

National Mapping Program

The National Geographic Names Data Base: Phase II Instructions

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DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

THE NATIONAL GEOGRAPHIC NAMES
DATA BASE: PHASE II INSTRUCTIONS

By Donald J. Orth
and
Roger L. Payne

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THE NATIONAL GEOGRAPHIC NAMES DATA BASE: PHASE II INSTRUCTIONS

**By Donald J. Orth
and
Roger L. Payne
U.S. Geological Survey
523 National Center
Reston, Virginia 22092**

ABSTRACT

The Geographic Names Information System (GNIS) is a computer-based information system developed to meet major national needs by providing information for named entities in the United States and its territories. The National Geographic Names Data Base currently reflects most names and associated information recorded on the 1:24,000-scale (or largest scale available) topographic maps of the U.S. Geological Survey. The initial compilation, development, and editing of the National Geographic Names Data Base is termed Phase I. Optimal use and effectiveness of GNIS requires that the names of features not recorded on topographic maps be added. The systematic collection of names from other sources, including maps, charts, and texts, is termed Phase II. In addition, specific types of features not compiled during Phase I will be encoded and added to the data base. Other names of importance to researchers and users, such as historical and variant names will also be included. The rules and procedures for Phase II research, compilation, and encoding are contained in this paper.

INTRODUCTION

Since about 1960 there have been growing demands for a relatively complete listing of our Nation's named places, features, and areas. From about 1955 to 1970, at least 135 attempts, costing several million dollars, were made by various Federal and State agencies and business organizations to develop a computer-based geographic names data base designed to meet a variety of special needs. For the most part, these attempts were limited in completeness of name coverage and extent of name information. A single, unbiased, relatively complete depository of geographic names, including basic or essential information about each name and named place, was urgently needed by all levels of government and diverse users in private industry. The U.S. Board on Geographic Names (BGN) was also interested because such an information depository would facilitate the standardization of U.S. geographic names. Because of the nature and size of the task, most users looked to the Federal Government for help in developing and maintaining a master computer-based catalog of the Nation's 3 to 5 million domestic geographic names. The U.S. Geological Survey (USGS) agreed in 1979 to undertake such a program. The Geological Survey was interested because it is responsible for providing staff support for the domestic names activities of the Board and such a program would provide direct support to its mapping missions.

The National Geographic Names Data Base

A relatively complete computerized data base of geographic names in the United States and its territories was planned by USGS as early as 1960. Although the Survey has been developing and using automated methods for handling geographic name information since 1964, it was not until computer technology was readily available that building such a data base became feasible. An early version of the National Geographic Names Data Base was developed in 1975. Further development led to implementation of a system called the Geographic Names Information System (GNIS). The System is made up of five data bases, data retrieval software, ancillary software, and procedures specifically designed, arranged, and programmed to function as a geographic names information system and a tool for toponymic research. GNIS is a computer-based system designed to meet a broad spectrum of information and program needs, including:

- cartographic support
- standard reference
- geographic base for special files
- national standardization
- toponymic and other research
- geographic inventory and control
- gazetteer production
- special publications.

Information in the system may be retrieved, arranged, analyzed, and manipulated for general and specific purposes without bias. The National Geographic Names Data Base is the largest data base in the GNIS and contains a separate file for each State and territory. The other data bases in GNIS are:

- National Topographic Map Names Data Base
- Generic Data Base
- Board on Geographic Names Data Base
- National Atlas Data Base.

Information about GNIS and its products and the National Geographic Names Data Base may be obtained from:

GNIS Manager
U.S. Geological Survey
National Center 523
Reston, Virginia 22092
Tel: 703-860-6261 (FTS 928-6261).

Basic Record Information

The effectiveness of GNIS and the National Geographic Names Data Base depends on both the completeness and integrity of the data in the system. The geographic-names staff have identified those basic or critical elements needed for each name record in the system. These critical elements are:

1. Written form of the full official, legal, or standard name (Record Name),
2. Designation of the kind of geographic entity by a standard term (Feature Class),
3. Location by State and county (State/County Name and code),
4. Location by map of a standard series (Map/Chart Name and codes),
5. Identification and extent of the named entity by geographic coordinates (Geographic Coordinates),
6. Official status of the name and its application (Federal Status),
7. Variant names or other names for the same geographical entity (Variant Names),
8. Ownership or administrative areas (special designators), and
9. Bibliography.

Although not critical, three other elements are considered important for a name record when applicable:

1. Elevation,
2. Size, and
3. Section, township, range, and principal meridian.

See Data Elements and Record Format for a description of each of the primary data elements associated with a name record.

Building the Data Base

Building the data base for handling information and defining required data elements is necessary. The major task, however, was and is the collection of names and associated information to go into the data base. Written sources of name information are extensive and varied. The sources include both current and historical maps and charts as well as textual material that vary in number and form from area to area. Only published name information was considered for building the data base at this time.

There is no question that the largest and most uniformly distributed coverage of current geographic names of the United States and its territories is found on the topographic maps published by USGS. A survey made in 1970 indicated that the large- and intermediate-scale topographic maps contained from 50 to 70 percent of all names in current usage.

This situation provided a logical division of the work into two distinct phases:

- Phase I, the collection of names and associated information from the USGS standard topographic map series, and
- Phase II, the collection of such information from other sources.

Phase I

The Geological Survey began preliminary work on Phase I in 1976, a time when published large-scale topographic maps covered more than 70 percent of this country's land surface. In a pilot project names published

on the maps covering the States of Kansas and Colorado were collected and recorded in machine-readable form. In the fall of 1978, a contract was awarded to collect and record corresponding information for the remainder of the States and territories. The contract was completed in January 1981. All work was monitored closely for completeness, accuracy, and adherence to established procedures by the Branch of Geographic Names in the Geological Survey's National Mapping Division. The error rate was about 2 percent.

Phase I activity for building the data base involved:

- The systematic collection of most names and attendant information from the topographic maps on a State-by-State basis, and
- The correction and updating of this data by comparison with the official BGN files by the National Mapping Division's Branch of Geographic Names staff.

The procedures followed for Phase I were as follows:

- Map Acquisition and Numbering

A complete collection of USGS topographic maps was acquired on a State-by-State basis. Each 7.5 x 7.5-minute map or unpublished map cell of a State set was given a unique sequential number. Beginning with "1" in the northwest corner of the State, the numbering proceeds from west to east while moving south latitudinally (fig. 1). The largest-scale USGS topographic maps available in each State were used for compilation.

- Map Annotation

The contractor identified each named place and feature on every map and assigned each a unique number. The extent of certain features such as streams also was annotated. Each named feature was identified on each topographic map on which the feature appeared whether or not it was named on the map.

- Data Entry

The four corners of the map were recorded for purposes of electronically digitizing the geographic coordinates and the location of each feature was digitized and stored on magnetic disk along with other required data, such as name, designator, county code, map code, and elevation. The digitized x-y coordinates were converted automatically into geographic coordinates before being entered into the data base.

- Processing and Editing

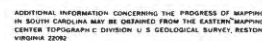
A series of programs was used to check the accuracy of data during compilation and which sorted the information into a required record format on tape.

- Format Conversion

Tapes produced by the contractor were delivered to USGS in a specific format, designed for fast and efficient keying of data. The data were then entered into the GNIS.

- Data Monitoring

Names data from a random sampling of 10 percent of the 1:24,000-scale maps were retrieved from the system in printout form for data verification. The names and feature positions also were plotted on transparent overlays for visual comparison with the source maps.



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- Editing and Updating

Data were checked against the BGN files and updated to include changes, additions, and corrections that occurred since the topographic maps were published. The Board's decision dates and variant names were added.

Phase I work resulted in the collection and storage of about 1.7 million name records. As soon as each State was completed, preliminary information was made available to users by means of spiral-bound alphabetical lists, special printouts, computer tapes, and microfiche. Also, the data base was made available at USGS for interactive retrieval, manipulation, arranging, and analysis of name information.

PHASE II, PART 1: COLLECTION AND ANNOTATION OF DATA

Phase II work began in 1982. It is divided into three parts for convenience and control:

- Part 1, collection and annotation of data
- Part 2, transfer of data to coding forms
- Part 3, encoding data for entry into the system

A cooperator working with USGS may complete Parts 1; 1 and 2; or 1, 2, and 3 for a State or part of a State depending on available resources.

The main thrust of Phase II work for each State project consists of a systematic search of selected documents to create new name records to add to those created during Phase I and to collect variant names for all name records. This work must be completed before a State or territory volume of the "National Gazetteer of the United States of America" can be published.

Phase I compilation did not include all named entities shown on the topographic maps. For example, certain kinds of named features that were large or scattered could be handled more efficiently during later compilation or the information was already compiled and could be found on special lists or in digital form. Phase II, Part 1 compilation requires coding those name records omitted from Phase I compilation and researching and recording names and associated information not found on the topographic maps.

The topographic maps do not show all geographic names that are in current use. Many names in local and (or) published usage were unknown to the compilers when the maps were made. Names applied to minor features often were not shown for lack of map symbols or to avoid map clutter. The maps also do not normally show historical and obsolete names, variant applications, and other names once used for currently named places, features, or areas.

General Procedures

The following procedures are specified for the collection and processing of name data during Phase II, Part 1 work. These standard procedures help ensure the relative completeness and integrity of information in the National Geographic Names Data Base.

Phase II, Part 1 activity begins with the systematic review of name source documents other than topographic maps and the annotation of the new name information on a set of topographic work maps. The printed and annotated data on the maps are then used to create new name records which are encoded and added to the data base. Work must be accomplished in a specific order and carefully controlled to prevent duplication and to maintain accuracy of the data. The procedures for Part 1 are divided into:

- Preparation and
- Document review and map annotation.

Qualification of Researchers

It is important that each person researching name information for Phase II be able to interpret topographic maps and to relate point, line, and area symbols among maps of different and varying scales. A researcher should be able to make reliable judgements on feature identification when comparing maps and relating textual description to map symbols. This includes expertise in translating named symbols on sketch maps for accurate identification on the modern large-scale topographic maps.

An understanding of how people use and apply geographic names to the landscape is useful. The researcher should understand how proper names are applied to symbols by map editors and the limitations inherent in the process. Knowledge of the geography and history of the area being worked will greatly improve a researcher's ability to interpret data. An important factor, often overlooked, is the researcher's ability to print upper and lower case letters legibly, and to print exactly what is intended because the person keying data will make no interpretation, but will enter exactly what is shown on the coding form.

Part 1: Preparation

Before beginning, decisions need to be made concerning administrative organization for the project, choice of persons who will do the work, limits of source-material investigation, and a work plan to be followed to achieve Phase II goals. The project needs a leader who can prepare reports and make decisions. The project requires careful direction to prevent duplication and omission, to maintain the integrity of the work, and to insure that the research workers have adequate work-map coverage and that they are aware of and can locate source documents.

Preparation also includes:

- Acquiring a set of work maps and other reference materials,
- Preparing the work maps,
- Acquiring a Phase I computer printout for reference,
- Acquiring selected computer-generated lists,
- Identifying, listing, and coding source documents.

A computer terminal for interactive access to GNIS is useful.

Acquiring Work Maps and Other Reference Tools

One of the first steps to be made is the acquisition of a master set of work maps. These should be the largest-scale topographic maps available. For the most part, they will be 1:24,000- or 1:25,000-scale maps published by USGS. The next smallest scale, or 1:31,680 or 1:62,500, should be obtained for those areas not covered by the larger-scale maps. See figure 2 for a sample State index of large-scale topographic map coverage. A master set of work maps will be furnished by the GNIS Manager for an official Phase II cooperative program. Complete map coverage of the State at 1:250,000-scale and a State base map will also be furnished. Other reference items that will be furnished by USGS, if needed or when appropriate, include:

- Federal Information Processing Standard publication, 1976 (FIPS PUB 6-2),
- List of Required and Suggested Source Documents,
- GNIS Users Guide
- Map Feature Guide
- List of State Civil Divisions,
- State Index of GNIS Map Codes, and
- National Ocean Service charts and National Forest maps.

Map Preparation

Map preparation helps to ensure maximum work efficiency with the minimum possibility of error. Preparation includes:

- Outlining all county boundaries with a felt-tipped marker of a specific color,
- Annotating State and county FIPS codes on each map collar adjacent to each county area (fig. 3),
- Annotating GNIS map cell codes on the lower left corner of each map (in areas not covered by 1:24,000- or 1:25,000-scale maps, the individual 7.5 x 7.5-minute cells are identified and appropriately labeled on the smaller-scale map), and
- Drawing latitude and longitude lines across each map at the 2.5-minute "ticks" located at the neatline of each map, if geographic coordinates are to be obtained by the use of ten-space dividers (fig. 4).

Phase I Printout

The Phase I printout lists name records alphabetically by State or other area (fig. 5). The printout should be available as a reference for Phase II work. It is the only printed document that will tell the researcher whether a name record is already in the data base and what information is associated with the record. Researchers, however, should use the topographic maps for their main reference. Constant checking of the Phase I printout has been found to be uneconomic. If one has interactive access to GNIS, questions may be answered by direct retrieval of information.

Special Computer-Generated Lists

The Geological Survey will furnish selected computer-generated feature listings. Name records for certain kinds of features were not created during Phase I work because the information was already available in more complete form in existing specialized data files. These features are:

- Airports,
- Radio and television antenna sites, and
- Recreation and wilderness areas.

INDEX TO TOPOGRAPHIC MAPS OF WEST VIRGINIA
ORDER MAPS BY NAMES PRINTED IN BLACK AND BY SERIES DESIGNATION
ALL MAPS SHOWN ON THIS INDEX
ARE DISTRIBUTED BY THE GEOLOGICAL SURVEY

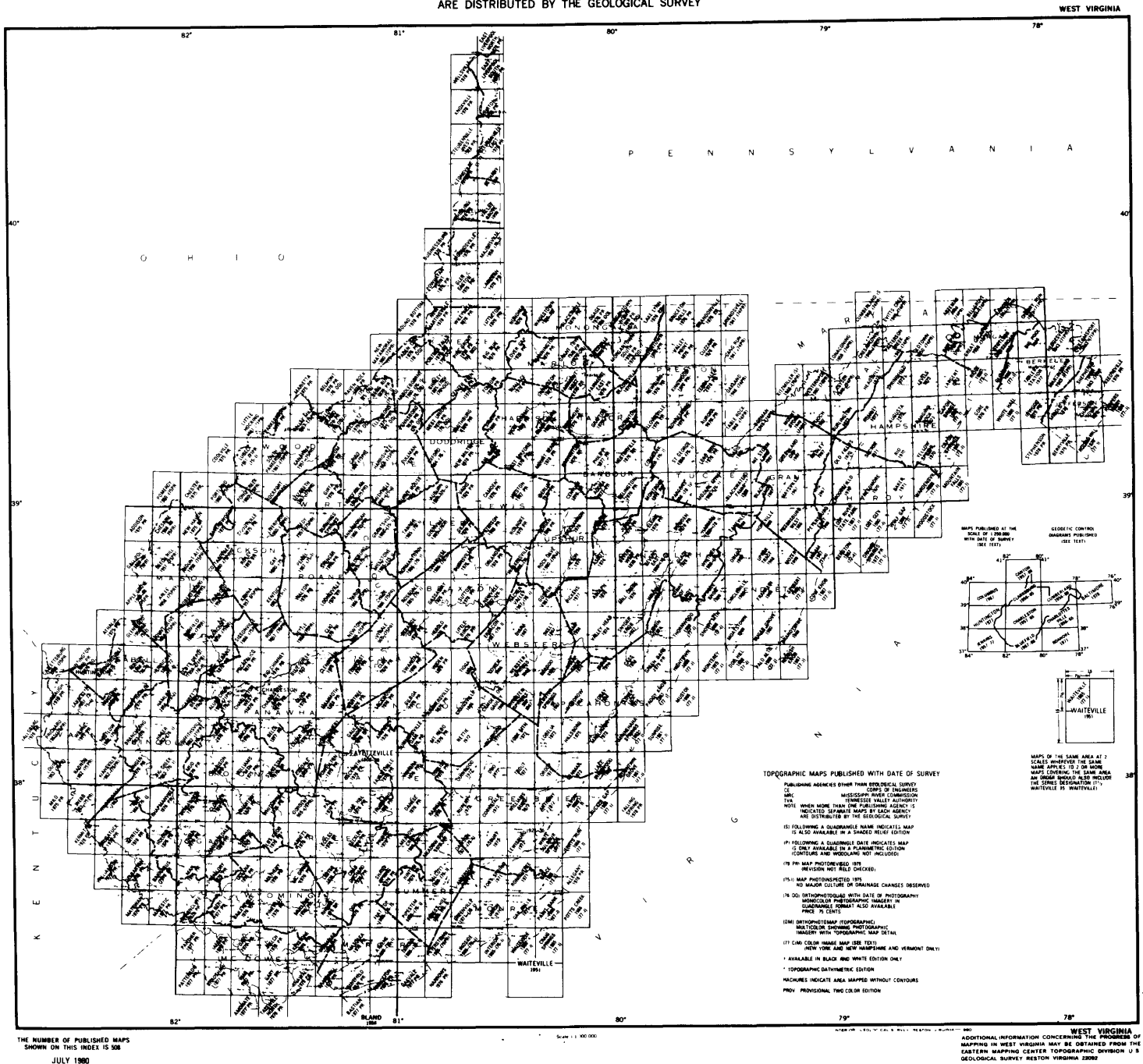


Figure 2.--The West Virginia Map Index published by the U.S. Geological Survey and made available to the public without charge. Most Map Indexes cover only one State.

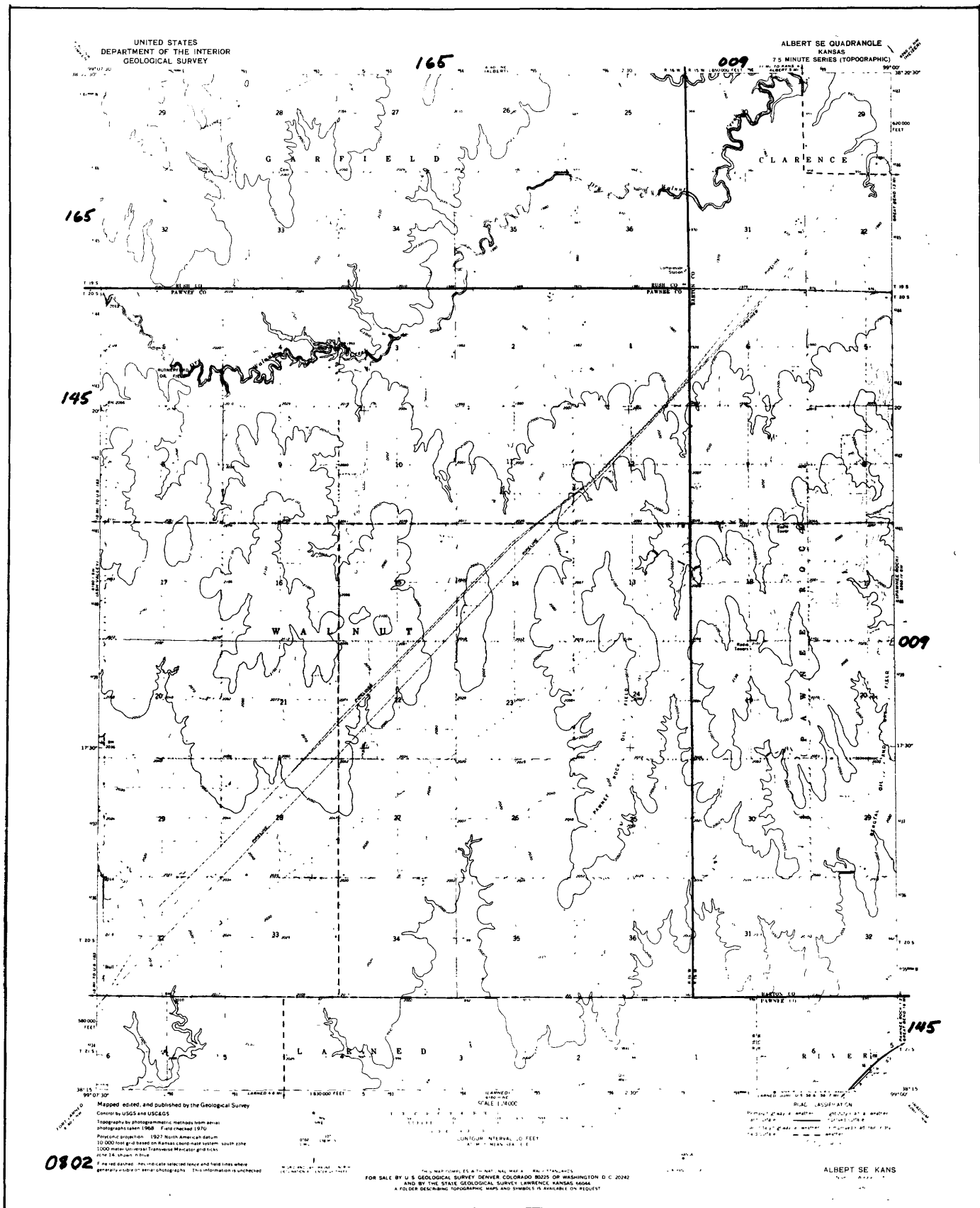


Figure 3.--An example of work preparation showing the annotated FIPS county codes and the map-cell code on the collar of the map. The county boundaries have been manually enhanced with a felt-tip pen for easier reading.

