# Demographics of Western South Dakota Wetlands and Basins 

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WESTERN South Dakota

Wetlands and Basins

B748

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## Demographics of



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# DEMOGRAPHICS OF WESTERN SOUTH DAKOTA WETLANDS AND BASINS 

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## EXECUTIVE SUMMARY

## DEMOGRAPHICS OF WESTERN SOUTH DAKOTA WETLANDS AND BASINS

Wetlands, whether natural or man-made in origin, are an important feature of the semi-arid landscape of western South Dakota. These wetlands have numerous social and economic values for both landowners and non-owners, as well as their values for fish and wildlife species. For this reason, accurate information about wetland abundance, characteristics, and distribution is important. These demographic summaries of wetland resources of western South Dakota were based on digital wetland data, as delineated by the U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) office.

Surface water covers approximately 257,006 ha or about $2.4 \%$ of the $10,810,700$ ha of western South Dakota. Surface water is divided into palustrine ( $50.2 \%$ ), lacustrine ( $41.8 \%$ ), and riverine (8.1\%) systems. There are $30 \%$ fewer hectares of NWI-delineated wetlands in western South Dakota than in eastern South Dakota.

A total of 172,867 basins exist in western South Dakota. Of these, 61,757 (35.7\%) are classified as temporary, $50,447(29.2 \%)$ as seasonal, $59,340(34.3 \%)$ as semipermanent, and 1,323 (0.8\%) as permanent basins. There are 86,927 created basins, which is $50.3 \%$ of the total number of basins. Of these, 72,562 are impounded basins, 14,054 are dugouts, and 311 were created by beaver (Castor canadensis) activity. There are fivefold fewer basins in western South Dakota than in eastern South Dakota.

The wetlands and basins GIS created for this project and the resulting demographic summaries provide a temporal and spatial data baseline to which past and future changes in wetland demographics can be compared. Demographic summaries also will benefit resource managers in their efforts to conserve native species of flora and fauna and to understand the role that wetlands have in western South Dakota landscapes.

## CONTENTS

TABLES ..... iv
FIGURES ..... v
APPENDICES ..... vi
INTRODUCTION .....  1
Classification of Wetlands and Deepwater Habitats of the United States. .....  1
The National Wetlands Inventory .....  2
METHODS .....  4
NWI Wetland Processing ..... 4
Basin Processing ..... 4
Assumptions of the WSD Model ..... 5
RESULTS .....  6
Part 1: Western South Dakota Wetlands and Deepwater Habitats ..... 6
Wetland Systems: Palustrine, Lacustrine and Riverine ..... 6
Palustrine Wetlands ..... 7
Lacustrine Wetlands ..... 9
Riverine Wetlands ..... 12
Part 2: Western South Dakota Basins ..... 13
Temporary Basins .....  15
Seasonal Basins .....  16
Semipermanent Basins .....  16
Permanent Basins ..... 16
Distribution of Basins by County ..... 18
Distribution of Basins by Physiographic Region ..... 20
Distribution of Basins by Hydrologic Unit ..... 20
LITERATURE CITED ..... 44
APPENDICES ..... 45

## TABLES

1. Elements of the Cowardin et al. (1979) classification used in South Dakota .....  2
2. Area of all NWI-delineated wetlands summed by system .....  8
3. Area of palustrine wetlands summed by class .....  8
4. Area of palustrine wetlands summed by water regime ..... 8
5. Area of natural palustrine wetlands and created palustrine wetlands .....  8
6. Area of lacustrine wetlands summed by subsystem ..... 10
7. Area of littoral lacustrine wetlands summed by class ..... 10
8. Area of lacustrine wetlands summed by water regime ..... 10
9. Area of natural lacustrine wetlands and created lacustrine wetlands ..... 10
10. Area of riverine wetlands summed by subsystem ..... 13
11. Area of riverine wetlands summed by class ..... 13
12. Area of riverine wetlands summed by water regime ..... 13
13. Number and area of basins in western South Dakota summed by water regime ..... 15
14. Number and area of basins in western South Dakota summed by size category ..... 15
15. Mean, range, and standard deviation of basin area in western South Dakota by water regime ..... 16
16. Number and area of basins in western South Dakota summed by water regime and size category ..... 17
17. Number and area of basins in western South Dakota summed by county ..... 21
18. Number and area of basins in western South Dakota summed by county and water regime ..... 22
19. Distribution of basins in western South Dakota sorted by county and water regime .....  27
20. Number of natural and created basins summed by county ..... 32
21. Density of natural and crated basins summed by county ..... 33
22. Number and area of basins in western South Dakota summed by physiographic region ..... 34
23. Number and area of basins in western South Dakota summed by physiographic region and water regime ..... 35
24. Distribution of basins in western South Dakota sorted by physiographic region and water regime ..... 36
25. Number of natural and created basins summed by physiographic region ..... 37
26. Density of natural and created basins summed by physiographic region ..... 37
27. Number and area of basins in western South Dakota summed by 6-digit hydrologic unit ..... 38
28. Number and area of basins in western South Dakota summed by 6-digit hydrologic unit and water regime ..... 39
29. Distribution of basins in western South Dakota sorted by 6-digit hydrologic unit and water regime ..... 41
30. Number of natural and created basins summed by 6-digit hydrologic unit ..... 43
31. Density of natural and created basins summed by 6-digit hydrologic unit ..... 43

## FIGURES

1. Elements of the Cowardin et al. (1979) classification and the corresponding NWI codes .....  3
2. Date ( $\mathrm{mm} / \mathrm{yy}$ ) of photography used in delineating the wetlands of western South Dakota .....  3
3. Enlargement of a section of a National Wetlands Inventory final map .....  4
4. Conversion of NWI-delineated wetlands to basins .....  . 5
5. Counties of western South Dakota .....  6
6. Physiographic regions of western South Dakota .....  6
7. Hydrologic units of western South Dakota .....  6
8. Area of all NWI-delineated wetlands summed by system .....  7
9. Area of palustrine wetlands in western South Dakota summed by class ..... 7
10. Area of palustrine wetlands in western South Dakota summed by water regime .....  9
11. Area of natural palustrine wetlands and created palustrine wetlands in western South Dakota .....  9
12. General distribution of wetland area of all Palustrine wetlands ..... 9
13. Area of lacustrine wetlands in western South Dakota summed by subsystem ..... 11
14. Area of littoral lacustrine wetlands in western South Dakota summed by class ..... 11
15. Area of lacustrine wetlands in western South Dakota summed by water regime ..... 11
16. Area of natural lacustrine wetlands and created lacustrine wetlands in western South Dakota ..... 11
17. General distribution of wetland area of all lacustrine wetlands ..... 12
18. Area of riverine wetlands in western South Dakota summed by subsystem ..... 12
19. Area of riverine wetlands in western South Dakota summed by class ..... 12
20. Area of riverine wetlands in western South Dakota summed by water regime ..... 14
21. General distribution of wetland area of all riverine wetlands ..... 14
22. Number of basins summed in western South Dakota by water regime ..... 14
23. Area of basins in western South Dakota summed by water regime ..... 14
24. Number of basins in western South Dakota summed by size category .....  18
25. Area of basins in western South Dakota summed by size category .....  18
26. General distribution of temporary basin area in western South Dakota ..... 19
27. General distribution of seasonal basin area in western South Dakota ..... 19
28. General distribution of semipermanent basin area in western South Dakota ..... 19
29. General distribution of permanent basin area in western South Dakota ..... 19

## APPENDICES

1. Number and area of NWI-delineated wetlands in western South Dakota summed by NWI attribute ..... 45
2. Number and area of NWI-delineated wetlands in western South Dakota summed by county and NWI attribute ..... 50
3. Number and area of NWI-delineated wetlands in western South Dakota summed by physiographic region and NWI attribute ..... 87
4. Number and area of NWI-delineated wetlands in western South Dakota summed by 6-digit hydrologic unit and NWI attribute ..... 100
5. Number and area of basins in western South Dakota summed by county and NWI attribute ..... 120

## Introduction

Wetlands, whether natural or man-made in origin, are an important feature of the semi-arid landscape of western South Dakota. These wetlands have many values for both landowners and non-owners as well as for fish and wildlife species. Hubbard (1988) provided a detailed review of prairie wetland functions and values. Kantrud et al. (1989) described a community profile that detailed the origin, hydrology, function, and biota of prairie wetlands in the Dakotas. Johnson et al. (1997) identified over 200 species of wildlife that use eastern South Dakota wetland habitats. Although a similar list of wildlife species that use western South Dakota wetlands has not been compiled, several studies have identified the importance of wetlands to fish (Guy 1990), amphibians (Fischer et al. 1999), and wetland birds (May et al. 2002, Rumble and Flake 1983, Ruwaldt et al. 1979).

Because wetlands have numerous social and economic values, accurate information about wetland abundance, characteristics, and distribution is important. Johnson and Higgins (1997) published demographic data for the remaining wetlands of eastern South Dakota. Until now, similar demographic data have not been available for wetland resources in western South Dakota.

This publication summarizes the abundance, general distribution, and characteristics of wetland resources of western South Dakota as delineated and mapped by the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) office. This publication will serve as an informational baseline with which to compare past and future temporal and spatial changes of wetland resources in western South Dakota. With this information, in combination with the wetlands demographic information provided by Johnson and Higgins (1997), South Dakota will be one of only a few states with a total wetland resources demographic data file, GIS, and summary.

Throughout this document the following terms are frequently used with text, tables, figures, and data.

Wetlands: "Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface of the land or the land is covered by shallow water. [...] wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil;
and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year" (Cowardin et al. 1979).

Deepwater habitats:"Deepwater habitats are permanently flooded lands lying below the deepwater boundary of wetlands" (Cowardin et al. 1979).

Basin: "A land feature capable of holding water because of topography or soil type" (Cowardin 1982). Cowardin (1982) called it a "wetland basin."

Traditionally, the definition of wetlands has not included deep permanent water. Rivers, streams, and linear wetlands also were not traditionally included in the definition of wetlands. The Cowardin et al. (1979) classification system addresses these issues and classifies these ecologically related waters. Basins contain one or more wetlands and are classified on the basis of wetland zones as described by Stewart and Kantrud (1971). The zone having the most permanent water regime determines the water regime of the basin.

## Classification of Wetlands and Deepwater Habitats of the United States

The Cowardin et al. (1979) wetland classification is arranged in a hierarchical order (Table 1). It classifies wetlands and deep water habitats with similar hydrologic, geomorphic, biotic, and chemical characteristics. This section is a synopsis of the classification design. For a detailed description, see Cowardin et al. (1979).

The system level is the highest level in the classification hierarchy (Table 1). Three of the five systems in this classification occur in South Dakota: palustrine, lacustrine, and riverine.

The palustrine system includes shallow wetlands less than 8 ha ( $\approx 20$ acres) in size and dominated by trees, shrubs, or emergents. These wetlands are traditionally called ponds, marshes, swamps, fens, or wet meadow prairies.

The lacustrine system typically includes wetlands and deepwater habitats without trees, shrubs, or persistent emergent vegetation and with evidence of wave action. These habitats are typically referred to as lakes or reservoirs.

The riverine system includes all wetlands and deepwater habitats contained within a channel without dominant trees, shrubs, or persistent emergents. Palustrine wetlands may occur in the channel, but they are not included in the riverine system.

The subsystem level further categorizes habitats within each system. This level may or may not be used. Lacustrine and riverine systems each have subsystems. The palustrine system does not include the subsystem level.

The class level of the hierarchical structure describes the dominant vegetative cover, where it is equal to or greater than $30 \%$ of the aerial coverage. Where the vegetation is less than $30 \%$ coverage, the class level describes the composition of the substrate.

Modifier and special modifier codes may be attached to the class level and any lower level (Fig 1). These modifier codes include specific information about water regimes, water chemistry, and soil characteristics. The water regime
modifier is the most commonly used modifier code for wetlands in western South Dakota. Special modifier codes provide more information about the nature of the habitat: whether the habitat was natural or created, whether it was man-made or created by beaver (Castor canadensis) activity, or whether the habitat was partially drained.

## The National Wetlands Inventory

In the mid-1970s, the USFWS began planning for an inventory of the nation's wetlands. The National Wetland Inventory (NWI) would be charged with gathering and mapping the characteristics, extent, and distribution of wetlands. As the NWI became organized, the USFWS adopted the Cowardin et al. (1979) wetlands classification system. NWI uses three criteria (hydrological information, hydrophytes, and hydric soils) to delineate and classify wetlands and deepwater habitats.

Table 1. Elements of the Cowardin et al. (1979) classification system used in South Dakota and the NWI codes for systems, subsystems, classes, and modifiers (from Johnson and Higgins 1997).


## Wetland Delineation Techniques (adapted from Johnson and Higgins 1997)

The NWI delineated western South Dakota wetlands and deepwater habitats by analyzing high altitude, color infrared photography acquired by the National Aeronautics and Space Administration (NASA) and the High Altitude Photography Program (HAP). Photography from August 1980 through August 1991 was used as base photography (Fig 2).

Prior to photo acquisition, ground reconnaissance by USFWS personnel determined when hydrologic conditions were appropriate for accurate wetlands identification. Photography was acquired in wet years when most basins were inundated. Photography during excessively wet years was avoided. Auxiliary data for wetland delineation and classification included United States Geological Survey (USGS) 7.5' topographic quadrangles, published county soil surveys, Water Resource Institute data, and hydrographic maps, when available.

The production of NWI maps followed a rigid set of conventions for identifying and classifying wetlands and deep water habitats (USFWS 1995):

1. Aerial photos were reviewed by a NWI contractor. Characteristic wetlands and problematic areas were identified.
2. Specific sites with characteristic wetlands and problematic areas were selected for field identification. A field trip to these sites was planned.
3. Field data, including plant information, hydrology, and soil information were collected on the selected sites.
4. Aerial photos were obtained and photosignatures were interpreted to assist in the photointerpretation of the work area.
5. Photointerpretation began on the work areas using a stereoscope. Wetlands and deepwater habitats were identified, delineated, and labeled according to the NWI photointerpretation conventions. Collateral data and maps were referenced, when such information was available. When necessary, ground-truthing was conducted to resolve photointerpretation problems.
6. Photointerpretation quality control measures were performed.

Fig 1. Elements of the Cowardin et al. (1979) classification and the corresponding NWI codes (from Johnson and Higgins 1997).


Fig 2. Date (mm/yy) of photography used in delineating the wetlands of western South Dakota.

| 280-8.81 | 883-983 | 883-983 | 684-6186 | $579,482$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 681 | 883-9833 | 283-983 | $\begin{gathered} 6184 . \\ 6185,686 \end{gathered}$ | $484,1085$ |  |
| 781-10,82 | 781-1088 | 781 -982 | 6884-1085 | ${ }^{4 / 84} 4$ |  |
| 7881-10,82 | 781-10182 | 781.882 | 6184 - 10,85 | 484.1 48 |  |
| 78181.9882 | 781.1.982 | 7881-9182 | 684-1085 | 488, 1084 |  |
| 781-9182 | 781-982 |  | 781-8182 | 4884-8/85 |  |

7. NWI draft maps were created using USGS 1:24,000 topographic quadrangles as base maps. Draft maps were disseminated for state and federal interagency review and comment.
8. Draft maps were reviewed in the field by NWI personnel. Sites identified during photointerpretation, quality control, and interagency review were included in the field review process.
9. Draft maps were edited and final maps (Fig 3) were submitted for production and distribution.

When these steps were completed, digital versions of the NWI final maps for western South Dakota were created to the specifications set forth by NWI procedures.

Fig 3. Enlargement of a section of a National Wetlands Inventory final map (from Johnson and Higgins 1997).


## METHODS

Digital wetland data for western South Dakota were obtained from National Wetlands Inventory. NWI final maps, in the form of ArcGIS interchange files, were downloaded onto an IBM RS/6000 F80 Unix workstation. Files were imported into ArcGIS Workstation version 8.0.2 software and coverages were created. Unix scripts and Arc Macro Language scripts (AMLs) were written to automate data processing. All GIS processing occurred on this workstation.

Digital 7.5' quadrangle maps contained point, line, and polygon features. Point features from all western South Dakota quadrangles were combined into a single point coverage. Line and polygon features from all western South Dakota quadrangles were combined into a single line/polygon coverage. These two coverages were the initial base layers for all subsequent coverages.

When photointerpreters delineated wetlands, polygons were drawn around wetlands where possible. Wetland signatures too narrow or small to be enclosed by a polygon were delineated with a line segment or point. Only polygon features have area; point and line features do not. To create area for these features, buffers were calculated around points and lines.

## NWI Wetland Processing

AMLs used to process the NWI wetland coverage were similar to those used by Johnson and Higgins (1997). Before execution, buffer widths were adjusted to better represent the wetlands of the western South Dakota landscape. A buffer distance of $7.62 \mathrm{~m}(15.24 \mathrm{~m}$ total) was calculated around point features, and a buffer distance of $1.5 \mathrm{~m}(3.0 \mathrm{~m}$ total) was calculated around line features.
The 1.5 m buffer setting was selected to better represent the narrow drainages and streams of western South Dakota. The 7.62 m buffer setting was identical to the distance used by Johnson and Higgins (1997).

## Basin Processing

Protocols, AMLs, and INFO programs used to process basins were originally developed for the Prairie Pothole Region (PPR) of South Dakota, North Dakota, and Montana (Cowardin et al. 1979, Johnson and Higgins 1997). Preliminary tests on the NWI coverage for western South Dakota revealed that the PPR model could not be realistically applied to the topography of western South Dakota.

A new model (WSD) for western South Dakota was created. This model incorporated the entire basin processing of the PPR model (Fig 4) and additional processing that addressed the long integrated drainage networks that occur in the western South Dakota landscape. The term dendritic was used to describe and label these drainages.

The WSD model accounted for dendritic drainages, which contain riverine and riverine-like wetlands by labeling them as dendritic. All wetland polygon features directly adjacent to dendritic polygons received dendritic labels, and shared arcs were dissolved. This step was repeated until no adjacent polygons remained. This resulted in long dendritic polygons with dendritic labels. In addition, the WSD model identified all non-dendritic buffered line features greater than 1.0 km and labeled these as dendritic. Once again, wetland polygons directly

Figure 4. Conversion of NWI-delineated wetlands to basins. Wetlands delineated by the NWI were converted to basins by dissolving arcs and classifying the water regime by the most permanent wetland within the basin. Basins codes:
3 = Semipermanent, 2 = Seasonal ditches,
21 = Temporary, 22 = Temporary ditch
(Adapted from Johnson and Higgins 1997).

adjacent to dendritic polygons received a dendritic label and the shared arcs were dissolved. This step was repeated until no adjacent polygons remained. When completed, this coverage became the final basin coverage for western South Dakota.

Wetlands on the NWI coverage and basins on the WSD coverage were uniquely numbered. Basins also were labeled as temporary, seasonal, semipermanent, and permanent. Dendritic polygons and upland polygons (islands) remained and were labeled as such.

File and sorting limitations within the ArcGIS Workstation software did not directly allow the union of the NWI wetlands coverage with the WSD basin coverage. Therefore, the two coverages were clipped to make four smaller coverages. A union of these clipped coverages was performed. Unioned coverages were then joined at their edges. The result was WSDNWIBAS, a single coverage containing NWI wetlands and basin information for western South Dakota.

Additional AMLs were written to summarize NWI wetland and basin data for western South Dakota. South Dakota county (Fig 5), physiographic region (Fig 6), and hydrologic unit (Fig 7) coverages were each unioned with the WSDNWIBAS coverage (Appendix 1-5).

## Assumptions of the WSD Model

1. Riverine wetlands delineated by NWI with a line or a polygon were labeled as dendritic and, therefore, were not part of basin summaries. (These wetlands function more like a dendritic system than a basin.)
2. Wetlands delineated with a line feature having a length of 1.0 km or greater function more like a dendritic system than a basin. (Recall that all line features have a buffered width of 3 m .)
3. Wetlands adjacent (and sharing a common edge) to a dendritic system function more like a dendritic system than a basin.
4. Wetlands delineated as impoundments within these dendritic systems function more as basins than as part of a dendritic system.

As with most models, the WSD basin model likely resulted in some omission and commission errors. Undoubtedly, this model may have labeled some buffered line features as dendritic, although these features may function more like a basin. These omission errors may have

Fig 5. Counties of western South Dakota.


Fig 6. Physiographic regions of western South Dakota (Johnson et al. 1995).


Fig 7. Six-digit hydrologic units of western South Dakota (Smith et al. 2002).

occurred in the riverine (dendritic polygons), where pools and segments within the river may function much like a basin with no apparent flow. Commission errors may have occurred by erroneously labeling non-basins as basins. Isolated line features less than 1.0 km that were labeled as a basin may function more like a dendritic system but were labeled as basins.

## RESULTS

Results are divided into two parts. The first part uses the nomenclature of Cowardin et al. (1979), is entitled Western South Dakota Wetlands and Deep Water Habitats, and summarizes NWI wetland demographics. The second part uses basin nomenclature, is entitled Western South Dakota Basins, and summarizes basin demographics by number and area. Summaries of wetland area of these two parts are not comparable because each basin is comprised of one or more wetlands, according to Cowardin et al. (1979).

Western South Dakota wetland summaries have been generated by a GIS containing NWI-mapped wetlands and deepwater habitats. Western South Dakota basin summaries have been generated from the NWI-mapped wetlands and deepwater habitats to form a basin coverage. The methodology used to make this conversion is described in the methods section of this document. Although the terminology for wetland (and deep water habitats) and basin water regimes is the same, the number and area of NWI-mapped wetlands (and deep water habitats) are not comparable because basins are composite features of one or more wetlands.

## Part 1: Western South Dakota Wetlands and Deepwater Habitats

## Wetlands Systems: Palustrine, Lacustrine, and Riverine

Surface water covered approximately 257,006 ha ( 635,054 acres) or about $2.4 \%$ of the $10,810,700$ ha ( $26,712,806$ acres) of western South Dakota. These values include all of the area within the state lying west of the centerline of the Missouri River (Fig 5). The western half of the Missouri River and its impoundments were included in wetland summaries. Surface water was categorized into one of three systems: palustrine, lacustrine, or riverine. Palustrine
systems constituted $50.2 \%$, lacustrine $41.8 \%$, and riverine $8.1 \%$ of the surface water area in western South Dakota (Table 2; Fig 8).

## Palustrine Wetlands

## System, Subsystems, and Classes

Wetlands in the palustrine system accounted for 128,940 ha ( 318,605 acres) of surface water in western South Dakota. The Palustrine system has no subsystems. Palustrine wetlands in the emergent class occupied 79,219 ha ( $195,747 \mathrm{acres}$ ) or $61.4 \%$ of the total palustrine wetland area (Table 3; Fig 9). Palustrine wetlands in the aquatic bed class occupied 34,443 ha ( 85,107 acres) or $26.7 \%$ of the total palustrine wetland area. Palustrine wetlands in the forested and scrub-shrub classes collectively amounted to 8,475 ha ( 20,940 acres) or $6.6 \%$ of the total palustrine wetland area. The remaining classes and all mixed classes, such as emergent/aquatic bed, collectively occupied 5.2\% of the total palustrine wetland area.

