).” For ridges, the coordinates should be placed at the high point of the ridge to record peak elevation. Long ridges that run through multiple cell boundaries (7.5 minute quadrangles) should have one sequence point so that each quad can be represented in the feature ID. My supervisor advised that the often misnamed “Blue Ridge Mountains” is actually officially named the “Blue Ridge” because of the 1932 BGN Decision naming it “Blue Ridge.” Figure 25 displays Devils Backbone (1482986), a ridge crossing the border of Virginia and West Virginia and two quadrangles. This ridge was different than others because it extended into a nearby quadrangle, rather than residing completely within one. Geographic features don’t always fit nicely within political or arbitrary boundaries. The first sequence point was relocated to the high point of the ridge and the second sequence point was placed because the ridge extended into another quadrangle. It was necessary to place a sequence point in each quadrangle to document its extent.
Streams

Throughout the course of the internship, I worked on three Excel files containing a total of 2066 stream records. Streams constituted the majority of the feature classes that I worked on, and were located throughout the U.S. Streams are defined as a “linear body of water flowing on the Earth’s surface (AKA anabranche, awawa, bayou, branch, brook, creek, distributary, fork, kill, pup, rio, river, run, slough) (U.S. Department of the Interior, 2015d).” For streams, there should be at least two sequence points placed, one at the mouth and one at the source. However, long rivers that run through multiple cell boundaries (7.5 minute quadrangles) should have one sequence point so that each quad can be represented in the name record. Fleisch Run (Figure 26), resides on the border of Ohio and Indiana, in Preble and Union counties respectively. It is part of the Four Mile Creek Watershed and flows south into Little Four Mile Creek, before emptying into Acton Lake. This feature had an incorrect source coordinate, so I updated the source coordinate appropriately. Figure 27 displays imagery of the source of Fleisch Run, where the headwaters can be seen as the stream has been altered to run alongside the road as a drainage ditch.

Figure 26 Fleisch Run, with updated source coordinate (red circle). The red flag indicates the incorrect location for source coordinate.
Figure 27 The red flag indicates my suggested location for the new source coordinates. You can actually see in this imagery how the headwaters of this stream have been altered to run alongside the road as a drainage ditch. Blue arrows indicate flow direction.
CHAPTER 3: REFLECTION AND CONCLUSION

Reflection

I learned a great deal about topographic maps during this internship. For example, I became proficient in identifying many different types of geographic features by analyzing contour lines and envisioning how they resemble the landscape and affect other nearby features. I also learned much about place names, a topic not often thought of. I was surprised to see how much goes into a name, including cultural history and how people can feel very strongly about a place and its name.

Most of the work involved working through Excel files containing duplicate names and cross-checking on topographic maps to decide which name (or neither) to delete. So overall it was fairly repetitive, although challenging cases like the examples provided above made it interesting at times. These cases were challenging and interesting because they required more research and investigation. This was done by searching for different sources of information and maps, some of which were historical.

It was stimulating to look at some of the historical maps to see how features and political boundaries changed over time, as with the Cold-War era map of King Island. This was an island originally inhabited by Native Peoples, and then “discovered” during a British voyage and renamed for the King, and then again awkwardly situated between the U.S. and Russia in a Cold-War era political climate. This was the most interesting aspect of names work, learning about the diverse array of issues concerning a place, including environmental, cultural and political facets. Overall I consider the internship a success, because I learned much about names and further refined my map reading skills. I can now use these added skills hopefully in an environmental science position where I can work more directly with people and the environment.

Institute for the Environment and Sustainability Preparation

Coast Survey geographer, Meredith Westington, stated; “Good, informed decisions are often based on analyses of historic and present conditions (Westington, 2014).” As such, my background as an archaeologist, anthropologist, and environmental scientist provided a diverse skillset employed during this internship; specifically when analyzing both historic and recent
maps to see how conditions may have changed over time. My IES education provided relevant skills as well. For example, the Professional Service Project taught me of the value in working well with team members as well as developing interpersonal relationships and understanding personality types. Many of the technical classes in IES and throughout my academic career provided me with the technical savvy needed to troubleshoot and solve problems, including Map Reading, GIS, Remote Sensing, MS Office, and Surveying and Mapping. My archaeological training provided me with investigative skills to search for answers to perplexing name issues. Lastly, my anthropological background provided me with the clarity to be culturally sensitive when dealing with names issues or contemporary Native American issues in this paper, as the Denali-Mt. McKinley controversy for example.

Career Aspirations

While this internship was a great learning experience, it was not what I fully expected. I did not work with ArcMap much and was hoping it would be more focused on environmental issues. As such, this internship was not a direct match with my interests or career goals. I found it very valuable to gain experience that will be reflected in my resume as I search for opportunities more aligned with my career goals. I am thankful however for the opportunity to move across the country to explore career options in the Federal government. After careful reflection, I now realize that I would like to serve as a liaison between people and the environment as a communicator or educator, or by applying GIS and other technologies to environmental problems. Ultimately, I pursued a degree in environmental science because I am passionate about environmental protection and endeavor to find such rewarding work to improve people’s lives and the environment.

Conclusion

Naming places may indeed be a uniquely human trait. It is an odd practice that has been continued for a very long time, going back thousands of years. Cave paintings often depict hunting scenes, perhaps of consciously delineated places with names transmitted amongst members of a community to facilitate a return to those hunting grounds or berry groves. The act of naming therefore affixes a cultural meaning to a place, making it more than just a geographical area. Names are often reminiscent of a certain time period, reflecting colonization,
foreign languages and even racism. Naming has come a long way since standards were established by the BGN.

Today, naming places not only gives more meaning to a place, but that place also gives more meaning to that name in return. Commemorative names like Martha’s Vineyard are rare, but serve to dignify figures of historical importance. On the other hand, the Denali example provided some insight into the strong, differing opinions between stakeholders concerning a name. This is understandable as places can mean so much to us. When a decision is made to federally recognize one name to be official and more important than its other names, it is bound to upset certain parties. This underscores the geopolitical and sociological aspects of names. For example, the McKinley-Denali debate reeked of the “callous superiority” of the “white man” and disregard for native values. An island in the Bering Strait, inhabited by native peoples for thousands of years, was named after a British explorer’s lieutenant and the island vacated perhaps due to its cold-war era geopolitical significance as “The position of the island makes it of importance to more than the local inhabitants.”

When one name is chosen, proponents of the variants will likely be upset. However, one name must be chosen for map-making practicality and to avoid confusion as some features have many different variant names. Perhaps in the future, digital maps will integrate all of the names associated with a feature so as not to promote one name over another. Naming has come a long way, and there is reason for optimism. For now, we should endeavor to continue supporting name decisions in favor of local communities, as evidenced by the recent success for Alaskans and Denali, “The Great One.”
APPENDIX

A. BGN Principles Governing Commemorative Name Use

1) The U.S. Board on Geographic Names will consider proposals for assignment of the names or nicknames of deceased persons to geographic features in the United States and areas under the jurisdiction of the United States. The Board will not consider names that commemorate or may be construed to commemorate living persons. In addition, a person must be deceased at least 5 years before a commemorative proposal will be considered.

2) The person being honored by the naming should have had either some direct and long-term association with the feature or have made a significant contribution to the area or State in which it is located.

3) A proposal commemorating an individual with an outstanding national or international reputation will be considered even if the person was not directly associated with the geographic feature.

4) All commemorative name proposals must meet the same basic criteria required of any other name proposal (Orth, 1987).
REFERENCES


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