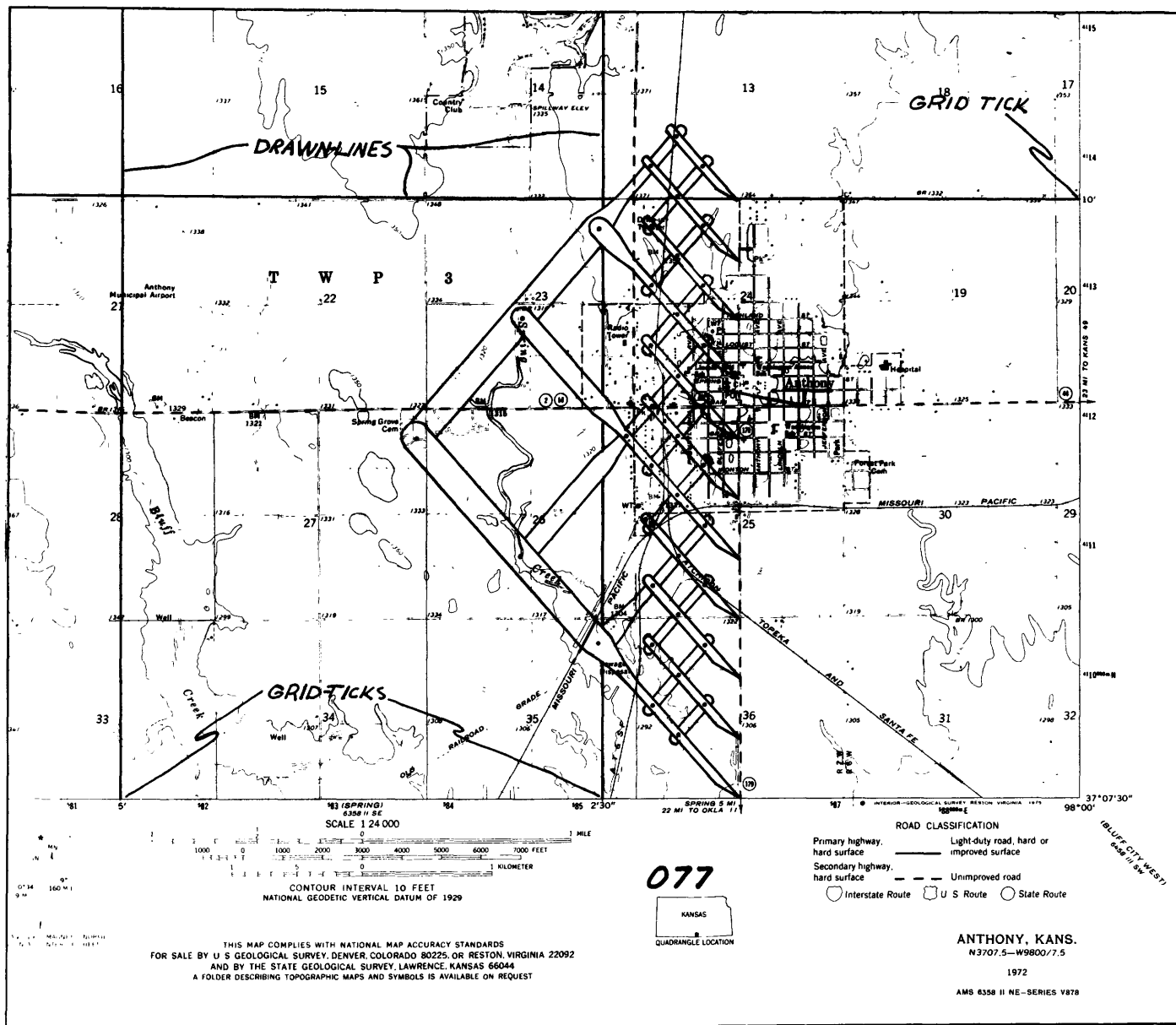


Figure 4.--Use of the equal spacing divider for determining latitude and longitude. The geographic coordinate system is indicated on the 1:24,000- and 1:25,000-scale maps of the U.S. Geological Survey by grid ticks located along the neatline of each map 2.5 minutes apart. These grid ticks can be connected across the face of the work map by east-west and north-south lines. When the equal spacing divider is adjusted with its end points set at the sides of the 2.5-minute area, the distance between each point represents 15 seconds of latitude or longitude on the map. For example, there are 6.7 divider intervals counting from the bottom of the map at $37^{\circ}07'30''N + (6.7 \times 15'') = 37^{\circ}09'10''N$ (rounded). The longitude of Anthony is determined in the same manner east-west: $98^{\circ}01'50''W$.

NAME - DRIFTWOOD TOWNSHIP

TYPE OF FEATURE - CIVIL

STATE/COUNTY FIPS CODE - 20153

GNIS MAP NO - 0008 1517 0009 1518 0009 1519

GEOGRAPHIC COORDINATES - 395720N1010331W 395745N1010852W 400005N1010852W
400005N1010331W 395705N1005855W 400005NM1005855W

ID NUMBER - 20009682

NAME - DRINKWATER CEMETERY

TYPE OF FEATURE - CEM

STATE/COUNTY FIPS CODE - 20017

GNIS MAP NO - 0820

GEOGRAPHIC COORDINATES - 381543N0964925W

ID NUMBER - 20007566

NAME - DRISCOLL OIL AND GAS FIELD

TYPE OF FEATURE - OILFIELD

STATE/COUNTY FIPS CODE - 20167

GNIS MAP NO - 0623

GEOGRAPHIC COORDINATES - 384332N0983600W

ID NUMBER - 20000450

NAME - DRUM CREEK

TYPE OF FEATURE - STREAM

STATE/COUNTY FIPS CODE - 20125 20099 20133

GNIS MAP NO - 1379 1378 1318 1257

GEOGRAPHIC COORDINATES - 371146N0953751W 371400N0953600W 371750N0953450W
SOURCE OF FEATURE (LATLONG) - 372647N0953008W

Figure 5.--Sample record entries from Phase I computer printout.

Other categories of names are incomplete and will require comparison with more complete lists. These categories are:

- Dams and reservoirs, and
- Populated places (FIPS 55).

Bibliography and Bibliographic Codes

A bibliography and bibliographic coding procedure is built into the Geographic Names Information System. This allows a ready reference to the sources of all names. The absence of a code indicates that the source of the name in the data base is a topographic map published by USGS prior to the initial compilation period of 1978-1981 (see p. 31 for coding topographic maps published after Phase I work). Preparation for Phase II work requires developing a preliminary bibliography of required and probable source documents to be reviewed. The bibliographic listing will grow as new sources are discovered.

With the exception of the USGS topographic maps reviewed during Phase I compilation, each source document is given a unique alphanumeric code. The first two characters of the code are the alphabetical FIPS State code, followed by a dash (-), then the letter T (for a textual source) or an M (for a map source), and unique number used for referencing the different sources. The unique number may be assigned sequentially as the source bibliography is developed for the maps (M) and texts (T). Bibliographic codes are annotated on the work maps for both new name data and variant names. Examples: ME-T1, ME-T2, ME-T3, etc. and ME-M1, ME-M2, ME-M3, etc. (Maine bibliographic codes).

If the document source is an atlas or similar publication, the map or page number should be recorded as part of the bibliographic code. The map or page number is separated from the code by a slash (/). Examples: AZ-T2/p. 80, AZ-M14/m. 24 (Arizona codes).

An annotated bibliography for each source from which a name or variant name was derived should be prepared in a standard format along with its bibliographic code:

AZ-T16 Johnson, Robert X. "Hiking Guide to the Rocky Mountains," New York: Doubleday, Inc., 1982, 3rd Ed., 472 pp. Refers to hiking routes with references to names of trails and physical features.

A copy of the annotated bibliography must be submitted periodically to the GNIS Manager for documentation.

Required Source Documents

A major part of Phase II work requires the review of certain important source documents. Documents should be reviewed in the following order:

- * • USGS Topographic maps published or reprinted since Phase I compilation (the key date will be provided by the GNIS Manager);
- * • National Ocean Service coast charts, river charts, and lake charts;

- * ● U.S. Forest Service maps;
- * ● U.S. Bureau of Standards FIPS 55 list,
- * ● Dams and Reservoirs list,
- * ● Federal Aviation Administration airport list,
- * ● U.S. National Park Service list,
- * ● U.S. Forest Service Recreation Area list,
- * ● Federal Communications Commission radio and television list,
- * ● List of Shopping Centers
 - County maps and listings published by the State,
 - Real estate maps, and
 - Lists of churches and schools
 - Historical maps, atlases, and gazetteers

*Source documents are furnished by the GNIS Manager.

Note - Underlined sources are considered basic references for determining official standard names.

Beginning Phase II Compilation

In review, the purpose of Phase II, Part I research is to review and collect specific geographic-name data not collected during Phase I compilation from a select variety of source documents. Use of a single set of work maps for Phase II compilation is crucial to a successful program for several reasons. These large-scale topographic maps provide a graphic representation of selected natural and manmade entities on the Earth's surface plotted to a definite scale. Portrayal of the shape and elevation of the terrain is determined by precise engineering surveys and measurements. The scales of the work maps are large enough to allow symbolism and name labeling of relatively small features. Because each work map shows the accurate locations and shapes of mountains, valleys, and levels, the networks of streams, bodies of water, and principal works of man, it is easy to relate a name with the entity it identifies. If an appropriate symbol is not shown on the map for a particular named entity, a symbol can be easily annotated directly onto the map in a fairly accurate location by relating position with other map symbols. New names and additional variant names are associated with the proper map symbols and annotated directly onto the maps along with bibliographic codes and other pertinent data. Both the annotated data and reliable qualitative and quantitative information published on the maps are used to develop new name records for the National Geographic Names Data Base.

Four Conditions to be Researched

Each source document must be systematically reviewed and compared with the work maps. One source document normally is reviewed at a time in order to prevent duplication and error. If more than one is reviewed at a time by several persons working on the project, care should be taken to prevent duplication of work. Only one reference is needed for a Phase II name record. The following four conditions between the source documents and the work maps are identified if encountered:

- Names in the source documents applied to geographical entities not named on the work maps (New Name),
- Different names or different spellings for the same entity (Variant Name),
- Names with the same or different spelling applied to two different entities of the same kind (Variant Application), and
- names with the same or different spelling applied in part to two different entities of the same kind.

Annotation Procedures

The name data, including bibliographic code, for these four conditions are annotated on the work maps, associated with the appropriate feature symbols. Annotations on the work maps should be made so that there is no ambiguity with regard to the names and their applications. The names and their symbols on the work maps should not be obscured by the annotations.

Work maps may be annotated either at or alongside the map symbols on the face of the map (fig. 6) or on the map collar with connecting lines to the appropriate symbols (fig. 7). The researcher must define the extent of named features. This is done by annotating their limits or extents with pencil, pen, or different color markers on the work maps (fig. 7).

Transferring name information from the various source documents should be done carefully. Print names in upper and lower case letters exactly as found on the source document.

When possible, all parts of a name abbreviated on the source document should be spelled out when annotated on the work map (see Appendix F, Standard Cartographic Abbreviations, p. 46). For example, "St. Johns R." applied to a stream is annotated "Saint Johns River" on the work map. Crowding on the work map, however, may occasionally restrict this procedure. If it is necessary to use abbreviations, they should be printed in the standard form and used only for the generic part of the name. When necessary, exceptions may be made for the specific part of names involving directions (North, East, Southwest, etc.) and the words Fort (Ft.), Saint (St.), Sainte (Ste.), Right (R.), Left (L.).

Arabic numbers in names should be spelled out. Roman numerals should be retained because they are based on the letters of the Roman alphabet.

Geographic coordinates are established not only to locate named places, features, and areas, but also to indicate the extent of certain kinds of features and to identify all map cells on which a named entity is located. The coordinates are categorized into primary, secondary, and source coordinates in order to establish coordinate priorities and to indicate locations of parts of some entities, such as the mouths and heads of streams, canyons, valleys, and washes. The annotation symbol to be used on the work maps are:

- * = primary coordinate
- x = secondary coordinate
- Ø = source coordinate.

More complete instructions as to the locations where geographical coordinates are to be taken are found on pages 52-55 of these guidelines and in the Map Feature Guide (Appendix G, p. 48).

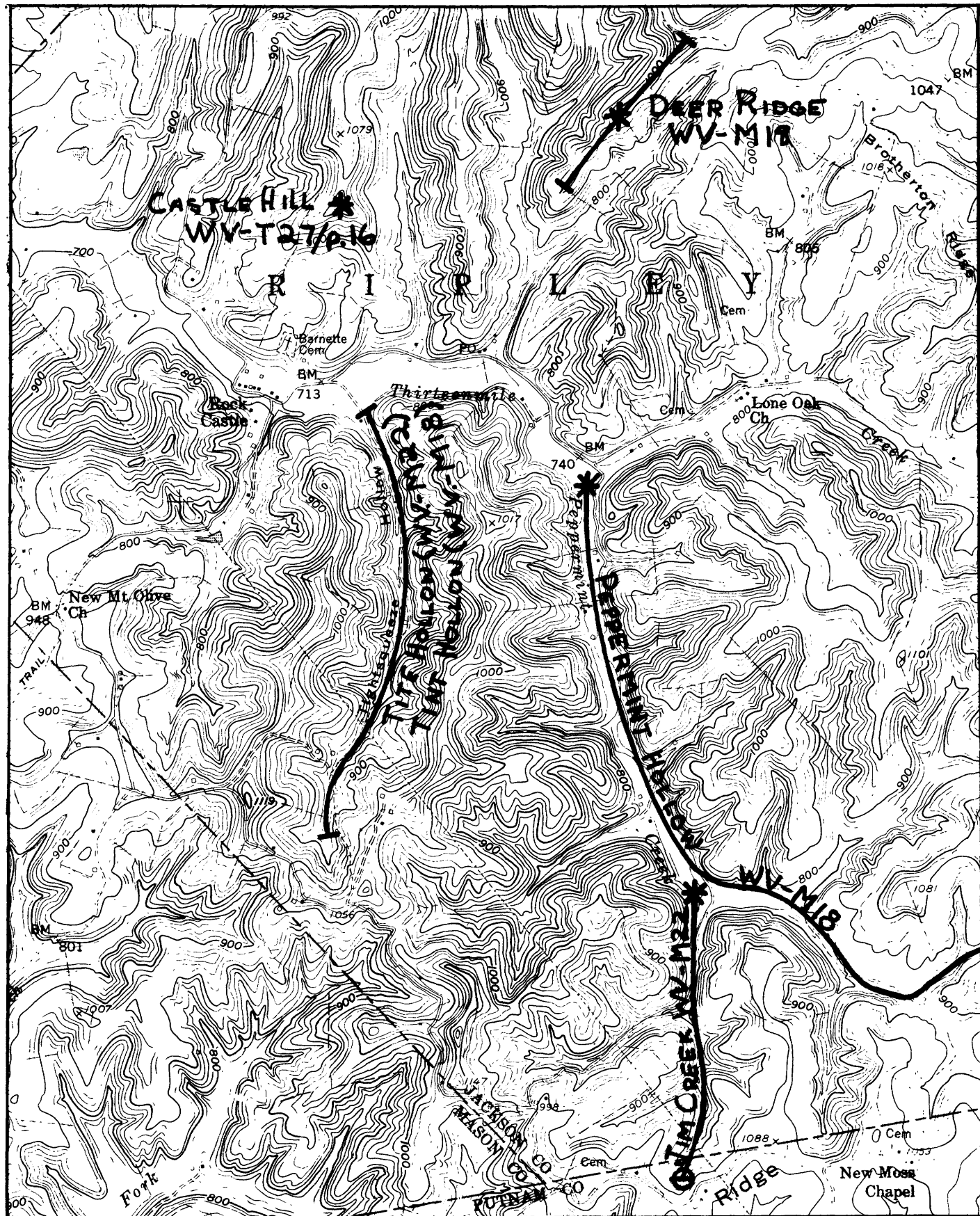
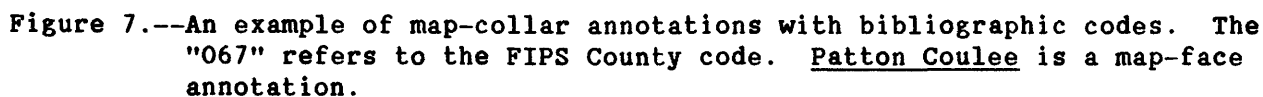


Figure 6.--An example of map-face annotations with bibliographic codes. The identification and extent of the referenced features are delineated directly on the face of the map.



Not all landscape and cultural features are symbolized on the topographic work maps. If an appropriate symbol is not shown on the work map, one should be annotated neatly in the proper location and identified by the normal name and bibliographic code annotation.

Annotation may be done by a fine-point felt-tipped pen, a good ball-point or standard marking pen, or by a sharp, but not excessively hard, pencil. It is advisable to annotate new names in a specific color and variant names in a contrasting color. It is also possible to annotate name/feature application differences in another color. The method used should be documented and applied consistently.

Only one annotation is required to build a name record. If a new name or variant name, encountered during document research, is already annotated on the work map from a previous source, it can be ignored unless the later source contains additional useful information not found on the previous source. For example, it is useful to keep an account of the earliest usage of a name.

Name Categories Exempt from Annotation

As mentioned earlier, certain categories of named entities were not compiled during Phase I because the information needed to build the name record was readily available in special listings or digital files. These listings are furnished to cooperators in the Phase II program by the GNIS Manager. Except for smaller dams and reservoirs, the following categories of named entities need not be extracted from the source documents and annotated on the work maps:

- Airports, landing strips, heliports;
- Dams and reservoirs; and
- Radio and television stations.

It should be noted that named streets, roads, and highways are not identified for inclusion in GNIS during Phases I or II.

Topographic Map "Time-Gap" Procedures

Phase I compilation was accomplished with a cut-off date for each State between 1976 and 1981. The compilation does not contain names published on the large-scale topographic maps after the cut-off date. A list of State cut-off dates will be furnished by the GNIS Manager. This procedure is temporary because new names from maps published within the "time-gap" will be compiled and added to GNIS at one time. Contact the GNIS Manager for the status of this compilation.

Because of the time gap between Phases I and II, the first step of Part 1 compilation is to identify additions or changes to the standard topographic map series published since the cut-off date on the work maps. The names are identified by the two-letter State FIPS code followed by a dash (-) and the code M101. For example, OR-M101 identifies a new name or change on a topographic map of Oregon. This name data can be determined by comparing recently published maps with the largest-scale map coverage available for an area before the cut-off date.

County-Level and Minor Civil Division Names

Phase I collection did not include county-level and minor civil division names because such nomenclature can be compiled best as a unit during Phase II work rather than on a map-by-map basis. The information is not annotated on the work maps, but instead recorded directly on Input Coding Forms (discussed on p. 22) and designated as "civil" on line "a3, DESIG" of the form. This compilation should include counties; civil parishes; towns (northeastern United States); named townships (land survey system); grants, patents, and hundreds; and any other named formal divisions of the land not recorded during Phase I compilation.

Major Feature and Area Names

Other categories of named entities sometimes not collected during Phase I operations include major natural features (such as Lake Michigan, Rocky Mountains, and Coast Range), extensive Federal and State parks and recreation and wildlife areas, and regional names. In all of these cases, no precise instructions can be given that will allow Phase II researchers to know if the records were, or were not, established during Phase I compilation. Researchers must check the computer printout or query the State file by means of a computer terminal in each case. Fortunately, the total number of these entities is not large.

Those major natural features and extensive parks, recreation, and wildlife areas to be added to the Phase II file can be plotted or outlined best on the 1:250,000-scale or State base maps furnished by the GNIS Manager. The data for building each name record can be developed from such map annotation (fig. 8). The annotated intermediate-scale maps then become part of the work map collection for continual reference.

Currently used regional names are not normally found on topographic or on other base-map series. These names often can be found in the geographic literature. Regional names used in the past are found in the historical literature of a State or region. Because regional names often have indefinite boundaries, the Phase II researcher must interpret the area covered by a regional name so that an appropriate name record can be developed for the data base file. Precise boundaries are not needed.