## Water Regimes

Palustrine wetlands with a temporary regime constituted $53,608 \mathrm{ha}$ ( $131,605 \mathrm{acres}$ ) or $41.3 \%$ of the total palustrine wetland area (Table 4; Fig 10). Palustrine wetlands with a semipermanent water regime occupied 37,842 ha ( 93,507 acres) or $29.4 \%$ of the total palustrine wetland area. Seasonal wetlands constituted 35,490 ha ( 87,697 acres) or $27.5 \%$ of the total palustrine wetland area. The remaining water regimes constituted less than $2 \%$ of the total palustrine wetland area (Table 4; Figure 10).

## Special Modifiers

Natural palustrine wetlands occupied 76,933 ha (190,098 acres) or $59.7 \%$ of the total palustrine wetland area (Table 5; Fig 11). Created palustrine wetlands were created by impoundment, excavation, or beaver activity. Impounded wetlands in the palustrine system accounted for 49,594 ha ( 122,545 acres) or $38.5 \%$ of the total palustrine wetland area. Excavated wetlands in the palustrine system accounted for 2,375 ha ( 5,868 acres) or $1.8 \%$ of the total palustrine wetland area. Palustrine wetlands created by beaver activity accounted for a trace $(0.0 \%)$ amount of the total palustrine wetland area.

## General Distribution of Wetland Area of all Palustrine Wetlands

The distribution of wetland area of all palustrine wetlands is not uniform across western South Dakota (Fig 12). The southeast portion of western South Dakota contains the greatest palustrine wetland area. The sections of western South Dakota roughly defined by the Black Hills, Southern Plateaus, and the Sand Hill physiographic regions contain the fewest palustrine wetland acres/hectares.

Fig 8. Area of all NWI-delineated wetlands in western South Dakota summed by system.


Fig 9. Area of palustrine wetlands in western South Dakota summed by class.


Table 2. Area of all NWI-delineated wetlands in western South Dakota summed by system.

| System | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Palustrine | $128,939.6$ | $318,605.4$ | $50.2 \%$ |
| Lacustrine | $107,351.5$ | $265,262.0$ | $41.8 \%$ |
| Riverine | $20,715.2$ | $51,186.6$ | $8.1 \%$ |
|  | $257,006.4$ | $635,054.1$ | $100.0 \%$ |

Table 3. Area of palustrine wetlands in western South Dakota summed by class.

| Class | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Emergent | $79,218.8$ | $195,747.0$ | $61.4 \%$ |
| Aquatic Bed | $34,442.8$ | $85,106.9$ | $26.7 \%$ |
| Forested | $4,600.1$ | $11,366.8$ | $3.6 \%$ |
| Scrub-Shrub | $3,874.4$ | $9,573.4$ | $3.0 \%$ |
| Unconsolidated Shore | $2,888.4$ | $7,137.0$ | $2.2 \%$ |
| All Other | $3,915.2$ | $9,674.3$ | $3.0 \%$ |
|  | $128,939.6$ | $318,605.4$ | $100.0 \%$ |

Table 4. Area of palustrine wetlands in western South Dakota summed by water regime.

| Water Regime | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
|  |  |  |  |
| Temporarily Flooded | $53,260.8$ | $131,605.7$ | $41.3 \%$ |
| Seasonally Flooded | $35,490.9$ | $87,696.8$ | $27.5 \%$ |
| Semipermanently Flooded | $37,842.3$ | $93,507.0$ | $29.3 \%$ |
| All Other | $2,345.6$ | $5,795.9$ | $1.8 \%$ |
|  | $128,939.6$ | $318,605.4$ | $100.0 \%$ |

Table 5. Area of natural palustrine wetlands and created palustrine wetlands in western South Dakota.

| Palustrine Wetlands | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Natural Palustrine Wetlands | $76,932.5$ | $190,097.5$ | $59.7 \%$ |
| Created Palustrine Wetlands | $52,007.2$ | $128,508.0$ | $40.3 \%$ |
|  | $128,939.6$ | $318,605.4$ | $100.0 \%$ |

Fig 10. Area of palustrine wetlands in western South Dakota summed by water regime.


Fig 11. Area of natural palustrine wetlands and created palustrine wetlands in western South Dakota.


## Lacustrine Wetlands

## System and Subsystems

Wetlands in the lacustrine system accounted for 107,351 ha ( 265,262 acre) of surface water in western South Dakota. The lacustrine system has two subsystems: limnetic deep water and littoral. The limnetic subsystem was $90.5 \%$ of the total lacustrine wetland area; the remaining $9.5 \%$ of the total lacustrine wetland area was in the littoral subsystem (Table 6; Fig 13).

Fig 12. General distribution of wetland area of all palustrine wetlands.


## Classes

All 97,132 ha ( 240,009 acres) of the lacustrine limnetic habitat were in the unconsolidated bottom class.
Lacustrine littoral wetlands were assigned to one of three classes: aquatic bed, unconsolidated shore, or unconsolidated bottom. Aquatic bed class accounted for $5,545 \mathrm{ha}$ ( 13,701 acres), unconsolidated shore class for $2,880 \mathrm{ha}$ ( 7,115 acres), and unconsolidated bottom class for 1,796 ha ( 4,436 acres) of the lacustrine littoral wetland area (Table 7; Fig 14).

## Water Regimes

Most of the area delineated as lacustrine wetland or deepwater habitat had a permanently flooded or intermittently exposed water regime. Exactly 79,330 ha (196,021 acres) were assigned to a permanently flooded regime (Table 8; Fig 15). A total of 21,818 ha ( 53,911 acres) were assigned to an intermittently exposed water regime. All other water regimes (temporarily flooded, seasonally flooded, semipermanently flooded, and artificially flooded) accounted for 6,204 ha ( 11,079 acres) of the total lacustrine area. Natural lacustrine wetlands and deep water habitats occupied 2,212 ha ( 5,465 acres) or $2.1 \%$ of the total lacustrine area (Table 9; Fig 16). Created lacustrine wetlands and deep water habitats occupied 105,140 ha ( 259,797 acres) or $97.9 \%$ of the total lacustrine area. Impoundments accounted for $99.99 \%$ and excavated wetlands and deep water habitats for $0.01 \%$ of the created lacustrine area.

## General Distribution of Wetland Area of all Lacustrine Wetlands

The distribution of wetland area of all lacustrine wetlands is sparse across western South Dakota (Fig 17). The Missouri River impoundments are the most noteworthy lacustrine features in western South Dakota. The Shadehill, Belle Fourche, and Angostura reservoirs and Lacreek Lake are the notable lacustrine wetlands in western South Dakota.

Table 6. Area of lacustrine wetlands in western South Dakota summed by subsystem.

| Subsystem | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Limnetic | $97,131.8$ | $240,009.5$ | $90.48 \%$ |
| Littoral | $10,219.7$ | $25,252.5$ | $9.52 \%$ |
|  | $107,351.5$ | $265,262.0$ | $100.00 \%$ |

Table 7. Area of littoral lacustrine wetlands in western South Dakota summed by class.

| Class | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Aquatic Bed | $5,544.6$ | $13,700.6$ | $54.3 \%$ |
| Unconsolidated Shore | $2,879.5$ | $7,115.1$ | $28.2 \%$ |
| Unconsolidated Bottom | $1,795.6$ | $4,436.8$ | $17.6 \%$ |
|  | $10,219.7$ | $25,252.5$ | $100.0 \%$ |

Table 8. Area of lacustrine wetlands in western South Dakota summed by water regime.

| Water Regime | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Permanently Flooded | $79,329.8$ | $196,021.3$ | $73.9 \%$ |
| Intermittently Exposed | $21,817.7$ | $53,910.9$ | $20.3 \%$ |
| Semi-permanently Flooded | $3,314.0$ | $8,188.8$ | $3.1 \%$ |
| All Other | $2,890.0$ | $7,141.1$ | $2.7 \%$ |
|  | $107,351.5$ | $265,262.0$ | $100.0 \%$ |

Table 9. Area of natural lacustrine wetlands and created lacustrine wetlands in western South Dakota.

| Lacustrine | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Natural | $2,211.6$ | $5,464.9$ | $2.1 \%$ |
| Created | $105,139.9$ | $259,797.1$ | $97.9 \%$ |
|  | $107,351.5$ | $265,262.0$ | $100.0 \%$ |

Fig 13. Area of lacustrine wetlands in western South Dakota summed by subsystem.


Fig 15. Area of lacustrine wetlands in western South Dakota summed by water regime.


Fig 14. Area of littoral lacustrine wetlands in western South Dakota summed by class.


Fig 16. Area of natural lacustrine wetlands and created lacustrine wetlands in western South Dakota.


Fig 17. General distribution of wetland area of all lacustrine wetlands.


## Riverine Wetlands

## System and Subsystems

Wetlands in the riverine system occupied 20,715 ha ( 51,187 acres) of surface water in western South Dakota. Three riverine subsystems existed: upper perennial, lower perennial, and intermittent. Lower perennial wetlands (habitats) accounted for 13,127 ha ( 32,435 acres) or $63.4 \%$ of total riverine habitat (Table 10; Fig 18). Intermittent wetlands (habitats) accounted for 7,377 ha ( 18,228 acres) or $35.6 \%$ of total riverine habitat. Next in order, upper perennial wetlands accounted for 211 ha ( 523 acres) or $1.0 \%$ of the total riverine habitat in western South Dakota. Nearly the entire upper perennial habitat existed in the Black Hills physiographic region.

## Classes

All riverine habitats were assigned to one of three classes: stream bed, unconsolidated bottom, or unconsolidated shore. The stream bed class was limited to intermittent riverine subsystems and occupied 7,377 ha ( 18,229 acres) or $35.6 \%$ of the riverine wetland habitat (Table 11; Fig 19). Approximately 7,935 ha ( 19,607 acres) or $38.3 \%$ of the riverine wetland area was assigned to the unconsolidated bottom class and 5,403 ha ( 13,514 acres) or $26.1 \%$ to the unconsolidated shore class.

## Water Regimes

Temporarily flooded riverine habitat occupied 8,164 ha (20,173 acres) or $39.4 \%$ of the total riverine habitat (Table 12; Fig 20). Semipermanently flooded riverine habitat covered 6,062 ha ( 14,980 acres) or $29.3 \%$. Seasonally flooded riverine habitat covered 3,207 ha (7,926 acres), intermittently flooded riverine habitat 3,000 ha ( 7,415 acres), and permanently flooded riverine habitat the remaining area of 280 ha (693 acres).

Fig 18. Area of riverine wetlands in western South Dakota summed by subsystem.


Fig 19. Area of riverine wetlands in western South Dakota summed by class.


Table 10. Area of riverine wetlands in western South Dakota summed by subsystem.

| Subsystem | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Lower Perennial | $13,126.5$ | $32,435.2$ | $63.37 \%$ |
| Intermittent | $7,377.2$ | $18,228.7$ | $35.61 \%$ |
| Upper Perennial | 211.5 | 522.7 | $1.02 \%$ |
|  | $20,715.2$ | $51,186.6$ | $100.00 \%$ |

Table 11. Area of riverine wetlands in western South Dakota summed by class.

| Class | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: |
| Stream Bed | $7,377.2$ | $18,228.7$ | $35.61 \%$ |
| Unconsolidated Bottom | $7,934.7$ | $19,606.5$ | $38.30 \%$ |
| Unconsolidated Shore | $5,403.3$ | $13,351.4$ | $26.08 \%$ |
|  | $20,715.2$ | $51,186.6$ | $100.00 \%$ |

Table 12. Area of riverine wetlands in western South Dakota summed by water regime.

| Water Regime | Area (ha) | Area (ac) | \% Area |
| :--- | :---: | ---: | ---: |
|  |  |  |  |
| Temporarily Flooded | $8,164.0$ | $20,172.9$ | $39.4 \%$ |
| Seasonally Flooded | $3,207.8$ | $7,926.3$ | $15.5 \%$ |
| Semipermanently Flooded | $6,062.4$ | $14,979.9$ | $29.3 \%$ |
| Permanently Flooded | 280.5 | 693.0 | $1.4 \%$ |
| Intermittently Flooded | $3,000.6$ | $7,414.5$ | $14.5 \%$ |
|  | $20,715.2$ | $51,186.6$ | $100.0 \%$ |
|  |  |  |  |
| Special Modifiers | Part 2: Western South |  |  |
| Overall, 99.3\% of the area of riverine habitats was natural; | Dakota Basins |  |  |
| 0.7\% was recorded as excavated or impounded. | Dakota |  |  |

## General Distribution of Wetland Area of all Riverine Wetlands

The distribution of wetland area of all riverine wetlands follows the major river drainages and their tributaries in western South Dakota (Fig 21). The Grand, Moreau, Cheyenne, Bad, and White rivers are notable.

## Part 2: Western South Dakota Basins

A total of 172,867 basins were enumerated in western South Dakota (Table 13). This number included natural wetland depressions, dugout/excavated basins, impoundments, and beaver dams. Riverine or riverine-like wetlands, such as pools in creeks and streams, were not included. Areas impounded by Missouri River mainstem dams also were not included.

Fig 20. Area of riverine wetlands in western South Dakota summed by water regime.


Fig 21. General distribution of wetland area of all riverine wetlands.


Of the 172,867 basins, 61,757 ( $35.7 \%$ ) were classified as temporary, 50,447 (29.2\%) were seasonal, 59,340 (34.3\%) were semipermanent, and $1,323(0.8 \%)$ were permanent basins (Table 13; Fig 22). Of the total number of basins, 107,488 ( $62.2 \%$ ) were < 0.2 ha ( 0.49 acres); 129,295 ( $74.8 \%$ ) were < 0.4 ha ( 0.99 acres); 147,392 ( $85.3 \%$ ) were < 0.8 ha ( 2.0 acres); 163,130 ( $94.4 \%$ ) were < 2.0 ha ( 4.9 acres); and 168, 875 ( $97.7 \%$ ) of all basins were < 4.0 ha ( 9.8 acres) in area. Number and area of basins were summed by water regime or size category in a noncumulative manner (Table 14; Figs 23-25).

There were 86,927 created basins, which represented $50.3 \%$ of the total number of basins. Of these, 72,562 were

Fig 22. Number of basins in western South Dakota summed by water regime. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included.


Fig 23. Area of basins in western South Dakota summed by water regime. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included.

impoundments, 14,054 were dugouts, and 311 were created by beaver activity.

Mean size of all 172,867 basins in western South Dakota was 0.7 ha (1.7 acres), ranging from $0.0+$ ha to $2,610.7$ ha ( $6,451.0$ acres). The four largest basins, the Belle Fourche, Angostura, and Shadehill reservoirs and Lacreek Lake, were included in these calculations (Table 15).

Table 13. Number and area of basins in western South Dakota summed by water regime. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included.

| Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Temporary | 61,757 | $35.7 \%$ | $17,888.6$ | $44,202.1$ | $15.8 \%$ |
| Seasonal | 50,447 | $29.2 \%$ | $21,123.4$ | $52,195.2$ | $18.6 \%$ |
| Semipermanent | 59,340 | $34.3 \%$ | $54,532.5$ | $134,748.0$ | $48.0 \%$ |
| Permanent | 1,323 | $0.8 \%$ | $19,949.2$ | $49,293.8$ | $17.6 \%$ |
|  | 172,867 | $100.0 \%$ | $113,493.7$ | $280,439.0$ | $100.0 \%$ |

Table 14. Number and area of basins in western South Dakota summed by size category. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. Size category key: 0.2 represents basins $<0.2$ ha; 0.4 represents basins $>0.2$ ha and $<0.4$ ha; 0.8 represents basins > 0.4 ha and < 0.8 ha; 2.0 represents basins > 0.8 ha and < 2.0 ha; 4.0 represents basins $>2.0$ ha and $<4.0$ ha; $4.0+$ represents basins > 4.0 ha.

| Size Category | Number | \% Number | Hectares | Acres | \% Area |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 0.2 | 107,488 | $62.2 \%$ | $6,803.1$ | $16,810.3$ | $6.0 \%$ |
| 0.4 | 21,807 | $12.6 \%$ | $6,232.8$ | $32,211.2$ | $5.5 \%$ |
| 0.8 | 18,097 | $10.5 \%$ | $10,292.4$ | $57,643.4$ | $9.1 \%$ |
| 2.0 | 15,738 | $9.1 \%$ | $19,608.4$ | $106,095.1$ | $17.3 \%$ |
| 4.0 | 5,745 | $3.3 \%$ | $15,894.2$ | $145,369.2$ | $14.0 \%$ |
| $4.0+$ | 3,992 | $2.3 \%$ | $54,662.7$ | $280,439.0$ | $48.2 \%$ |
|  | 172,867 | $100.0 \%$ | $113,493.7$ | $280,439.0$ | $100.0 \%$ |

When summed by water regime, mean size of temporary basins was 0.3 ha ( 0.7 acres). Mean size of seasonal basins was 0.4 ha ( 1.0 acre), and of semipermanent and permanent basins 0.9 ha ( 2.2 acres) and 15.1 ha ( 37.3 acres), respectively (Table 15).

## Temporary Basins

Of the 61,757 temporary basins in western South Dakota, 48,362 (78.3\%) were < 0.2 ha; 53,922 (87.3\%) were < 0.4 ha; 57,523 (93.1\%) were < 0.8ha; 60,170 (97.4\%) were < 2.0 ha ; and 61,162 ( $99 \%$ ) were < 4.0 ha . Temporary basins also were summed by water regime and size category (Table 16).

Exactly 2,393 ha ( 5,913 acres) ( $13.4 \%$ ) of the surface area of temporary basins were in basins $<0.2$ ha; 3,959 ha ( 9,782 acres) ( $22.1 \%$ ) in basins < 0.4 ha; 5,972 ha ( 14,757 acres) (33.4\%) in basins < 0.8 ha; 9,256 ha (22,870 acres) (51.7\%) in basins < 2.0 ha; and 12,030 ha (29,726 acres) (67.3\%) in basins < 4.0 ha. The remaining one-third $(32.7 \%)$ of the surface area of temporary basins, or 5,858 ha ( 14,476 acres), was in basins > 4.0 ha. The area of all temporary basins was summed by water regime and size category (Table 16).

The general distribution of wetland area of all temporary basins was mapped for western South Dakota (Fig 26). The southeast portion of western South Dakota contains the greatest wetland area occupied by temporary basins.
The sections of western South Dakota roughly defined by the Black Hills, Southern Plateaus, and the Sand Hill

Table 15. Mean, range, and standard deviation of basin area in western South Dakota by water regime. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included.

| Water Regime | Number | Area (ha) | Min (ha) | Max (ha) | Mean (ha) | Std (ha) |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Temporary | 61,757 | $17,888.6$ | $0.0+$ | 293.4 | 0.3 | 2.0 |
| Seasonal | 50,447 | $21,123.4$ | $0.0+$ | 89.5 | 0.4 | 1.9 |
| Semipermanent | 59,340 | $54,532.5$ | $0.0+$ | 450.8 | 0.9 | 4.5 |
| Permanent | 1,323 | $19,949.2$ | $0.0+$ | $2,610.7$ | 15.1 | 114.5 |
|  |  |  |  |  |  |  |
| All Regimes | 172,867 | $113,493.7$ | $0.0+$ | $2,610.7$ | 0.7 | 10.6 |

physiographic regions contain the least wetland area occupied by temporary basins.

## Seasonal Basins

Of the 50,447 seasonal basins in western South Dakota, 38,117 ( $75.6 \%$ ) were < 0.2 ha; 42,836 ( $84.9 \%$ ) were < 0.4 ha; 45,871 ( $90.9 \%$ ) were < 0.8 ha; 48,329 ( $95.8 \%$ ) were < 2.0 ha; and 49,442 (98\%) were < 4.0 ha. All seasonal basins were summed by water regime and size category (Table 16).

Exactly 2,107 ha (5,205 acres) (10.0\%) of the surface area of seasonal basins were in basins < $0.2 \mathrm{ha;} 3,432$ ha $(8,480$ acres) ( $16.3 \%$ ) in basins < 0.4 ha; 5,132 ha ( 12,682 acres) (24.3\%) in basins < 0.8 ha; 8,209 ha (20,284 acres) (38.9\%) in basins < 2.0 ha; and 11,348 ha ( 28,041 acres) (53.8\%) in basins < 4.0 ha. The remaining $46.3 \%$ of the surface area of seasonal basins or 9,775 ha ( 24,155 acres) was in basins > 4.0 hectares in size. The area of all seasonal basins was summed by water regime and size category in a noncumulative manner (Table 16).

The general distribution of wetland area of all seasonal basins was mapped for western South Dakota (Fig 27). The extent of seasonal wetland area is sparse in western South Dakota; the southeast portion and the extreme northeast corner contain the greatest wetland area occupied by seasonal basins. The portion of western South Dakota roughly defined by the Black Hills and Southern Plateaus physiographic regions contains the least seasonal wetland area.

## Semipermanent Basins

Of the 59,340 semipermanent basins in western South Dakota, 20,634 (34.8\%) were < 0.2 ha; 32,066 (54.0\%) were < 0.4 ha; 43,463 ( $73.2 \%$ ) were < 0.8 ha; 54,001 ( $91.0 \%$ ) were < 2.0 ha; and 57,498 ( $96.9 \%$ ) were < 4.0 ha. All semipermanent basins were summed by water regime and size category in a non-cumulative manner (Table 16).

Exactly 2,271 ha (5,610 acres) (4.2\%) of the surface area of semipermanent basins were in basins < $0.2 \mathrm{ha} ; 5,586$ ha (13,802 acres) ( $10.2 \%$ ) in basins < 0.4 ha; 12,126 ha ( 29,964 acres) $(22.2 \%)$ in basins < 0.8 ha; 25,240 ha ( 62,368 acres) $(46.3 \%)$ in basins < 2.0 ha; and 34,802 ha ( 85,994 acres) ( $63.8 \%$ ) in basins < 4.0 ha. The remaining $36.2 \%$ of the surface area of semipermanent basins, or 19,731 ha ( 48,754 acres), was in basins > 4.0 ha. The area of all semipermanent basins was summed by water regime and size category in a non-cumulative manner (Table 16).

The general extent of wetland area of all semipermanent basins was mapped for western South Dakota (Fig 28). The portion of western South Dakota roughly defined by the Black Hills, Southern Plateaus, and Sand Hills physiographic regions contains the least semipermanent wetland surface area. The Cheyenne River valley also is notable, containing minimal semipermanent wetland area.