Variant Names

All possible variant names and variant spellings should be annotated on the work maps along with their bibliographic codes for inclusion in the data base. This includes published typographical errors and minor spelling variations such as the inversion of "ie" and "ei" or "ll" and "l". All variant names, in each case, should be referenced to the named entity and not to the name. For example, a small settlement may be called Avon. If a post office or railroad station a mile away is also called Avon, there are two different named entities. James Creek and James Gorge, through which the stream flows, are two different features because the former is a hydrographic (water) feature and the latter is a hypsographic (land) feature. Early maps and maps with scales too small for accurate name placement should be carefully interpreted in order to prevent the creation

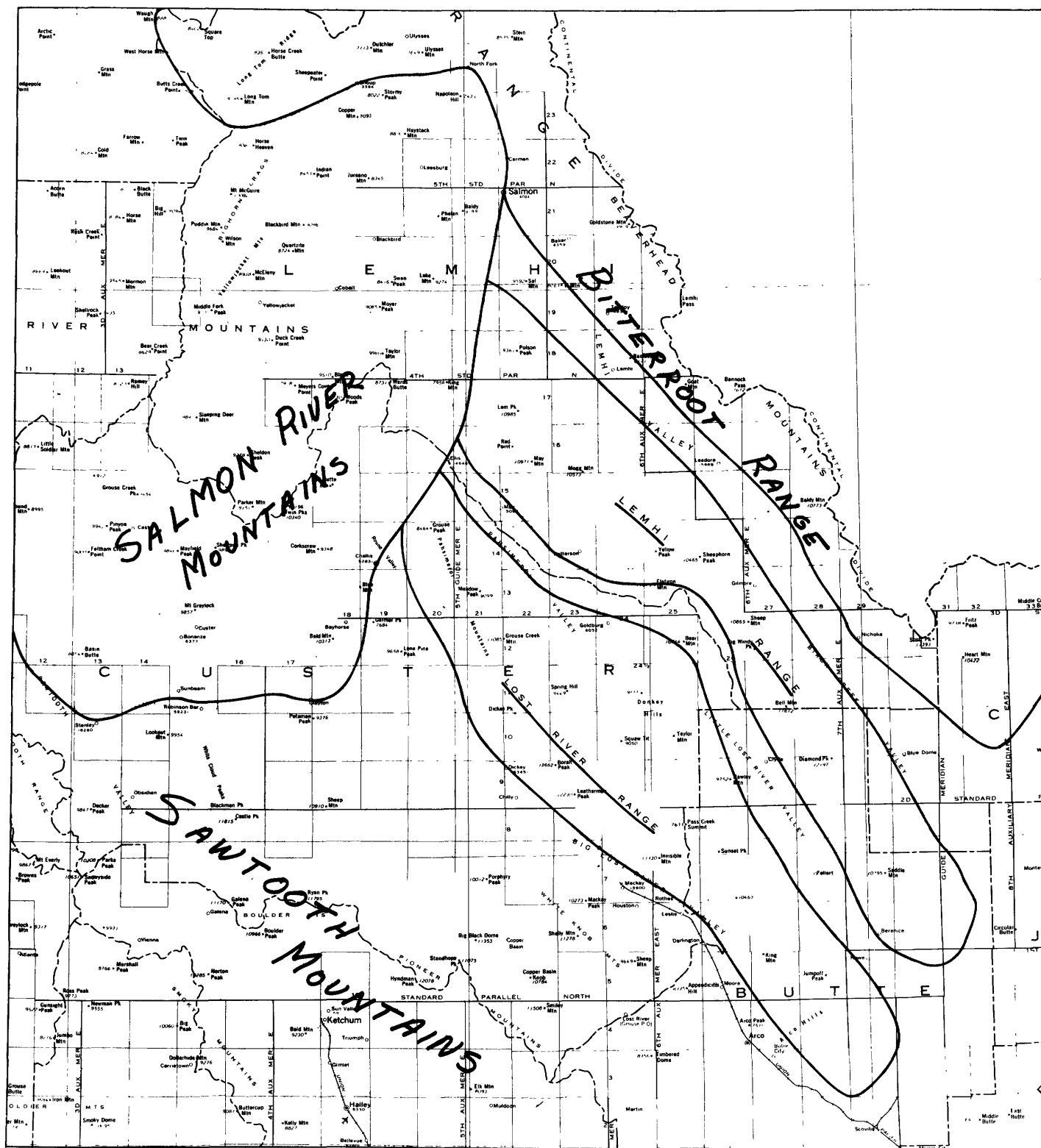


Figure 8.--It is best to delineate major named entities on 1:250,000-scale or State base maps in order to understand their full extent and relationships with each other. Record data can be derived from the small-scale map or the feature boundaries can be transferred to the large-scale work maps.

of variant names not intended by the mapmakers. Keep in mind the logical application of a name based on its generic element. A named cape applied to an island on a small-scale map was probably meant to apply to what was perceived as a cape and not the island. The relationship between a named mountain and its separately named peak or peaks should also be carefully maintained. Because of editorial policy or lack of space, names were sometimes abbreviated or the generic elements were left off the names. These should not be considered variant names. When recorded, the appropriate full name and generic should be given. See figure 9 for examples of name application differences on source documents which could result in the creation of variant names.

Controversial Names

A name controversy exists if the name of a populated place, locality, or natural feature or its application differs between any two of the following: (1) topographic map, the Phase I printout, (2) U.S. Forest Service map, or (3) National Ocean Service chart. If a controversy exists, the matter should be brought to the attention of the U.S. Board on Geographic Names. This can be done by submitting a Domestic Geographic Names Report (Form 9-1343), (fig. 10) as soon as possible to the:

Executive Secretary for Domestic Names
U.S. Board on Geographic Names
National Center 523
Reston, Virginia 22092
Tel. 703-860-6256; FTS 928-6256

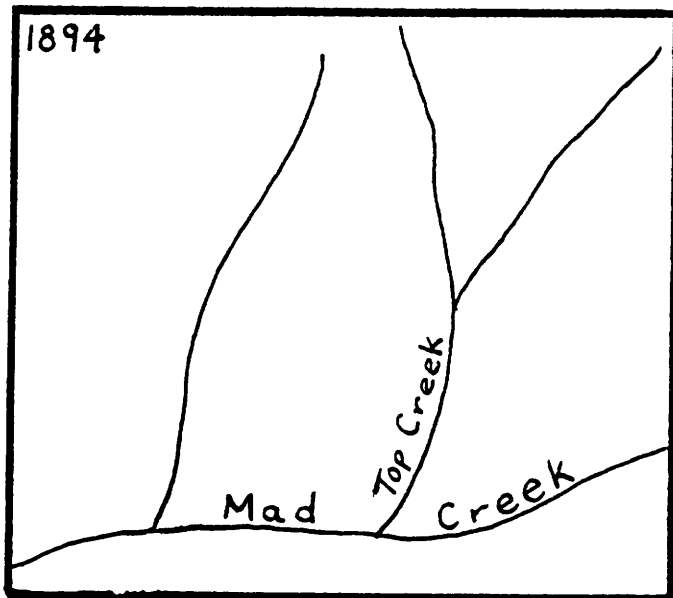
The Board or its staff will resolve the controversy and notify the informant of the decision.

If the controversy exists for entities other than populated places, localities, and natural features, effort should be made to ascertain the name recognized by some form of administrative authority. When this name cannot be established, the researcher should choose the best one for the Record Name. All other names then become variant names.

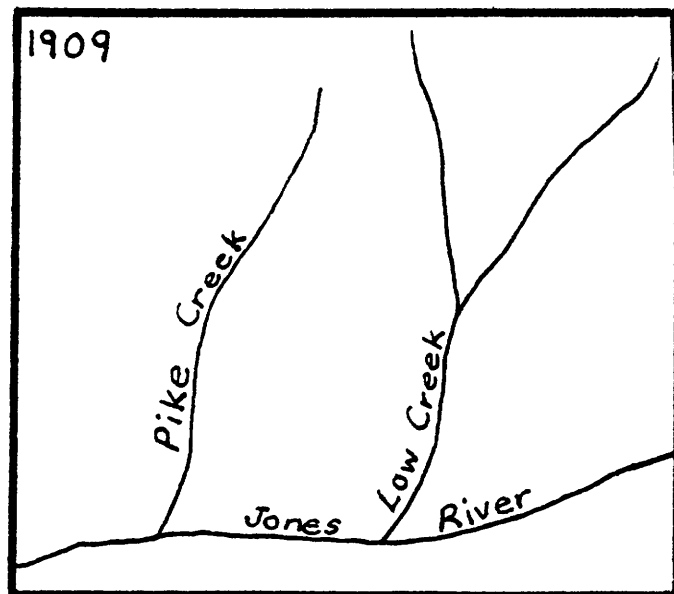
Vague, Obsolete, and Vanished Entity Names

The National Geographic Names Data base is designed to be a total information depository of all obtainable names and associated information once or presently applied in writing to features, and areas of the United States and its territories. Every name, except those for streets, highways, and roads, should be recorded as a Record Name or variant name. This applies to the names of features that are no longer in use (landings, schools), the names of features that no longer exist (ghost towns, destroyed manmade and natural features), and historical and current names applied to vague entities (regions, areas). For example, Sir Francis Drake applied the name "New Albion" to the land along the west coast of what is now the United States. New Albion is a legitimate name record for each of the States of California, Oregon, and possibly Washington, and should also be listed as a variant of these three name records.

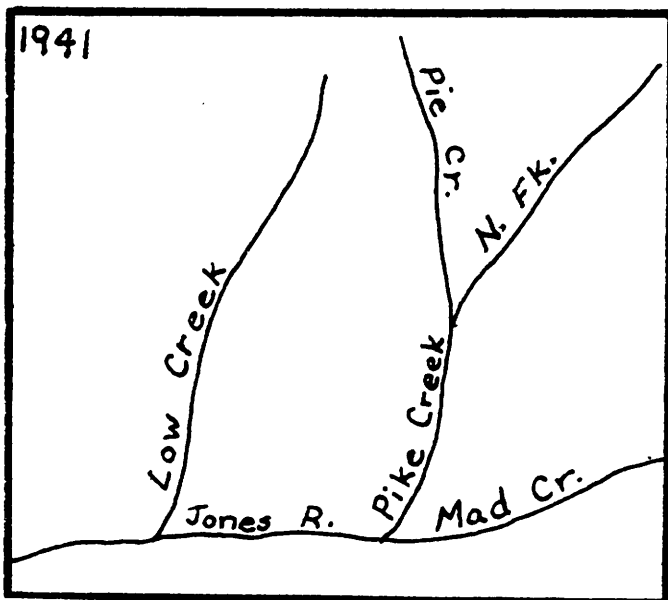
A. Source Map



B. Source Map



C. Source Map



D. Work Map

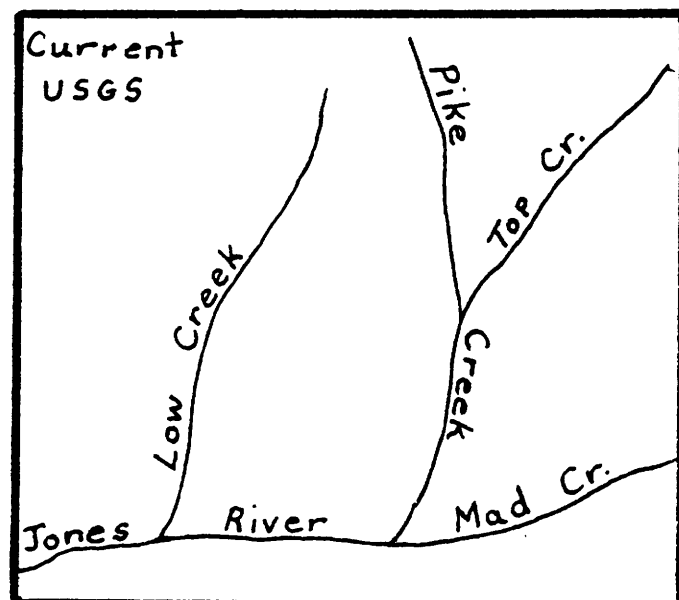


Figure 9.--Application Problems and Variant Names. When identifying variant names, each part of a feature or system of features uniquely named on a source map is considered a separate entity. A variant name is associated with a record name even though it may have been applied only to a part of the record name feature on a source document. The record name on map D have the following variant names derived from source documents A, B, and C:

Jones River - Mad Creek
 Mad Creek - Jones River
 Low Creek - Pike Creek
 Pike Creek - Pie Creek, Low Creek, Top Creek
 Top Creek - North Fork Pike Creek

UNITED STATES DEPARTMENT OF THE INTERIOR BOARD ON GEOGRAPHIC NAMES WASHINGTON, D.C. 20242 DOMESTIC GEOGRAPHIC NAME REPORT	<input type="checkbox"/>	Controversial name	Recommended name
	<input type="checkbox"/>	Name change	State
	<input type="checkbox"/>	Changed application	County
	<input type="checkbox"/>	Other	

Lat. ____° ____' ____" N,	Long. ____° ____' ____" W,	Mouth End Center (Circle one)
Lat. ____° ____' ____" N,	Long. ____° ____' ____" W,	Heading End (Circle one)

Description of feature: where appropriate, give shape, length, width, direction of flow or trend, direction and distance of extremities from points with established names, and section, township, range, meridian where useful, also elevation if known.

Published Maps Using Recommended Name (Map name, date, agency, & scale)	Variant Name or Application	Map or Source Using Variant (Map name, date, agency, & scale)

Available information as to origin, spelling, and meaning of the recommended name and/or statement concerning nature of difference in usage or application:

AUTHORITY FOR RECOMMENDED NAME	MAILING ADDRESS	OCCUPATION

Submitted by:	Title	Date
Name		
Agency	Address	
Person who prepared this copy if other than above:		Date
Name	Title	

Figure 10.--An example of the Domestic Geographic Name Report used for submitting name problems to the U.S. Board on Geographic Names.

Information Sources

The success of a Phase II compilation program depends upon the availability of source materials for research. Major university and city libraries with large historical and current map holdings and local history sections can furnish a large amount of source information for Phase II work. Research of State and local historical society publications and State, county, city, and town records is also important.

Primary Federal Sources

The primary Federal maps should be the first sources systematically reviewed after the preliminary work has been completed because official names are determined by usage on these maps. The names found on the topographic-map series published by the Geological Survey are already in the system. For Phase II, the process involves comparing names and their applications shown on the National Ocean Service charts and the U.S. Forest Service maps with those shown on the work maps.

Other Federal Sources

After the primary Federal sources have been reviewed and processed, it is useful to systematically annotate the appropriate name information from the Federal listings made available by the GNIS Manager on the work maps. Most of the named entities in the listings will already be shown on the work maps and may only require quick visual verification. The listings, however, are more complete and, with the exception of the FIPS 55 list, represent official administrative names. The other Federal source listings include:

- U.S. Forest Recreation areas
- National Park Service: National
 - Parks
 - Historical parks
 - Battlefields and battlefield sites
 - Military parks
 - Memorials
 - Historic sites
 - Monuments
 - Preserves
 - Seashores and lakeshores
 - Parkways
 - Rivers and riverways
 - Recreation areas
 - Scenic trails
- National Bureau of Standards, Federal Information Processing Standard - FIPS 55.

See figure 11 for an example of recommended methods for annotating Federal sources.

State and Other Related Sources

Review and work map annotation of name data from the Federal documents should cover most major named places, features, and areas. Experience indicates, however, that this represents only about 50-70 percent of all names found in present-day usage. Thus, the next task of Phase II work is to identify the names of geographic entities in use today that are not already recorded. State and local governmental publications may be the best source of information of this kind. These documents include:

1. Maps produced by State agencies and local governments and
2. Special State and other governmental publications dealing with -
 - Schools
 - Churches
 - Hospitals
 - Cemeteries
 - Shopping centers
 - Public landmarks
 - Springs and streams
 - Lakes and ponds
 - Recreation areas
 - Public parks and forests
 - Natural features
 - Historical sites and structures
 - Highway rest areas
 - Natural resources
 - Mines and mining areas
 - Industrial parks.

The names of subdivisions and real estate developments are useful records to have in the National Geographic Names Data Base, even though many of the names are ephemeral and may not be published in the National Gazetteer series. These names represent populated areas that are normally recognized by a legal process at some level of government. Most are not named on the topographic work maps. Information about the names and locations of real estate developments normally is available at the governmental office or agency that deals with zoning or planning and through real estate multiple listing maps.

Historical and Other Publications and Records

Almost all written material uses geographic names for locational purposes. Source documents for Phase II, Part I work are almost unlimited. Careful selection of sources that provide the greatest potential of new name information is important because of time limitations. After the required Federal and State source documents have been researched, the remaining kinds of information needed for the data base include:

- Historical and obsolete names,
- Indian and other minority group names,
- Regional and area names, and
- Minor feature names.

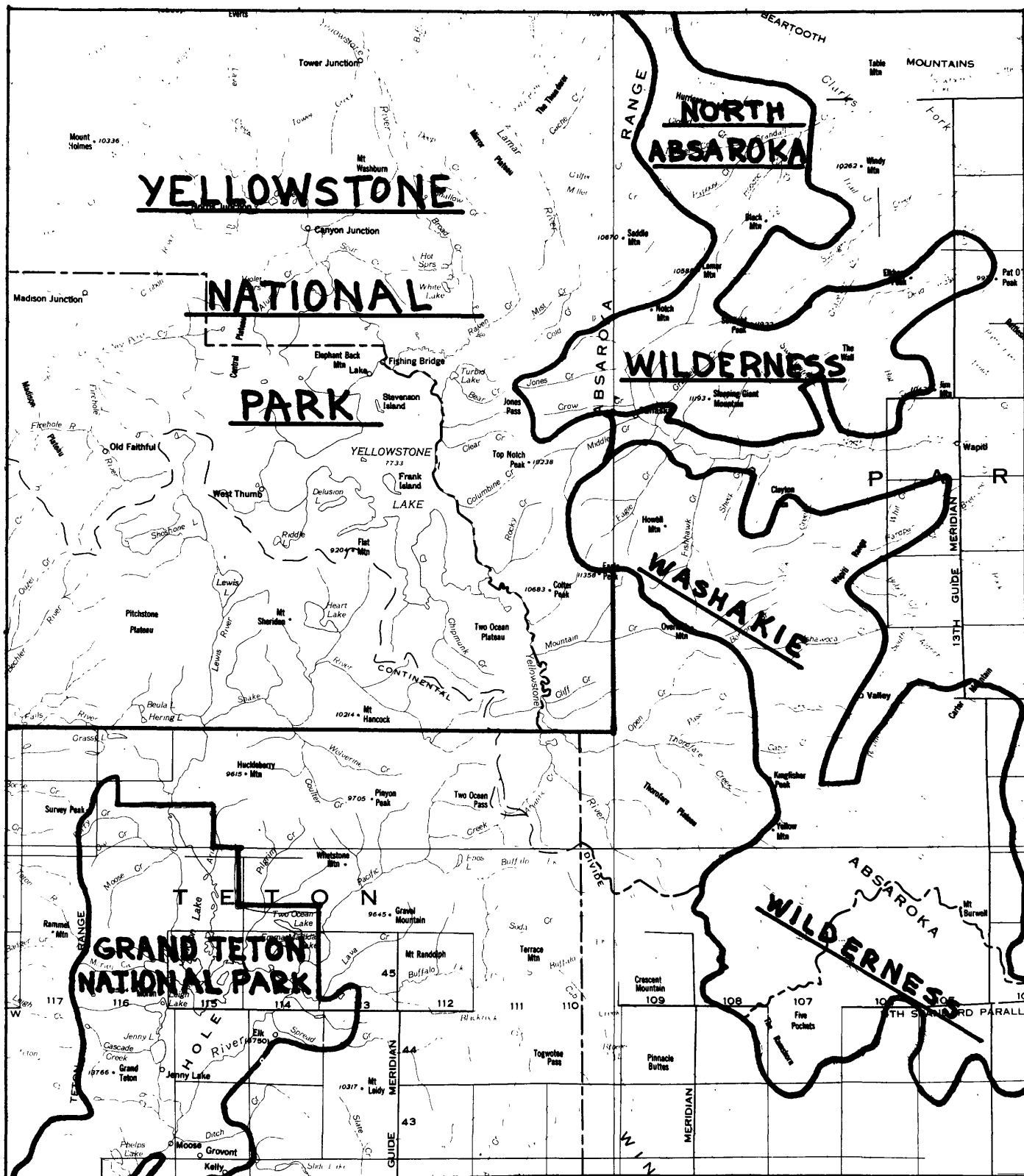


Figure 11.--Annotating named Federal and State entities. As with major features, it is best to identify scattered and large named areas that fall under the administrative authority of a Federal or State agency on a small-scale map. This procedure helps the compiler to understand extent and relationships not easily discernable on the larger scale work maps. County boundaries also can be annotated on the small-scale map if it is considered helpful.

The availability of documents from which useful information can be obtained varies among States and among areas within a State. The more obvious possible source documents are:

- Historical maps and atlases;
- Books and pamphlets on local history;
- Old Federal reports, maps, charts, and guides including census listings, coast pilots, postal guides, and reports on explorations;
- Land records and plats;
- State and regional geographic names studies and books;
- City plats, and county and regional maps;
- Etymological texts and materials; and
- Early written records dealing with travel, exploration, and settlement.

It is reiterated that priorities and limits need to be established to prevent an excessive amount of research time spent on going through sources that furnish minimal results.

PHASE II, PART 2: ENCODING PREPARATION

Part 1 involves the collection of name data on a master set of work maps. Parts 2 and 3 require the transfer and conversion of both the annotated and printed map data into machine-readable form for inclusion into the National Geographic Names Data Base. Although it is possible to encode name records directly from the work maps to the computer, such a procedure is not normally recommended because it requires special equipment and highly skilled operators, has a greater error factor, and is more difficult to monitor. Instead, an intermediate step, Part 2, is used. It involves the transfer of annotated and published map data to an Input Coding Form for each name record (fig. 12). The Input Coding Form is then used for digitizing the data for entry into the computer system.

Data Transfer

All data must be carefully and clearly printed on the Input Coding Form in upper and lower case (or as directed) and in exactly the same form as shown on the work maps, except that all abbreviations must be spelled out.

Data Elements and Record Format

Each name record consists of categories of information called data elements. The data elements are listed on the Input Coding Form in the order in which they will be encoded for machine entry. Any specific entity can have only one record name in the data base. Each data element is identified by a:

- Descriptive name (Record Name),
- Label (Name), and
- Format code.

Geographic Names Information System (GNIS) Data Element Entries
For Phase II Compilation

Input Coding Form

(a1) NAME _____

(a3) DESIG _____

(a4) *LOC _____

(a5) **COUNTY _____
(a6) *LATLONG _____

(a7) HEADS _____
(a8) *MAP _____

(a9) **MAP NAME _____
(a11) ELEV _____
(a16) *VAR _____

(a17) SIZE _____
(a18) STATUS _____
(a19) SPDESIG _____
(a20) STR _____
(a99) BIBLIO _____

*multiple entries required if necessary - if corrections are
required with multiple entries, then all entries must be
re-entered

**one entry only--location of the primary coordinate

Figure 12.--Input Coding Form.

Record Name

The geographic name entered on line a1 of the Input Coding Form is the official or primary name to which all variant names and spellings are referenced. Normal spacing and upper-lower case spelling are to be used regardless of the type placement on the source document (example: "Lakewood" not "LAKEWOOD.") Exceptions occur when an upper-case letter is normally used within the body of the specific part of a name; DeKalb, LaMarr.

Except for the genitive (possessive) apostrophe, all non-letter characters that are part of the name are to be properly recorded on the coding form. This includes the apostrophe (O'Malley Creek), hyphen (Miller-White Ditch), acute (´), grave (`), circumflex (^), tilde (~), and cedilla (ç).

Each name is printed letter by letter, word by word, in its normal order except in those cases where the generic part of the name of a natural (physical) feature precedes the specific part as in Mount Adams, Lake Ann, Bay Saint Louis, and Lake of the Woods. In such cases the specific or substantive part is listed first, followed by a comma, a blank space, and the remaining parts of the names:

Adams, Mount
Ann, Lake
Saint Louis, Bay
Woods, Lake of the.

However, a populated place, locality, or civil division (city, village, county, township, crossroad, and railroad siding) named for a physical feature is always listed in normal order even though the generic part of the name may precede the specific part. A village or locality called "Mount Calvary" is listed in that order, while a physical feature with the same name is shown with the specific part of the name first; that is, "Calvary, Mount."

Feature Class

The feature classes (line a3) are designed to group similar features into broad categories to facilitate search and retrieval. The Map Feature Guide (Appendix G) provides a reference for all known geographic-name generics to the appropriate broad feature class. However, if a geographic-name generic not yet in GNIS is encountered, it should be recorded on the "Generic Information" form (fig. 13).

State/County Codes

"The Standard for Counties and County Equivalents of the States of the United States" (FIPS PUB 6-2, latest edition) published by the U.S. National Bureau of Standards will be the source for codes on line a4 to identify the States and Counties in which a named feature occurs. The individual code is five digits. The first two digits refer to the State and the last three digits refer to the county or county equivalent. This

is a numeric variable-length field. A five-digit State/County code will be recorded for each county and State in which the named entity is located. When more than one code is entered, the State and county in which the primary coordinate symbol is located is listed first. The sequence thereafter is from mouth to source for drainage features, referred to in GNIS as linear features.

When a feature is in both the United States and another country, the appropriate 2-character alphabetical FIPS code will be used, for example, CA for Canada, MX for Mexico, UR for Soviet Union, UK for the United Kingdom, and WS for Western Samoa.

County Name

The specific part of the county name, or county equivalent name, is printed on line a5. Only the county name where the primary coordinate, is located is recorded. No multiple entries or data items are permitted for this data element. Only the specific part of the name is listed. Arlington County and Terrebonne Parish are listed as:

Arlington
Terrebonne.

If the primary coordinate is located in an independent city the specific name of the city or town followed by the word city in parentheses. Richmond (city).

Geographic Coordinates

A 15-character compressed geographic coordinate is used in line a6 for primary and secondary points. Multiple data items are separated by a blank space. If the degrees of longitude are less than 100 a leading 0 must be present. Example: 250607N0713214W.

The primary and secondary coordinates are geographic coordinates that not only locate and indicate certain feature limits, but also associate a named feature with the map or maps on which it appears. Latitude is in degrees, minutes, and seconds followed by one alphabetical directional character (N or S); and longitude is in degrees, minutes, and seconds followed by one alphabetical directional character (E or W). There is a geographic coordinate associated with each topographic map or cell on which a feature is located. The primary coordinate followed by all secondary coordinates will be recorded after the precedence code "a6." Multiple entries or data items may be required. The order recorded is from mouth to source for linear features and generally from the center outward for areal features.

All primary and secondary coordinates must be recorded within ± 5 seconds (about 400 feet) of accuracy at a scale of 1:24,000 or 1:25,000. Geographic coordinates may be accurately determined by means of 10-space dividers, scaling rulers, special coordinate overlays, or by the use of an electronic digitizer. Procedures for establishing coordinates for Phase II encoding should be arranged between the cooperator and the GNIS Manager.

GENERIC FORM

Generic or Unusual Word _____

GNIS Feature Class _____

Location of the Geographic Coordinate _____

Is a Source Coordinate necessary? _____

Standard Abbreviation (if known) _____

MAPNAME _____

SCALE _____

STATE _____

GNIS MAP NUMBER _____

Description and type of Feature to which THE GENERIC REFERS _____

OTHER PERTINENT INFORMATION _____

Figure 13.--Generic information form used to identify and report new generic words found in geographic names.

The Primary Coordinate entry is the first coordinate on the form and should locate a point at the mouth of a linear feature and at the approximate center of an areal feature. Specific instructions as to where the geographic coordinates are to be taken are found in the Map Feature Guide (Appendix G) or may be obtained interactively by accessing the Generic Data Base. The approximate center must be determined subjectively for areal features with indefinite, irregular, or non-discernable boundaries. The centers of populated places often may be determined by locating certain features such as the town or city hall, main library, main post office, the old central business district, or a main intersection. The mouth of a natural feature refers to the terminus of linear entities such as streams, valleys, and canyons and is located where the feature joins another feature of the same kind, ends in a delta, an alluvial fan, or no longer has a discernable channel or troughlike characteristics. Primary coordinates for entities classified as summits are recorded at the tops or highest points of the features. The Primary Coordinate entry corresponds to the data elements County Name and Map Name and corresponds to the first entry in State/County Code and GNIS Map Number.

The appropriate Primary Coordinate should be recorded if it is available. If the Primary Coordinate is not available, enter the 15-character entry *PRIMARY COORD* followed by all subsequent Secondary Coordinates related to the named feature.

The Secondary Coordinate is a point arbitrarily chosen to locate the named feature on maps or cells through which it passes or on maps that do not contain the Primary Coordinate. Choose only one Secondary Coordinate for each 7.5 x 7.5-minute cell on which the feature is located. Its only purpose is to identify the name with the map and general extent of the feature. The location of each Secondary Coordinate may be anywhere on the map as long as it is located on the feature in question. All Secondary Coordinates correspond on a one-to-one basis with multiple data items in the GNIS Map Number data element.

Source Coordinate

The Source Coordinate is a 15-character compressed geographic coordinate identical in format to the coordinates found in the Primary and Secondary Coordinate field. There must be only one geographic coordinate to represent the source of a linear feature on line a7.

The annotator will assign the Source Coordinate symbol Ø to the furthest point at the head of the longest, straightest extension of the named feature unless its location is otherwise defined on the map by name placement, textual description, or other influencing variable. This procedure is in accordance with the policies of the U.S. Board on Geographic Names. See figure 14 for examples of locating points for Source Coordinates. If the Source Coordinate is outside the State, the appropriate coordinate should be obtained. If it is not available, the line on the coding form will be filled in with *SOURCE COORD*.

GNIS Map Number

The GNIS Map Number on line a8 is a four-digit numerical code that refers to each 7.5 x 7.5 minute cell. Multiple data items may be required and are separated by a blank space. The GNIS Map Number corresponds to

each of the primary and secondary geographic coordinates on a one-to-one basis and the last GNIS Map Number recorded refers to the map showing the source coordinates of certain linear features. An exception to the above rule occurs when either the mouth or source of a linear feature lies outside the State or some portion of an areal feature is outside the State. In this case no corresponding map number can be recorded.

The four-digit numbering system begins in the northwest corner of each State or territory and the numbers increase consecutively from west to east while moving latitudinally southward. Each State is numbered in the same way. Thus, the same map may have two or more different numbers when parts of two or more States are covered by the same map. For this reason, map numbers for parts of features outside the State being worked are not recorded.

Because the GNIS Map Number must always be a four-digit number, it is necessary to add leading zeros to numbers less than 1000; example: 0010 and 0279. Map numbers correspond on a one-to-one basis with geographic coordinates unless the primary or source coordinate is outside the State.

Map/Chart Name

Line a9 on the Coding Form allows for the inclusion of a variable-length map name. The entry for this field is the name of the topographic map which contains the location of the Primary Coordinate of the feature, even though the feature may not be named and (or) not symbolized on the map. If a feature lies outside the bounds of topographic map coverage, reference to a chart source should be made if applicable. For example, the reference NOS 12345 indicates that the feature is covered on National Ocean Service Chart 12345 and is outside the bounds of the National Topographic Map Series. Record only one entry for each feature. If the Primary Coordinate of a feature lies outside the boundaries of the State being encoded, record the name of the map followed by a blank space and the two-character alphabetical FIPS code for the State in which the Primary Coordinate is located.

Elevation

Topographic maps show elevations for selected points, such as the summits of hills and mountains, crossroads, mountain passes or gaps, lakes and ponds, and dams. Surveyed points are shown in black print, photogrammetrically determined elevations are in brown, and water elevations are shown in blue. Every effort should be made to record the elevations of named features on line a eleven when appropriate. Elevations are not recorded for streams, but it will be useful to have elevations for most named bodies of water, such as ponds, lakes, and reservoirs, and for passes and gaps. Elevations are required for all populated places, locales, and summits. Elevations not recorded on the map can be determined by interpolating contours.

The following rules apply to determining and recording elevations:

- Only one elevation will be recorded for each name record;
- Elevations are to be given in feet;

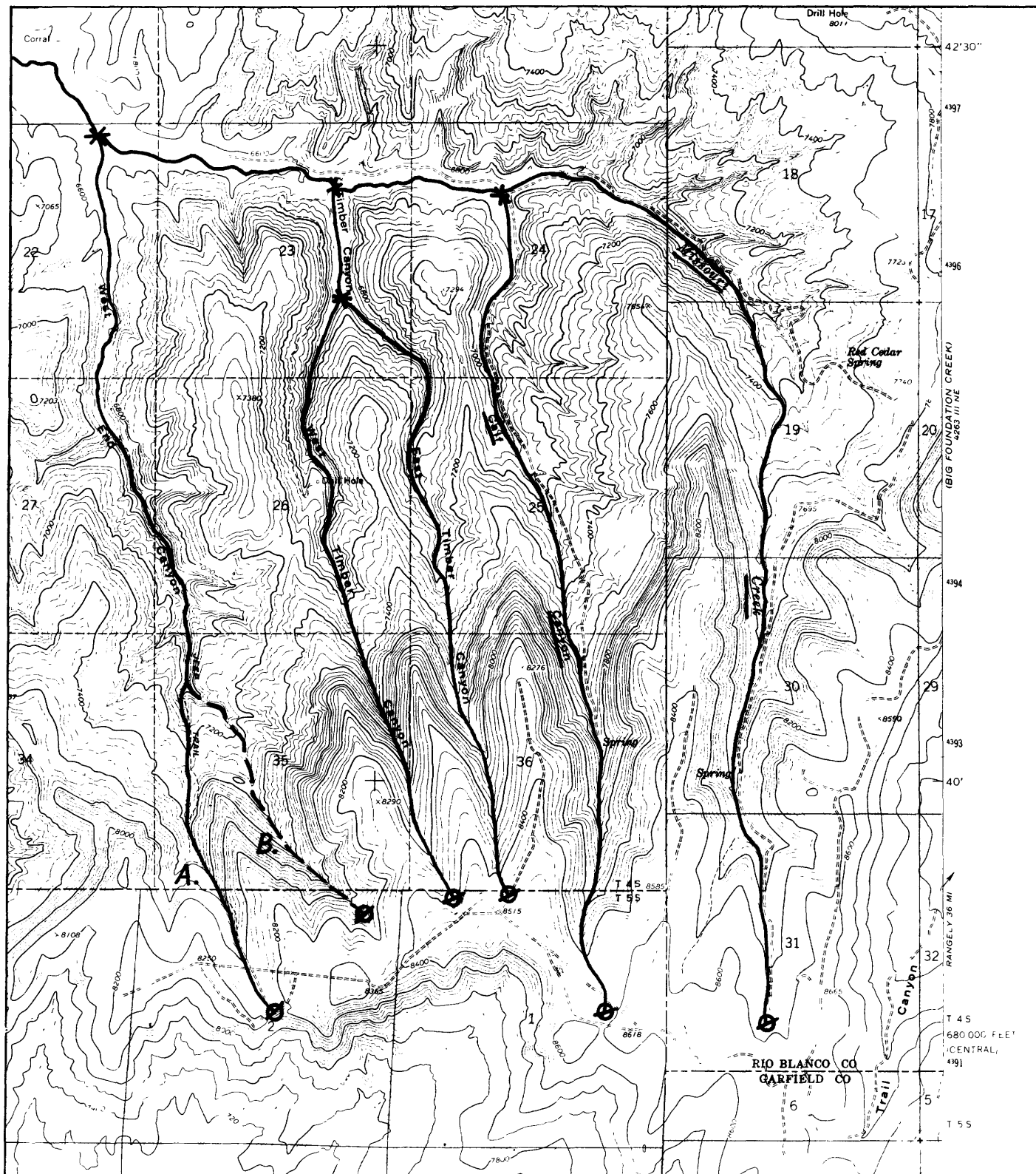


Figure 14.--A head coordinate is to be taken at the extreme head of the longest, straightest branch of a stream and the longest, straightest, or deepest branch of a canyon. The head coordinate is established at the extreme head of drainage determined by reentrant contour lines and not necessarily at the end of a stream symbol or end of the name printed on the map. In figure 1, West End Canyon represents a borderline case. However, it appears that its head coordinate would be best established on branch A because it is the longest and straightest branch.

- Elevations may be no longer than five characters including a negative symbol;
- Elevations are to be recorded at, or very near, the Primary Coordinate;
- Negative values (feet below sea level) are preceded with a minus sign (-);
- Elevations are determined for the highest points of summits such as mountains, peaks, hills, mesas, ridges, mounds, and bluffs;
- Elevations are determined for the lowest points of passes, gaps, notches, and basins;
- Elevations for bodies of water, such as lakes, ponds, and reservoirs are determined by water level.
- Elevations for the GNIS categories of populated place (ppl), locale, and summit, when not published on the map, should be estimated according to the location of the Primary Coordinate between the upper and lower contour lines.

Variant Name(s)

Variant Name, recorded on line a16, refers to all other known names or spellings once or presently applied to the entity identified by the Record Name. This is an important category of information and reasonable effort should be made to obtain as many variant names and variant spellings of a name as possible. This is done by investigating name use on historical maps, atlases, and gazetteers. The following rules apply to the recording of Variant Names on the coding form:

- If more than one Variant Name exists for a record, they are arranged alphabetically and separated by a comma and a blank space.
- The bibliographic code must be recorded with entries discovered in sources other than USGS topographic maps. The code is in parentheses and follows the variant.
- If the U.S. Board on Geographic Names has rendered a former decision on a Variant Name, the characters BGN followed by a blank and the year of the decision are recorded in parentheses after the variant. This information usually already will have been added during Phase I compilation.

Size of Feature

The size of the feature refers to a short variable length, upper/lower case, alphanumeric description that indicates the length of linear features and the breadth of areal features in English units. After the precedence code a17, it is possible to enter a short phrase indicating size. Example: 41 miles long and 2 miles wide, 123 miles long, 8 acres.

Federal Status

This code indicates the status of the Record Name and its application as determined by U.S. Board on Geographic Names. See Appendix D for a list of feature classes associated with status categories. After the precedence code a18, enter an all-upper-case entry for status. The possible categories are:

BGN - the name is official according to the policies of the U.S.
Board on Geographic Names,

BGN (YEAR) - the name is official and the year of special research
to resolve a controversy is given,

US (YEAR) - the name is official by an Act of Congress,

ADMIN - the name is official according to an administrative
Federal, State, or local organization,

UNOFF - the name is considered unofficial because it is not within
the purview of the U.S. Board on Geographic Names, or any
other official organization.

Special Designators

Special designators on line a19 currently indicated the ownership of
administrative areas. Entries should be made according to the following
categories:

Federally owned,
State owned,
Municipally owned, and
Privately owned

Section, Township, Range, and Meridian

The section, township, range, and meridian information should be
recorded on line a20 in the following manner.

Example: a20 sec 10, T14N, R20W, Gila and Salt River Meridian

If all information is not available, as sometimes is the case with section
numbers, the available information will be recorded accordingly.

Bibliographic Entry

The Bibliographic Entry on line a99 provides a ready reference to the
exact compilation source of all names not recorded from USGS topographic
maps. The absence of the code indicates that the name was recorded on the
USGS topographic map during Phase I compilation (1976-1981). See pages 13
through 14 for a description of the code. If no bibliographic code is
available, enter the word none. The line should not be left blank because
an entry is needed to close the record. The complete annotated bibliog-
raphy used in Phase II compilation for each State will be available in the
Generic Data Base.

PHASE II, PART 3: ENCODING DATA

Once Phase II name data have been collected and annotated on the work maps, and after the coding forms have been filled out, the name records are ready to be put into machine-readable form and become part of the National Geographic Names Data Base. Part 3 involves the actual encoding of data for entry into the system. Technical information on the equipment and procedures necessary for this operation is obtainable from the GNIS Manager. Additional comments regarding current encoding procedures for the record data elements are listed below. Changes and enhancements to the procedures may be made periodically and the GNIS Manager should be consulted before any actual keying of data is done.

- Record Name - a1: If the computer system being used does not provide for the recording of diacritical marks, the name should be followed by a blank space followed by an asterisk to indicate the presence of a special writing mark in the name, for example, Canon del Norte *.
- Feature Class - a3: The feature-class term is recorded and entered in lower-case letters only.
- State/County Codes - a4: If a correction is required in cases having more than one State/county entry, all entries must be retyped. Multiple entries must be separated by a blank space.
- Geographic Coordinates - a6: Multiple sets of coordinates are separated by a blank space. If any part of a multiple entry is corrected, all entries must be rekeyed. The geographical coordinates, latitude and longitude, are compressed into 15-characters with a blank space between multiple entries.
- GNIS MAP Number - a8: Multiple map numbers in an entry require rekeying if a correction is made. The numerical entry must be four digits.
- Elevation - a11: All numerical elevations are to be justified on the left and are not to exceed five character spaces.

APPENDIX A:—GEOGRAPHIC NAMES INFORMATION SYSTEM CATEGORIES OF NAMED FEATURES NOT YET INCLUDED

Phase I

Generally, all named features on the most-current largest-scale USGS topographic maps were included for Phase I compilation. Some categories of named features, however, were omitted from Phase I because more complete lists of these categories were available from other sources. If a State or territory has been completed only through Phase I, the following categories of named features will not be present:

- Airports,
- Radio and television station towers,
- Federally administered areas greater than 30 square miles,
- Major and minor civil divisions,
- Some major or large features that are too large to be named on 7.5-minute, 1:24,000-scale topographic maps,
- Regional names,
- Historical names,
- Most building names,
- Roads and highways, and
- Triangulation station names.

Phase II

Available information from the categories not compiled during Phase I, as well as geographic names from other sources, are added during Phase II. If a State or territory has been completed through Phase II compilation, information for all known named features should be present except for roads and highways and triangulation stations.