## Permanent Basins

Of the permanent basins in western South Dakota, 375
(28.3\%) were < 0.2 ha; 471 ( $35.6 \%$ ) were < 0.4 ha; 535
( $40.4 \%$ ) were < 0.8 ha; 630 ( $47.6 \%$ ) were < 2.0 ha ; and 773
( $58.4 \%$ ) were $<4.0 \mathrm{ha}$. All permanent basins were summed

Table 16. Number and area of basins in western South Dakota summed by water regime and size category. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. See Table 14 for Size Category key.

| Temporary Basins Size Category |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | \% Number | Area (ha) | Area (ac) | \%Area |
| 0.2 | 48,362 | 78.3\% | 2,392.8 | 5,912.6 | 13.4\% |
| 0.4 | 5,560 | 9.0\% | 1,565.8 | 3,869.0 | 8.8\% |
| 0.8 | 3,601 | 5.8\% | 2,013.4 | 4,975.1 | 11.3\% |
| 2.0 | 2,647 | 4.3\% | 3,283.4 | 8,113.2 | 18.4\% |
| 4.0 | 992 | 1.6\% | 2,774.7 | 6,856.1 | 15.5\% |
| 4.0+ | 595 | 1.0\% | 5,858.4 | 14,476.0 | 32.7\% |
|  | 61,757 | 100.0\% | 17,888.6 | 44,202.1 | 100.0\% |
| Seasonal Basins |  |  |  |  |  |
| Size Category | Number | \% Number | Area (ha) | Area (ac) | \%Area |
| 0.2 | 38,117 | 75.6\% | 2,106.5 | 5,205.1 | 10.0\% |
| 0.4 | 4,719 | 9.4\% | 1,325.3 | 3,274.8 | 6.3\% |
| 0.8 | 3,035 | 6.0\% | 1,700.5 | 4,202.0 | 8.1\% |
| 2.0 | 2,458 | 4.9\% | 3,076.8 | 7,602.6 | 14.6\% |
| 4.0 | 1,113 | 2.2\% | 3,138.9 | 7,756.2 | 14.9\% |
| 4.0+ | 1,005 | 2.0\% | 9,775.3 | 24,154.5 | 46.3\% |
|  | 50,447 | 100.0\% | 21,123.4 | 52,195.2 | 100.0\% |
| Semipermanent Basins |  |  |  |  |  |
| Size Category | Number | \% Number | Area (ha) | Area (ac) | \%Area |
| 0.2 | 20,634 | 34.8\% | 2,270.5 | 5,610.3 | 4.2\% |
| 0.4 | 11,432 | 19.3\% | 3,315.0 | 8,191.2 | 6.1\% |
| 0.8 | 11,397 | 19.2\% | 6,541.0 | 16,162.5 | 12.0\% |
| 2.0 | 10,538 | 17.8\% | 13,113.9 | 32,404.1 | 24.0\% |
| 4.0 | 3,497 | 5.9\% | 9,561.3 | 23,625.6 | 17.5\% |
| 4.0+ | 1,842 | 3.1\% | 19,730.9 | 48,754.3 | 36.2\% |
|  | 59,340 | 100.0\% | 54,532.5 | 134,748.0 | 100.0\% |
| Permanent Basins |  |  |  |  |  |
| Size Category | Number | \% Number | Area (ha) | Area (ac) | \%Area |
| 0.2 | 375 | 28.3\% | 33.3 | 82.2 | 0.2\% |
| 0.4 | 96 | 7.3\% | 26.7 | 65.9 | 0.1\% |
| 0.8 | 64 | 4.8\% | 37.5 | 92.6 | 0.2\% |
| 2.0 | 95 | 7.2\% | 134.3 | 331.9 | 0.7\% |
| 4.0 | 143 | 10.8\% | 419.4 | 1,036.2 | 2.1\% |
| 4.0+ | 550 | 41.6\% | 19,298.1 | 47,684.9 | 96.7\% |
|  | 1,323 | 100.0\% | 19,949.2 | 49,293.8 | 100.0\% |

Fig 24. Number of basins in western South Dakota within each size category. Size category key:
0.2 represents basins < 0.2 ha; 0.4 represents basins $>0.2$ ha and $<0.4$ ha; 0.8 represents basins $>0.4$ ha and $<0.8$ ha; 2.0 represents basins $>0.8$ ha and $<2.0$ ha; 4.0 represents basins $>2.0$ ha and $<4.0$ ha; $4.0+$ represents basins $>4.0$ ha.


Fig 25. Area of basins in western South Dakota within each size category. Size category key:
0.2 represents basins < 0.2 ha ;
0.4 represents basins $>0.2$ ha and $<0.4$ ha;
0.8 represents basins $>0.4$ ha and $<0.8$ ha;
2.0 represents basins $>0.8$ ha and $<2.0$ ha;
4.0 represents basins $>2.0$ ha and $<4.0$ ha;
$4.0+$ represents basins $>4.0$ ha.

by water regime and size category in a non-cumulative manner (Table 16).

Exactly 19,298 ha ( 47,685 acres) ( $96.7 \%$ ) of the surface area of permanent basins were > 4.0 ha . Next in order, 419 ha ( 1,036 acres) $(2.1 \%)$ were in basins $>0.2$ and $<4.0 \mathrm{ha}$. The remaining $1.2 \%$ of surface area of permanent basins, 232 ha ( 573 acres), was in basins < 2.0 ha. The area of all permanent basins was summed by water regime and size category in a non-cumulative manner (Table 16).

The general distribution of wetland area of all permanent basins was mapped for western South Dakota (Fig 29). The extent of wetland area of all permanent basins is sparse across western South Dakota. The Shadehill, Belle Fourche, and Angostura reservoirs and Lacreek Lake are the most notable permanent basins in western South Dakota.

## Distribution of Basins by County

Of the 22 counties of western South Dakota, Tripp County contained the greatest number of basins, with 20,941 or $12.1 \%$ of all basins in western South Dakota. Mead County had 14,351 (8.3\%) of the total basins. Following were Harding, Perkins, and Corson counties, having 12,474 (7.2\%), 10,527 (6.1\%), and 9,884 (5.7\%) in basins, respectively (Table 17).

The five counties of western South Dakota with the greatest basin area were Lyman, Dewey, Butte, Perkins, and Tripp. Lyman County had 11,617 ha (10.2\%) of the total basin area. Dewey had 8,815 ha (7.8\%) of total basin area, and Butte, Perkins, and Tripp counties had 8,775 ( $7.7 \%$ ), 7,605 ha ( $6.7 \%$ ), and 6,687 ha ( $5.9 \%$ ) of basin area, respectively (Table 17).

In 18 of the 22 counties, the surface area of semipermanent basins was greater than that of the other water regimes. Bennett and Fall River counties had more area contained in permanent basins than any other water regime, while Tripp and Todd counties had more area contained in seasonal basins. The area and number of basins was ordered by county and water regime (Table 18).

Densities of basins in the 22 counties of western South Dakota ranged from 5.8 to 50.0 basins $/ 10 \mathrm{~km}^{2}$. Tripp County had a density of 50.0 basins $/ 10 \mathrm{~km}^{2}$; Gregory County a density of 33.9 basins $/ 10 \mathrm{~km}^{2}$; and Todd, Lyman, and Jones counties had densities of 23.5, 20.1, and 19.3 basins $/ 10 \mathrm{~km}^{2}$, respectively (Table 19).

Figure 26. General distribution of temporary basin area in western South Dakota.


Figure 27. General distribution of seasonal basin area in western South Dakota.


Meade County contained the greatest number of created basins of any county in western South Dakota, with a total of 9,067 impounded and excavated basins. Next in order, Butte, Pennington, and Fall River counties contained $6,545,6,188$, and 5,412 created basins, respectively. All these counties are located in the western half of western South Dakota. Bennett County contained the fewest created basins with a total of 736 (Table 20).

Figure 28. General distribution of semipermanent basin area in western South Dakota.


Figure 29. General distribution of permanent basin area in western South Dakota.


In terms of the density of created basins, Gregory County ranked the highest with 15.8 basins $/ 10 \mathrm{~km}^{2}$. Jones and Tripp counties followed with 13.4 and 12.5 basins $/ 10 \mathrm{~km}^{2}$, respectively. These three counties are in the eastern half of western South Dakota. As was the case with the fewest created basins, Bennett County also ranked lowest in created basin density, with 2.4 basins $/ 10 \mathrm{~km}^{2}$ (Table 21).

## Distribution of Basins by Physiographic Region

All basins are contained in the five physiographic regions of western South Dakota. Exactly 85,570 basins (49.3\%) of the total number of basins were in the Pierre Hills physiographic region. The Northern Plateaus region had 48,297 (27.8\%) of all basins; the Sand Hills region contained 19,168 (11.1\%) of all basins; and the Southern Plateaus had 16,293 (9.4\%). The remaining 4,114 basins ( $2.4 \%$ ) were found in the Black Hills physiographic region (Table 22).

The Pierre Hills region contained 61,480 ha (54.2\%) of the total area of basins in western South Dakota. The Northern Plateaus had 34,111 ha ( $30.1 \%$ ); the Southern Plateaus 10,134 ha (8.9\%); Sand Hills 6,175 (5.4\%); and the Black Hills region had 3,894 (1.4\%) (Table 22).

In three of the five physiographic regions (Northern Plateaus, Pierre Hills, and Southern Plateaus) the surface area of semipermanent basins was greater than that of the other water regimes. The Black Hills physiographic region had more area contained in permanent basins than any other water regime, while the Sand Hills physiographic region had more area contained in seasonal basins. Area and number of basins were ordered by physiographic region and water regime (Table 23).

Densities of basins in the five physiographic regions of western South Dakota varied from 5.2 to 37.0 basins $/ 10$ $\mathrm{km}^{2}$. The Sand Hills region had a density of 37.0 basins $/ 10$ $\mathrm{km}^{2}$; and the Pierre Hills region a density of 16.8 basins/10 $\mathrm{km}^{2}$. Next in order, the Northern Plateaus, Southern Plateaus, and the Black Hills regions had densities of 16.1, 11.5 , and 5.2 basins $/ 10 \mathrm{~km}^{2}$, respectively (Table 24).

The Pierre Hills physiographic region contained the greatest number of created basins. A total of 53,186 created basins were tallied. When further classified, this region also had the greatest number of impounded basins $(45,009)$ and the greatest number of excavated basins $(8,176)$ of any physiographic region. At nearly half of these numbers, the Northern Plateaus region contained 18,355 impoundments and 3,449 excavated basins, for a total of 21,804 created basins. The fewest created basins were found in the Sand Hills physiographic region with 2,441 basins (Table 25).

In terms of the density of created basins, the Pierre Hills physiographic region ranked the highest at 10.4 basins/10 $\mathrm{km}^{2}$. The Northern Plateaus region ranked second with 7.3 basins $/ 10 \mathrm{~km}^{2}$. The remaining three regions had densities between 4.2 and 4.7 basins $/ 10 \mathrm{~km}^{2}$ (Table 26).

## Distribution of Basins by Hydrologic Unit

All basins were contained in the ten hydrologic units in western South Dakota. Exactly 37,212 basins (21.5\%) of the total number of basins were in Hydrologic Unit (HU) 101303. Similarly, 31,813 basins (18.4\%) were in HU 101201. Hydrologic units 101402,101401 , and 101500 contained 29,921 (17.3\%), 28,563 (16.5\%), and 21,957 (12.7\%) basins, respectively. The remaining five hydrologic units combined contained 23,745 basins, or $13.6 \%$ of the total number of basins (Table 27).

Hydrologic Unit 101303 had 27,579 ha (24.3\%) of the surface area of all basins. HU 101401 had 24,2003 ha (21.3\%); and 101402, 101201, and 101202 contained 20,193 ha (17.8\%), 18,180 ha (16.0\%), and 9,013 ha (7.9\%) of basin area, respectively. The remaining five units combined contained 14,329 ha ( $12.7 \%$ ) of the surface area of all basins (Table 28).

In eight of the ten hydrologic units, the surface area of semipermanent basins was greater than that of the other water regimes. Hydrologic Unit 101202 had slightly more area contained in permanent basins than any other water regime, and HU 101500 had more area contained in seasonal basins. The area and number of basins were ordered by hydrologic unit and water regime (Table 29).

Densities of basins in the ten hydrologic units (6-digit) in western South Dakota varied from 11.5 to 48.4 basins/ 10 $\mathrm{km}^{2}$. Hydrologic Unit 101500 had a density of 48.4 basins $/ 10 \mathrm{~km}^{2}$; HU 101701 a density of 26.2 basins/10 $\mathrm{km}^{2}$; and HU 101401 a density of 19.7 basins $/ 10 \mathrm{~km}^{2}$. The lowest density of basins in the ten hydrologic units was in HU 101301 (Table 29).

There were 20,767 created basins in HU 101201. Hydrologic units 101401 and 101303 were next in rank with 17,461 and 16,523 basins. The fewest number of created basins was in the smallest Hydrologic Unit in western South Dakota, HU 101701, which had 132 created basins (Table 30).

HU 101701, with the smallest area and the fewest created basins, had the greatest density of basins at 15.0 basins $/ 10$ $\mathrm{km}^{2}$. Ranked at second, HU 101401 had 12.1 basins/10 $\mathrm{km}^{2}$. Ranked third, HU 101202 had 10.4 basins $/ 10 \mathrm{~km}^{2}$. The eight remaining hydrologic units had densities of 6.4 to 8.9 basins $/ 10 \mathrm{~km}^{2}$ (Table 31).

Table 17. Number and area of basins, in western South Dakota summed by county. Impoundments, excavated basins and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. A given basin was counted more than once if it lies in more than one county and only the portion of the basin inside a given country was summed for that county.

| County | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bennett | 3,271 | 1.9\% | 5,563.1 | 13,746.3 | 4.9\% |
| Butte | 9,081 | 5.2\% | 8,775.4 | 21,683.7 | 7.7\% |
| Corson | 9,884 | 5.7\% | 6,160.7 | 15,222.9 | 5.4\% |
| Custer | 3,333 | 1.9\% | 1,066.1 | 2,634.2 | 0.9\% |
| Dewey | 7,280 | 4.2\% | 8,814.9 | 21,781.4 | 7.8\% |
| Fall River | 7,883 | 4.6\% | 5,118.7 | 12,648.2 | 4.5\% |
| Gregory | 9,237 | 5.3\% | 2,832.4 | 6,998.7 | 2.5\% |
| Haakon | 6,143 | 3.5\% | 4,999.9 | 12,354.6 | 4.4\% |
| Harding | 12,474 | 7.2\% | 5,439.4 | 13,440.5 | 4.8\% |
| Jackson | 5,567 | 3.2\% | 2,672.5 | 6,603.7 | 2.4\% |
| Jones | 4,863 | 2.8\% | 5,407.7 | 13,362.3 | 4.8\% |
| Lawrence | 1,212 | 0.7\% | 326.4 | 806.6 | 0.3\% |
| Lyman | 8,861 | 5.1\% | 11,617.3 | 28,705.9 | 10.2\% |
| Meade | 14,351 | 8.3\% | 6,651.3 | 16,435.1 | 5.9\% |
| Mellette | 5,761 | 3.3\% | 3,045.0 | 7,524.0 | 2.7\% |
| Pennington | 8,902 | 5.1\% | 5,175.4 | 12,788.2 | 4.6\% |
| Perkins | 10,527 | 6.1\% | 7,605.2 | 18,792.3 | 6.7\% |
| Shannon | 4,299 | 2.5\% | 1,771.4 | 4,377.2 | 1.6\% |
| Stanley | 5,177 | 3.0\% | 5,314.2 | 13,131.3 | 4.7\% |
| Todd | 8,450 | 4.9\% | 2,441.9 | 6,033.9 | 2.2\% |
| Tripp | 20,941 | 12.1\% | 6,686.8 | 16,522.8 | 5.9\% |
| Ziebach | 5,627 | 3.3\% | 6,007.9 | 14,845.3 | 5.3\% |
|  | 173,124 | 100.0\% | 113,493.7 | 280,439.0 | 100.0\% |

Table 18. Number and area of basins in western South Dakota summed by county and water regime. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. A given basin was counted more than once if it lies in more than one county and only the portion of the basin inside a given county was summed for that county.

| Cty | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Bennett |  |  |  |  |  |  |
|  | Temporary | 1,688 | $51.6 \%$ | 871.9 | $2,154.6$ | $15.7 \%$ |
|  | Seasonal | 1,122 | $34.3 \%$ | 983.3 | $2,429.6$ | $17.7 \%$ |
|  | Semipermanent | 407 | $12.4 \%$ | 902.3 | $2,229.6$ | $16.2 \%$ |
|  | Permanent | 54 | $1.7 \%$ | $2,805.6$ | $6,932.6$ | $50.4 \%$ |
|  |  | 3,271 | $100.0 \%$ | $5,563.1$ | $13,746.3$ | $100.0 \%$ |

## Butte

| Temporary | 2,320 | $25.5 \%$ | 656.1 | $1,621.2$ | $7.5 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Seasonal | 2,233 | $24.6 \%$ | 626.5 | $1,548.0$ | $7.1 \%$ |
| Semipermanent | 4,461 | $49.1 \%$ | $3,819.8$ | $9,438.5$ | $43.5 \%$ |
| Permanent | 67 | $0.7 \%$ | $3,673.1$ | $9,076.1$ | $41.9 \%$ |
|  | 9,081 | $100.0 \%$ | $8,775.4$ | $21,683.7$ | $100.0 \%$ |

## Corson

| Temporary | 5,322 | $53.8 \%$ | $1,450.0$ | $3,583.0$ | $23.5 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Seasonal | 2,082 | $21.1 \%$ | $1,426.5$ | $3,524.9$ | $23.2 \%$ |
| Semipermanent | 2,421 | $24.5 \%$ | $2,497.9$ | $6,172.2$ | $40.5 \%$ |
| Permanent | 59 | $0.6 \%$ | 786.2 | $1,942.8$ | $12.8 \%$ |
|  | 9,884 | $100.0 \%$ | $6,160.7$ | $15,222.9$ | $100.0 \%$ |

## Custer

| Temporary | 957 | $28.7 \%$ | 160.6 | 396.8 | $15.1 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Seasonal | 943 | $28.3 \%$ | 147.3 | 363.9 | $13.8 \%$ |
| Semipermanent | 1,377 | $41.3 \%$ | 620.1 | $1,532.2$ | $58.2 \%$ |
| Permanent | 56 | $1.7 \%$ | 138.1 | 341.4 | $13.0 \%$ |
|  | 3,333 | $100.0 \%$ | $1,066.1$ | $2,634.2$ | $100.0 \%$ |

Dewey

| Temporary | 2,621 | $36.0 \%$ | $1,966.5$ | $4,859.1$ | $22.3 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Seasonal | 1,665 | $22.9 \%$ | $1,909.2$ | $4,717.7$ | $21.7 \%$ |
| Semipermanent | 2,924 | $40.2 \%$ | $3,619.0$ | $8,942.3$ | $41.1 \%$ |
| Permanent | 70 | $1.0 \%$ | $1,320.3$ | $3,262.4$ | $15.0 \%$ |
|  | 7,280 | $100.0 \%$ | $8,814.9$ | $21,781.4$ | $100.0 \%$ |


| Cty | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall River |  |  |  |  |  |  |
|  | Temporary | 1,764 | 22.4\% | 238.7 | 589.8 | 4.7\% |
|  | Seasonal | 2,840 | 36.0\% | 551.3 | 1,362.2 | 10.8\% |
|  | Semipermanent | 3,244 | 41.2\% | 2,042.2 | 5,046.2 | 39.9\% |
|  | Permanent | 35 | 0.4\% | 2,286.6 | 5,650.0 | 44.7\% |
|  |  | 7,883 | 100.0\% | 5,118.7 | 12,648.2 | 100.0\% |
| Gregory |  |  |  |  |  |  |
|  | Temporary | 3,045 | 33.0\% | 524.5 | 1,296.1 | 18.5\% |
|  | Seasonal | 2,936 | 31.8\% | 600.5 | 1,483.8 | 21.2\% |
|  | Semipermanent | 3,211 | 34.8\% | 1,358.8 | 3,357.5 | 48.0\% |
|  | Permanent | 45 | 0.5\% | 348.5 | 861.3 | 12.3\% |
|  |  | 9,237 | 100.0\% | 2,832.4 | 6,998.7 | 100.0\% |
| Haakon |  |  |  |  |  |  |
|  | Temporary | 1,643 | 26.7\% | 787.3 | 1,945.5 | 15.7\% |
|  | Seasonal | 1,780 | 29.0\% | 1,162.8 | 2,873.2 | 23.3\% |
|  | Semipermanent | 2,700 | 44.0\% | 2,799.5 | 6,917.5 | 56.0\% |
|  | Permanent | 20 | 0.3\% | 250.3 | 618.4 | 5.0\% |
|  |  | 6,143 | 100.0\% | 4,999.9 | 12,354.6 | 100.0\% |
| Harding |  |  |  |  |  |  |
|  | Temporary | 6,211 | 49.8\% | 1,257.1 | 3,106.2 | 23.1\% |
|  | Seasonal | 2,987 | 23.9\% | 901.9 | 2,228.7 | 16.6\% |
|  | Semipermanent | 3,233 | 25.9\% | 2,715.0 | 6,708.7 | 49.9\% |
|  | Permanent | 43 | 0.3\% | 565.4 | 1,397.0 | 10.4\% |
|  |  | 12,474 | 100.0\% | 5,439.4 | 13,440.5 | 100.0\% |
| Jackson |  |  |  |  |  |  |
|  | Temporary | 1,698 | 30.5\% | 385.1 | 951.6 | 14.4\% |
|  | Seasonal | 1,709 | 30.7\% | 558.3 | 1,379.7 | 20.9\% |
|  | Semipermanent | 2,128 | 38.2\% | 1,522.1 | 3,761.2 | 57.0\% |
|  | Permanent | 32 | 0.6\% | 206.9 | 511.3 | 7.7\% |
|  |  | 5,567 | 100.0\% | 2,672.5 | 6,603.7 | 100.0\% |