APPENDIX B:—GEOGRAPHIC NAMES INFORMATION SYSTEM CHECKLIST OF SOURCES

Required sources in order of their research and compilation

- USGS quadrangle maps published or reprinted since Phase I compilation
- National Ocean Service (NOS) Charts and River and Lake Charts
- U.S. Forest Service Maps
- U.S. Board on Geographic Names list of names not found on USGS maps
- U.S. National Bureau of Standards FIPS 55 list
- U.S. Army Corps of Engineers Dams and Reservoirs list
- Federal Aviation Administration Airport list
- National Park Service lists
- U.S. Forest Service Recreation area list
- Federal Communication Commission Radio and television station list
- Shopping Center listing
- County maps published by the State (not provided by USGS)
- Other State maps (highway, etc.) (not provided by USGS)
- Real estate multiple listing maps (not provided by USGS)
- List of schools, and churches (not provided by USGS)
- Historical maps, atlases, and gazetteers

Additional information is to be added for:

- Counties
- Townships
- Other minor civil divisions
- State and Federal Recreation, Wildlife areas, etc.
- Missing major or large features
- Regional names

Optional Sources are:

- City plats
- Textual material having reference to geographic names
- Historical Federal sources such as old NOS charts and pilots, old Postal Guides, etc.
- Bureau of Indian Affairs information

**APPENDIX C:—GEOGRAPHIC NAMES INFORMATION SYSTEM
USGS TOPOGRAPHIC MAP PREPARATION AND INSTRUCTIONS**

- Outline county boundaries
- Annotate FIPS codes on map collar adjacent to the county
- Draw lines at 2.5-minute ticks for determining coordinates if coordinates are determined manually
- Annotate GNIS map number on lower left collar (include leading zeros)
- Editing checks
- Add new variants
- Prepare annotated Bibliography
- Interpolate elevations for populated places (ppl), locales and summits

**APPENDIX D:—GEOGRAPHIC NAMES INFORMATION SYSTEM
STATUS CATEGORY CLASSIFICATION**

ADMIN	-	airport civil	forest park		
UNOFF	-	bridge building cemetery church dam hospital mine	oilfield other school tower trail tunnel well		
BGN	-	arch area arroyo bar basin bay beach bench bend canal cape	cave channel cliff crater falls flat gap geyser glacier gut harbor	island isthmus lake lava levee locale pillar plain ppl range rapids	reserve reservoir ridge sea slope spring stream summit swamp valley woods

APPENDIX E:—GEOGRAPHIC NAMES INFORMATION SYSTEM FEATURE-CLASS TERMS

The feature-class terms and abbreviations currently consist of up to nine letters. They were chosen for computer search and retrieval purposes and do not necessarily represent terminology for the identification of all kinds of cultural and natural features. Although some of the terms may agree with dictionary definitions, they represent more generalized categories. Some commonly used generic names are listed at the end of each entry to assist in understanding the range of cultural and natural entities represented by the term. Refer to the Generic Data Base to retrieve all generics thus far encountered in geographic names compilation. In most instances a plural form is listed as if it were singular; for example, archipelago or islands would be categorized as island. The terms and the definitions are as follows:

airport -- manmade facility maintained for the use of aircraft (air--field, airstrip, landing field, landing strip).

arch -- natural arch-like opening in a rock mass (bridge, natural bridge, sea arch).

area -- any one of several areally extensive natural features not included in other categories (badlands, barren, delta, fan, garden).

arroyo -- watercourse or channel through which water may occasionally flow (coulee, draw, gully, wash).

bar -- natural accumulation of sand, gravel, or alluvium forming an underwater or exposed embankment (ledge, reef, sandbar, shoal, spit).

basin -- natural depression or relatively low area enclosed by higher land (amphitheater, cirque, pit, sink).

bay -- indentation of a coastline or shoreline enclosing a part of a body of water; a body of water partly surrounded by land (arm, bight, cove, estuary, gulf, inlet, sound).

beach -- the sloping shore along a body of water that is washed by waves or tides and is usually covered by sand or gravel (coast, shore, strand).

bench -- area of relatively level land on the flank of an elevation such as a hill, ridge, or mountain where the slope of the land rises on one side and descends on the opposite side (level).

bend -- curve in the course of a stream and (or) the land within the curve; a curve in a linear body of water (bottom, loop, meander).

bridge -- manmade structure carrying a trail, road, or other transportation system across a body of water or depression (causeway, overpass, trestle).

building -- a manmade structure with walls and a roof for protection of people and (or) materials but not including a church, hospital, or school.

canal -- manmade waterway used by watercraft or for drainage, irrigation, mining, or water power (ditch, lateral).

cape -- projection of land extending into a body of water (lea, neck, peninsula, point).

cave -- natural underground passageway or chamber, or a hollowed out cavity in the side of a cliff (cavern, grotto).

cemetery -- a place or area for burying the dead (burial, burying ground, grave, memorial garden).

channel -- linear deep part of a body of water through which the main volume of water flows and is frequently used as a route for watercraft: (passage, reach, strait, thoroughfare, throughfare).

church -- building used for religious worship (chapel, mosque, synagogue, tabernacle, temple).

civil -- a political division formed for administrative purposes (borough, county, municipio, parish, town, township).

cliff -- very steep or vertical slope (bluff, crag, head, headland, nose, palisades, precipice, promontory, rim, rimrock).

crater -- circular depression at the summit of a volcanic cone or one on the surface of the land caused by the impact of a meteorite; a manmade depression caused by an explosion (caldera, lua).

dam -- water barrier or embankment built across the course of a stream or into a body of water to control and (or) impound the flow of water (breakwater, dike, jetty).

falls -- perpendicular or very steep fall of water in the course of a stream (cascade, cataract, waterfall).

flat -- relative level area within a region of greater relief (clearing, glade, playa).

forest -- bounded area of woods, forest, or grassland under the administration of a political agency. (see woods) (national forest, national grasslands, State forest).

gap -- low point or opening between hills or mountains or in a ridge or mountain range (col, notch, pass, saddle, water gap, wind gap).

geyser -- eruptive spring from which hot water and (or) steam and in some cases mud are periodically thrown.

glacier -- body or stream of ice moving outward and downslope from an area of accumulation; an area of relatively permanent snow or ice on the top or side of a mountain or mountainous area (icefield, ice patch, snow patch).

gut -- relatively small coastal waterway connecting larger bodies of water or other waterways (creek, inlet, slough).

harbor -- sheltered area of water where ships or other watercraft can anchor or dock (hono, port, roads, roadstead).

hospital -- building where the sick or injured may receive medical or surgical attention (infirmary).

island -- area of dry or relatively dry land surrounded by water or low wetland (archipelago, atoll, cay, hammock, hummock, isla, isle, key, moku, rock).

isthmus -- narrow section of land in a body of water connecting two larger land areas.

lake -- natural body of inland water (backwater, lac, lagoon, laguna, pond, pool, resaca, waterhole).

lava -- formations resulting from the consolidation of molten rock on the surface of the Earth (kepula, lava flow).

levee -- natural or manmade embankment flanking a stream (bank, berm).

locale -- place at which there is or was human activity; it does not include populated places (ppl), mines, and dams (battlefield, crossroad, camp, farm, ghost town, junction, landing, railroad siding, ranch, ruins, site, station, windmill).

mine -- place or area from which commercial minerals are or were removed from the Earth; not including oilfield (pit, quarry, shaft).

oilfield -- area where petroleum is or was removed from the Earth.

other -- category for miscellaneous named manmade entities that cannot readily be placed in the other feature classes listed here.

park -- place or area set aside for recreation or preservation of a cultural or natural resource and under some form of government administration; not including National or State forests (national historical landmark, national park, state park, wilderness area).

pillar -- vertical, standing, often spire-shaped, natural rock formation (chimney, monument, pinnacle, pohaku, rock tower).

plain -- a region of general uniform slope, comparatively level and of considerable extent (grassland, highland, kula, plateau, upland).

ppl -- populated place; place or area with clustered or scattered buildings and a permanent human population (city, settlement, town, village).

range -- chain of hills or mountains; a somewhat linear complex mountainous or hilly area (cordillera, sierra).

rapids -- fast-flowing section of a stream, often shallow and with exposed rock or boulders (riffle, ripple).

reserve -- a tract of land set aside for a specific use (does include forests or civil divisions).

reservoir -- artificially impounded body of water (lake, tank).

ridge -- elevation with a narrow, elongated crest which can be part of a hill or mountain (crest, cuesta, escarpment, hogback, lae, rim, spur).

school -- building or group of buildings used as an institution for study, teaching, and learning (academy, college, high school, university).

sea -- large body of salt water (gulf, ocean).

slope -- a gently inclined part of the Earth's surface (grade, pitch).

spring -- place where underground water flows naturally to the surface of the Earth (seep).

stream -- linear body of water flowing on the Earth's surface (ana-branch, awawa, bayou, branch, brook, creek, distributary, fork, kill, pup, rio, river, run, slough).

summit -- prominent elevation rising above the surrounding level of the Earth's surface; does not include pillars, ridges, or ranges (ahu, berg, bald, butte, cerro, colina, cone, cumbre, dome, head, hill, horn, knob, knoll, mauna, mesa, mesita, mound, mount, mountain, peak, puu, rock, sugarloaf, table, volcano).

swamp -- poorly drained wetland, fresh or saltwater, wooded or grassy, possibly covered with open water (bog, cienega, marais, marsh, pocosin).

trail -- route for passage from one point to another; does not include roads or highways (jeep trail, path, ski trail).

tower -- a manmade structure, higher than its diameter, generally used for observation, storage, or electronic transmission.

tunnel -- linear underground passageway open at both ends.

valley -- linear depression in the Earth's surface that generally slopes from one end to the other (barranca, canyon, chasm, cove, draw, glen, gorge, gulch, gulf, hollow, ravine).

well -- manmade shaft or hole in the Earth's surface used to obtain fluid or gaseous materials.

woods -- small area covered with a dense growth of trees; does not include an area of trees under the administration of a political agency (see forest).

APPENDIX F:—STANDARD CARTOGRAPHIC ABBREVIATIONS

Academy	Acad	Crater	Ctr
Agency	Agcy	Creek	Cr
Air Force Base	AFB	Crossing	Xing
Airfield	Afld	District	Dist
Airport	Aprt	Ditch	D
Anchorage	Anch	Divide	Div
Aqueduct	Aque	Division	Div
Arroyo	A	Dock	Dk
Atoll	At	Dockyard	Dkyd
Bank	Bk	Elevation	Elev
Bay	B	Entrance	Entr
Bayou	B	Estuary	Est
Beacon	Bn	Ferry	Fy
Bottom	Bot	Field	Fld
Branch	Br	Flat	Fl
Breakwater	Bkwr	Foot	Ft
Bridge	Br	Ford	Fd
Brook	Bk	Forest	For
Building	Bldg	Fork	Fk
Canal	Can	Fort	Ft
Canyon	Can	Glacier	Gl
Cape	C	Grade	Gr
Castle	Cas	Grant	Gt
Cemetery	Cem	Gulch	Gl
Channel	Chan	Gulf	Gf
Chapel	Ch	Hammock	Hmk
Chimney	Chy	High School	HS
Church	Ch	Hollow	Hol
Civil Division	Civ	Hook	Hk
College	Col	Hospital	Hos
Corner	Cor	Institute	Inst
County	Co	Island(s)	I, Is
Cove	C	Islet	It

Isthmus	Isth	Shoal	Shl
Jetty	Jty	Siding	Sdg
Junction	Junc	Slough	Slu
Lagoon	Ln	Spring	Spr
Lake(s)	L	Square	Sq
Land Grant	Ld Gt	Station	Sta
Landing	Ldg	Strait	Str
Landing Field	Ldg Fld	Stream	Str
Landing Strip	Ldg Str	Terrace	Ter
Lighthouse	LH	Thorofare	Thoro
Lookout	LO	Tidal Flat	Tid Fl
Meadow	Mdw	Tower	Tr
Monument	Mon	Township	Twp
Mount	Mt	Track	Tk
Mountain	Mtn	Tributary	Trib
Mountains	Mts	University	Univ
Ocean	O	Valley	Val
Park	Pk	Viaduct	Viad
Passage	Pass	Village	Vil
Peak	Pk	Volcano	Volc
Peninsula	Pen	Wharf	Whf
Plateau	Plat	Windmill	WM
Point	Pt	Yard	Yd
Pond	Pd		
Projection	Proj		
Promontory	Prom		
Quarry	Qry		
Range	R		
Ravine	Rav		
Reef	Rf		
Refuge	Rfg		
Reservoir	Res		
River	R		
Rock	Rd		
Run	R		
School	Sch		

**APPENDIX G:—GEOGRAPHIC NAMES INFORMATION SYSTEM
MAP FEATURE GUIDE**

(* indicates diacritical mark missing)

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Aa	lava	center	
Academy	school	center	
Acclivity	slope	center	
Acequia	canal	center	
Addition	locale	center	
Adert	slope	center	
Adit	mine	center	
Agency	locale	center	
Agua	stream	mouth	yes
Ahu	summit	top	
Aiguille	pillar	top	
Air Facility	military	center	
Air Force Base	military	center	
Air Station	military	center	
Airfield	airport	center	
Airport	airport	center	
Airstrip	airport	center	
Aisle	gap	center	
Alcove	cave	center	
Alluvial Fan	area	center	
Alluvium	area	center	
Alto	summit	top	
Ammunition Depot	military	center	
Ammunition Plant	military	center	
Amphibious Base	military	center	
Amphitheater	basin	center	
Anabranh	stream	mouth	yes
Anchorage	harbor	center	
Aquafact	pillar	top	
Aqueduct	canal	center	
Arboretum	park	center	
Arch	arch	center	
Archipelago	island	center	
Area	area	center	
Arete *	ridge	center	
Arm	bay	center	
Army Depot	military	center	
Army Headquarters	military	center	
Army Post	military	center	
Arroyo	arroyo	mouth	yes
Arsenal	military	center	
Atoll	island	center	
Awawa	stream	mouth	yes
Backbone	ridge	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Backdeep	valley	mouth	yes
Backwater	lake	center	
Badlands	area	center	
Bahada	area	center	
Baie	bay	center	
Bald	summit	top	
Baldy	summit	top	
Balk	ridge	center	
Ball	ridge	center	
Bally	summit	top	
Balm	cave	center	
Banco	lake	center	
Bank	bar	center	
Bank	levee	center	
Bar	bar	center	
Baraboo	summit	top	
Barchan	summit	top	
Barracks	military	center	
Barranca	valley	mouth	yes
Barrens	area	center	
Barrier Beach	island	center	
Barrier Island	island	center	
Barrio	civil	center	
Basin	basin	center	
Battle Field	locale	center	
Battlefield	locale	center	
Batture	summit	top	
Bay	bay	center	
Baygall	swamp	center	
Baygul	swamp	center	
Bayou (flowing)	stream	mouth	yes
Bayou (stagnant)	gut	center	
Beach (populated)	ppl	center	
Beach (unpopulated)	beach	center	
Beacon	tower	center	
Bed	flat	center	
Beigh	ppl	center	
Ben	peak	top	
Bench	bench	center	
Bend	bend	center	
Berg	summit	top	
Berm	ridge	center	
Bight	bay	center	
Bill	cape	center	
Blowhole	cave	center	
Blowout	basin	center	
Bluff	cliff	center	
Boca	area	center	
Bocca	crater	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Bog	swamp	center	
Bogan	swamp	center	
Bogue (flowing)	stream	mouth	yes
Bogue (still)	lake	center	
Bolly	summit	top	
Bolson	basin	center	
Borehole	well	center	
Boro	ppl	center	
Borough	ppl	center	
Borough	civil	center	
Bot	bend	center	
Bottleneck	bay	center	
Bottom	bend	center	
Boulder	summit	top	
Bourne	stream	mouth	yes
Bowl	basin	center	
Box	valley	mouth	yes
Box Canyon	valley	mouth	yes
Bracket	area	center	
Brake	swamp	center	
Brake	stream	mouth	yes
Brake	woods	center	
Branch	stream	mouth	yes
Bray	summit	top	
Breachway	gut	center	
Breakers	area	center	
Breaks	area	center	
Breakwater	dam	center	
Bridal Veil	falls	center	
Bridge	bridge	center	
Broad	area	center	
Brook	stream	mouth	yes
Brow	cliff	center	
Building	building	center	
Bur	ppl	center	
Burg	ppl	center	
Burgh	ppl	center	
Burial	cemetery	center	
Burn	stream	mouth	yes
Burn	area	center	
Bury	ppl	center	
Burying Ground	cemetery	center	
Butt	summit	top	
Butte	summit	top	
Buttress	cliff	center	
By	ppl	center	
Cabin	locale	center	
Cachment	reservoir	center	
Cairn	park	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Cajon	valley	mouth	yes
Cala	stream	mouth	yes
Caldera	crater	center	
Caldron	basin	center	
Caleta	stream	mouth	yes
Callow	area	center	
Cam	stream	mouth	yes
Camas	flat	center	
Camass	flat	center	
Camp	locale	center	
Campagna	plain	center	
Campground	locale	center	
Campus	school	center	
Canada *	valley	mouth	yes
Canal	canal	center	
Candelas	pillar	top	
Canon *	valley	mouth	yes
Canyon	valley	mouth	yes
Cap	cape	center	
Cape	cape	center	
Capilla	church	center	
Carse	bend	center	
Cas	pillar	top	
Casa	building	center	
Cascade	falls	center	
Caster	ppl	center	
Castle	pillar	top	
Cataract	falls	center	
Catchment	basin	center	
Causeway	bridge	center	
Cave	cave	center	
Cavern	cave	center	
Caverns	cave	center	
Cay	island	center	
Cayo	island	center	
Ceja	cliff	center	
Cellar	cave	center	
Cemetery	cemetery	center	
Cerrillo	summit	top	
Cerrito	summit	top	
Cerro	summit	top	
Cester	ppl	center	
Cey	island	center	
Chain	range	center	
Champaign	plain	center	
Channel (man-made)	canal	center	
Channel (natural)	channel	center	
Chapel	church	center	
Charco	lake	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Chasm	valley	mouth	yes
Chester	ppl	center	
Chimney	pillar	top	
Chine	valley	mouth	yes
Chuck	bay	center	
Church	church	center	
Chute	stream	mouth	yes
Chute	channel	center	
Chute	gut	center	
Cienaga	swamp	center	
Cinder	summit	top	
Cirque	basin	center	
Cistern	reservoir	center	
City (administrative)	civil	center	
City (populated place)	ppl	center	
Civil Division	civil	center	
Claim	civil	center	
Clearing	flat	center	
Cleft	valley	mouth	yes
Cleuch	valley	mouth	yes
Cleugh	valley	mouth	yes
Cliff	cliff	center	
Clint	flat	center	
Clove	valley	mouth	yes
Cluse	valley	mouth	yes
Coast	beach	center	
Coast Guard Base	military	center	
Coast Guard Lifeboat Station	military	center	
Coastline	beach	center	
Col	gap	center	
Colina	summit	top	
Collado	summit	top	
College	school	center	
Colline	summit	top	
Column	pillar	top	
Comb	ridge	center	
Combe	valley	mouth	yes
Common	park	center	
Community	ppl	center	
Cone	summit	top	
Confluence	bend	center	
Constriction	gap	center	
Coombe	valley	mouth	yes
Cordillera	range	center	
Corner	ppl	center	
Corner	locale	center	
Corners	locale	center	
Corral	locale	center	
Corrider	gap	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Corrie	basin	center	
Coteau	area	center	
Coulee	arroyo	mouth	yes
Coulee	valley	mouth	yes
Couloir	valley	mouth	yes
Coulter	beach	center	
Country Club	locale	center	
County	civil	center	
Court House	building	center	
Cove	slope	center	
Cove (land)	valley	mouth	yes
Cove (water)	bay	center	
Crag	cliff	center	
Crater	crater	center	
Creek	stream	mouth	yes
Crest (linear)	ridge	center	
Crest (top)	summit	top	
Crevasse (earth)	valley	mouth	yes
Crevasse (ice)	glacier	center	
Crossing	locale	center	
Crossroads	locale	center	
Cuchilla	ridge	center	
Cuesta	ridge	center	
Cumb	valley	mouth	yes
Cumbre	summit	top	
Current	stream	mouth	yes
Curve	bend	center	
Cusp	beach	center	
Cut	channel	center	
Cutbank	levee	center	
Cutoff	bend	center	
Cutoff	channel	center	
Dairy	locale	center	
Dale	valley	mouth	yes
Dalles	cliff	center	
Dam	dam	center	
Danger	bar	center	
Deadening	swamp	center	
Deadwater	area	center	
Debouchure	area	center	
Declivity	slope	center	
Deep	area	center	
Defile	gap	center	
Dell	valley	mouth	yes
Delta	area	center	
Demoiselles	pillar	top	
Depression	basin	center	
Descent	slope	center	
Desert	plain	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Dike	levee	center	
Dingle	valley	mouth	yes
Dismal	swamp	center	
Distributary	stream	mouth	yes
District	civil	center	
Ditch	canal	center	
Divide	ridge	center	
Division	civil	center	
Doab	cape	center	
Dock	locale	center	
Dockyard	locale	center	
Dol	valley	mouth	yes
Dolina	basin	center	
Doline	basin	center	
Dome	summit	top	
Donga	valley	mouth	yes
Down	flat	center	
Downs	locale	center	
Draft	valley	mouth	yes
Dragway	locale	center	
Drain (man-made)	canal	center	
Drain (natural)	stream	mouth	yes
Draw (deep)	valley	mouth	yes
Draw (shallow)	arroyo	mouth	yes
Drift	summit	top	
Drop	falls	center	
Drum	summit	top	
Drumlin	summit	top	
Drumlinoid	summit	top	
Drumlloid	summit	top	
Drywash	arroyo	mouth	yes
Dugout	channel	center	
Dun	summit	top	
Dune	summit	top	
Dustwell	basin	center	
Dwip	summit	top	
Eddy	rapids	center	
Eddy	bay	center	
Elbow	bend	center	
Elevation	summit	top	
Embankment	levee	center	
Embayment	bay	center	
Embouchure	area	center	
Eminence	summit	top	
Entrance	gut	center	
Erg	plain	center	
Escarpment	cliff	center	
Esker	ridge	center	
Estate	locale	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Estero	bay	center	
Estero	stream	mouth	yes
Estuary	bay	center	
Everglade	swamp	center	
Exclosure	locale	center	
Eyot	island	center	
Fairgrounds	locale	center	
Fairway	channel	center	
Falaises	cliff	center	
Fall	falls	center	
Falls	falls	center	
Fan	area	center	
Farm	locale	center	
Faro	island	center	
Fault	valley	mouth	yes
Feeder	stream	mouth	yes
Fell	summit	top	
Fen	swamp	center	
Ferry	locale	center	
Field	park	center	
Fields	flat	center	
Fill	summit	top	
Finger	pillar	top	
Finger	lake	center	
Fiord	valley	mouth	yes
Firetower	locale	center	
Firing Center	military	center	
Firing Range	military	center	
Firn	glacier	center	
Firth	bay	center	
Fishing Ground	area	center	
Fissure	valley	mouth	yes
Flat	flat	center	
Flatiron	summit	top	
Flatwoods	swamp	center	
Flooding	reservoir	dam	
Floodplain	swamp	center	
Floodway	channel	center	
Floor	flat	center	
Flowage	reservoir	center	
Flume (man-made)	canal	center	
Flume (natural)	valley	mouth	yes
Fly	swamp	center	
Fly	stream	mouth	yes
Fold	summit	top	
Foot	area	center	
Foot	locale	center	
Foothills	summit	top	
Ford	locale	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Foredune	summit	top	
Foreland	cliff	center	
Foreside	beach	center	
Forest (administrative)	forest	center	
Forest (natural)	area	center	
Forge	locale	center	
Fork	stream	mouth	yes
Fort	locale	center	
Foso	stream	mouth	yes
Fosse	stream	mouth	yes
Foulground	bar	center	
Foundry	locale	center	
Fountain	geyser	center	
Freshet	stream	mouth	yes
Fulje	basin	center	
Fumaroles	geyser	center	
Funnel	gap	center	
Furnace	locale	center	
Furrow	valley	mouth	yes
Galera	ridge	center	
Game Management Area	park	center	
Game Reserve	park	center	
Gap	gap	center	
Garden	area	center	
Gate	gap	center	
Gate	channel	center	
Geyser	geyser	center	
Ghost Town	locale	center	
Gill	valley	mouth	yes
Glacier	glacier	center	
Glacis	slope	center	
Glade	flat	center	
Glen	valley	mouth	yes
Gloryhole	mine	center	
Goe	cave	center	
Goldfield	area	center	
Golf Course	locale	center	
Gorge	valley	mouth	yes
Graben	valley	mouth	yes
Grade	slope	center	
Gradient	slope	center	
Graiike	basin	center	
Grange	locale	center	
Grange Hall	locale	center	
Grant	civil	center	
Grassland	plain	center	
Grave	cemetery	center	
Gravel Fan	area	center	
Grotto	cave	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Ground	shoal	center	
Grove	woods	center	
Guard Station	locale	center	
Gulch	valley	mouth	yes
Gulf (land)	valley	mouth	yes
Gulf (water)	bay	center	
Gulley	arroyo	mouth	yes
Gully	valley	prime	yes
Gut	gut	center	
Hall	locale	center	
Ham	ppl	center	
Hamada	plain	center	
Hamlet	ppl	center	
Hammock	island	center	
Hamongog	summit	top	
Hamp	ppl	center	
Harbor (man-made)	harbor	center	
Harbor (natural)	bay	center	
Hat	flat	center	
Haven	harbor	center	
Head	summit	top	
Head (hill)	summit	top	
Head (steep face)	cliff	center	
Headland	cliff	center	
Headwall	cliff	center	
Headwaters	stream	mouth	yes
Heath	flat	center	
Heath	swamp	center	
High School	school	center	
Highland	area	center	
Hill	summit	top	
Hillock	summit	top	
Hills	range	center	
Hirst	levee	center	
Hogback	ridge	center	
Hole	valley	mouth	yes
Hole	lake	center	
Hole (land)	bend	center	
Hole (water)	bay	center	
Hollow	valley	mouth	yes
Homestead	locale	center	
Hono	harbor	center	
Hoodoos	ridge	center	
Hook	bar	center	
Hook	cape	center	
Horn	summit	top	
Horseback	ridge	center	
Horseshoe	bend	center	
Horseshoe	lake	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Horst	summit	top	
Hospital	hospital	center	
Hot Spring	spring	center	
Huerfano	summit	top	
Hum	summit	top	
Hummock	island	center	
Hump	summit	top	
Hurst	summit	top	
Ice Patch	glacier	center	
Icecap	glacier	center	
Icefall	glacier	center	
Icefield	glacier	center	
Icesheet	glacier	center	
Indian Reservation	reserve	center	
Infirmary	hospital	center	
Inlet	stream	mouth	yes
Inlet (channel)	gut	center	
Inlet (water body)	bay	center	
Inn	locale	center	
Institute	school	center	
Intercolline	gap	center	
Interfluve	swamp	center	
Intervale	swamp	center	
Intervale	basin	center	
Island(s)	island	center	
Isle	island	center	
Islet	island	center	
Isthmus	isthmus	center	
Jambs	valley	mouth	yes
Jeep Trail	trail	center	
Jetty	dam	center	
Jumpoff	cliff	top	
Junction	locale	center	
Kame	summit	top	
Kar	basin	center	
Karroo	plain	center	
Karst	area	center	
Keana	cave	center	
Kernbut	summit	top	
Kettle	basin	center	
Kettlehole	basin	center	
Key	island	center	
Kill	stream	mouth	yes
Kipuka	island	center	
Kipuka	lava	center	
Kirk	church	center	
Knob	summit	top	
Knoll	summit	top	
Kula	plain	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Lac	lake	center	
Lae	cape	center	
Lae	ridge	center	
Lagoon (open water)	lake	center	
Lagoon (vegetation)	swamp	center	
Laguna	lake	center	
Lake(s)	lake	center	
Lakebed	flat	center	
Land Grant	civil	center	
Landfall	slope	center	
Landing	locale	center	
Landing Field	airport	center	
Landing Strip	airport	center	
Landslide	slope	center	
Landslip	slope	center	
Lateral	canal	center	
Lava	lava	center	
Lava Cone	lava	center	
Lava Delta	lava	center	
Lava Field	lava	center	
Lava Flow	lava	center	
Lava Pit	crater	center	
Lava Plain	lava	center	
Lava Plateau	lava	center	
Lava Tongue	lava	center	
Lava Tube	lava	center	
Lea	plain	center	
Leach Hole	cave	center	
Lead	ridge	center	
Ledge (land)	bench	center	
Ledge (water)	bar	center	
Lenticular	summit	top	
Levee	levee	center	
Level	flat	center	
Lick	stream	mouth	yes
Lick	area	center	
Lighthouse	locale	center	
Littoral	beach	center	
Llano	area	center	
Locale (little or no population)	locale	center	
Locality	locale	center	
Loch	lake	center	
Logan	swamp	center	
Loma	summit	top	
Loma	summit	top	
Longshore Bar	bar	center	
Lookout	locale	center	
Loop	bend	center	
Loop Lake	lake	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Lough	lake	center	
Lowland	flat	center	
Lowmoor	swamp	center	
Lua	crater	center	
Lump	island	center	
Lunatt	bar	center	
Maar	crater	center	
Malaspina	glacier	center	
Malpais	area	center	
Mamelon	summit	top	
Mangrove	swamp	center	
Mar	sea	center	
Marais	swamp	center	
Mareman	swamp	center	
Marina	locale	center	
Marine Corps Air Station	military	center	
Marine Corps Base	military	center	
Market	locale	center	
Marsh	swamp	center	
Mass	summit	top	
Massif	range	center	
Matterhorn	summit	top	
Mauna	summit	top	
Meadow	flat	center	
Meander	bend	center	
Meander Core	bend	center	
Medano	summit	top	
Meetinghouse	church	center	
Memorial Garden	cemetery	center	
Mendip	summit	top	
Mer	sea	center	
Mesa	summit	top	
Meseta	summit	top	
Mesita	summit	top	
Mesita	summit	top	
Midway	channel	center	
Military Reservation	military	center	
Mill	locale	center	
Millpond	reservoir	dam	
Milltown	locale	center	
Mine	mine	center	
Mire	swamp	center	
Missile Base	military	center	
Missile Range	military	center	
Mission	church	center	
Mofette	valley	mouth	yes
Moku	island	center	
Mole	dam	center	
Monadnock	summit	top	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Monastery	church	center	
Monolith	pillar	top	
Mont	summit	top	
Monte	summit	top	
Monticle	crater	center	
Monticule	crater	center	
Monument	pillar	top	
Monument	park	center	
Moor	flat	center	
Mor	flat	center	
Moraine (area)	summit	top	
Moraine (linear)	ridge	center	
Morais	swamp	center	
Morass	swamp	center	
Moremma	swamp	center	
Morriner	ridge	center	
Mosque	church	center	
Mott	summit	top	
Mott	woods	center	
Motte	summit	top	
Motte	cliff	top	
Moulin	glacier	center	
Mound	summit	top	
Mount	summit	top	
Mountain	summit	top	
Mountain Chain	range	center	
Mountain Group	range	center	
Mountain Range	range	center	
Mountain System	range	center	
Mountains	range	center	
Mountainside	cliff	center	
Mouth	area	center	
Mud Cone	summit	top	
Mud Flat	flat	center	
Mud Pot	spring	center	
Mudflow	slope	center	
Mull	cape	center	
Municipality	civil	center	
Municipio *	civil	center	
Muskeg	swamp	center	
Narrow	pass	center	
Narrows	gap	center	
Narrows	ridge	center	
Narrows	channel	center	
Natatorium	locale	center	
National Forest	forest	center	
National Grasslands	forest	center	
National Historical Landmark	park	center	
National Monument	park	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
National Park (administrative)	park	center	
National Seashore	park	center	
National Wilderness Area	park	center	
National Wildlife Area	park	center	
Natural Bridge	arch	center	
Naval Air Station	military	center	
Naval Base	military	center	
Naval Shipyard	military	center	
Naze	cliff	center	
Neck	cape	center	
Needle	pillar	top	
Ness	cape	center	
Neve *	glacier	center	
Niche	cave	center	
Nip	cave	center	
Nipple(s)	summit	top	
Nobble	summit	top	
Nose	cliff	center	
Nose	summit	top	
Notch	gap	center	
Notch	channel	center	
Nubble	summit	top	
Nubble	island	center	
Nullah	valley	mouth	yes
Nunatak	summit	top	
Oasis	spring	center	
Ocean	sea	center	
Offset	ridge	center	
Offshore Bar	bar	center	
Oil Pumping Station	oilfield	center	
Oilfield	oilfield	center	
Oilwell	well	center	
Ojito	spring	center	
Ojo	spring	center	
Open	flat	center	
Open Bay	bay	center	
Orchard	locale	center	
Ordinary	locale	center	
Ordnance Laboratory	military	center	
Ordnance Plant	military	center	
Os	ridge	center	
Osar	ridge	center	
Outcrop	summit	top	
Outlet	channel	center	
Outlet	stream	mouth	yes
Outwash	plain	center	
Overfall	rapids	center	
Overhang	cliff	center	
Overlook	locale	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Overpass	bridge	center	
Oxbow	bend	center	
Oxbow	lake	center	
Pagoda	church	center	
Pahas	summit	top	
Pali	cliff	center	
Palisades	cliff	center	
Pampas	plain	center	
Pan	flat	center	
Panplain	plain	center	
Paramilla	range	center	
Paramo	area	center	
Parish	civil	center	
Park (Administrative)	park	center	
Park (natural)	flat	center	
Pass	gap	center	
Pass	channel	center	
Passage (navigation)	channel	center	
Passage (portage)	locale	center	
Pasture	flat	center	
Path	trail	center	
Peak	summit	top	
Pediment	slope	center	
Pen	locale	center	
Pena *	pillar	top	
Penasco *	pillar	top	
Peneplain	plain	center	
Peninsula	cape	center	
Peninsula	cape	center	
Pepino	summit	top	
Picacho	summit	top	
Picnic Area	locale	center	
Pico	summit	top	
Pier	locale	center	
Pile	summit	top	
Pillar	pillar	top	
Pingo	summit	top	
Pinnacle	pillar	top	
Pit	basin	center	
Pit	mine	center	
Pitch	slope	center	
Placer	area	center	
Plain	plain	center	
Plains	plain	center	
Plantation	ppl	center	
Plantation	locale	center	
Plantation	civil	center	
Plat	plain	center	
Plateau	plain	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Platform	bench	center	
Playa	area	center	
Plaza (cultural)	locale	center	
Plaza (physical)	area	center	
Pocket	basin	center	
Pocosin	swamp	center	
Pohaku	pillar	center	
Point	ridge	center	
Point	summit	top	
Point (peninsula)	cape	center	
Point (promontory)	cliff	center	
Polder	flat	center	
Polje	basin	center	
Polye	basin	center	
Pond (man-made)	reservoir	dam	
Pond (natural)	lake	center	
Ponor	basin	center	
Pool (man-made)	reservoir	dam	
Pool (natural)	lake	center	
Port	harbor	center	
Port	ppl	center	
Port of Entry	locale	center	
Portage	locale	center	
Portal	gap	center	
Portal	tunnel	center	
Portal	mine	center	
Pothole	basin	center	
Potrero	flat	center	
Pozo	reservoir	center	
PPL (Populated Place)	ppl	center	
Prairie	area	center	
Precinct	civil	center	
Precipice	cliff	center	
Projection	cliff	center	
Promontory	cliff	center	
Prong	stream	mouth	yes
Puerta	gap	center	
Puertecito	gap	center	
Puerto	gap	center	
Puerto (land)	gap	center	
Puerto (water)	harbor	center	
Puffing Hole	cave	center	
Punta	summit	top	
Pup	stream	mouth	yes
Puragatory	cave	center	
Puu	summit	top	
Quagmire	swamp	center	
Quaking Bay	swamp	center	
Quarry	mine	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Quarry	basin	center	
Quartermaster Depot	military	center	
Quay	locale	center	
Quebrada	valley	mouth	yes
Race	stream	mouth	yes
Race	area	center	
Railroad Siding	locale	center	
Railroad Station	building	center	
Railroad Stop	locale	center	
Rainpool	lake	center	
Ramble	valley	mouth	yes
Ranch	locale	center	
Ranch	slope	center	
Rancho	civil	center	
Range	range	center	
Range	channel	center	
Rapids	rapids	center	
Ravine	valley	mouth	yes
Razorback	ridge	center	
Reach	area	center	
Recreation Site	locale	center	
Reef	ridge	center	
Reef	bar	center	
Reentrant	bend	center	
Refuge	park	center	
Reg	plain	center	
Remnant	summit	top	
Resaca	lake	center	
Research Station	locale	center	
Reserve	park	center	
Reserve	forest	center	
Reserve	reserve	center	
Reserve Training Center	military	center	
Reservoir	reservoir	dam	
Resort	ppl	center	
Retention Basin	reservoir	center	
Retreat	locale	center	
Revetment	levee	center	
Ria	bay	center	
Ridge	ridge	center	
Riffle	rapids	center	
Rift	valley	mouth	yes
Rill	stream	mouth	yes
Rim	cliff	center	
Rimrock	cliff	center	
Rincon	valley	mouth	yes
Rio	stream	mouth	yes
Rip	area	center	
Ripple	rapids	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Rips	rapids	center	
Rito	stream	mouth	yes
River	stream	mouth	yes
River Basin	basin	center	
River Bed	channel	center	
River Bottom	bend	center	
River Valley	valley	mouth	yes
Riveret	stream	mouth	yes
Riviere *	stream	mouth	yes
Rivulet	stream	mouth	yes
Roads	bay	center	
Roadstead	harbor	center	
Roche Moutonnee	summit	top	
Rock	bar	center	
Rock	island	center	
Rock (massive)	summit	top	
Rock (singular)	pillar	top	
Rock Slide	slope	center	
Rock Tower	pillar	center	
Rockfall	slope	center	
Rodeo Grounds	locale	center	
Rognon	summit	top	
Rookery	island	center	
Rough	ridge	center	
Ruins	locale	center	
Run	stream	mouth	yes
Runnel	stream	mouth	yes
Saddle	gap	center	
Saddleback	ridge	center	
Sag	gap	center	
Sagpond	lake	center	
Salient	ridge	center	
Salina	flat	center	
Salt Bottom	flat	center	
Salt Flat	flat	center	
Salt Lick	flat	center	
Salt Marsh	flat	center	
Salt Prairie	flat	center	
Saltpan	flat	center	
Saltturn	flat	center	
Sanctuary	park	center	
Sand	beach	center	
Sand Drift	summit	top	
Sand Dune	summit	top	
Sand Flat	flat	center	
Sandbank	bar	center	
Sandbar	bar	center	
Sandia	summit	top	
Sandkey	island	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Sandwash	arroyo	mouth	yes
Sault	rapids	center	
Savanna	plain	center	
Sawback	range	center	
Scabland	area	center	
Scabrock	area	center	
Scar	cliff	center	
Scarp	cliff	center	
Scaur	cliff	center	
School	school	center	
School	school	center	
School District	civil	center	
Scree	slope	center	
Scrub	woods	center	
Scrubland	area	center	
Sea (continental)	sea	center	
Sea (inland)	lake	center	
Sea Arch	arch	center	
Sea Cave	cave	center	
Sea Mount	pillar	top	
Sea Stack	summit	top	
Sea Wall	levee	center	
Seaboard	beach	center	
Seacoast	beach	center	
Sedge	swamp	center	
Sedge	island	center	
Seep	spring	center	
Serrate	summit	top	
Settlement	ppl	center	
Shaft	mine	center	
Shake	cave	center	
Shaw	woods	center	
Sheep Camp	locale	center	
Sheepback	summit	top	
Shelf	bar	center	
Shelter	locale	center	
Shingle	beach	center	
Shire	civil	center	
Shoal	bar	center	
Shop	locale	center	
Shore	beach	center	
Shoreline	beach	center	
Shoulder	slope	center	
Shrine	church	center	
Siding	locale	center	
Sierra	range	center	
Silo	ppl	center	
Silva	woods	center	
Sink	basin	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Sinkhole	basin	center	
Site	locale	center	
Skerry	island	center	
Ski Trail	trail	center	
Slang	area	center	
Slash	swamp	center	
Slash	stream	mouth	yes
Slide	slope	center	
Slip	locale	center	
Slope	slope	center	
Slough	lake	center	
Slough (flowing)	stream	mouth	yes
Slough (stagnant)	gut	center	
Slue (not open channel)	swamp	center	
Slue (open channel)	gut	center	
Sluice	canal	center	
Sluice Gate	dam	center	
Snow Patch	glacier	center	
Snowfield	glacier	center	
Solfatara	summit	top	
Sound	bay	center	
Sowback	ridge	center	
Spa	locale	center	
Space Flight Center	military	center	
Speedway	locale	center	
Spillway	canal	center	
Spire	pillar	top	
Spit	bar	center	
Spoil Bank	bar	center	
Sports Arena	locale	center	
Spring	spring	center	
Springs	spring	center	
Spur	ridge	center	
Spur	trail	center	
Square	park	center	
Stack	pillar	top	
State Forest	forest	center	
State Park	park	center	
Station (no population)	locale	center	
Station (populated)	ppl	center	
Stead	ppl	center	
Sted	ppl	center	
Steephead	cliff	center	
Steppe	plain	center	
Steptoe	lava	center	
Stillwater	area	center	
Stock Trail	trail	center	
Stone	cliff	top	
Store	locale	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Strait	channel	center	
Strand	beach	center	
Strand	swamp	center	
Strath	flat	center	
Stream	stream	mouth	yes
Stretch	channel	center	
Stringer	stream	mouth	yes
Subsidence	basin	center	
Suburb	ppl	center	
Suck	swamp	center	
Sugar Loaf	summit	top	
Sugarloaf	summit	top	
Summit (cultural)	locale	center	
Summit (physical)	summit	top	
Supply Center	military	center	
Supply Depot	military	center	
Swag	gap	center	
Swale	valley	mouth	yes
Swallow	basin	center	
Swallow Hole	cave	center	
Swamp	swamp	center	
Swamp	stream	mouth	yes
Swash	bar	center	
Synagogue	church	center	
Tabernacle	church	center	
Table	summit	top	
Table Mountain	summit	top	
Tableland (+ 3 mi. across)	area	center	
Tableland (- 3 mi. across)	summit	top	
Taiga	woods	center	
Talus	slope	center	
Tank	reservoir	dam	
Tanque	reservoir	center	
Tarai	swamp	center	
Tarn	lake	center	
Tavern	locale	center	
Teat	summit	top	
Temple	church	center	
Ten	ppl	center	
Tepee	pillar	top	
Terrace	bench	center	
Terrain	plain	center	
Terrane	plain	center	
Terrene	plain	center	
Test Center	military	center	
Test Range	military	center	
Teton	summit	top	
Thalweg	valley	mouth	yes
Thicket	woods	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Thorofare	channel	center	
Thorofare	gut	center	
Thoroughfare	gap	center	
Thoroughfare	channel	center	
Thorpe	ppl	center	
Throat	stream	mouth	yes
Thrumcap	island	center	
Thumb	pillar	top	
Thurm	cliff	center	
Thwaite	flat	center	
Tickle	gut	center	
Tidal Creek	gut	center	
Tidal Flat	flat	center	
Tidal Inlet	gut	center	
Tidal Marsh	swamp	center	
Tideland	flat	center	
Tiderace	stream	mouth	yes
Tie	bar	center	
Tin	ppl	center	
Tipple	locale	center	
Tit(s)	summit	top	
Toe	cape	center	
Toe	summit	top	
Toll House	locale	center	
Tombolo	isthmus	center	
Ton	ppl	center	
Tongue	cape	center	
Tooth	pillar	top	
Top	summit	top	
Top	cape	center	
Tor	summit	top	
Torrent	rapids	center	
Tower	tower	center	
Tower (+ 500 ft. across)	summit	top	
Tower (- 500 ft. across)	pillar	top	
Towhead	island	center	
Town	civil	center	
Town (populated place)	ppl	center	
Township	civil	center	
Trace	trail	center	
Trace	stream	mouth	yes
Track	trail	center	
Trail	trail	center	
Transverse	valley	mouth	yes
Trench	valley	mouth	yes
Trestle	bridge	center	
Tributary	stream	mouth	yes
Trough	valley	mouth	yes
Tule	swamp	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Tulelands	swamp	center	
Tump	island	center	
Tun	ppl	center	
Tundra	plain	center	
Tunnel	tunnel	center	
Tying	bar	center	
University	school	center	
Upbac	slope	center	
Upland	plain	center	
Uvala	basin	center	
Vale	valley	Mouth	yes
Valle	valley	mouth	yes
Valley	valley	mouth	yes
Veldt	plain	center	
Versant	slope	center	
Viaduct	bridge	center	
Village	ppl	center	
Vlei	valley	mouth	yes
Vley	valley	mouth	yes
Vloer	flat	center	
Vly	valley	mouth	yes
Vly	stream	mouth	yes
Vly	swamp	center	
Voe	bay	center	
Volcano	summit	top	
Wadi	arroyo	mouth	yes
Wall	cliff	center	
Wallow	basin	center	
Wash	arroyo	mouth	yes
Wash	valley	mouth	yes
Washover	flat	center	
Waste Bank	bar	center	
Wasteland	area	center	
Wasteway	canal	center	
Water	bay	center	
Water Gap	gap	center	
Water Passage	gut	center	
Water Pocket	lake	center	
Water Sink	basin	center	
Watercourse (dry)	arroyo	mouth	yes
Watercourse (flowing)	stream	mouth	yes
Waterfall	falls	center	
Waterfront	harbor	center	
Waterhole (area)	lake	center	
Waterhole (point)	spring	center	
Waterpan	lake	center	
Watershed	ridge	center	
Watertank	reservoir	dam	
Waterway	gut	center	