| Cty. | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jones |  |  |  |  |  |  |
|  | Temporary | 1,065 | 21.9\% | 553.9 | 1,368.8 | 10.2\% |
|  | Seasonal | 1,180 | 24.3\% | 972.4 | 2,402.8 | 18.0\% |
|  | Semipermanent | 2,570 | 52.8\% | 3,524.8 | 8,709.7 | 65.2\% |
|  | Permanent | 48 | 1.0\% | 356.5 | 880.9 | 6.6\% |
| Lawrence |  | 4,863 | 100.0\% | 5,407.7 | 13,362.3 | 100.0\% |
|  | Temporary | 182 | 15.0\% | 28.2 | 69.7 | 8.6\% |
|  | Seasonal | 305 | 25.2\% | 32.4 | 80.1 | 9.9\% |
|  | Semipermanent | 542 | 44.7\% | 165.1 | 407.9 | 50.6\% |
|  | Permanent | 183 | 15.1\% | 100.7 | 248.9 | 30.9\% |
|  |  | 1,212 | 100.0\% | 326.4 | 806.6 | 100.0\% |
| Lyman |  |  |  |  |  |  |
|  | Temporary | 2,384 | 26.9\% | 2,177.2 | 5,379.8 | 18.7\% |
|  | Seasonal | 2,356 | 26.6\% | 2,400.8 | 5,932.3 | 20.7\% |
|  | Semipermanent | 4,070 | 45.9\% | 6,594.9 | 16,295.7 | 56.8\% |
|  | Permanent | 51 | 0.6\% | 444.4 | 1,098.0 | 3.8\% |
|  |  | 8,861 | 100.0\% | 11,617.3 | 28,705.9 | 100.0\% |
| Meade |  |  |  |  |  |  |
|  | Temporary | 4,282 | 29.8\% | 1,035.2 | 2,558.0 | 15.6\% |
|  | Seasonal | 3,679 | 25.6\% | 1,044.9 | 2,581.9 | 15.7\% |
|  | Semipermanent | 6,350 | 44.2\% | 4,199.2 | 10,376.0 | 63.1\% |
|  | Permanent | 40 | 0.3\% | 372.0 | 919.3 | 5.6\% |
|  |  | 14,351 | 100.0\% | 6,651.3 | 16,435.1 | 100.0\% |
| Mellette |  |  |  |  |  |  |
|  | Temporary | 2,152 | 37.4\% | 329.7 | 814.8 | 10.8\% |
|  | Seasonal | 1,317 | 22.9\% | 765.9 | 1,892.6 | 25.2\% |
|  | Semipermanent | 2,266 | 39.3\% | 1,812.8 | 4,479.4 | 59.5\% |
|  | Permanent | 26 | 0.5\% | 136.5 | 337.3 | 4.5\% |
|  |  | 5,761 | 100.0\% | 3,045.0 | 7,524.0 | 100.0\% |


| Cty. | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pennington |  |  |  |  |  |  |
|  | Temporary | 2,387 | 26.8\% | 845.0 | 2,087.9 | 16.3\% |
|  | Seasonal | 2,494 | 28.0\% | 840.0 | 2,075.5 | 16.2\% |
|  | Semipermanent | 3,833 | 43.1\% | 2,573.7 | 6,359.5 | 49.7\% |
|  | Permanent | 188 | 2.1\% | 916.8 | 2,265.3 | 17.7\% |
|  |  | 8,902 | 100.0\% | 5,175.4 | 12,788.2 | 100.0\% |
| Perkins |  |  |  |  |  |  |
|  | Temporary | 4,820 | 45.8\% | 1,231.7 | 3,043.5 | 16.2\% |
|  | Seasonal | 2,291 | 21.8\% | 743.1 | 1,836.1 | 9.8\% |
|  | Semipermanent | 3,383 | 32.1\% | 2,901.4 | 7,169.3 | 38.2\% |
|  | Permanent | 33 | 0.3\% | 2,729.0 | 6,743.4 | 35.9\% |
|  |  | 10,527 | 100.0\% | 7,605.2 | 18,792.3 | 100.0\% |
| Shannon |  |  |  |  |  |  |
|  | Temporary | 2,333 | 54.3\% | 326.7 | 807.2 | 18.4\% |
|  | Seasonal | 1,186 | 27.6\% | 398.4 | 984.5 | 22.5\% |
|  | Semipermanent | 749 | 17.4\% | 541.1 | 1,337.1 | 30.5\% |
|  | Permanent | 31 | 0.7\% | 505.2 | 1,248.4 | 28.5\% |
|  |  | 4,299 | 100.0\% | 1,771.4 | 4,377.2 | 100.0\% |
| Stanley |  |  |  |  |  |  |
|  | Temporary | 1,243 | 24.0\% | 515.0 | 1,272.5 | 9.7\% |
|  | Seasonal | 1,267 | 24.5\% | 1,003.6 | 2,479.8 | 18.9\% |
|  | Semipermanent | 2,604 | 50.3\% | 3,297.8 | 8,148.7 | 62.1\% |
|  | Permanent | 63 | 1.2\% | 497.9 | 1,230.4 | 9.4\% |
|  |  | 5,177 | 100.0\% | 5,314.2 | 13,131.3 | 100.0\% |
| Todd |  |  |  |  |  |  |
|  | Temporary | 5,042 | 59.7\% | 443.9 | 1,096.8 | 18.2\% |
|  | Seasonal | 2,576 | 30.5\% | 829.8 | 2,050.4 | 34.0\% |
|  | Semipermanent | 791 | 9.4\% | 775.0 | 1,915.0 | 31.7\% |
|  | Permanent | 41 | 0.5\% | 393.2 | 971.7 | 16.1\% |
|  |  | 8,450 | 100.0\% | 2,441.9 | 6,033.9 | 100.0\% |

Table 18. Continued.

Cty. Water Regime Number \% Number Area (ha) Area (ac) \% Area Tripp

| Temporary | 6,656 | $31.8 \%$ | $1,084.4$ | $2,679.5$ | $16.2 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Seasonal | 10,771 | $51.4 \%$ | $2,442.8$ | $6,036.1$ | $36.5 \%$ |
| Semipermanent | 3,403 | $16.3 \%$ | $2,380.9$ | $5,883.1$ | $35.6 \%$ |
| Permanent | 111 | $0.5 \%$ | 778.7 | $1,924.1$ | $11.6 \%$ |
|  | 20,941 | $100.0 \%$ | $6,686.8$ | $16,522.8$ | $100.0 \%$ |

Ziebach

| Temporary | 2,012 | $35.8 \%$ | $1,019.8$ | $2,519.9$ | $17.0 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Seasonal | 800 | $14.2 \%$ | 781.7 | $1,931.5$ | $13.0 \%$ |
| Semipermanent | 2,783 | $49.5 \%$ | $3,869.3$ | $9,560.8$ | $64.4 \%$ |
| Permanent | 32 | $0.6 \%$ | 337.1 | 833.1 | $5.6 \%$ |
|  | 5,627 | $100.0 \%$ | $6,007.9$ | $14,845.3$ | $100.0 \%$ |

Table 19. Distribution of basins in western South Dakota sorted by county and water regime, presented as number of basins per 10 sq. units and as area of basins per 10 sq. units. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. A given basin was counted more than once if it lies in more than one county and only the portion of the basin inside a given county was summed for that county.
Cty. Water Regime

| Number/ | Number/ | Acres/ | Hectares/ |
| ---: | ---: | ---: | ---: |
| 10 km 2 | 10 km 2 | 10 mi 2 | 10 km 2 |

Bennett

| Temporary | 5.5 | 14.2 | 18.1 | 2.8 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 3.6 | 9.4 | 20.4 | 3.2 |
| Semipermanent | 1.3 | 3.4 | 18.7 | 2.9 |
| Permanent | 0.2 | 0.5 | 58.2 | 9.1 |
|  | 10.6 | 27.5 | 115.4 | 18.0 |

## Butte

| Temporary | 3.9 | 10.2 | 7.1 | 1.1 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 3.8 | 9.8 | 6.8 | 1.1 |
| Semipermanent | 7.6 | 19.6 | 41.6 | 6.5 |
| Permanent | 0.1 | 0.3 | 40.0 | 6.2 |
|  | 15.4 | 40.0 | 95.5 | 14.9 |

## Corson

| Temporary | 8.1 | 21.0 | 14.2 | 2.2 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 3.2 | 8.2 | 13.9 | 2.2 |
| Semipermanent | 3.7 | 9.6 | 24.4 | 3.8 |
| Permanent | 0.1 | 0.2 | 7.7 | 1.2 |
|  | 15.1 | 39.1 | 60.2 | 9.4 |

## Custer

| Temporary | 2.4 | 6.1 | 2.5 | 0.4 |
| :--- | ---: | ---: | ---: | :--- |
| Seasonal | 2.3 | 6.0 | 2.3 | 0.4 |
| Semipermanent | 3.4 | 8.8 | 9.8 | 1.5 |
| Permanent | 0.1 | 0.4 | 2.2 | 0.3 |
|  | 8.2 | 21.3 | 16.9 | 2.6 |

## Dewey

| Temporary | 4.1 | 10.7 | 19.9 | 3.1 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 2.6 | 6.8 | 19.3 | 6.2 |
| Semipermanent | 4.6 | 12.0 | 36.6 | 11.7 |
| Permanent | 0.1 | 0.3 | 13.3 | 4.3 |
|  | 11.5 | 29.8 | 89.1 | 25.3 |



Table 19. Continued.


Table 19. Continued.

|  |  | Number/ | Number/ | Acres/ | Hectares/ |
| :--- | ---: | ---: | :--- | ---: | :--- |
| Cty. | Water Regime | $10 \mathrm{sq} . \mathrm{km}$ | $10 \mathrm{sq} . \mathrm{ac}$ | $10 \mathrm{sq} . \mathrm{mi}$ | $10 \mathrm{sq} . \mathrm{km}$ |

## Pennington

| Temporary | 3.3 | 8.6 | 7.5 | 1.2 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 3.5 | 8.9 | 7.4 | 1.2 |
| Semipermanent | 5.3 | 13.7 | 22.8 | 3.6 |
| Permanent | 0.3 | 0.7 | 8.1 | 1.3 |
|  | 12.3 | 31.9 | 45.8 | 7.2 |

## Perkins

| Temporary | 6.4 | 16.7 | 10.5 | 1.6 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 3.1 | 7.9 | 6.3 | 1.0 |
| Semipermanent | 4.5 | 11.7 | 24.8 | 3.9 |
| Permanent | 0.0 | 0.1 | 23.3 | 3.6 |
|  | 14.0 | 36.4 | 64.9 | 10.1 |

## Shannon

| Temporary | 4.3 | 11.1 | 3.8 | 0.6 |
| :--- | ---: | ---: | ---: | :--- |
| Seasonal | 2.2 | 5.7 | 4.7 | 0.7 |
| Semipermanent | 1.4 | 3.6 | 6.4 | 1.0 |
| Permanent | 0.1 | 0.1 | 5.9 | 0.9 |
|  | 7.9 | 20.5 | 20.9 | 3.3 |

Stanley

| Temporary | 3.2 | 8.2 | 8.4 | 1.3 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 3.2 | 8.4 | 16.4 | 2.6 |
| Semipermanent | 6.6 | 17.2 | 53.8 | 8.4 |
| Permanent | 0.2 | 0.4 | 8.1 | 1.3 |
|  | 13.2 | 34.1 | 86.6 | 13.5 |

Todd

| Temporary | 14.0 | 36.3 | 7.9 | 1.2 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 7.2 | 18.5 | 14.7 | 2.3 |
| Semipermanent | 2.2 | 5.7 | 13.8 | 2.2 |
| Permanent | 0.1 | 0.3 | 7.0 | 1.1 |
|  | 23.5 | 60.8 | 43.4 | 6.8 |



Table 20. Number of natural and created basins in western South Dakota summed by county. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. A given basin was counted more than once if it lies in more than one county and only the portion of the basin inside a given county was summed for that county.

| Natural Basins |  | Created Basins |  |  | All Basins |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| County | Total | Impoundments | Excavated | Beaver | Total | Total |
| Bennett | 2,535 | 482 | 251 | 3 | 736 | 3,271 |
| Butte | 2,536 | 5,616 | 929 | 0 | 6,545 | 9,081 |
| Corson | 6,720 | 2,505 | 659 | 0 | 3,164 | 9,884 |
| Custer | 1,053 | 2,130 | 129 | 21 | 2,280 | 3,333 |
| Dewey | 3,509 | 3,037 | 734 | 0 | 3,771 | 7,280 |
| Fall River | 2,471 | 4,982 | 430 | 0 | 5,412 | 7,883 |
| Gregory | 4,927 | 2,991 | 1,319 | 0 | 4,310 | 9,237 |
| Haakon | 1,795 | 4,047 | 301 | 0 | 4,348 | 6,143 |
| Harding | 7,104 | 4,757 | 612 | 1 | 5,370 | 12,474 |
| Jackson | 2,154 | 3,140 | 273 | 0 | 3,413 | 5,567 |
| Jones | 1,494 | 2,822 | 546 | 1 | 3,369 | 4,863 |
| Lawrence | 225 | 761 | 48 | 178 | 987 | 1,212 |
| Lyman | 3,666 | 3,730 | 1,465 | 0 | 5,195 | 8,861 |
| Meade | 5,284 | 8,214 | 853 | 0 | 9,067 | 14,351 |
| Mellette | 2,709 | 2,850 | 202 | 0 | 3,052 | 5,761 |
| Pennington | 2,714 | 5,321 | 760 | 107 | 6,188 | 8,902 |
| Perkins | 5,574 | 4,008 | 945 | 0 | 4,953 | 10,527 |
| Shannon | 2,717 | 1,445 | 137 | 0 | 1,582 | 4,299 |
| Stanley | 1,864 | 2,746 | 567 | 0 | 3,313 | 5,177 |
| Todd | 7,165 | 1,003 | 282 | 0 | 1,285 | 8,450 |
| Tripp | 15,715 | 2,887 | 2,339 | 0 | 5,226 | 20,941 |
| Ziebach | 2,100 | 3,194 | 333 | 0 | 3,527 | 5,627 |
|  | 86,031 | 72,668 | 14,114 | 311 | 87,093 | 173,124 |

Table 21. Density of natural and created basins in western South Dakota sorted by county, presented as number of basins per 10 km 2. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. A given basin was counted more than once if it lies in more than one county and only the portion of the basin inside a given county was summed for that county

|  | Natural Basins | Created Basins | All Basins |
| :---: | :---: | :---: | :---: |
| County | Basins/10 km2 | Basins/10 km2 | Basins/10 km2 |
| Bennett | 8.2 | 2.4 | 10.6 |
| Butte | 4.3 | 11.1 | 15.4 |
| Corson | 10.3 | 4.8 | 15.1 |
| Custer | 2.6 | 5.6 | 8.2 |
| Dewey | 5.5 | 6.0 | 11.5 |
| Fall River | 5.4 | 11.9 | 17.4 |
| Gregory | 18.1 | 15.8 | 33.9 |
| Haakon | 3.8 | 9.2 | 13.0 |
| Harding | 10.2 | 7.7 | 17.9 |
| Jackson | 4.4 | 7.0 | 11.5 |
| Jones | 5.9 | 13.4 | 19.3 |
| Lawrence | 1.1 | 4.7 | 5.8 |
| Lyman | 8.3 | 11.8 | 20.1 |
| Meade | 5.9 | 10.0 | 15.9 |
| Mellette | 8.0 | 9.0 | 17.0 |
| Pennington | 3.8 | 8.6 | 12.3 |
| Perkins | 7.4 | 6.6 | 14.0 |
| Shannon | 5.0 | 2.9 | 7.9 |
| Stanley | 4.7 | 8.4 | 13.2 |
| Todd | 19.9 | 3.6 | 23.5 |
| Tripp | 37.5 | 12.5 | 50.0 |
| Ziebach | 4.1 | 6.9 | 11.0 |

Table 22. Number and area of basins in western South Dakota summed by physiographic region. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. A given basin was counted more than once if it lies in more than one physiographic region and only the portion of the basin inside a given physiographic region was summed for that region.

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Physiographic Region | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| Black Hills | 4,114 | $2.4 \%$ | $1,575.8$ | $3,893.6$ | $1.4 \%$ |
| Northern Plateaus | 48,297 | $27.8 \%$ | $34,110.8$ | $84,286.6$ | $30.1 \%$ |
| Pierre Hills | 85,570 | $49.3 \%$ | $61,497.9$ | $151,959.3$ | $54.2 \%$ |
| South Plateaus | 16,293 | $9.4 \%$ | $10,134.2$ | $25,041.2$ | $8.9 \%$ |
| Sand Hills | 19,168 | $11.1 \%$ | $6,174.9$ | $15,258.1$ | $5.4 \%$ |

Table 23. Number and area of basins in western South Dakota summed by physiographic region and water regime. Impoundments, excavated basins, and beaver dams were included. Basin-like pools in riverine and riverine-like systems were not included. Missouri River impoundments were not included. A given basin may be counted more than once if it lies in more than one physiographic region and only the portion of the basin inside a given physiographic region was summed for that region.

| Phy. | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Black Hills |  |  |  |  |  |  |
|  | Temporary | 745 | 18.1\% | 78.1 | 193.0 | 5.0\% |
|  | Seasonal | 1,222 | 29.7\% | 127.6 | 315.2 | 8.1\% |
|  | Semipermanent | 1,766 | 42.9\% | 362.1 | 894.8 | 23.0\% |
|  | Permanent | 381 | 9.3\% | 1,007.9 | 2,490.5 | 64.0\% |
|  |  | 4,114 | 100.0\% | 1,575.8 | 3,893.6 | 100.0\% |
| North Plateaus |  |  |  |  |  |  |
|  | Temporary | 22,573 | 46.7\% | 6,997.4 | 17,290.3 | 20.5\% |
|  | Seasonal | 10,608 | 22.0\% | 5,582.3 | 13,793.6 | 16.4\% |
|  | Semipermanent | 14,892 | 30.8\% | 15,767.6 | 38,961.3 | 46.2\% |
|  | Permanent | 224 | 0.5\% | 5,763.5 | 14,241.5 | 16.9\% |
|  |  | 48,297 | 100.0\% | 34,110.8 | 84,286.6 | 100.0\% |
| Pierre Hills |  |  |  |  |  |  |
|  | Temporary | 23,332 | 27.3\% | 8,002.7 | 19,774.4 | 13.0\% |
|  | Seasonal | 24,259 | 28.3\% | 11,130.4 | 27,502.9 | 18.1\% |
|  | Semipermanent | 37,450 | 43.8\% | 33,496.8 | 82,769.5 | 54.5\% |
|  | Permanent | 529 | 0.6\% | 8,868.0 | 21,912.5 | 14.4\% |
|  |  | 85,570 | 100.0\% | 61,497.9 | 151,959.3 | 100.0\% |
| Southern Plateaus |  |  |  |  |  |  |
|  | Temporary | 7,437 | 45.6\% | 1,669.1 | 4,124.4 | 16.5\% |
|  | Seasonal | 4,686 | 28.8\% | 2,071.4 | 5,118.3 | 20.4\% |
|  | Semipermanent | 4,017 | 24.7\% | 3,277.0 | 8,097.3 | 32.3\% |
|  | Permanent | 153 | 0.9\% | 3,116.7 | 7,701.2 | 30.8\% |
|  |  | 16,293 | 100.0\% | 10,134.2 | 25,041.2 | 100.0\% |
| Sand Hills |  |  |  |  |  |  |
|  | Temporary | 7,797 | 40.7\% | 1,141.2 | 2,819.9 | 18.5\% |
|  | Seasonal | 9,816 | 51.2\% | 2,211.7 | 5,465.1 | 35.8\% |
|  | Semipermanent | 1,501 | 7.8\% | 1,628.9 | 4,025.0 | 26.4\% |
|  | Permanent | 54 | 0.3\% | 1,193.0 | 2,948.0 | 19.3\% |
|  |  | 19,168 | 100.0\% | 6,174.9 | 15,258.1 | 100.0\% |

Table 24. Distribution of basins in western South Dakota sorted by physiographic region and water regime, presented as number of basins per 10 sq. units and as area of basins per 10 sq. units. Impoundments, excavated basins, and beaver dams are included. Basinlike pools in riverine and riverine-like systems are not included. Missouri River impoundments are not included. A given basin may be counted more than once if it lies in more than one physiographic region and only the portion of the basin inside a given physiographic region is summed for that region.

## Phy. Water Regime

## Black Hills

| Temporary | 0.9 |
| :--- | :--- |
| Seasonal | 1.5 |

0.9 -

| 2.4 | 0.1 | 0.6 |
| ---: | ---: | ---: |
| 4.0 | 0.2 | 1.0 |
| 5.8 | 0.5 | 2.9 |
| 1.3 | 1.3 | 8.2 |
| 13.5 | 2.0 | 12.8 |

Northern Plateaus

| Temporary | 7.5 | 19.5 | 2.3 | 14.9 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 3.5 | 9.2 | 1.9 | 11.9 |
| Semipermanent | 5.0 | 12.9 | 5.3 | 33.6 |
| Permanent | 0.1 | 0.2 | 1.9 | 12.3 |
|  | 16.1 | 41.7 | 11.4 | 72.8 |

## Pierre Hills

| Temporary | 4.6 | 11.9 | 1.6 | 10.1 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 4.8 | 12.3 | 2.2 | 14.0 |
| Semipermanent | 7.4 | 19.1 | 6.6 | 42.1 |
| Permanent | 0.1 | 0.3 | 1.7 | 11.1 |
|  | 16.8 | 43.5 | 12.1 | 77.3 |

## South Plateaus

| Temporary | 5.3 | 13.6 | 1.2 | 7.6 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 3.3 | 8.6 | 1.5 | 9.4 |
| Semipermanent | 2.8 | 7.4 | 2.3 | 14.8 |
| Permanent | 0.1 | 0.3 | 2.2 | 14.1 |
|  | 11.5 | 29.8 | 7.2 | 45.9 |

Sand Hills

| Temporary | 15.1 | 39.0 | 2.2 | 14.1 |
| :--- | ---: | ---: | ---: | ---: |
| Seasonal | 19.0 | 49.1 | 4.3 | 27.3 |
| Semipermanent | 2.9 | 7.5 | 3.1 | 20.1 |
| Permanent | 0.1 | 0.3 | 2.3 | 14.8 |
|  | 37.0 | 95.9 | 11.9 | 76.4 |

Table 25. Number of natural and created basins in western South Dakota summed by physiographic region. Basin-like pools in riverine and riverine-like systems are not included. Missouri River impoundments are not included. A given basin may be counted more than once if it lies in more than one physiographic region and only the portion of the basin inside a given region is summed for that region.

| Natural Basins |  |  | Created Basins |  |  | All Basins |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Physiographic Region | Total | Impoundments | Excavated | Beaver | Total | Total |
| Black Hills | 765 | 2,783 | 260 | 306 | 3,349 | 4,114 |
| Northern Plateaus | 26,492 | 18,355 | 3,449 | 1 | 21,805 | 48,297 |
| Pierre Hills | 32,384 | 45,009 | 8,176 | 1 | 53,186 | 85,570 |
| Southern Plateaus | 9,761 | 5,735 | 794 | 3 | 6,532 | 16,293 |
| Sand Hills | 16,727 | 996 | 1,445 | 0 | 2,441 | 19,168 |
|  | 86,129 | 72,878 | 14,124 | 311 | 87,313 | 173,442 |

Table 26. Density of natural and created basins in western South Dakota sorted by physiographic region, presented as number of basins per 10 km 2 . Basin-like pools in riverine and riverine-like systems are not included. Missouri River impoundments are not included. A given basin may be counted more than once if it lies in more than one physiographic region and only the portion of the basin inside a given region is summed for that region.

| Natural Basins |  | Created Basins | All Basins |
| :---: | :---: | :---: | :---: |
| Physiographic Region | Basins/10 km ${ }^{2}$ | Basins/10 km ${ }^{2}$ | Basins/10 km ${ }^{2}$ |
| Black Hills | 1.0 | 4.2 | 5.2 |
| Northern Plateaus | 8.8 | 7.3 | 16.1 |
| Pierre Hills | 6.4 | 10.4 | 16.8 |
| Southern Plateaus | 6.9 | 4.6 | 11.5 |
| Sand Hills | 32.3 | 4.7 | 37.0 |

Table 27. Number and area of basins in western South Dakota summed by 6-digit hydrological unit. Impoundments, excavated basins, and beaver dams are included. Basin-like pools in riverine and riverine-like systems are not included. Missouri River impoundments are not included. A given basin may be counted more than once if it lies in more than one hydrologic unit and only the portion of the basin inside a given hydrologic unit is summed for that unit.