GENERIC/WORD	FEATURE CLASS	PRIME POINT	SOURCE POINT REQ
Waterway	channel	center	
Wayside	locale	center	
Weapons Range	military	center	
Well	well	center	
Wetland	flat	center	
Whaleback	summit	top	
Wharf	locale	center	
Whirlpool	rapids	center	
Wich	ppl	center	
Wick	ppl	center	
Wind Gap	gap	center	
Windmill	locale	center	
Winged Headland	cliff	center	
Woodland	woods	center	
Woods	woods	center	
Worth	ppl	center	
Yacht Club	locale	center	
Yard	locale	center	
Yardang	ridge	center	

- * Indicates the presence of a diacritical mark within the name.
- ** Developed by Geographic Names Information Management, Branch of Geographic Names, Office of Geographic Research, National Mapping Division, U. S. Geological Survey

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FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
airport	Airstrip	center	
airport	Airfield	center	
airport	Airport	center	
airport	Landing Strip	center	
airport	Landing Field	center	
arch	Natural Bridge	center	
arch	Arch	center	
arch	Sea Arch	center	
area	Malpais	center	
area	Llano	center	
area	Scabland	center	
area	Prairie	center	
area	Plaza (physical)	center	
area	Playa	center	
area	Reach	center	
area	Bahada	center	
area	Badlands	center	
area	Deep	center	
area	Breakers	center	
area	Alluvial Fan	center	
area	Tableland (+ 3 mi. across)	center	
area	Garden	center	
area	Fan	center	
area	Delta	center	
area	Coteau	center	
area	Breaks	center	
area	Barrens	center	
area	Race	center	
area	Scabrock	center	
area	Alluvium	center	
area	Goldfield	center	
area	Mouth	center	
area	Embouchure	center	
area	Callow	center	
area	Boca	center	
area	Highland	center	
area	Wasteland	center	
area	Slang	center	
area	Karst	center	
area	Broad	center	
area	Deadwater	center	
area	Bracket	center	
area	Stillwater	center	
area	Paramo	center	
area	Debouchure	center	
area	Burn	center	
area	Placer	center	
area	Area	center	
area	Forest (natural)	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
area	Foot	center	
area	Scrubland	center	
area	Rip	center	
area	Lick	center	
area	Fishing Ground	center	
area	Gravel Fan	center	
arroyo	Coulee	mouth	yes
arroyo	Draw (shallow)	mouth	yes
arroyo	Gulley	mouth	yes
arroyo	Watercourse (dry)	mouth	yes
arroyo	Wash	mouth	yes
arroyo	Sandwash	mouth	yes
arroyo	Drywash	mouth	yes
arroyo	Wadi	mouth	yes
arroyo	Arroyo	mouth	yes
bar	Spit	center	
bar	Ledge (water)	center	
bar	Sandbar	center	
bar	Danger	center	
bar	Spoil Bank	center	
bar	Sandbank	center	
bar	Foulground	center	
bar	Shelf	center	
bar	Bar	center	
bar	Longshore Ba	center	
bar	Lunatt	center	
bar	Swash	center	
bar	Offshore Bar	center	
bar	Tie	center	
bar	Tying	center	
bar	Waste Bank	center	
bar	Bank	center	
bar	Hook	center	
bar	Shoal	center	
bar	Reef	center	
bar	Rock	center	
basin	Depression	center	
basin	Pothole	center	
basin	Bowl	center	
basin	Pit	center	
basin	Pocket	center	
basin	Cirque	center	
basin	Amphitheater	center	
basin	Sink	center	
basin	Wallow	center	
basin	Kettle	center	
basin	Blowout	center	
basin	Swallow	center	
basin	Water Sink	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
basin	Sinkhole	center	
basin	Kar	center	
basin	Polje	center	
basin	Kettlehole	center	
basin	Uvala	center	
basin	Polye	center	
basin	Fulje	center	
basin	Dolina	center	
basin	Catchment	center	
basin	Doline	center	
basin	Basin	center	
basin	Corrie	center	
basin	Ponor	center	
basin	Graike	center	
basin	River Basin	center	
basin	Dustwell	center	
basin	Intervale	center	
basin	Caldron	center	
basin	Subsidence	center	
basin	Bolson	center	
basin	Quarry	center	
bay	Sound	center	
bay	Roads	center	
bay	Inlet (water body)	center	
bay	Hole (water)	center	
bay	Arm	center	
bay	Harbor (natural)	center	
bay	Bight	center	
bay	Embayment	center	
bay	Ria	center	
bay	Baie	center	
bay	Open Bay	center	
bay	Firth	center	
bay	Bottleneck	center	
bay	Voe	center	
bay	Gulf (water)	center	
bay	Estuary	center	
bay	Water	center	
bay	Bay	center	
bay	Chuck	center	
bay	Cove (water)	center	
bay	Estero	center	
bay	Eddy	center	
beach	Coast	center	
beach	Strand	center	
beach	Shore	center	
beach	Coastline	center	
beach	Littoral	center	
beach	Coulter	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
beach	Cusp	center	
beach	Beach (unpopulated)	center	
beach	Seaboard	center	
beach	Foreside	center	
beach	Seacoast	center	
beach	Shingle	center	
beach	Shoreline	center	
beach	Sand	center	
bench	Ledge (land)	center	
bench	Platform	center	
bench	Bench	center	
bench	Terrace	center	
bend	Cutoff	center	
bend	Oxbow	center	
bend	Hole (land)	center	
bend	Elbow	center	
bend	Meander	center	
bend	Confluence	center	
bend	Reentrant	center	
bend	River Bottom	center	
bend	Horseshoe	center	
bend	Bot	center	
bend	Loop	center	
bend	Bend	center	
bend	Carse	center	
bend	Curve	center	
bend	Meander Core	center	
bend	Bottom	center	
bridge	Bridge	center	
bridge	Trestle	center	
bridge	Overpass	center	
bridge	Viaduct	center	
bridge	Causeway	center	
building	Railroad Station	center	
building	Building	center	
building	Casa	center	
building	Court House	center	
canal	Lateral	center	
canal	Drain (man-made)	center	
canal	Flume (man-made)	center	
canal	Wasteway	center	
canal	Aqueduct	center	
canal	Spillway	center	
canal	Acequia	center	
canal	Sluice	center	
canal	Ditch	center	
canal	Canal	center	
canal	Channel (man-made)	center	
cape	Neck	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
cape	Doab	center	
cape	Tongue	center	
cape	Bill	center	
cape	Mull	center	
cape	Ness	center	
cape	Cap	center	
cape	Peninsula	center	
cape	Toe	center	
cape	Cape	center	
cape	Hook	center	
cape	Point (peninsula)	center	
cape	Peninsula	center	
cape	Top	center	
cape	Lae	center	
cave	Grotto	center	
cave	Cavern	center	
cave	Cellar	center	
cave	Alcove	center	
cave	Goe	center	
cave	Swallow Hole	center	
cave	Shake	center	
cave	Purgatory	center	
cave	Puffing Hole	center	
cave	Niche	center	
cave	Nip	center	
cave	Blowhole	center	
cave	Cave	center	
cave	Sea Cave	center	
cave	Leach Hole	center	
cave	Balm	center	
cave	Keana	center	
cave	Caverns	center	
cemetery	Burying Ground	center	
cemetery	Burial	center	
cemetery	Memorial Garden	center	
cemetery	Grave	center	
cemetery	Cemetery	center	
channel	Stretch	center	
channel	Cut	center	
channel	Fairway	center	
channel	Thorofare	center	
channel	Midway	center	
channel	Cutoff	center	
channel	Notch	center	
channel	Outlet	center	
channel	Floodway	center	
channel	Thoroughfare	center	
channel	River Bed	center	
channel	Channel (natural)	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
channel	Narrows	center	
channel	Gate	center	
channel	Range	center	
channel	Pass	center	
channel	Strait	center	
channel	Waterway	center	
channel	Chute	center	
channel	Passage (navigation)	center	
channel	Dugout	center	
church	Tabernacle	center	
church	Shrine	center	
church	Pagoda	center	
church	Mosque	center	
church	Synagogue	center	
church	Chapel	center	
church	Kirk	center	
church	Meetinghouse	center	
church	Monastery	center	
church	Mission	center	
church	Church	center	
church	Capilla	center	
church	Temple	center	
civil	City (administrative)	center	
civil	Town	center	
civil	Precinct	center	
civil	Parish	center	
civil	Plantation	center	
civil	Municipality	center	
civil	Borough	center	
civil	Barrio	center	
civil	Division	center	
civil	Township	center	
civil	District	center	
civil	County	center	
civil	Civil Division	center	
civil	Grant	center	
civil	Land Grant	center	
civil	Municipio *	center	
civil	Shire	center	
civil	School District	center	
civil	Rancho	center	
civil	Claim	center	
cliff	Ceja	center	
cliff	Buttress	center	
cliff	Brow	center	
cliff	Mountainside	center	
cliff	Crag	center	
cliff	Bluff	center	
cliff	Head (steep face)	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
cliff	Wall	center	
cliff	Headland	center	
cliff	Dalles	center	
cliff	Precipice	center	
cliff	Scarp	center	
cliff	Rimrock	center	
cliff	Escarpment	center	
cliff	Palisades	center	
cliff	Nose	center	
cliff	Headwall	center	
cliff	Steephead	center	
cliff	Falaises	center	
cliff	Foreland	center	
cliff	Rim	center	
cliff	Naze	center	
cliff	Thurm	center	
cliff	Scaur	center	
cliff	Winged Headland	center	
cliff	Scar	center	
cliff	Cliff	center	
cliff	Overhang	center	
cliff	Point (promontory)	center	
cliff	Projection	center	
cliff	Stone	top	
cliff	Pali	center	
cliff	Motte	top	
cliff	Promontory	center	
cliff	Jumpoff	top	
crater	Maar	center	
crater	Lava Pit	center	
crater	Monticle	center	
crater	Monticule	center	
crater	Bocca	center	
crater	Crater	center	
crater	Lua	center	
crater	Caldera	center	
dam	Dam	center	
dam	Sluice Gate	center	
dam	Mole	center	
dam	Breakwater	center	
dam	Jetty	center	
falls	Waterfall	center	
falls	Cataract	center	
falls	Cascade	center	
falls	Fall	center	
falls	Bridal Veil	center	
falls	Falls	center	
falls	Drop	center	
flat	Floor	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
flat	Bed	center	
flat	Clearing	center	
flat	Open	center	
flat	Glade	center	
flat	Heath	center	
flat	Pasture	center	
flat	Camas	center	
flat	Down	center	
flat	Tideland	center	
flat	Salina	center	
flat	Pan	center	
flat	Mud Flat	center	
flat	Saltpan	center	
flat	Level	center	
flat	Lowland	center	
flat	Vloer	center	
flat	Strath	center	
flat	Sand Flat	center	
flat	Washover	center	
flat	Salt Lick	center	
flat	Polder	center	
flat	Lakebed	center	
flat	Moor	center	
flat	Camass	center	
flat	Clint	center	
flat	Salt Marsh	center	
flat	Saltturn	center	
flat	Salt Prairie	center	
flat	Salt Bottom	center	
flat	Wetland	center	
flat	Salt Flat	center	
flat	Flat	center	
flat	Hat	center	
flat	Thwaite	center	
flat	Fields	center	
flat	Mor	center	
flat	Park (natural)	center	
flat	Potrero	center	
flat	Tidal Flat	center	
flat	Meadow	center	
forest	National Forest	center	
forest	National Grasslands	center	
forest	Reserve	center	
forest	State Forest	center	
forest	Forest (administrative)	center	
gap	Intercolline	center	
gap	Sag	center	
gap	Saddle	center	
gap	Puerta	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
gap	Puerto (land)	center	
gap	Notch	center	
gap	Pass	center	
gap	Water Gap	center	
gap	Col	center	
gap	Narrows	center	
gap	Portal	center	
gap	Constriction	center	
gap	Defile	center	
gap	Gate	center	
gap	Funnel	center	
gap	Corrider	center	
gap	Aisle	center	
gap	Swag	center	
gap	Thoroughfare	center	
gap	Gap	center	
gap	Wind Gap	center	
gap	Puerto	center	
gap	Puertecito	center	
geyser	Fountain	center	
geyser	Fumaroles	center	
geyser	Geyser	center	
glacier	Icefield	center	
glacier	Crevasse (ice)	center	
glacier	Icefall	center	
glacier	Neve *	center	
glacier	Moulin	center	
glacier	Icesheet	center	
glacier	Icecap	center	
glacier	Malaspina	center	
glacier	Snowfield	center	
glacier	Firn	center	
glacier	Glacier	center	
glacier	Ice Patch	center	
glacier	Snow Patch	center	
gut	Waterway	center	
gut	Water Passage	center	
gut	Inlet (channel)	center	
gut	Slue (open channel)	center	
gut	Tidal Creek	center	
gut	Gut	center	
gut	Tidal Inlet	center	
gut	Tickle	center	
gut	Chute	center	
gut	Breachway	center	
gut	Slough (stagnant)	center	
gut	Bayou (stagnant)	center	
gut	Entrance	center	
gut	Thorofare	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
harbor	Waterfront	center	
harbor	Puerto (water)	center	
harbor	Port	center	
harbor	Haven	center	
harbor	Roadstead	center	
harbor	Harbor (man-made)	center	
harbor	Anchorage	center	
harbor	Hono	center	
hospital	Infirmery	center	
hospital	Hospital	center	
island	Cayo	center	
island	Archipelago	center	
island	Hummock	center	
island	Cay	center	
island	Sandkey	center	
island	Key	center	
island	Isle	center	
island	Cey	center	
island	Lump	center	
island	Towhead	center	
island	Faro	center	
island	Sedge	center	
island	Rookery	center	
island	Eyot	center	
island	Skerry	center	
island	Thrumcap	center	
island	Tump	center	
island	Kipuka	center	
island	Island(s)	center	
island	Rock	center	
island	Nubble	center	
island	Moku	center	
island	Hammock	center	
island	Atoll	center	
island	Islet	center	
island	Barrier Island	center	
island	Barrier Beach	center	
isthmus	Tombolo	center	
isthmus	Isthmus	center	
lake	Backwater	center	
lake	Bogue (still)	center	
lake	Banco	center	
lake	Waterhole (area)	center	
lake	Sea (inland)	center	
lake	Laguna	center	
lake	Resaca	center	
lake	Pool (natural)	center	
lake	Hole	center	
lake	Lac	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
lake	Tarn	center	
lake	Loch	center	
lake	Loop Lake	center	
lake	Lough	center	
lake	Oxbow	center	
lake	Water Pocket	center	
lake	Waterpan	center	
lake	Rainpool	center	
lake	Finger	center	
lake	Sagpond	center	
lake	Horseshoe	center	
lake	Lagoon (open water)	center	
lake	Lake(s)	center	
lake	Pond (natural)	center	
lake	Slough	center	
lake	Charco	center	
lava	Lava Field	center	
lava	Steptoe	center	
lava	Lava Flow	center	
lava	Lava Cone	center	
lava	Aa	center	
lava	Lava Tube	center	
lava	Lava Tongue	center	
lava	Lava Plateau	center	
lava	Lava Plain	center	
lava	Lava Delta	center	
lava	Kipuka	center	
lava	Lava	center	
levee	Embankment	center	
levee	Dike	center	
levee	Cutbank	center	
levee	Levee	center	
levee	Revetment	center	
levee	Hirst	center	
levee	Sea Wall	center	
levee	Bank	center	
locale	Picnic Area	center	
locale	Homestead	center	
locale	Portage	center	
locale	Ranch	center	
locale	Plaza (cultural)	center	
locale	Sheep Camp	center	
locale	Summit (cultural)	center	
locale	Ruins	center	
locale	Overlook	center	
locale	Fairgrounds	center	
locale	Grange Hall	center	
locale	Rodeo Grounds	center	
locale	Railroad Siding	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
locale	Campground	center	
locale	Camp	center	
locale	Cabin	center	
locale	Battle Field	center	
locale	Grange	center	
locale	Guard Station	center	
locale	Crossroads	center	
locale	Locale (little or no population)	center	
locale	Store	center	
locale	Retreat	center	
locale	Exclosure	center	
locale	Railroad Stop	center	
locale	Farm	center	
locale	Estate	center	
locale	Market	center	
locale	Locality	center	
locale	Mill	center	
locale	Milltown	center	
locale	Slip	center	
locale	Tavern	center	
locale	Wayside	center	
locale	Pier	center	
locale	Furnace	center	
locale	Corral	center	
locale	Ordinary	center	
locale	Firetower	center	
locale	Marina	center	
locale	Shelter	center	
locale	Quay	center	
locale	Site	center	
locale	Plantation	center	
locale	Addition	center	
locale	Spa	center	
locale	Port of Entry	center	
locale	Lookout	center	
locale	Foundry	center	
locale	Fort	center	
locale	Foot	center	
locale	Dock	center	
locale	Landing	center	
locale	Ford	center	
locale	Tipple	center	
locale	Shop	center	
locale	Golf Course	center	
locale	Yacht Club	center	
locale	Downs	center	
locale	Research Station	center	
locale	Pen	center	
locale	Junction	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
locale	Crossing	center	
locale	Sports Arena	center	
locale	Corner	center	
locale	Windmill	center	
locale	Forge	center	
locale	Recreation Site	center	
locale	Ferry	center	
locale	Speedway	center	
locale	Ghost Town	center	
locale	Dairy	center	
locale	Battlefield	center	
locale	Hall	center	
locale	Yard	center	
locale	Passage (portage)	center	
locale	Wharf	center	
locale	Natatorium	center	
locale	Agency	center	
locale	Orchard	center	
locale	Toll House	center	
locale	Station (no population)	center	
locale	Dragway	center	
locale	Corners	center	
locale	Country Club	center	
locale	Inn	center	
locale	Lighthouse	center	
locale	Dockyard	center	
locale	Siding	center	
military	Amphibious Base	center	
military	Weapons Range	center	
military	Missile Base	center	
military	Marine Corps Air Station	center	
military	Ammunition Depot	center	
military	Ammunition Plant	center	
military	Army Post	center	
military	Air Station	center	
military	Test Range	center	
military	Marine Corps Base	center	
military	Firing Range	center	
military	Arsenal	center	
military	Military Reservation	center	
military	Army Headquarters	center	
military	Army Depot	center	
military	Air Facility	center	
military	Space Flight Center	center	
military	Barracks	center	
military	Missile Range	center	
military	Reserve Training Center	center	
military	Quartermaster Depot	center	
military	Coast Guard Lifeboat Station	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
military	Supply Center	center	
military	Coast Guard Base	center	
military	Test Center	center	
military	Supply Depot	center	
military	Ordnance Laboratory	center	
military	Firing Center	center	
military	Naval Shipyard	center	
military	Ordnance Plant	center	
military	Naval Air Station	center	
military	Naval Base	center	
military	Air Force Base	center	
mine	Shaft	center	
mine	Pit	center	
mine	Gloryhole	center	
mine	Quarry	center	
mine	Portal	center	
mine	Mine	center	
mine	Adit	center	
oilfield	Oil Pumping Station	center	
oilfield	Oilfield	center	
park	National Historical Landmark	center	
park	Game Management Area	center	
park	National Wildlife Area	center	
park	National Seashore	center	
park	National Wilderness Area	center	
park	National Monument	center	
park	National Park (administrative)	center	
park	Reserve	center	
park	Game Reserve	center	
park	Sanctuary	center	
park	Cairn	center	
park	Common	center	
park	Arboretum	center	
park	State Park	center	
park	Square	center	
park	Field	center	
park	Park (Administrative)	center	
park	Refuge	center	
park	Monument	center	
pass	Narrow	center	
peak	Ben	top	
pillar	Penasco *	top	
pillar	Pena *	top	
pillar	Pillar	top	
pillar	Stack	top	
pillar	Pinnacle	top	
pillar	Rock (singular)	top	
pillar	Monument	top	
pillar	Needle	top	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
pillar	Spire	top	
pillar	Monolith	top	
pillar	Column	top	
pillar	Finger	top	
pillar	Candelas	top	
pillar	Pohaku	center	
pillar	Rock Tower	center	
pillar	Sea Mount	top	
pillar	Thumb	top	
pillar	Demoiselles	top	
pillar	Aiguille	top	
pillar	Tooth	top	
pillar	Cas	top	
pillar	Tepee	top	
pillar	Castle	top	
pillar	Aquafact	top	
pillar	Tower (- 500 ft. across)	top	
pillar	Chimney	top	
plain	Grassland	center	
plain	Upland	center	
plain	Penepplain	center	
plain	Savanna	center	
plain	Terrain	center	
plain	Terrane	center	
plain	Terrene	center	
plain	Pampas	center	
plain	Tundra	center	
plain	Karoo	center	
plain	Steppe	center	
plain	Erg	center	
plain	Hamada	center	
plain	Reg	center	
plain	Plain	center	
plain	Champaign	center	
plain	Campagna	center	
plain	Desert	center	
plain	Kula	center	
plain	Veldt	center	
plain	Outwash	center	
plain	Panplain	center	
plain	Plat	center	
plain	Lea	center	
plain	Plains	center	
plain	Plateau	center	
ppl	Resort	center	
ppl	City (populated place)	center	
ppl	Town (populated place)	center	
ppl	PPL (Populated Place)	center	
ppl	Settlement	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
ppl	Borough	center	
ppl	Port	center	
ppl	Community	center	
ppl	Suburb	center	
ppl	Beach (populated)	center	
ppl	Silo	center	
ppl	Plantation	center	
ppl	Hamlet	center	
ppl	Bury	center	
ppl	Bur	center	
ppl	Burg	center	
ppl	Burgh	center	
ppl	Chester	center	
ppl	Caster	center	
ppl	Ham	center	
ppl	Hamp	center	
ppl	Corner	center	
ppl	Stead	center	
ppl	Sted	center	
ppl	Boro	center	
ppl	Cester	center	
ppl	Beigh	center	
ppl	Tin	center	
ppl	Ton	center	
ppl	Village	center	
ppl	Ten	center	
ppl	By	center	
ppl	Wich	center	
ppl	Thorpe	center	
ppl	Tun	center	
ppl	Station (populated)	center	
ppl	Worth	center	
ppl	Wick	center	
range	Cordillera	center	
range	Mountain Range	center	
range	Hills	center	
range	Chain	center	
range	Mountain Chain	center	
range	Massif	center	
range	Sawback	center	
range	Sierra	center	
range	Mountain System	center	
range	Mountain Group	center	
range	Paramilla	center	
range	Mountains	center	
range	Range	center	
rapids	Ripple	center	
rapids	Rapids	center	
rapids	Riffle	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
rapids	Eddy	center	
rapids	Whirlpool	center	
rapids	Overfall	center	
rapids	Torrent	center	
rapids	Rips	center	
rapids	Sault	center	
reserve	Indian Reservation	center	
reserve	Reserve	center	
reservoir	Watertank	dam	
reservoir	Millpond	dam	
reservoir	Cistern	center	
reservoir	Flowage	center	
reservoir	Tank	dam	
reservoir	Pool (man-made)	dam	
reservoir	Flooding	dam	
reservoir	Reservoir	dam	
reservoir	Pozo	center	
reservoir	Pond (man-made)	dam	
reservoir	Retention Basin	center	
reservoir	Tanque	center	
reservoir	Cachment	center	
ridge	Hogback	center	
ridge	Crest (linear)	center	
ridge	Cuesta	center	
ridge	Esker	center	
ridge	Rough	center	
ridge	Hoodoos	center	
ridge	Lead	center	
ridge	Balk	center	
ridge	Ball	center	
ridge	Razorback	center	
ridge	Saddleback	center	
ridge	Os	center	
ridge	Osar	center	
ridge	Backbone	center	
ridge	Moraine (linear)	center	
ridge	Berm	center	
ridge	Watershed	center	
ridge	Salient	center	
ridge	Horseback	center	
ridge	Spur	center	
ridge	Ridge	center	
ridge	Reef	center	
ridge	Galera	center	
ridge	Sowback	center	
ridge	Offset	center	
ridge	Lae	center	
ridge	Comb	center	
ridge	Morriner	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
ridge	Cuchilla	center	
ridge	Narrows	center	
ridge	Divide	center	
ridge	Arete *	center	
ridge	Point	center	
ridge	Yardang	center	
school	Campus	center	
school	Academy	center	
school	College	center	
school	University	center	
school	High School	center	
school	School	center	
school	Institute	center	
school	School	center	
sea	Sea (continental)	center	
sea	Ocean	center	
sea	Mer	center	
sea	Mar	center	
shoal	Ground	center	
slope	Pitch	center	
slope	Landslip	center	
slope	Shoulder	center	
slope	Scree	center	
slope	Rock Slide	center	
slope	Pediment	center	
slope	Declivity	center	
slope	Slide	center	
slope	Landslide	center	
slope	Adert	center	
slope	Gradient	center	
slope	Talus	center	
slope	Acclivity	center	
slope	Descent	center	
slope	Ranch	center	
slope	Mudflow	center	
slope	Rockfall	center	
slope	Glacis	center	
slope	Slope	center	
slope	Upbac	center	
slope	Versant	center	
slope	Landfall	center	
slope	Grade	center	
slope	Cove	center	
spring	Oasis	center	
spring	Waterhole (point)	center	
spring	Seep	center	
spring	Hot Spring	center	
spring	Mud Pot	center	
spring	Ojito	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
spring	Spring	center	
spring	Ojo	center	
spring	Springs	center	
stream	Watercourse (flowing)	mouth	yes
stream	Cala	mouth	yes
stream	Kill	mouth	yes
stream	Bourne	mouth	yes
stream	Runnel	mouth	yes
stream	Rill	mouth	yes
stream	Rio	mouth	yes
stream	Prong	mouth	yes
stream	Drain (natural)	mouth	yes
stream	Current	mouth	yes
stream	Rivulet	mouth	yes
stream	Bogue (flowing)	mouth	yes
stream	Chute	mouth	yes
stream	Caleta	mouth	yes
stream	Riviere *	mouth	yes
stream	Burn	mouth	yes
stream	Anabranh	mouth	yes
stream	Stream	mouth	yes
stream	Feeder	mouth	yes
stream	Riveret	mouth	yes
stream	Swamp	mouth	yes
stream	Headwaters	mouth	yes
stream	Vly	mouth	yes
stream	Throat	mouth	yes
stream	River	mouth	yes
stream	Brook	mouth	yes
stream	Tiderace	mouth	yes
stream	Stringer	mouth	yes
stream	Foso	mouth	yes
stream	Freshet	mouth	yes
stream	Fosse	mouth	yes
stream	Bayou (flowing)	mouth	yes
stream	Estero	mouth	yes
stream	Trace	mouth	yes
stream	Pup	mouth	yes
stream	Awawa	mouth	yes
stream	Creek	mouth	yes
stream	Agua	mouth	yes
stream	Fork	mouth	yes
stream	Branch	mouth	yes
stream	Distributary	mouth	yes
stream	Slough (flowing)	mouth	yes
stream	Run	mouth	yes
stream	Inlet	mouth	yes
stream	Slash	mouth	yes
stream	Outlet	mouth	yes