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Hydrological Unit | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| 101102 | 2,604 |  |  |  |  |
| 101201 | 31,813 | $1.5 \%$ | $1,069.2$ | $2,642.0$ | $0.9 \%$ |
| 101202 | 11,611 | $18.4 \%$ | $18,179.6$ | $44,921.2$ | $16.0 \%$ |
| 101301 | 8,729 | $6.7 \%$ | $9,012.8$ | $22,270.4$ | $7.9 \%$ |
| 101302 | 570 | $5.0 \%$ | $6,778.2$ | $16,748.7$ | $6.0 \%$ |
| 101303 | 37,212 | $0.3 \%$ | 303.7 | 750.5 | $0.3 \%$ |
| 101401 | 28,563 | $21.5 \%$ | $27,578.7$ | $68,146.0$ | $24.3 \%$ |
| 101402 | 29,921 | $16.5 \%$ | $24,200.3$ | $59,798.1$ | $21.3 \%$ |
| 101500 | 21,957 | $17.3 \%$ | $20,192.9$ | $49,895.9$ | $17.8 \%$ |
| 101701 | 231 | $12.7 \%$ | $6,118.2$ | $15,117.8$ | $5.4 \%$ |
|  | 173,211 | $0.1 \%$ | 60.1 | 148.4 | $0.1 \%$ |

Table 28. Number and area of basins in western South Dakota summed by 6-digit hydrological unit and water regime. Impoundments, excavated basins, and beaver dams are included. Basin-like pools in riverine and riverine-like systems are not included. Missouri River impoundments are not included. A given basin may be counted more than once if it lies in more than one hydrologic unit and only the portion of the basin inside a given hydrologic unit is summed for that unit.

| HUC | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 101102 |  |  |  |  |  |  |
|  | Temporary | 1,267 | 48.7\% | 324.5 | 801.8 | 30.3\% |
|  | Seasonal | 675 | 25.9\% | 190.4 | 470.5 | 17.8\% |
|  | Semipermanent | 650 | 25.0\% | 493.8 | 1,220.3 | 46.2\% |
|  | Permanent | 12 | 0.5\% | 60.5 | 149.5 | 5.7\% |
|  |  | 2,604 | 100.0\% | 1,069.2 | 2,642.0 | 100.0\% |
| 101201 |  |  |  |  |  |  |
|  | Temporary | 9,052 | 28.5\% | 2,408.8 | 5,951.9 | 13.2\% |
|  | Seasonal | 9,120 | 28.7\% | 2,682.2 | 6,627.6 | 14.8\% |
|  | Semipermanent | 13,264 | 41.7\% | 9,433.2 | 23,309.0 | 51.9\% |
|  | Permanent | 377 | 1.2\% | 3,655.5 | 9,032.7 | 20.1\% |
|  |  | 31,813 | 100.0\% | 18,179.6 | 44,921.2 | 100.0\% |
| 101202 |  |  |  |  |  |  |
|  | Temporary | 2,418 | 20.8\% | 808.5 | 1,997.7 | 9.0\% |
|  | Seasonal | 3,034 | 26.1\% | 760.7 | 1,879.6 | 8.4\% |
|  | Semipermanent | 5,969 | 51.4\% | 3,721.7 | 9,196.1 | 41.3\% |
|  | Permanent | 190 | 1.6\% | 3,722.0 | 9,196.8 | 41.3\% |
|  |  | 11,611 | 100.0\% | 9,012.8 | 22,270.4 | 100.0\% |
| 101301 |  |  |  |  |  |  |
|  | Temporary | 2,809 | 32.2\% | 1,050.6 | 2,596.0 | 15.5\% |
|  | Seasonal | 2,097 | 24.0\% | 1,417.3 | 3,502.0 | 20.9\% |
|  | Semipermanent | 3,752 | 43.0\% | 3,938.7 | 9,732.4 | 58.1\% |
|  | Permanent | 71 | 0.8\% | 371.6 | 918.3 | 5.5\% |
|  |  | 8,729 | 100.0\% | 6,778.2 | 16,748.7 | 100.0\% |
| 101302 |  |  |  |  |  |  |
|  | Temporary | 290 | 50.9\% | 57.0 | 140.8 | 18.8\% |
|  | Seasonal | 116 | 20.4\% | 21.6 | 53.5 | 7.1\% |
|  | Semipermanent | 160 | 28.1\% | 128.7 | 318.1 | 42.4\% |
|  | Permanent | 4 | 0.7\% | 96.4 | 238.1 | 31.7\% |
|  |  | 570 | 100.0\% | 303.7 | 750.5 | 100.0\% |


| HUC | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 101303 |  |  |  |  |  |  |
|  | Temporary | 17,740 | 47.7\% | 5,626.7 | 13,903.4 | 20.4\% |
|  | Seasonal | 7,744 | 20.8\% | 4,269.8 | 10,550.6 | 15.5\% |
|  | Semipermanent | 11,566 | 31.1\% | 12,413.8 | 30,674.0 | 45.0\% |
|  | Permanent | 162 | 0.4\% | 5,268.4 | 13,017.9 | 19.1\% |
|  |  | 37,212 | 100.0\% | 27,578.7 | 68,146.0 | 100.0\% |
| 101401 |  |  |  |  |  |  |
|  | Temporary | 7,475 | 26.2\% | 3,324.5 | 8,214.6 | 13.7\% |
|  | Seasonal | 8,325 | 29.1\% | 5,139.5 | 12,699.5 | 21.2\% |
|  | Semipermanent | 12,558 | 44.0\% | 13,775.5 | 34,038.7 | 56.9\% |
|  | Permanent | 205 | 0.7\% | 1,960.9 | 4,845.3 | 8.1\% |
|  |  | 28,563 | 100.0\% | 24,200.3 | 59,798.1 | 100.0\% |
| 101402 |  |  |  |  |  |  |
|  | Temporary | 11,546 | 38.6\% | 3,210.3 | 7,932.7 | 15.9\% |
|  | Seasonal | 8,893 | 29.7\% | 4,385.8 | 10,837.2 | 21.7\% |
|  | Semipermanent | 9,250 | 30.9\% | 8,902.1 | 21,996.7 | 44.1\% |
|  | Permanent | 232 | 0.8\% | 3,694.6 | 9,129.3 | 18.3\% |
|  |  | 29,921 | 100.0\% | 20,192.9 | 49,895.9 | 100.0\% |
| 101500 |  |  |  |  |  |  |
|  | Temporary | 9,184 | 41.8\% | 1,061.5 | 2,622.8 | 17.3\% |
|  | Seasonal | 10,492 | 47.8\% | 2,240.5 | 5,536.3 | 36.6\% |
|  | Semipermanent | 2,207 | 10.1\% | 1,699.2 | 4,198.7 | 27.8\% |
|  | Permanent | 74 | 0.3\% | 1,117.0 | 2,760.0 | 18.3\% |
|  |  | 21,957 | 100.0\% | 6,118.2 | 15,117.8 | 100.0\% |
| 101701 |  |  |  |  |  |  |
|  | Temporary | 75 | 32.5\% | 16.3 | 40.3 | 27.1\% |
|  | Seasonal | 46 | 19.9\% | 15.5 | 38.3 | 25.8\% |
|  | Semipermanent | 109 | 47.2\% | 25.9 | 63.9 | 43.1\% |
|  | Permanent | 1 | 0.4\% | 2.4 | 5.9 | 4.0\% |
|  |  | 231 | 100.0\% | 60.1 | 148.4 | 100.0\% |

Table 29. Distribution of basins in western South Dakota sorted by 6-digit hydrological unit and water regime, presented as number of basins per 10 sq. units and as area of basins per 10 sq. units. Impoundments, excavated basins, and beaver dams are included. Basinlike pools in riverine and riverine-like systems are not included. Missouri River impoundments are not included. A given basin may be counted more than once if it lies in more than one hydrologic unit and only the portion of the basin inside a given hydrologic unit is summed for that unit.

| HUC | Water Regime | Number/ 10 sq. km | Number/ 10 sq. mi | Acres/ 10 sq. mi | Hectares/ 10 sq. km |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 101102 |  |  |  |  |  |
|  | Temporary | 8.3 | 21.5 | 13.6 | 2.1 |
|  | Seasonal | 4.4 | 11.5 | 8.0 | 1.2 |
|  | Semipermanent | 4.3 | 11.0 | 20.7 | 3.2 |
|  | Permanent | 0.1 | 0.2 | 2.5 | 0.4 |
|  |  | 17.1 | 44.2 | 44.9 | 7.0 |
| 101201 |  |  |  |  |  |
|  | Temporary | 3.6 | 9.3 | 6.1 | 1.0 |
|  | Seasonal | 3.6 | 9.4 | 6.8 | 1.1 |
|  | Semipermanent | 5.3 | 13.6 | 24.0 | 3.7 |
|  | Permanent | 0.1 | 0.4 | 9.3 | 1.5 |
|  |  | 12.6 | 32.7 | 46.2 | 7.2 |
| 101202 |  |  |  |  |  |
|  | Temporary | 2.9 | 7.4 | 6.1 | 1.0 |
|  | Seasonal | 3.6 | 9.3 | 5.8 | 0.9 |
|  | Semipermanent | 7.1 | 18.3 | 28.2 | 4.4 |
|  | Permanent | 0.2 | 0.6 | 28.2 | 4.4 |
|  |  | 13.7 | 35.6 | 68.2 | 10.7 |
| 101301 |  |  |  |  |  |
|  | Temporary | 3.7 | 9.6 | 8.9 | 1.4 |
|  | Seasonal | 2.8 | 7.2 | 12.0 | 1.9 |
|  | Semipermanent | 5.0 | 12.8 | 33.3 | 5.2 |
|  | Permanent | 0.1 | 0.2 | 3.1 | 0.5 |
|  |  | 11.5 | 29.8 | 57.2 | 8.9 |
| 101302 |  |  |  |  |  |
|  | Temporary | 9.3 | 24.0 | 11.7 | 1.8 |
|  | Seasonal | 3.7 | 9.6 | 4.4 | 0.7 |
|  | Semipermanent | 5.1 | 13.3 | 26.4 | 4.1 |
|  | Permanent | 0.1 | 0.3 | 19.7 | 3.1 |
|  |  | 18.3 | 47.3 | 62.2 | 9.7 |

Table 29. Continued.

| HUC | Water Regime | Number/ 10 sq. km | Number/ 10 sq. mi | Acres/ 10 sq. mi | Hectares/ 10 sq. km |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 101303 |  |  |  |  |  |
|  | Temporary | 7.2 | 18.7 | 14.7 | 2.3 |
|  | Seasonal | 3.2 | 8.2 | 11.1 | 1.7 |
|  | Semipermanent | 4.7 | 12.2 | 32.4 | 5.1 |
|  | Permanent | 0.1 | 0.2 | 13.7 | 2.1 |
|  |  | 15.2 | 39.3 | 72.0 | 11.2 |
| 101401 |  |  |  |  |  |
|  | Temporary | 5.2 | 13.4 | 14.7 | 2.3 |
|  | Seasonal | 5.7 | 14.9 | 22.7 | 3.5 |
|  | Semipermanent | 8.7 | 22.5 | 60.9 | 9.5 |
|  | Permanent | 0.1 | 0.4 | 8.7 | 1.4 |
|  |  | 19.7 | 51.1 | 107.0 | 16.7 |
| 101402 |  |  |  |  |  |
|  | Temporary | 5.4 | 14.0 | 9.6 | 1.5 |
|  | Seasonal | 4.2 | 10.8 | 13.1 | 2.0 |
|  | Semipermanent | 4.3 | 11.2 | 26.6 | 4.2 |
|  | Permanent | 0.1 | 0.3 | 11.0 | 1.7 |
|  |  | 14.0 | 36.2 | 60.3 | 9.4 |
| 101500 |  |  |  |  |  |
|  | Temporary | 20.3 | 52.5 | 15.0 | 2.3 |
|  | Seasonal | 23.1 | 60.0 | 31.6 | 4.9 |
|  | Semipermanent | 4.9 | 12.6 | 24.0 | 3.7 |
|  | Permanent | 0.2 | 0.4 | 15.8 | 2.5 |
|  |  | 48.4 | 125.5 | 86.4 | 13.5 |
| 101701 |  |  |  |  |  |
|  | Temporary | 8.5 | 22.1 | 11.8 | 1.9 |
|  | Seasonal | 5.2 | 13.5 | 11.3 | 1.8 |
|  | Semipermanent | 12.4 | 32.1 | 18.8 | 2.9 |
|  | Permanent | 0.1 | 0.3 | 1.7 | 0.3 |
|  |  | 26.2 | 67.9 | 43.6 | 6.8 |

Table 30. Number of natural and created basins in western South Dakota summed by hydrologic unit. Basin-like pools in riverine and riverine-like systems are not included. Missouri River impoundments are not included. A given basin may be counted more than once if it lies in more than one hydrologic unit and only the portion of the basin inside a given unit is summed for that unit.

| Natural Basins |  | Created Basins |  | Beaver | Total | All Basins <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hydrologic Unit | Total | Impoundments | Excavated |  |  |  |
| 101102 | 1,244 | 1,238 | 121 | 1 | 1,360 | 2,604 |
| 101201 | 11,046 | 18,691 | 1,891 | 185 | 20,767 | 31,813 |
| 101202 | 2,808 | 7,627 | 1,055 | 121 | 8,803 | 11,611 |
| 101301 | 4,107 | 3,931 | 691 | 0 | 4,622 | 8,729 |
| 101302 | 335 | 145 | 90 | 0 | 235 | 570 |
| 101303 | 20,689 | 13,954 | 2,569 | 0 | 16,523 | 37,212 |
| 101401 | 11,102 | 13,764 | 3,696 | 1 | 17,461 | 28,563 |
| 101402 | 16,107 | 11,543 | 2,268 | 3 | 13,814 | 29,921 |
| 101500 | 18,587 | 1,691 | 1,679 | 0 | 3,370 | 21,957 |
| 101701 | 99 | 110 | 22 | 0 | 132 | 231 |
|  | 86,124 | 72,694 | 14,082 | 311 | 87,087 | 173,211 |

Table 31. Density of natural and created basins in western South Dakota sorted by hydrologic unit, presented as number of basins per 10 km2. Basin-like pools in riverine and riverine-like systems are not included. Missouri River impoundments are not included. A given basin may be counted more than once if it lies in more than one hydrologic unit and only the portion of the basin inside a given unit is summed for that unit.

|  | Natural Basins | Created Basins | All Basins |
| :--- | ---: | ---: | ---: |
| Hydrologic Unit | Basins/10 km2 | Basins/10 km2 | Basins/10 km2 |
| 101102 | 8.2 | 8.9 | 17.1 |
| 101201 | 4.4 | 8.2 | 12.6 |
| 101202 | 3.3 | 10.4 | 13.7 |
| 101301 | 5.4 | 6.1 | 11.5 |
| 101302 | 10.7 | 7.5 | 18.3 |
| 101303 | 8.4 | 6.7 | 15.2 |
| 101401 | 7.7 | 12.1 | 19.7 |
| 101402 | 7.5 | 6.4 | 14.0 |
| 101500 | 41.0 | 7.4 | 48.4 |
| 101701 | 11.2 | 15.0 | 26.2 |

## LITERATURE CITED

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Fish Wildl. Serv. FWS/OBS 79/31. Washington, D.C: U.S. Government Printing Office.

Cowardin, L. M. 1982. Some conceptual and semantic problems in wetland classification and inventory. Wildlife Society Bulletin 10:57-60.

Fischer, T. D., Backlund, D. C., Higgins, K. F., and Naugle, D. E. June 1999. Field guide to South Dakota amphibians. SDAES Bulletin 733. Brookings: South Dakota State University. 52pp.

Guy, C. S. 1990. Population dynamics of largemouth bass and panfish in South Dakota ponds. M.S. Thesis. South Dakota State University, Brookings, South Dakota, USA.

Hubbard, D. E. 1988. Glaciated prairie wetland functions and values: a synthesis of the literature. U.S. Fish Wildl Serv Biol Rep 88(43), Washington, D.C.

Johnson, R. R., K. F. Higgins, D.E. Hubbard. 1995. Using soils to delineate South Dakota physiographic regions. Great Plains Research 5 2:309-322

Johnson, R. R., K. F. Higgins, M.L. Kjellsen, and C.R. Elliott. 1997. Eastern South Dakota wetlands. Brookings: South Dakota State University. 28 pp.

Johnson, R. R. and K. F. Higgins. 1997. Wetland resources of eastern South Dakota. Brookings: South Dakota State University. 102 pp.

Kantrud, H. A., G. L. Krapu, and G. A. Swanson. 1989. Prairie basin wetlands of the Dakotas: community profile. U.S. Fish and Wildlife Service Biological Report No. 85. Washington D.C.

May, S. M., D. E. Naugle and K. F. Higgins. 2002. Effects of land use on nongame wetland birds in western South Dakota stock ponds, U.S.A. Waterbirds 25 (special publication 2: 51-55).

Rumble, M. A. and L. D. Flake. 1983. Management considerations to enhance use of stock ponds by waterfowl broods. Journal of Range Management 36:691-694.

Ruwaldt, J. J., L. D. Flake, and J.M. Gates. 1979. Waterfowl pair use of natural and man-made wetlands in South Dakota. Journal of Wildlife Management. 53:375-383.

Smith, V. J., J. A. Jenks, C. R. Berry, Jr., C. J. Kopplin, and D. M. Fecske. 2002.The South Dakota Gap Analysis Project. Final Report. Research Work Order No. 65. Department of Wildlife and Fisheries Sciences, South Dakota State University, Brookings, SD.

Stewart, R. E., and H. A. Kantrud. 1971. Classification of natural ponds and lakes in the glaciated prairie region. U.S. Fish and Wildlife Service, Resource Publication 92.57 pp.
U.S. Fish and WIldlife Service. 1995. Photointerpretation conventions for National Wetlands Inventory. NWI Group, St. Petersburg, Florida, USA.

| NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: |
| L1UBFh | 1 | 0.0 | 0.1 | 0.00\% |
| L1UBG | 1 | 0.3 | 0.6 | 0.00\% |
| L1UBGh | 872 | 17,801.8 | 43,987.5 | 6.93\% |
| L1UBHh | 32 | 79,329.8 | 196,021.3 | 30.87\% |
| L2ABF | 31 | 804.7 | 1,988.5 | 0.31\% |
| L2ABFh | 219 | 1,452.3 | 3,588.6 | 0.57\% |
| L2ABG | 20 | 536.5 | 1,325.6 | 0.21\% |
| L2ABGh | 120 | 1,873.9 | 4,630.4 | 0.73\% |
| L2ABKGh | 14 | 866.7 | 2,141.5 | 0.34\% |
| L2ABKx | 1 | 10.5 | 26.0 | 0.00\% |
| L2UBF | 3 | 67.2 | 166.1 | 0.03\% |
| L2UBFh | 181 | 989.2 | 2,444.2 | 0.38\% |
| L2UBFx | 3 | 0.5 | 1.2 | 0.00\% |
| L2UBGh | 12 | 738.7 | 1,825.2 | 0.29\% |
| L2USA | 33 | 277.9 | 686.7 | 0.11\% |
| L2USAh | 149 | 738.4 | 1,824.6 | 0.29\% |
| L2USC | 33 | 505.8 | 1,249.7 | 0.20\% |
| L2USCd | 2 | 19.3 | 47.7 | 0.01\% |
| L2USCh | 916 | 1,338.1 | 3,306.3 | 0.52\% |
| L2USCx | 1 | 0.1 | 0.2 | 0.00\% |
| PAB/EMF | 12 | 69.7 | 172.3 | 0.03\% |
| PAB/EMFd | 1 | 6.2 | 15.2 | 0.00\% |
| PAB/EMFh | 112 | 135.5 | 334.8 | 0.05\% |
| PAB/EMFhx | 1 | 0.1 | 0.3 | 0.00\% |
| PAB/EMFx | 2 | 0.2 | 0.4 | 0.00\% |
| PABC | 20 | 1.9 | 4.8 | 0.00\% |
| PABCh | 1 | 0.1 | 0.1 | 0.00\% |
| PABCx | 1 | 0.0 | 0.1 | 0.00\% |
| PABF | 690 | 397.1 | 981.1 | 0.15\% |
| PABFb | 1 | 1.3 | 3.2 | 0.00\% |
| PABFd | 3 | 2.6 | 6.4 | 0.00\% |
| PABFh | 51,563 | 31,875.0 | 78,762.0 | 12.40\% |
| PABFhx | 278 | 43.0 | 106.3 | 0.02\% |
| PABFx | 2,828 | 535.5 | 1,323.2 | 0.21\% |


| NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: |
| PABGb | 299 | 29.5 | 72.9 | 0.01\% |
| PABGh | 355 | 1,286.7 | 3,179.3 | 0.50\% |
| PABGhx | 2 | 0.1 | 0.3 | 0.00\% |
| PABGx | 20 | 60.2 | 148.7 | 0.02\% |
| PABHh | 3 | 0.4 | 0.9 | 0.00\% |
| PABKFh | 5 | 16.1 | 39.7 | 0.01\% |
| PABKFx | 6 | 5.6 | 13.8 | 0.00\% |
| PABKh | 3 | 9.8 | 24.3 | 0.00\% |
| PABKx | 150 | 178.0 | 439.9 | 0.07\% |
| PEM/ABF | 140 | 598.1 | 1,478.0 | 0.23\% |
| PEM/ABFd | 4 | 20.9 | 51.6 | 0.01\% |
| PEM/ABFh | 137 | 168.7 | 416.9 | 0.07\% |
| PEM/ABFhx | 1 | 0.1 | 0.3 | 0.00\% |
| PEM/ABFx | 8 | 2.3 | 5.7 | 0.00\% |
| PEM/FOA | 116 | 215.0 | 531.2 | 0.08\% |
| PEM/FOAh | 1 | 0.2 | 0.4 | 0.00\% |
| PEM/FOC | 127 | 176.2 | 435.3 | 0.07\% |
| PEM/FOCd | 4 | 5.0 | 12.3 | 0.00\% |
| PEM/FOCh | 56 | 19.9 | 49.1 | 0.01\% |
| PEM/FOCX | 8 | 1.2 | 2.9 | 0.00\% |
| PEM/SSA | 15 | 48.8 | 120.5 | 0.02\% |
| PEM/SSAh | 2 | 20.7 | 51.1 | 0.01\% |
| PEM/SSC | 13 | 30.2 | 74.7 | 0.01\% |
| PEM/SSCh | 4 | 2.8 | 6.8 | 0.00\% |
| PEM1Ah | 1 | 0.0 | 0.0 | 0.00\% |
| PEM1Ch | 1 | 0.0 | 0.0 | 0.00\% |
| PEMA | 77,735 | 32,310.2 | 79,837.5 | 12.57\% |
| PEMAd | 2,007 | 6,455.6 | 15,951.5 | 2.51\% |
| PEMAh | 7,774 | 3,035.0 | 7,499.5 | 1.18\% |
| PEMAx | 667 | 76.1 | 188.0 | 0.03\% |
| PEMB | 197 | 286.1 | 706.9 | 0.11\% |
| PEMBd | 5 | 171.3 | 423.3 | 0.07\% |
| PEMC | 44,187 | 22,773.1 | 56,271.6 | 8.86\% |
| PEMCb | 31 | 4.0 | 9.9 | 0.00\% |
| PEMCd | 788 | 2,716.2 | 6,711.6 | 1.06\% |
| PEMCh | 26,064 | 7,107.8 | 17,563.2 | 2.77\% |
| PEMChx | 1 | 0.0 | 0.0 | 0.00\% |
| PEMCX | 5,792 | 569.5 | 1,407.3 | 0.22\% |


| NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: |
| PEMF | 616 | 865.1 | 2,137.7 | 0.34\% |
| PEMFb | 21 | 3.2 | 7.9 | 0.00\% |
| PEMFd | 28 | 98.8 | 244.0 | 0.04\% |
| PEMFh | 2,291 | 1,705.1 | 4,213.3 | 0.66\% |
| PEMFhx | 1 | 0.0 | 0.0 | 0.00\% |
| PEMFX | 103 | 20.9 | 51.7 | 0.01\% |
| PEMKAh | 27 | 157.2 | 388.4 | 0.06\% |
| PEMKCh | 41 | 253.5 | 626.3 | 0.10\% |
| PEMKCx | 2 | 0.5 | 1.3 | 0.00\% |
| PEMKFh | 42 | 541.4 | 1,337.7 | 0.21\% |
| PEMKh | 1 | 0.8 | 1.9 | 0.00\% |
| PEMKx | 51 | 67.4 | 166.4 | 0.03\% |
| PFO/EMA | 38 | 354.4 | 875.6 | 0.14\% |
| PFO/EMAd | 1 | 0.6 | 1.4 | 0.00\% |
| PFO/EMAh | 6 | 177.9 | 439.5 | 0.07\% |
| PFO/EMC | 67 | 56.4 | 139.3 | 0.02\% |
| PFO/EMCd | 1 | 1.0 | 2.6 | 0.00\% |
| PFO/EMCh | 19 | 9.7 | 23.8 | 0.00\% |
| PFO/EMCx | 1 | 0.3 | 0.7 | 0.00\% |
| PFO/SSA | 3 | 164.3 | 405.9 | 0.06\% |
| PFO/SSC | 3 | 5.2 | 12.9 | 0.00\% |
| PFO5Ch | 1 | 0.8 | 2.0 | 0.00\% |
| PFO5Fh | 1 | 1.2 | 2.9 | 0.00\% |
| PFOA | 7,300 | 3,848.2 | 9,508.9 | 1.50\% |
| PFOAd | 22 | 19.6 | 48.4 | 0.01\% |
| PFOAh | 1,097 | 407.4 | 1,006.6 | 0.16\% |
| PFOAhx | 1 | 0.0 | 0.1 | 0.00\% |
| PFOAx | 175 | 53.0 | 130.9 | 0.02\% |
| PFOB | 3 | 0.3 | 0.7 | 0.00\% |
| PFOC | 686 | 193.8 | 478.8 | 0.08\% |
| PFOCd | 9 | 2.6 | 6.5 | 0.00\% |
| PFOCh | 135 | 70.5 | 174.2 | 0.03\% |
| PFOCx | 18 | 2.4 | 5.9 | 0.00\% |
| PFOKAh | 3 | 0.3 | 0.9 | 0.00\% |
| PSS/EMA | 12 | 440.6 | 1,088.8 | 0.17\% |
| PSS/EMAh | 3 | 251.1 | 620.4 | 0.10\% |
| PSS/EMC | 4 | 10.7 | 26.6 | 0.00\% |
| PSS/EMCh | 2 | 1.8 | 4.4 | 0.00\% |

Appendix 1. Continued.

| NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: |
| PSS/FOA | 6 | 36.5 | 90.2 | 0.01\% |
| PSS/FOAh | 2 | 8.5 | 21.0 | 0.00\% |
| PSS/USA | 2 | 5.9 | 14.5 | 0.00\% |
| PSS/USAh | 1 | 80.4 | 198.6 | 0.03\% |
| PSSA | 2,534 | 2,548.0 | 6,296.0 | 0.99\% |
| PSSAd | 10 | 6.2 | 15.3 | 0.00\% |
| PSSAh | 392 | 915.6 | 2,262.4 | 0.36\% |
| PSSAx | 21 | 2.0 | 4.8 | 0.00\% |
| PSSB | 42 | 172.6 | 426.5 | 0.07\% |
| PSSBd | 1 | 1.3 | 3.2 | 0.00\% |
| PSSC | 147 | 63.6 | 157.2 | 0.02\% |
| PSSCb | 3 | 0.5 | 1.2 | 0.00\% |
| PSSCd | 1 | 0.2 | 0.4 | 0.00\% |
| PSSCh | 93 | 158.8 | 392.4 | 0.06\% |
| PSSCx | 6 | 0.8 | 2.0 | 0.00\% |
| PSSKAh | 4 | 4.8 | 11.9 | 0.00\% |
| PUBF | 6 | 18.4 | 45.5 | 0.01\% |
| PUBFh | 58 | 14.2 | 35.0 | 0.01\% |
| PUBFhx | 1 | 0.9 | 2.2 | 0.00\% |
| PUBFX | 5,154 | 695.3 | 1,718.0 | 0.27\% |
| PUBGh | 4 | 12.3 | 30.4 | 0.00\% |
| PUBGx | 12 | 18.8 | 46.3 | 0.01\% |
| PUBKx | 52 | 17.8 | 43.9 | 0.01\% |
| PUS/EMA | 4 | 10.9 | 27.0 | 0.00\% |
| PUSA | 2,690 | 1,168.3 | 2,886.8 | 0.45\% |
| PUSAd | 16 | 43.7 | 107.9 | 0.02\% |
| PUSAh | 1,419 | 387.8 | 958.3 | 0.15\% |
| PUSAx | 51 | 6.2 | 15.4 | 0.00\% |
| PUSC | 1,095 | 486.2 | 1,201.3 | 0.19\% |
| PUSCd | 11 | 25.0 | 61.7 | 0.01\% |
| PUSCh | 2,639 | 710.3 | 1,755.2 | 0.28\% |
| PUSCX | 288 | 28.5 | 70.4 | 0.01\% |
| PUSKx | 9 | 32.4 | 80.1 | 0.01\% |
| R2UBF | 297 | 4,565.2 | 11,280.4 | 1.78\% |
| R2UBFh | 1 | 0.0 | 0.1 | 0.00\% |
| R2UBFx | 13 | 23.4 | 57.9 | 0.01\% |
| R2UBG | 60 | 2,914.9 | 7,202.5 | 1.13\% |
| R2UBGx | 10 | 2.2 | 5.3 | 0.00\% |

Appendix 1. Continued.

| NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :--- | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| R2UBH | 13 | 250.7 | 619.4 | $0.10 \%$ |
| R2USA | 4,691 | $4,849.4$ | $11,982.6$ | $1.89 \%$ |
| R2USC | 1,128 | 520.7 | $1,286.8$ | $0.20 \%$ |
| R3UBF | 53 | 64.9 | 160.3 | $0.03 \%$ |
| R3UBFx | 1 | 0.1 | 0.2 | $0.00 \%$ |
| R3UBG | 68 | 83.0 | 205.0 | $0.03 \%$ |
| R3UBGx | 6 | 0.6 | 1.6 | $0.00 \%$ |
| R3UBH | 25 | 29.8 | 73.6 | $0.01 \%$ |
| R3USA | 111 | 29.4 | 72.7 | $0.01 \%$ |
| R3USC | 17 | 3.7 | 9.2 | $0.00 \%$ |
| R3USCx | 1 | 0.0 | 0.1 | $0.00 \%$ |
| R4SBA | 3,343 | $3,270.0$ | $8,080.0$ | $1.27 \%$ |
| R4SBAx | 57 | 15.2 | 37.5 | $0.01 \%$ |
| R4SBC | 1,303 | $2,589.5$ | $6,398.6$ | $1.01 \%$ |
| R4SBCx | 96 | 93.7 | 231.6 | $0.04 \%$ |
| R4SBF | 205 | $1,404.7$ | $3,470.9$ | $0.55 \%$ |
| R4SBFx | 16 | 4.0 | 10.0 | $0.00 \%$ |
|  | 266,010 | $257,006.4$ | $635,054.1$ | $100.00 \%$ |

Cnty. NWI Attribute $\quad$ Number Area (ha) Area (ac) \% Area

Bennett

| L2ABF | 15 | 389.2 | 961.6 | $5.0 \%$ |
| ---: | ---: | ---: | ---: | ---: |
| L2ABFh | 1 | 3.5 | 8.7 | $0.0 \%$ |
| L2ABG | 8 | 147.4 | 364.3 | $1.9 \%$ |
| L2ABGh | 2 | 81.1 | 200.4 | $1.0 \%$ |
| L2ABKGh | 14 | 866.7 | $2,141.5$ | $11.2 \%$ |
| L2UBF | 1 | 62.0 | 153.3 | $0.8 \%$ |
| L2USC | 3 | 20.1 | 49.5 | $0.3 \%$ |
| PABC | 3 | 0.1 | 0.3 | $0.0 \%$ |
| PABF | 67 | 83.2 | 205.7 | $1.1 \%$ |
| PABFd | 2 | 2.2 | 5.5 | $0.0 \%$ |
| PABFh | 210 | 96.7 | 238.9 | $1.2 \%$ |
| PABFx | 25 | 12.9 | 31.8 | $0.2 \%$ |
| PABGb | 3 | 0.9 | 2.3 | $0.0 \%$ |
| PABGh | 17 | 45.9 | 113.4 | $0.6 \%$ |
| PABGx | 2 | 3.2 | 7.9 | $0.0 \%$ |
| PABKFh | 5 | 16.1 | 39.7 | $0.2 \%$ |
| PABKFx | 6 | 5.6 | 13.8 | $0.1 \%$ |
| PABKX | 5 | 5.1 | 12.6 | $0.1 \%$ |
| PEMA | 2,305 | $1,697.5$ | $4,194.5$ | $21.9 \%$ |
| PEMAd | 70 | 514.5 | $1,271.2$ | $6.6 \%$ |
| PEMAh | 85 | 20.4 | 50.4 | $0.3 \%$ |
| PEMAx | 32 | 3.5 | 8.7 | $0.0 \%$ |
| PEMB | 65 | 208.1 | 514.3 | $2.7 \%$ |
| PEMBd | 2 | 50.3 | 124.3 | $0.6 \%$ |
| PEMC | 1,347 | 1.177 .8 | $2,910.3$ | $15.2 \%$ |
| PEMCd | 41 | 185.8 | 459.1 | $2.4 \%$ |
| PEMCh | 275 | 97.7 | 241.5 | $1.3 \%$ |
| PEMCx | 117 | 12.2 | 30.3 | $0.2 \%$ |
| PEMF | 128 | 340.2 | 840.6 | $4.4 \%$ |
| PEMFd | 8 | 29.4 | 72.7 | $0.4 \%$ |
| PEMFh | 46 | 72.3 | 178.8 | $0.9 \%$ |
| PEMFx | 6 | 1.3 | 3.1 | $0.0 \%$ |
| PEMKAh | 27 | 157.2 | 388.4 | $2.0 \%$ |
| PEMKCh | 41 | 253.5 | 626.3 | $3.3 \%$ |
| PEMKCx | 2 | 0.5 | 1.3 | $0.0 \%$ |
| PEMKFh | 421.4 | $1,337.7$ | $7.0 \%$ |  |
| PEMKX | 0.9 | 2.3 | $0.0 \%$ |  |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PFOA | 242 | 103.1 | 254.7 | 1.3\% |
|  | PFOAd | 1 | 4.6 | 11.5 | 0.1\% |
|  | PFOAh | 8 | 2.5 | 6.1 | 0.0\% |
|  | PFOAx | 22 | 1.8 | 4.5 | 0.0\% |
|  | PFOB | 1 | 0.2 | 0.4 | 0.0\% |
|  | PFOC | 6 | 12.2 | 30.0 | 0.2\% |
|  | PFOCh | 1 | 0.5 | 1.2 | 0.0\% |
|  | PFOCx | 1 | 0.4 | 0.9 | 0.0\% |
|  | PFOKAh | 3 | 0.3 | 0.9 | 0.0\% |
|  | PSSA | 90 | 111.6 | 275.7 | 1.4\% |
|  | PSSAd | 7 | 4.0 | 9.9 | 0.1\% |
|  | PSSAh | 5 | 3.2 | 7.8 | 0.0\% |
|  | PSSAx | 1 | 0.0 | 0.1 | 0.0\% |
|  | PSSB | 34 | 167.5 | 413.9 | 2.2\% |
|  | PSSBd | 1 | 1.3 | 3.2 | 0.0\% |
|  | PSSC | 21 | 12.8 | 31.7 | 0.2\% |
|  | PSSCd | 1 | 0.2 | 0.4 | 0.0\% |
|  | PSSCh | 2 | 2.0 | 4.9 | 0.0\% |
|  | PSSCx | 1 | 0.6 | 1.5 | 0.0\% |
|  | PSSKAh | 4 | 4.8 | 11.9 | 0.1\% |
|  | PUBF | 1 | 0.2 | 0.4 | 0.0\% |
|  | PUBFh | 1 | 0.2 | 0.4 | 0.0\% |
|  | PUBFx | 84 | 8.4 | 20.9 | 0.1\% |
|  | PUBGx | 1 | 0.1 | 0.3 | 0.0\% |
|  | PUSA | 18 | 8.5 | 21.1 | 0.1\% |
|  | PUSAh | 3 | 0.5 | 1.2 | 0.0\% |
|  | PUSC | 20 | 22.3 | 55.1 | 0.3\% |
|  | PUSCh | 8 | 1.9 | 4.7 | 0.0\% |
|  | PUSCx | 4 | 0.4 | 0.9 | 0.0\% |
|  | R2UBF | 1 | 5.1 | 12.5 | 0.1\% |
|  | R2UBFx | 1 | 0.0 | 0.1 | 0.0\% |
|  | R2UBG | 13 | 57.7 | 142.5 | 0.7\% |
|  | R2UBGx | 4 | 0.8 | 1.9 | 0.0\% |
|  | R2USA | 2 | 0.2 | 0.6 | 0.0\% |
|  | R2USC | 2 | 0.3 | 0.8 | 0.0\% |
|  | R4SBA | 12 | 8.2 | 20.3 | 0.1\% |
|  | R4SBC | 1 | 5.2 | 13.0 | 0.1\% |
|  | R4SBFx | 4 | 0.8 | 2.1 | 0.0\% |
|  |  |  | 7,761.0 | 19,177.1 | 100.0\% |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) |
| :---: | ---: | ---: | ---: | ---: | \% Area


| Cnty. | NWI Attribute | Numbr | Area (ha) | Area (ac) |
| :---: | ---: | ---: | ---: | ---: | \% Area


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | L2USCh | 39 | 62.4 | 154.2 | 0.3\% |
|  | PAB/EMFh | 5 | 7.9 | 19.5 | 0.0\% |
|  | PABC | 1 | 0.3 | 0.8 | 0.0\% |
|  | PABF | 54 | 25.2 | 62.3 | 0.1\% |
|  | PABFh | 2,059 | 1,646.0 | 4,067.1 | 6.9\% |
|  | PABFx | 182 | 32.7 | 80.7 | 0.1\% |
|  | PABGh | 29 | 117.2 | 289.5 | 0.5\% |
|  | PABGx | 1 | 3.4 | 8.3 | 0.0\% |
|  | PABKx | 3 | 4.5 | 11.1 | 0.0\% |
|  | PEM/ABF | 4 | 5.6 | 13.7 | 0.0\% |
|  | PEM/ABFh | 6 | 11.1 | 27.3 | 0.0\% |
|  | PEM/ABFX | 1 | 0.9 | 2.1 | 0.0\% |
|  | PEM/FOC | 8 | 20.8 | 51.3 | 0.1\% |
|  | PEM/SSA | 3 | 2.3 | 5.6 | 0.0\% |
|  | PEM/SSAh | 1 | 19.4 | 47.9 | 0.1\% |
|  | PEM/SSC | 4 | 4.0 | 9.9 | 0.0\% |
|  | PEMA | 6,366 | 2,807.6 | 6,937.5 | 11.8\% |
|  | PEMAd | 85 | 169.3 | 418.2 | 0.7\% |
|  | PEMAh | 215 | 186.3 | 460.3 | 0.8\% |
|  | PEMAX | 23 | 0.9 | 2.2 | 0.0\% |
|  | PEMC | 2,329 | 1,884.6 | 4,656.9 | 7.9\% |
|  | PEMCd | 21 | 72.9 | 180.1 | 0.3\% |
|  | PEMCh | 725 | 270.3 | 668.0 | 1.1\% |
|  | PEMCx | 255 | 13.9 | 34.3 | 0.1\% |
|  | PEMF | 7 | 18.9 | 46.7 | 0.1\% |
|  | PEMFh | 76 | 69.7 | 172.3 | 0.3\% |
|  | PEMKx | 1 | 0.6 | 1.4 | 0.0\% |
|  | PFO/EMA | 1 | 6.2 | 15.4 | 0.0\% |
|  | PFO/EMAh | 5 | 175.2 | 432.8 | 0.7\% |
|  | PFO/EMC | 5 | 9.1 | 22.4 | 0.0\% |
|  | PFO/SSA | 2 | 1.1 | 2.8 | 0.0\% |
|  | PFO/SSC | 1 | 4.6 | 11.4 | 0.0\% |
|  | PFOA | 268 | 138.8 | 343.1 | 0.6\% |
|  | PFOAh | 31 | 49.1 | 121.2 | 0.2\% |
|  | PFOC | 18 | 3.9 | 9.6 | 0.0\% |
|  | PFOCh | 6 | 26.3 | 65.0 | 0.1\% |
|  | PSS/EMA | 3 | 13.0 | 32.1 | 0.1\% |
|  | PSS/EMAh | 3 | 251.1 | 620.4 | 1.1\% |

## Cnty. NWI Attribute

| PSSA | 183 |
| ---: | ---: |
| PSSAd | 1 |
| PSSAh | 32 |
| PSSC | 8 |
| PSSCh | 11 |

PUBF 2

PUBFh
PUBFX
PUSA
PUSAh
PUSC
PUSCh
PUSCx
R2UBF
R2USA
R2USC
R4SBA
R4SBAx
R4SBC
R4SBF
R4SBFX

Custer

| L1UBGh | 2 |
| :---: | ---: |
| L1UBHh | 3 |
| L2ABGh | 2 |
| PABF | 7 |
| PABFh | 1,349 |
| PABFx | 6 |
| PABGb | 19 |
| PABGh | 21 |
| PABKx | 3 |
| PEMA | 1,157 |
| PEMAd | 1 |
| PEMAh | 314 |
| PEMAx | 11 |


| Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: |
|  |  |  |
| 234.2 | 578.8 | $1.0 \%$ |
| 1.4 | 3.5 | $0.0 \%$ |
| 81.7 | 201.9 | $0.3 \%$ |
| 5.8 | 14.4 | $0.0 \%$ |
| 19.7 | 48.6 | $0.1 \%$ |
| 17.1 | 42.4 | $0.1 \%$ |
| 1.2 | 3.0 | $0.0 \%$ |
| 33.3 | 82.4 | $0.1 \%$ |
| 158.8 | 392.3 | $0.7 \%$ |
| 4.6 | 11.3 | $0.0 \%$ |
| 0.1 | 0.3 | $0.0 \%$ |
| 40.3 | 99.7 | $0.2 \%$ |
| 4.8 | 11.9 | $0.0 \%$ |
| 0.1 | 0.2 | $0.0 \%$ |
| 772.0 | $1,907.5$ | $3.2 \%$ |
| 146.3 | 361.6 | $0.6 \%$ |
| 21.0 | 51.8 | $0.1 \%$ |
| 198.8 | 491.2 | $0.8 \%$ |
| 0.2 | 0.5 | $0.0 \%$ |
| 196.0 | 484.4 | $0.8 \%$ |
| 53.3 | 131.6 | $0.2 \%$ |
| 0.1 | 0.3 | $0.0 \%$ |
| 23855.4 | $58,970.6$ | $100.0 \%$ |
| 8 |  |  |


| 25.9 | 64.0 | $1.2 \%$ |
| ---: | ---: | ---: |
| 59.8 | 147.8 | $2.8 \%$ |
| 5.3 | 13.1 | $0.3 \%$ |
| 1.2 | 2.9 | $0.1 \%$ |
| 451.6 | $1,115.9$ | $21.5 \%$ |
| 2.6 | 6.4 | $0.1 \%$ |
| 1.6 | 3.9 | $0.1 \%$ |
| 27.9 | 68.9 | $1.3 \%$ |
| 0.5 | 1.3 | $0.0 \%$ |
| 332.8 | 822.3 | $15.8 \%$ |
| 0.2 | 0.6 | $0.0 \%$ |
| 61.6 | 152.3 | $2.9 \%$ |
| 1.9 | 4.7 | $0.1 \%$ |

## Cnty. NWI Attribute

Number
67
928
3
693
52
20

50
3
2
234
PFOAh
PSSA
PSSAh
PSSAx
PSSB
PSSCh
PUBFh 1
PUBFx 42
PUBGx 1
PUBKx 5
PUSA 76
PUSAh 102
PUSAx 3
PUSC 20
PUSCh 152
PUSCx 14
R2UBF 2
R2UBG 94
R2USA 160
R2USC 17
R3UBF 17
R3UBFx 1
R3UBG 18
R3UBGx 2
R3USA 2
R4SBA 75
R4SBAx 1

| Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: |
|  |  |  |
| 34.0 | 84.0 | $1.6 \%$ |
| 380.2 | 939.3 | $18.1 \%$ |
| 0.4 | 1.0 | $0.0 \%$ |
| 104.3 | 257.7 | $5.0 \%$ |
| 7.4 | 18.4 | $0.4 \%$ |
| 9.3 | 22.9 | $0.4 \%$ |
| 0.8 | 2.0 | $0.0 \%$ |
| 19.0 | 47.0 | $0.9 \%$ |
| 0.9 | 2.3 | $0.0 \%$ |
| 0.2 | 0.6 | $0.0 \%$ |
| 81.2 | 200.7 | $3.9 \%$ |
| 1.3 | 3.2 | $0.1 \%$ |
| 29.2 | 72.3 | $1.4 \%$ |
| 0.6 | 1.5 | $0.0 \%$ |
| 0.1 | 0.2 | $0.0 \%$ |
| 0.1 | 0.2 | $0.0 \%$ |
| 0.1 | 0.3 | $0.0 \%$ |
| 0.1 | 0.1 | $0.0 \%$ |
| 3.7 | 0.4 | $0.2 \%$ |
| 3.1 | 0.4 | 0.2 |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | R4SBC | 31 | 43.7 | 107.9 | 2.1\% |
|  | R4SBCx | 12 | 3.6 | 8.8 | 0.2\% |
|  | R4SBF | 2 | 3.6 | 8.8 | 0.2\% |
|  |  |  | 2,100.3 | 5,189.7 | 100.0\% |
| Dewey |  |  |  |  |  |
|  | L1UBGh | 406 | 7,194.7 | 17,777.9 | 15.5\% |
|  | L1UBHh | 7 | 25,882.8 | 63,955.5 | 55.9\% |
|  | L2ABF | 3 | 135.1 | 333.9 | 0.3\% |
|  | L2ABFh | 13 | 93.8 | 231.9 | 0.2\% |
|  | L2ABGh | 7 | 103.0 | 254.5 | 0.2\% |
|  | L2ABKx | 1 | 10.5 | 26.0 | 0.0\% |
|  | L2UBF | 1 | 3.9 | 9.6 | 0.0\% |
|  | L2UBFh | 83 | 216.0 | 533.7 | 0.5\% |
|  | L2UBFx | 2 | 0.3 | 0.7 | 0.0\% |
|  | L2UBGh | 7 | 20.8 | 51.3 | 0.0\% |
|  | L2USA | 15 | 174.3 | 430.6 | 0.4\% |
|  | L2USC | 15 | 193.4 | 477.8 | 0.4\% |
|  | L2USCh | 387 | 628.0 | 1,551.8 | 1.4\% |
|  | PABF | 7 | 5.5 | 13.6 | 0.0\% |
|  | PABFh | 2,605 | 2,025.4 | 5,004.6 | 4.4\% |
|  | PABFhx | 1 | 0.2 | 0.4 | 0.0\% |
|  | PABFx | 110 | 17.5 | 43.2 | 0.0\% |
|  | PABGh | 23 | 109.4 | 270.4 | 0.2\% |
|  | PABKx | 8 | 18.8 | 46.5 | 0.0\% |
|  | PEM/ABF | 2 | 1.9 | 4.7 | 0.0\% |
|  | PEM/ABFx | 1 | 0.5 | 1.2 | 0.0\% |
|  | PEM/FOA | 3 | 4.1 | 10.1 | 0.0\% |
|  | PEM/FOC | 4 | 2.2 | 5.4 | 0.0\% |
|  | PEM/SSA | 2 | 0.6 | 1.6 | 0.0\% |
|  | PEM/SSAh | 1 | 1.3 | 3.3 | 0.0\% |
|  | PEM/SSC | 1 | 0.2 | 0.5 | 0.0\% |
|  | PEMA | 3,471 | 3,649.0 | 9,016.5 | 7.9\% |
|  | PEMAd | 155 | 944.7 | 2,334.4 | 2.0\% |
|  | PEMAh | 167 | 105.3 | 260.3 | 0.2\% |
|  | PEMAx | 19 | 1.0 | 2.5 | 0.0\% |
|  | PEMC | 1,413 | 1,698.3 | 4,196.4 | 3.7\% |
|  | PEMCd | 52 | 141.3 | 349.2 | 0.3\% |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PEMCh | 708 | 183.7 | 453.9 | 0.4\% |
|  | PEMCx | 374 | 14.1 | 34.8 | 0.0\% |
|  | PEMF | 9 | 13.5 | 33.2 | 0.0\% |
|  | PEMFh | 42 | 51.5 | 127.3 | 0.1\% |
|  | PEMKx | 5 | 4.3 | 10.6 | 0.0\% |
|  | PFO/EMA | 3 | 6.5 | 16.0 | 0.0\% |
|  | PFO/EMC | 1 | 0.0 | 0.1 | 0.0\% |
|  | PFOA | 273 | 156.1 | 385.6 | 0.3\% |
|  | PFOAd | 4 | 3.5 | 8.7 | 0.0\% |
|  | PFOAh | 54 | 13.7 | 33.7 | 0.0\% |
|  | PFOAx | 2 | 0.3 | 0.7 | 0.0\% |
|  | PFOC | 3 | 2.9 | 7.2 | 0.0\% |
|  | PFOCh | 2 | 0.6 | 1.4 | 0.0\% |
|  | PSS/EMA | 2 | 5.8 | 14.4 | 0.0\% |
|  | PSS/FOA | 6 | 36.5 | 90.2 | 0.1\% |
|  | PSS/FOAh | 2 | 8.5 | 21.0 | 0.0\% |
|  | PSS/USAh | 1 | 80.4 | 198.6 | 0.2\% |
|  | PSSA | 141 | 146.5 | 361.9 | 0.3\% |
|  | PSSAd | 1 | 0.3 | 0.6 | 0.0\% |
|  | PSSAh | 29 | 343.2 | 848.1 | 0.7\% |
|  | PSSC | 6 | 12.2 | 30.0 | 0.0\% |
|  | PSSCh | 4 | 69.7 | 172.2 | 0.2\% |
|  | PUBFh | 7 | 1.2 | 3.0 | 0.0\% |
|  | PUBFx | 246 | 36.9 | 91.1 | 0.1\% |
|  | PUBGX | 1 | 0.5 | 1.4 | 0.0\% |
|  | PUBKx | 3 | 0.5 | 1.2 | 0.0\% |
|  | PUSA | 31 | 60.7 | 150.0 | 0.1\% |
|  | PUSAh | 9 | 8.5 | 21.1 | 0.0\% |
|  | PUSC | 11 | 23.2 | 57.3 | 0.1\% |
|  | PUSCd | 2 | 7.6 | 18.9 | 0.0\% |
|  | PUSCh | 35 | 4.5 | 11.0 | 0.0\% |
|  | PUSCx | 5 | 0.3 | 0.8 | 0.0\% |
|  | R2UBF | 1 | 583.4 | 1,441.7 | 1.3\% |
|  | R2UBFh | 1 | 0.0 | 0.1 | 0.0\% |
|  | R2USA | 275 | 213.6 | 527.9 | 0.5\% |
|  | R2USC | 16 | 11.8 | 29.2 | 0.0\% |
|  | R4SBA | 477 | 512.1 | 1,265.3 | 1.1\% |
|  | R4SBAx | 1 | 0.0 | 0.1 | 0.0\% |

## Cnty. NWI Attribute

R4SBC
R4SBCx

R4SBF

Number

136
2
6
Area (ha)
250.9
0.2
23.0
$46,276.4$

Area (ac)
\% Area

| 619.9 | $0.5 \%$ |
| ---: | ---: |
| 0.4 | $0.0 \%$ |
| 56.9 | $0.0 \%$ |
| $114,347.4$ | $100.0 \%$ |

Fall River

| L1UBGh | 2 |
| :---: | ---: |
| L1UBHh | 1 |
| L2ABFh | 12 |
| L2ABGh | 6 |
| L2USA | 2 |
| L2USAh | 5 |
| L2USC | 1 |
| L2USCd | 2 |
| L2USCh | 4 |
| PABF | 25 |
| PABFh | 3,053 |
| PABFx | 25 |
| PABGh | 2 |
| PABKx | 8 |
| PEMA | 2,477 |
| PEMAd | 9 |
| PEMAh | 478 |
| PEMAx | 74 |
| PEMB | 13 |
| PEMC | 2,413 |
| PEMCd | 11 |
| PEMCh | 1,954 |
| PEMCx | 164 |
| PEMF | 42 |
| PEMFh | 185 |
| PEMKx | 5 |
| PFOA | 266 |
| PFOAh | 57 |
| PFOAx | 1 |
| PFOCh | 80 |
| PSSA | 47 |
| PSSAh |  |
|  | 2 |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) |
| ---: | ---: | ---: | ---: | ---: |
|  |  |  |  | \% Area |
| PSSB | 2 | 0.1 | 0.2 | $0.0 \%$ |
| PSSC | 1 | 0.3 | 0.8 | $0.0 \%$ |
| PSSCh | 2 | 1.2 | 2.9 | $0.0 \%$ |
| PUBFh | 4 | 0.9 | 2.3 | $0.0 \%$ |
| PUBFx | 118 | 17.1 | 42.3 | $0.3 \%$ |
| PUSA | 36 | 6.4 | 15.8 | $0.1 \%$ |
| PUSAh | 169 | 35.4 | 87.5 | $0.5 \%$ |
| PUSAx | 14 | 0.6 | 1.5 | $0.0 \%$ |
| PUSC | 17 | 1.2 | 2.9 | $0.0 \%$ |
| PUSCh | 293 | 73.7 | 182.0 | $1.1 \%$ |
| PUSCx | 38 | 3.4 | 8.3 | $0.0 \%$ |
| PUSKx | 4 | 15.2 | 37.5 | $0.2 \%$ |
| R2UBF | 34 | 184.9 | 456.9 | $2.7 \%$ |
| R2UBG | 5 | 113.6 | 280.6 | $1.7 \%$ |
| R2UBGx | 1 | 0.6 | 1.5 | $0.0 \%$ |
| R2USA | 191 | 210.2 | 519.3 | $3.1 \%$ |
| R2USC | 51 | 15.0 | 37.1 | $0.2 \%$ |
| R3UBF | 3 | 5.3 | 13.0 | $0.1 \%$ |
| R3UBG | 3 | 3.6 | 8.9 | $0.1 \%$ |
| R3UBH | 2 | 2.3 | 5.6 | $0.0 \%$ |
| R3USA | 1 | 0.4 | 1.0 | $0.0 \%$ |
| R3USCx | 1 | 0.0 | 0.1 | $0.0 \%$ |
| R4SBA | 102 | 50.9 | 125.9 | $0.7 \%$ |
| R4SBAx | 16 | 8.3 | 20.4 | $0.1 \%$ |
| R4SBC | 52 | 71.7 | 177.1 | $1.1 \%$ |
| R4SBCx | 23 | 27.1 | 67.0 | $0.4 \%$ |
| R4SBF | 6 | 23.7 | 58.6 | $0.3 \%$ |
|  |  | $6,817.8$ | $16,846.5$ | $100.0 \%$ |

Gregory

| L1UBGh | 15 |
| ---: | ---: |
| L1UBHh | 2 |
| L2ABG | 1 |
| L2ABGh | 6 |
| L2UBFh | 15 |
| L2USCh | 25 |
| PAB/EMF | 1 |
| PAB/EMFd | 1 |


| 208.1 | 514.3 | $1.5 \%$ |
| ---: | ---: | ---: |
| $9,058.8$ | $22,384.0$ | $66.7 \%$ |
| 12.2 | 30.1 | $0.1 \%$ |
| 161.3 | 398.6 | $1.2 \%$ |
| 108.7 | 268.5 | $0.8 \%$ |
| 35.4 | 87.5 | $0.3 \%$ |
| 1.5 | 3.7 | $0.0 \%$ |
| 6.2 | 15.2 | $0.0 \%$ |

Cnty. NWI Attribute
PAB/EMFh
PAB/EMFhx
PABF
PABFh
PABFhx
PABFx
PABGh
PABGx
PEM/ABF
PEM/ABFh

PEM/ABFX
PEM/FOA
PEM/FOC
PEM/FOCh
PEM/FOCX
PEM/SSA
PEMA
PEMAd
PEMAh
PEMAX
PEMC
PEMCd
PEMCh

PEMChx
PEMCX
PEMF
PEMFd
PEMFh
PEMFX
PFO/EMA
PFO/EMC
PFO/EMCh
PFO/EMCX
PFOA
PFOAd
PFOAh
PFOAX
PFOC

| Number | Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: | ---: |
|  |  |  |  |
| 27 | 20.7 | 51.1 | $0.2 \%$ |
| 1 | 0.1 | 0.3 | $0.0 \%$ |
| 39 | 10.4 | 25.6 | $0.1 \%$ |
| 2,493 | 838.8 | 2.072 .6 | $6.2 \%$ |
| 152 | 19.5 | 48.2 | $0.1 \%$ |
| 679 | 87.6 | 216.5 | $0.6 \%$ |
| 25 | 67.5 | 166.8 | $0.5 \%$ |
| 7 | 24.8 | 61.2 | $0.2 \%$ |
| 29 | 113.5 | 280.4 | $0.8 \%$ |
| 26 | 22.2 | 54.9 | $0.2 \%$ |
| 1 | 0.1 | 0.1 | $0.0 \%$ |
| 18 | 18.0 | 44.6 | $0.1 \%$ |
| 25 | 10.0 | 24.7 | $0.1 \%$ |
| 32 | 8.3 | 20.5 | $0.1 \%$ |
| 3 | 0.4 | 1.0 | $0.0 \%$ |
| 5 | 21.0 | 51.8 | $0.2 \%$ |
| 3,524 | 576.5 | $1,424.4$ | $4.2 \%$ |
| 549 | 194.3 | 480.1 | $1.4 \%$ |
| 12 | 6.8 | 16.9 | $0.1 \%$ |
| 45 | 1.6 | 3.9 | $0.0 \%$ |
| 2,786 | 984.6 | $2,433.0$ | $7.2 \%$ |
| 90 | 91.4 | 225.9 | $0.7 \%$ |
| 262 | 15.6 | 38.7 | $0.1 \%$ |
| 1 | 0.0 | 0.0 | $0.0 \%$ |
| 686 | 20.5 | 50.6 | $0.2 \%$ |
| 9 | 16.2 | 39.9 | $0.1 \%$ |
| 1 | 1.2 | 3.0 | $0.0 \%$ |
| 13 | 6.4 | 15.7 | $0.0 \%$ |
| 3 | 0.7 | 1.7 | $0.0 \%$ |
| 3 | 12.6 | 31.1 | $0.1 \%$ |
| 6 | 0.7 | 1.7 | $0.0 \%$ |
| 6 | 2.0 | 4.9 | $0.0 \%$ |
| 1 | 0.3 | 0.7 | $0.0 \%$ |
| 297 | 104.2 | 257.5 | $0.8 \%$ |
| 3 | 1.9 | 4.8 | $0.0 \%$ |
| 130 | 11.4 | 28.1 | $0.1 \%$ |
| 13 | 0.4 | 0.9 | $0.0 \%$ |
| 217 | 40.3 | 99.6 | $0.3 \%$ |
|  |  |  |  |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) |
| ---: | ---: | ---: | ---: | ---: | \% Area

Haakon

| L1UBGh | 18 | 217.9 | 538.4 | $2.8 \%$ |
| ---: | ---: | ---: | ---: | ---: |
| L1UBHh | 1 | 102.7 | 253.8 | $1.3 \%$ |
| L2ABFh | 9 | 54.6 | 135.0 | $0.7 \%$ |
| L2ABGh | 2 | 20.7 | 51.2 | $0.3 \%$ |
| L2UBFh | 3 | 201.9 | 498.9 | $2.6 \%$ |
| L2UBGh | 2 | 5.1 | 12.7 | $0.1 \%$ |
| L2USA | 2 | 21.2 | 52.3 | $0.3 \%$ |
| L2USAh | 2 | 2.5 | 6.1 | $0.0 \%$ |
| L2USC | 1 | 0.5 | 1.2 | $0.0 \%$ |
| L2USCh | 22 | 47.3 | 116.9 | $0.6 \%$ |
| L2USCX | 1 | 0.0 | 0.0 | $0.0 \%$ |
| PABF | 5 | 3.1 | 7.6 | $0.0 \%$ |

Appendix 2. Continued.

Cnty. NWI Attribute
PABFh
PABFX
PABK
PEM

PEMAd
PEMAh
PEMAX
PEMC
PEMCd 36
PEMCh 2,135
PEMCx
PEMF
PEMFd
PEMFh
PEMFX
PFOA
PFOAh
PFOAx
PFOC
PFOCh
PSSA
PSSAh
PSSC
PSSCh
PUBF
PUBFh
PUBFx
PUBGx
PUSA
PUSAh
PUSAx
PUSC
PUSCh
PUSCx
R2UBF
R2UBFx
R2UBG
R2USA

| Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: |
| 2,469 | 1,648.0 | 4,072.0 | 21.1\% |
| 6 | 2.9 | 7.2 | 0.0\% |
| 4 | 4.9 | 12.1 | 0.1\% |
| 1,862 | 1,253.4 | 3,097.2 | 16.1\% |
| 42 | 263.1 | 650.0 | 3.4\% |
| 531 | 204.5 | 505.3 | 2.6\% |
| 4 | 0.1 | 0.3 | 0.0\% |
| 939 | 680.7 | 1,681.9 | 8.7\% |
| 36 | 219.0 | 541.1 | 2.8\% |
| 2,135 | 815.6 | 2,015.2 | 10.5\% |
| 77 | 6.7 | 16.5 | 0.1\% |
| 5 | 8.9 | 21.9 | 0.1\% |
| 1 | 3.0 | 7.3 | 0.0\% |
| 122 | 81.2 | 200.7 | 1.0\% |
| 1 | 0.2 | 0.5 | 0.0\% |
| 520 | 468.3 | 1,157.2 | 6.0\% |
| 41 | 52.8 | 130.5 | 0.7\% |
| 10 | 1.5 | 3.8 | 0.0\% |
| 1 | 0.1 | 0.3 | 0.0\% |
| 1 | 0.6 | 1.4 | 0.0\% |
| 142 | 200.0 | 494.3 | 2.6\% |
| 26 | 182.0 | 449.8 | 2.3\% |
| 1 | 0.2 | 0.5 | 0.0\% |
| 3 | 0.6 | 1.5 | 0.0\% |
| 1 | 0.2 | 0.5 | 0.0\% |
| 3 | 0.9 | 2.3 | 0.0\% |
| 199 | 26.7 | 66.0 | 0.3\% |
| 1 | 0.2 | 0.6 | 0.0\% |
| 24 | 8.3 | 20.5 | 0.1\% |
| 84 | 21.4 | 53.0 | 0.3\% |
| 1 | 0.1 | 0.3 | 0.0\% |
| 1 | 0.0 | 0.1 | 0.0\% |
| 127 | 45.3 | 111.8 | 0.6\% |
| 4 | 0.3 | 0.7 | 0.0\% |
| 26 | 37.7 | 93.1 | 0.5\% |
| 3 | 0.7 | 1.8 | 0.0\% |
| 87 | 224.8 | 555.5 | 2.9\% |
| 170 | 465.4 | 1,150.1 | 6.0\% |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) |
| :---: | ---: | ---: | ---: | ---: | \% Area

Appendix 2. Continued.

| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PUBFh | 9 | 1.2 | 2.8 | 0.0\% |
|  | PUBFX | 462 | 55.4 | 137.0 | 0.8\% |
|  | PUBKx | 2 | 1.7 | 4.1 | 0.0\% |
|  | PUSA | 1,346 | 594.9 | 1,470.0 | 8.8\% |
|  | PUSAd | 1 | 6.0 | 14.8 | 0.1\% |
|  | PUSAh | 190 | 71.0 | 175.6 | 1.0\% |
|  | PUSC | 514 | 253.3 | 626.0 | 3.7\% |
|  | PUSCd | 1 | 0.7 | 1.7 | 0.0\% |
|  | PUSCh | 141 | 52.1 | 128.8 | 0.8\% |
|  | PUSCx | 7 | 1.1 | 2.7 | 0.0\% |
|  | R2UBF | 37 | 119.2 | 294.5 | 1.8\% |
|  | R2USA | 533 | 221.8 | 548.1 | 3.3\% |
|  | R2USC | 33 | 10.5 | 25.9 | 0.2\% |
|  | R4SBA | 106 | 108.7 | 268.6 | 1.6\% |
|  | R4SBC | 24 | 84.4 | 208.6 | 1.2\% |
|  | R4SBCx | 2 | 0.2 | 0.5 | 0.0\% |
|  |  |  | 6,769.4 | 16,726.9 | 100.0\% |
| Jackson |  |  |  |  |  |
|  | L1UBGh | 2 | 14.0 | 34.6 | 0.3\% |
|  | L2ABFh | 4 | 40.3 | 99.6 | 0.8\% |
|  | L2ABGh | 2 | 66.1 | 163.2 | 1.3\% |
|  | L2USCh | 1 | 1.4 | 3.6 | 0.0\% |
|  | PABF | 13 | 2.6 | 6.4 | 0.1\% |
|  | PABFh | 1,924 | 936.2 | 2,313.2 | 18.1\% |
|  | PABFx | 6 | 0.6 | 1.5 | 0.0\% |
|  | PABGh | 6 | 27.4 | 67.7 | 0.5\% |
|  | PABKX | 12 | 8.9 | 22.0 | 0.2\% |
|  | PEMA | 1,939 | 588.5 | 1,454.1 | 11.4\% |
|  | PEMAd | 22 | 28.8 | 71.1 | 0.6\% |
|  | PEMAh | 392 | 136.6 | 337.5 | 2.6\% |
|  | PEMAx | 15 | 0.7 | 1.8 | 0.0\% |
|  | PEMC | 993 | 381.3 | 942.1 | 7.4\% |
|  | PEMCd | 8 | 34.0 | 83.9 | 0.7\% |
|  | PEMCh | 1,597 | 529.5 | 1,308.3 | 10.2\% |
|  | PEMCX | 26 | 2.3 | 5.7 | 0.0\% |
|  | PEMF | 5 | 4.5 | 11.1 | 0.1\% |
|  | PEMFh | 68 | 47.5 | 117.3 | 0.9\% |

Cnty. NWI Attribute
PEMFX 1
PFO5Ch
PFO5Fh 1
PFOA
PFOAh
PFOC
PSSA
PSSAh
PSSC
PSSCh 1
PUBFh 6
PUBFx 192
$\begin{array}{rr}\text { PUBKX } & 9 \\ \text { PUSA } & 68\end{array}$
PUSAh 73

| PUSC | 38 |
| :--- | ---: |

PUSCh 119
PUSCx 13
$\begin{array}{rr}\text { R2UBF } & 61 \\ \text { R2UBFx } & 2\end{array}$
R2USA 418
R2USC 43
R4SBA 161
R4SBAx 5
R4SBC 85
R4SBCx 4