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
stream	Race	mouth	yes
stream	Fly	mouth	yes
stream	Rito	mouth	yes
stream	Brake	mouth	yes
stream	Tributary	mouth	yes
stream	Lick	mouth	yes
stream	Cam	mouth	yes
summit	Drumlloid	top	
summit	Hillock	top	
summit	Boulder	top	
summit	Cerrillo	top	
summit	Bolly	top	
summit	Drumlinoid	top	
summit	Sea Stack	top	
summit	Drum	top	
summit	Bald	top	
summit	Serrate	top	
summit	Cerro	top	
summit	Fill	top	
summit	Roche Moutonnee	top	
summit	Cerrito	top	
summit	Fold	top	
summit	Foredune	top	
summit	Collado	top	
summit	Cone	top	
summit	Medano	top	
summit	Colina	top	
summit	Mass	top	
summit	Butte	top	
summit	Berg	top	
summit	Colline	top	
summit	Bally	top	
summit	Cumbre	top	
summit	Crest (top)	top	
summit	Dome	top	
summit	Alto	top	
summit	Monadnock	top	
summit	Nobble	top	
summit	Hill	top	
summit	Head (hill)	top	
summit	Teton	top	
summit	Lenticular	top	
summit	Remnant	top	
summit	Huerfano	top	
summit	Rock (massive)	top	
summit	Sandia	top	
summit	Kernbut	top	
summit	Drift	top	
summit	Baraboo	top	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
summit	Summit (physical)	top	
summit	Knob	top	
summit	Knoll	top	
summit	Barchan	top	
summit	Mesa	top	
summit	Pahas	top	
summit	Horn	top	
summit	Batture	top	
summit	Sand Dune	top	
summit	Mound	top	
summit	Moraine (area)	top	
summit	Mesita	top	
summit	Meseta	top	
summit	Pingo	top	
summit	Loma	top	
summit	Picacho	top	
summit	Drumlin	top	
summit	Nunatak	top	
summit	Kame	top	
summit	Mamelon	top	
summit	Flatiron	top	
summit	Mendip	top	
summit	Horst	top	
summit	Pile	top	
summit	Outcrop	top	
summit	Foothills	top	
summit	Top	top	
summit	Sugarloaf	top	
summit	Tableland (- 3 mi. across)	top	
summit	Table	top	
summit	Hump	top	
summit	Pepino	top	
summit	Tit(s)	top	
summit	Fell	top	
summit	Peak	top	
summit	Matterhorn	top	
summit	Elevation	top	
summit	Dwip	top	
summit	Mount	top	
summit	Nipple(s)	top	
summit	Nose	top	
summit	Nubble	top	
summit	Mesita	top	
summit	Table Mountain	top	
summit	Ahu	top	
summit	Teat	top	
summit	Dune	top	
summit	Point	top	
summit	Toe	top	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
summit	Butt	top	
summit	Eminence	top	
summit	Punta	top	
summit	Motte	top	
summit	Baldy	top	
summit	Sheepback	top	
summit	Tor	top	
summit	Volcano	top	
summit	Sand Drift	top	
summit	Mountain	top	
summit	Whaleback	top	
summit	Cinder	top	
summit	Mud Cone	top	
summit	Monte	top	
summit	Loma	top	
summit	Tower (+ 500 ft. across)	top	
summit	Sugar Loaf	top	
summit	Hum	top	
summit	Mauna	top	
summit	Hamongog	top	
summit	Puu	top	
summit	Solfatara	top	
summit	Hurst	top	
summit	Mont	top	
summit	Pico	top	
summit	Rognon	top	
summit	Bray	top	
summit	Dun	top	
summit	Mott	top	
summit	Head	top	
swamp	Slue (not open channel)	center	
swamp	Tarai	center	
swamp	Bogan	center	
swamp	Floodplain	center	
swamp	Tidal Marsh	center	
swamp	Interfluve	center	
swamp	Deadening	center	
swamp	Mareman	center	
swamp	Lowmoor	center	
swamp	Marsh	center	
swamp	Swamp	center	
swamp	Baygul	center	
swamp	Marais	center	
swamp	Logan	center	
swamp	Dismal	center	
swamp	Pocosin	center	
swamp	Quagmire	center	
swamp	Slash	center	
swamp	Mangrove	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
swamp	Mire	center	
swamp	Fly	center	
swamp	Intervale	center	
swamp	Morais	center	
swamp	Quaking Bay	center	
swamp	Moremma	center	
swamp	Bog	center	
swamp	Morass	center	
swamp	Fen	center	
swamp	Muskeg	center	
swamp	Cienaga	center	
swamp	Flatwoods	center	
swamp	Everglade	center	
swamp	Brake	center	
swamp	Strand	center	
swamp	Vly	center	
swamp	Suck	center	
swamp	Heath	center	
swamp	Tule	center	
swamp	Tulelands	center	
swamp	Baygall	center	
swamp	Sedge	center	
swamp	Lagoon (vegetation)	center	
tower	Beacon	center	
tower	Tower	center	
trail	Trace	center	
trail	Trail	center	
trail	Ski Trail	center	
trail	Stock Trail	center	
trail	Spur	center	
trail	Path	center	
trail	Track	center	
trail	Jeep Trail	center	
tunnel	Tunnel	center	
tunnel	Portal	center	
valley	Flume (natural)	mouth	yes
valley	Fiord	mouth	yes
valley	Draw (deep)	mouth	yes
valley	Dingle	mouth	yes
valley	Dale	mouth	yes
valley	Graben	mouth	yes
valley	Chasm	mouth	yes
valley	Couloir	mouth	yes
valley	Cleugh	mouth	yes
valley	Furrow	mouth	yes
valley	Gill	mouth	yes
valley	Barranca	mouth	yes
valley	Dol	mouth	yes
valley	Box Canyon	mouth	yes

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
valley	River Valley	mouth	yes
valley	Nullah	mouth	yes
valley	Clove	mouth	yes
valley	Cleft	mouth	yes
valley	Donga	mouth	yes
valley	Cleuch	mouth	yes
valley	Backdeep	mouth	yes
valley	Vley	mouth	yes
valley	Dell	mouth	yes
valley	Crevasse (earth)	mouth	yes
valley	Vlei	mouth	yes
valley	Vly	mouth	yes
valley	Vale	Mouth	yes
valley	Trough	mouth	yes
valley	Trench	mouth	yes
valley	Swale	mouth	yes
valley	Canada *	mouth	yes
valley	Canon *	mouth	yes
valley	Cluse	mouth	yes
valley	Mofette	mouth	yes
valley	Transverse	mouth	yes
valley	Thalweg	mouth	yes
valley	Quebrada	mouth	yes
valley	Cajon	mouth	yes
valley	Fissure	mouth	yes
valley	Fault	mouth	yes
valley	Draft	mouth	yes
valley	Rift	mouth	yes
valley	Hole	mouth	yes
valley	Jambs	mouth	yes
valley	Hollow	mouth	yes
valley	Rincon	mouth	yes
valley	Wash	mouth	yes
valley	Gulf (land)	mouth	yes
valley	Gulch	mouth	yes
valley	Valley	mouth	yes
valley	Gully	prime	yes
valley	Coulee	mouth	yes
valley	Chine	mouth	yes
valley	Coombe	mouth	yes
valley	Cove (land)	mouth	yes
valley	Ravine	mouth	yes
valley	Canyon	mouth	yes
valley	Valle	mouth	yes
valley	Box	mouth	yes
valley	Combe	mouth	yes
valley	Ramble	mouth	yes
valley	Cumb	mouth	yes
well	Well	center	

FEATURE CLASS	GENERIC/WORD	PRIME POINT	SOURCE POINT REQ
well	Oilwell	center	
well	Borehole	center	
woods	Thicket	center	
woods	Taiga	center	
woods	Silva	center	
woods	Shaw	center	
woods	Woods	center	
woods	Mott	center	
woods	Brake	center	
woods	Grove	center	
woods	Woodland	center	
woods	Scrub	center	

- * Indicates the presence of a diacritical mark within the name.
- ** Developed by Geographic Names Information Management, Branch of Geographic Names, Office of Geographic Research, National Mapping Division, U. S. Geological Survey

GLOSSARY OF TERMS

annotated bibliography - A complete bibliographic reference including a short explanation and worth of the source.

areal feature - Features that contain area as opposed to those that are classed as linear; the coordinates "digitized" or recorded are at the approximate center of the feature.

bathymetric - The measurement of the depth of a water body, hence, a map with isobaths or contour lines measuring the relief of the floor of the body of water.

Board on Geographic Names - See U.S. Board on Geographic Names.

cell - Used specifically in GNIS to refer to equal 7.5- by 7.5-minute map areas. The term is used because GNIS references the map cell whether published or not published, and divides "overedge" maps into two equal 7.5-minute by 7.5-minute maps.

centroid - The approximate center of an areal feature and the point represented by the primary geographic coordinate.

CNR - See Domestic Geographic Names Report

controlled redundancy - Multiple occurrence of data or records on purpose. For example, a name entity passing through or occurring in more than one State has a valid record in each State file in which it is located.

Controversial Name Report - See Domestic Geographic Names Report

data base - A collection of interrelated or independent data items stored together without unnecessary redundancy, to serve one or more applications.

data element - A basic unit of identifiable and definable information and occupies the space provided by fields in a record, blocks, or a form.

data item - An expression of a fact of a data element. A subdivision of the data element, and the smallest definable unit in a record.

data system - A collection of data bases.

designator - See feature class.

diacritical mark - A mark added to a letter to show pronunciation.

Domestic Geographic Names Report - The form used to annotate and submit controversial names to the U.S. Board on Geographic Names for resolution.

entity - Something about which data are recorded. In data base management concepts, a person, place, or object about which items or data are collected, recorded, and organized into fields, records, and data files.

feature-class - One of 62 broad categories in GNIS that groups similar features into categories to facilitate search and retrieval. For example, creek, river, branch, brook, run, etc., are all linear overland flowing bodies of water categorized as streams.

feature class definition - The specific definition of 62 broad GNIS categories of features.

Federal Information Processing Standards (FIPS) Code - Any code developed and published by the National Bureau of Standards; specifically, in GNIS, the five-digit numeric State/county codes and certain two-character alphabetical codes for foreign countries.

field - See data element.

FIPS Code - See Federal Information Processing Standards Code.

generic - That part of a geographic name that refers to kind or type of feature. For example, Big Lake where lake is the generic part of the name.

geographic coordinates - An artificial system or grid expressed in degrees, minutes, and seconds used for location on the Earth's surface - latitude measures distance north-south and longitude measures distance east-west.

geographic name - A proper name or geographic expression by which a particular geographic entity is or was known; a noun phrase of one or more words used consistently in spoken and (or) written language to refer to a particular and relatively permanent place, feature, or area on the Earth's surface or to a conceptionally related group of such places, features or area.

Geographic Names Information System (GNIS) - The system composed of data bases, software, programs, and procedures that include geographic names, their standards, and associated information.

GNIS - An acronym for Geographic Names Information System.

interactive - The process of interacting or interfacing directly with the data base for immediately retrieving and displaying information.

interface - A common boundary at which two separate systems or portions of each system join or intersect. An interface can be mechanical, as in adjoining hardware surfaces, or it can be electrical, as in single-level transformation points. Moreover, it can also refer to human and machine interface, and the interaction between man and computers.

label - The established abbreviation for each data element which must be used when establishing the search criteria.

linear feature - A named feature in GNIS that is linear rather than areal in extent. Specifically features that are in the feature categories arroyo, valley, and stream that are linear and require both mouth and source geographic coordinates.

Phase I - Includes the compilation and edit of all names in the United States and its territories from the U.S. Geological Survey topographic map series (see Appendix A).

Phase II - Includes the compilation and edit of names from most known sources in addition to U.S. Geological Survey topographic maps (see Appendix A.)

primary coordinate - The geographic coordinate representing the center of areal features and the mouth of linear features.

record - A group of related data elements or fields treated as a unit - specifically, a record refers to a named feature and associated data.

redundancy - See controlled redundancy.

secondary coordinate - A geographic coordinate that associates a feature with each 7.5-minute U.S. Geological Survey topographic map on which it is located.

software - Computer programs, procedures, rules, and documentation associated with the operation of a computer system.

source coordinate - The beginning point of linear features expressed as a geographic coordinate.

spatial - Refers to space or occupying space.

topographic map - A map portraying horizontal and vertical positions on a specific part of the Earth's surface determined by geographic coordinates and specifically portraying elevation or altitude by isohypse or contour lines.

U.S. Board on Geographic Names - A Federal body which is authorized by law to establish and maintain uniform geographic names usage throughout the Federal Government. The Board, composed of representatives of Federal agencies, was created in 1890 and organized in its present form by Public Law in 1947.

variant - The term used to list and describe any other known names, forms or spellings of a current official name.

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