Jones

| L1UBGh | 8 |
| ---: | ---: |
| L2ABFh | 11 |
| L2ABG | 2 |
| L2ABGh | 5 |
| L2USCh | 1 |
| PAB/EMFh | 8 |
| PABF | 9 |
| PABFb | 1 |
| PABFh | 2,308 |

Number 1
1
1
41
2

218
6
13

Cnty. NWI Attribute

| PABFhx | 8 | 2.3 | 5.6 | $0.0 \%$ |
| ---: | ---: | ---: | ---: | ---: |
| PABFX | 158 | 40.3 | 99.7 | $0.5 \%$ |
| PABGh | 29 | 120.6 | 297.9 | $1.6 \%$ |
| PEM/ABF | 4 | 8.1 | 20.0 | $0.1 \%$ |
| PEM/ABFh | 2 | 3.9 | 9.6 | $0.1 \%$ |
| PEM/FOA | 22 | 43.5 | 107.5 | $0.6 \%$ |
| PEM/FOC | 6 | 23.2 | 57.3 | $0.3 \%$ |
| PEM/FOCh | 2 | 0.8 | 2.0 | $0.0 \%$ |
| PEM/SSA | 1 | 0.4 | 1.0 | $0.0 \%$ |
| PEM/SSC | 1 | 0.6 | 1.4 | $0.0 \%$ |
| PEM/SSCh | 4 | 2.8 | 6.8 | $0.0 \%$ |
| PEMA | 1,352 | $1,007.0$ | $2,488.2$ | $13.6 \%$ |
| PEMAd | 77 | 283.3 | 699.9 | $3.8 \%$ |
| PEMAh | 133 | 76.2 | 188.3 | $1.0 \%$ |
| PEMAx | 10 | 0.7 | 1.7 | $0.0 \%$ |
| PEMC | 848 | $1,504.4$ | 3.717 .4 | $20.3 \%$ |
| PEMCd | 47 | 184.2 | 455.3 | $2.5 \%$ |
| PEMCh | 749 | 245.8 | 607.4 | $3.3 \%$ |
| PEMCx | 258 | 10.6 | 26.1 | $0.1 \%$ |
| PEMF | 17 | 28.5 | 70.5 | $0.4 \%$ |
| PEMFd | 2 | 14.3 | 35.3 | $0.2 \%$ |
| PEMFh | 82 | 85.5 | 211.2 | $1.2 \%$ |
| PEMFx | 2 | 0.4 | 0.9 | $0.0 \%$ |
| PFO/EMA | 2 | 7.8 | 19.2 | $0.1 \%$ |
| PFO/EMC | 1 | 1.8 | 4.3 | $0.0 \%$ |
| PFFOA | 118 | 178.2 | 440.3 | $2.4 \%$ |
| PFOAh | 9 | 4.0 | 9.8 | $0.1 \%$ |
| PFOC | 3 | 0.6 | 1.5 | $0.0 \%$ |
| PSSA | 138 | 241.6 | 596.9 | $3.3 \%$ |
| PSSAh | 6 | 1.5 | 3.8 | $0.0 \%$ |
| PSSSC | 6 | 3.5 | 8.6 | $0.0 \%$ |
| PSSCh | 1 | 0.6 | 1.5 | $0.0 \%$ |
| PUBFh | 1 | 0.3 | 0.8 | $0.0 \%$ |
| PUBFx | 2 | 23.2 | 57.3 | $0.3 \%$ |
| PUBGx | 3.0 | 7.4 | $0.0 \%$ |  |
| PUBKx | 3 | 4.3 | 10.6 | $0.1 \%$ |
| PUSA | 05 | 8.9 | 2.0 | $0.0 \%$ |
| PUSAh |  | 22.0 | $0.1 \%$ |  |
|  |  |  |  |  |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PUSCh | 17 | 4.7 | 11.5 | 0.1\% |
|  | PUSCx | 1 | 0.0 | 0.0 | 0.0\% |
|  | R2UBF | 153 | 501.6 | 1,239.5 | 6.8\% |
|  | R2UBH | 1 | 0.0 | 0.1 | 0.0\% |
|  | R2USA | 422 | 342.9 | 847.2 | 4.6\% |
|  | R2USC | 75 | 16.5 | 40.8 | 0.2\% |
|  | R4SBA | 113 | 119.6 | 295.5 | 1.6\% |
|  | R4SBAx | 2 | 0.1 | 0.3 | 0.0\% |
|  | R4SBC | 45 | 77.7 | 192.0 | 1.0\% |
|  | R4SBCx | 1 | 0.1 | 0.3 | 0.0\% |
|  | R4SBF | 16 | 25.0 | 61.8 | 0.3\% |
|  |  |  | 7,418.1 | 18,329.8 | 100.0\% |

Lawrence

| L1UBHh | 1 | 22.8 | 56.4 | $2.8 \%$ |
| ---: | ---: | ---: | ---: | ---: |
| L2ABFh | 1 | 1.3 | 3.1 | $0.2 \%$ |
| L2UBGh | 1 | 8.2 | 20.2 | $1.0 \%$ |
| PABF | 8 | 3.1 | 7.7 | $0.4 \%$ |
| PABFh | 509 | 138.1 | 341.4 | $16.8 \%$ |
| PABFX | 5 | 0.7 | 1.8 | $0.1 \%$ |
| PABGb | 170 | 15.1 | 37.3 | $1.8 \%$ |
| PABGh | 7 | 5.5 | 13.6 | $0.7 \%$ |
| PABHh | 3 | 0.4 | 0.9 | $0.0 \%$ |
| PABKx | 4 | 9.6 | 23.8 | $1.2 \%$ |
| PEMA | 364 | 123.7 | 305.7 | $15.1 \%$ |
| PEMAh | 51 | 7.8 | 19.3 | $0.9 \%$ |
| PEMAX | 14 | 2.3 | 5.8 | $0.3 \%$ |
| PEMB | 12 | 11.7 | 28.9 | $1.4 \%$ |
| PEMC | 393 | 155.6 | 384.6 | $18.9 \%$ |
| PEMCb | 21 | 3.0 | 7.3 | $0.4 \%$ |
| PEMCh | 189 | 18.0 | 44.5 | $2.2 \%$ |
| PEMCX | 14 | 5.9 | 14.6 | $0.7 \%$ |
| PEMF | 8 | 0.9 | 2.2 | $0.1 \%$ |
| PEMFb | 13 | 1.5 | 3.7 | $0.2 \%$ |
| PEMFh | 13 | 4.6 | 11.3 | $0.6 \%$ |
| PEMKx | 3 | 28.2 | 69.7 | $3.4 \%$ |
| PFOA | 86 | 28.1 | 69.3 | $3.4 \%$ |
| PFOAh | 1 | 0.1 | 0.3 | $0.0 \%$ |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PFOAX | 8 | 0.8 | 1.9 | 0.1\% |
|  | PSSA | 85 | 21.6 | 53.3 | 2.6\% |
|  | PSSAh | 2 | 0.6 | 1.4 | 0.1\% |
|  | PSSB | 1 | 0.8 | 2.1 | 0.1\% |
|  | PSSC | 1 | 0.0 | 0.1 | 0.0\% |
|  | PSSCb | 2 | 0.4 | 0.9 | 0.0\% |
|  | PSSCh | 1 | 0.2 | 0.6 | 0.0\% |
|  | PUBFx | 20 | 4.2 | 10.3 | 0.5\% |
|  | PUBKx | 3 | 0.4 | 1.1 | 0.1\% |
|  | PUSA | 3 | 0.2 | 0.5 | 0.0\% |
|  | PUSAh | 23 | 3.7 | 9.3 | 0.5\% |
|  | PUSAX | 1 | 0.0 | 0.1 | 0.0\% |
|  | PUSC | 9 | 0.3 | 0.7 | 0.0\% |
|  | PUSCh | 46 | 4.8 | 11.9 | 0.6\% |
|  | PUSCx | 5 | 0.6 | 1.5 | 0.1\% |
|  | PUSKx | 1 | 0.2 | 0.4 | 0.0\% |
|  | R2UBF | 109 | 3.9 | 9.6 | 0.5\% |
|  | R2UBFx | 2 | 0.0 | 0.1 | 0.0\% |
|  | R2UBG | 27 | 4.8 | 11.8 | 0.6\% |
|  | R2USA | 2 | 0.3 | 0.7 | 0.0\% |
|  | R3UBF | 14 | 13.1 | 32.5 | 1.6\% |
|  | R3UBG | 28 | 26.4 | 65.3 | 3.2\% |
|  | R3UBGx | 2 | 0.4 | 0.9 | 0.0\% |
|  | R3UBH | 17 | 14.6 | 36.0 | 1.8\% |
|  | R3USA | 70 | 17.8 | 44.1 | 2.2\% |
|  | R3USC | 10 | 1.6 | 3.9 | 0.2\% |
|  | R4SBA | 42 | 83.3 | 205.9 | 10.1\% |
|  | R4SBAx | 2 | 0.3 | 0.8 | 0.0\% |
|  | R4SBC | 17 | 14.0 | 34.7 | 1.7\% |
|  | R4SBF | 28 | 6.2 | 15.3 | 0.8\% |

## Lyman

| LIUBG | 1 | 0.3 | 0.6 | $0.0 \%$ |
| :--- | :--- | ---: | ---: | ---: |
| L1UBGh | 2 | 17.7 | 43.8 | $0.1 \%$ |
| L1UBHh | 5 | $15,489.9$ | $38,275.0$ | $50.0 \%$ |
| L2ABFh | 6 | 17.8 | 44.0 | $0.1 \%$ |
| L2ABGh | 8 | 191.4 | 472.9 | $0.6 \%$ |

Cnty. NWI Attribute
L2USC
L2USCh
PAB/EMF
PAB/EMFh
PAB/EMFX PABF
PABFh
PABFhx
PABF $x$
PABGh
PABGX
PABKX
PEM/ABF
PEM/ABF
PEM/ABFh
PEM/ABFX
PEM/FOA

PEM/FOAh
PEM/FOC
PEM/FOCh
PEM/SSA
PEM/SSC
PEMA
PEMAd
PEMAh
PEMAX
PEMC
PEMCd
PEMCh
PEMCX
PEMF

PEMFd
PEMFh
PEMFX
PEMKX
PFO/EMA
PFO/EMC

Number 4
94
9
28
1
17
3,249
18
577
31
4
2
31
1
40
1
4
1
7
4
1
4 3,418 144
86
37
95

693
722 73
1

$$
252
$$

252
12
1
16 1 4

| Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: |
|  |  |  |
| 3.7 | 9.2 | $0.0 \%$ |
| 57.4 | 141.9 | $0.2 \%$ |
| 51.5 | 127.4 | $0.2 \%$ |
| 52.3 | 129.2 | $0.2 \%$ |
| 0.1 | 0.3 | $0.0 \%$ |
| 8.2 | 20.4 | $0.0 \%$ |
| $2,023.5$ | $4,999.9$ | $6.5 \%$ |
| 3.9 | 9.8 | $0.0 \%$ |
| 108.9 | 269.1 | $0.4 \%$ |
| 145.3 | 359.1 | $0.5 \%$ |
| 8.3 | 20.6 | $0.0 \%$ |
| 4.7 | 11.5 | $0.0 \%$ |
| 137.8 | 340.4 | $0.4 \%$ |
| 12.7 | 31.3 | $0.0 \%$ |
| 50.1 | 123.7 | $0.2 \%$ |
| 0.3 | 0.6 | $0.0 \%$ |
| 1.3 | 3.3 | $0.0 \%$ |
| 0.2 | 0.4 | $0.0 \%$ |
| 14.2 | 35.0 | $0.0 \%$ |
| 4.4 | 10.8 | $0.0 \%$ |
| 0.3 | 0.7 | 0.3 |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PFO/EMCh | 5 | 2.5 | 6.1 | 0.0\% |
|  | PFO/SSA | 1 | 163.1 | 403.1 | 0.5\% |
|  | PFO/SSC | 2 | 0.6 | 1.5 | 0.0\% |
|  | PFOA | 130 | 106.8 | 264.0 | 0.3\% |
|  | PFOAh | 109 | 35.6 | 87.9 | 0.1\% |
|  | PFOAx | 11 | 0.3 | 0.7 | 0.0\% |
|  | PFOC | 27 | 4.2 | 10.3 | 0.0\% |
|  | PFOCh | 17 | 4.7 | 11.7 | 0.0\% |
|  | PFOCx | 3 | 0.8 | 2.0 | 0.0\% |
|  | PSS/EMA | 4 | 412.7 | 1,019.8 | 1.3\% |
|  | PSS/EMC | 1 | 1.3 | 3.1 | 0.0\% |
|  | PSS/EMCh | 1 | 1.5 | 3.8 | 0.0\% |
|  | PSS/USA | 1 | 4.3 | 10.7 | 0.0\% |
|  | PSSA | 99 | 157.0 | 387.8 | 0.5\% |
|  | PSSAh | 9 | 5.5 | 13.7 | 0.0\% |
|  | PSSC | 11 | 2.7 | 6.7 | 0.0\% |
|  | PSSCh | 9 | 7.6 | 18.8 | 0.0\% |
|  | PUBFx | 223 | 29.0 | 71.7 | 0.1\% |
|  | PUBGX | 2 | 6.4 | 15.8 | 0.0\% |
|  | PUS/EMA | 4 | 10.9 | 27.0 | 0.0\% |
|  | PUSAd | 2 | 1.6 | 3.9 | 0.0\% |
|  | PUSAh | 1 | 0.4 | 0.9 | 0.0\% |
|  | PUSAx | 2 | 0.4 | 1.0 | 0.0\% |
|  | PUSC | 2 | 1.1 | 2.7 | 0.0\% |
|  | PUSCd | 3 | 7.5 | 18.5 | 0.0\% |
|  | PUSCh | 10 | 3.0 | 7.3 | 0.0\% |
|  | PUSCx | 2 | 0.2 | 0.5 | 0.0\% |
|  | R2UBF | 42 | 101.9 | 251.7 | 0.3\% |
|  | R2USA | 182 | 157.1 | 388.2 | 0.5\% |
|  | R2USC | 48 | 4.8 | 11.9 | 0.0\% |
|  | R4SBA | 343 | 229.6 | 567.4 | 0.7\% |
|  | R4SBC | 192 | 217.1 | 536.4 | 0.7\% |
|  | R4SBF | 52 | 682.4 | 1,686.2 | 2.2\% |
|  | R4SBFx | 2 | 0.4 | 0.9 | 0.0\% |
|  |  |  | 30,982.6 | 76,556.9 | 100.0\% |

Cnty. NWI Attribute

Meade

| L1UBGh | 6 | 166.3 | 410.9 | 1.6\% |
| :---: | :---: | :---: | :---: | :---: |
| L2ABFh | 10 | 53.8 | 133.0 | 0.5\% |
| L2ABGh | 3 | 40.7 | 100.7 | 0.4\% |
| L2USA | 1 | 1.7 | 4.3 | 0.0\% |
| L2USC | 2 | 24.6 | 60.9 | 0.2\% |
| L2USCh | 8 | 18.1 | 44.6 | 0.2\% |
| PABF | 26 | 14.1 | 34.9 | 0.1\% |
| PABFh | 5,866 | 3,051.4 | 7,539.9 | 30.2\% |
| PABFx | 5 | 0.6 | 1.5 | 0.0\% |
| PABGh | 4 | 24.2 | 59.9 | 0.2\% |
| PABKx | 13 | 15.4 | 37.9 | 0.2\% |
| PEMA | 7,033 | 2,119.0 | 5,235.9 | 20.9\% |
| PEMAd | 61 | 185.2 | 457.6 | 1.8\% |
| PEMAh | 606 | 259.5 | 641.1 | 2.6\% |
| PEMAx | 46 | 3.4 | 8.4 | 0.0\% |
| PEMB | 2 | 4.7 | 11.6 | 0.0\% |
| PEMC | 3,050 | 638.0 | 1,576.4 | 6.3\% |
| PEMCd | 35 | 101.7 | 251.3 | 1.0\% |
| PEMCh | 3,184 | 812.6 | 2,007.9 | 8.0\% |
| PEMCx | 157 | 14.0 | 34.6 | 0.1\% |
| PEMF | 7 | 4.9 | 12.0 | 0.0\% |
| PEMFd | 1 | 0.6 | 1.6 | 0.0\% |
| PEMFh | 165 | 92.8 | 229.3 | 0.9\% |
| PEMFX | 2 | 0.0 | 0.1 | 0.0\% |
| PEMKx | 7 | 15.5 | 38.4 | 0.2\% |
| PFOA | 916 | 290.2 | 717.1 | 2.9\% |
| PFOAh | 68 | 8.1 | 20.1 | 0.1\% |
| PFOAx | 1 | 0.0 | 0.1 | 0.0\% |
| PFOC | 4 | 3.4 | 8.3 | 0.0\% |
| PFOCh | 2 | 1.2 | 2.9 | 0.0\% |
| PSSA | 119 | 75.3 | 186.1 | 0.7\% |
| PSSAh | 24 | 3.9 | 9.7 | 0.0\% |
| PSSCh | 4 | 1.5 | 3.7 | 0.0\% |
| PSSCx | 2 | 0.1 | 0.2 | 0.0\% |
| PUBFh | 1 | 0.2 | 0.5 | 0.0\% |
| PUBFx | 604 | 59.0 | 145.7 | 0.6\% |
| PUBKx | 5 | 0.8 | 1.9 | 0.0\% |

## Cnty. <br> NWI Attribute

| PUSA | 18 |
| ---: | ---: |
| PUSAd | 5 |

Number
184
5

133
PUSAx

| PUSC | 94 |
| ---: | ---: |
| PUSCd | 4 |

PUSCh 478
$\begin{array}{lr}\text { PUSCx } & 53 \\ \text { PUSKx } & 1 \\ \text { R2UBG } & 82\end{array}$
$\begin{array}{lr}\text { R2UBG } & 82 \\ \text { R2USA } & 427\end{array}$
R2USC 163
R3UBF
$\begin{array}{lr}\text { R3UBG } & 4 \\ \text { R3USA } & 37\end{array}$
R3USC 6
R4SBA 287
R4SBAx 5

R4SBC
R4SBCx

## Mellette

| L1UBGh | 6 |
| :---: | ---: |
| L2ABFh | 10 |
| L2ABGh | 1 |
| L2USCh | 2 |
| PABF | 22 |
| PABFh | 2,135 |
| PABFx | 3 |
| PABGh | 6 |
| PABKx | 4 |
| PEMA | 2,563 |
| PEMAd | 13 |
| PEMAh | 173 |
| PEMAx | 8 |
| PEMC | 940 |
| PEMCd | 28 |

Cnty. NWI Attribute
PEMCh
PEMCX

## PEMF

PEMFh
PEMFX
PEMKh 1
PEMK
PFOA 345
PFOAh
PFOC
PFOCh
PSSA
PSSAX
PSSC
PSSCh
PSSCX 2
PUBFX
PUBGX
PUBK
PUSA
PUSAh
PUSAX
PUSC
PUSCh PUSCx 2

R2UBG
R2UBG
R2USA
R2USC
R4SBA
R4SBAx
R4SBC
R4SBCx

| Number | Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: | ---: |
|  |  |  |  |
| 1,046 | 240.8 | 594.9 | $4.7 \%$ |
| 59 | 3.6 | 9.0 | $0.1 \%$ |
| 4 | 2.2 | 5.5 | $0.0 \%$ |
| 2 | 3.3 | 8.1 | $0.1 \%$ |
| 102 | 53.8 | 133.0 | $1.0 \%$ |
| 3 | 0.5 | 1.2 | $0.0 \%$ |
| 1 | 0.8 | 1.9 | $0.0 \%$ |
| 1 | 0.3 | 0.6 | $0.0 \%$ |
| 345 | 370.1 | 914.6 | $7.2 \%$ |
| 37 | 13.7 | 33.9 | $0.3 \%$ |
| 10 | 2.1 | 5.3 | $0.0 \%$ |
| 14 | 1.9 | 4.8 | $0.0 \%$ |
| 250 | 279.4 | 690.5 | $5.4 \%$ |
| 9 | 2.6 | 6.4 | $0.1 \%$ |
| 2 | 0.0 | 0.1 | $0.0 \%$ |
| 15 | 4.4 | 10.8 | $0.1 \%$ |
| 7 | 0.7 | 1.8 | $0.0 \%$ |
| 2 | 0.1 | 0.1 | $0.0 \%$ |
| 125 | 16.9 | 41.8 | $0.3 \%$ |
| 1 | 0.7 | 1.8 | $0.0 \%$ |
| 1 | 0.4 | 1.1 | $0.0 \%$ |
| 9 | 1.8 | 4.5 | $0.0 \%$ |
| 39 | 6.2 | 15.3 | $0.1 \%$ |
| 1 | 0.0 | 0.0 | $0.0 \%$ |
| 2 | 0.2 | 0.4 | $0.0 \%$ |
| 37 | 12.7 | 31.3 | $0.2 \%$ |
| 2 | 0.3 | 0.6 | $0.0 \%$ |
| 192 | 282.6 | 698.2 | $5.5 \%$ |
| 11 | 80.0 | 197.6 | $1.6 \%$ |
| 4 | 0.6 | 1.5 | $0.0 \%$ |
| 521 | 327.7 | 809.7 | $6.4 \%$ |
| 185 | 113.6 | 280.6 | $2.2 \%$ |
| 127 | 161.6 | 399.2 | $3.1 \%$ |
| 2 | 0.1 | 0.2 | $0.0 \%$ |
| 37 | 139.6 | 345.0 | $2.7 \%$ |
| 3 | 0.3 | 0.6 | $0.0 \%$ |
|  | 5.159 .4 | $12,748.7$ | $100.0 \%$ |
|  |  |  |  |

Cnty. NWI Attribute
Pennington

| L1UBGh | 1 | 6.8 | 16.7 | 0.1\% |
| :---: | :---: | :---: | :---: | :---: |
| L1UBHh | 3 | 617.2 | 1,525.1 | 7.6\% |
| L2ABFh | 10 | 82.1 | 202.9 | 1.0\% |
| L2ABGh | 7 | 70.0 | 173.0 | 0.9\% |
| L2USAh | 3 | 19.8 | 49.0 | 0.2\% |
| L2USCh | 1 | 2.8 | 7.0 | 0.0\% |
| PABF | 18 | 6.5 | 16.1 | 0.1\% |
| PABFh | 3,459 | 1,553.6 | 3,838.9 | 19.2\% |
| PABFx | 20 | 2.9 | 7.1 | 0.0\% |
| PABGb | 105 | 10.8 | 26.8 | 0.1\% |
| PABGh | 16 | 26.9 | 66.4 | 0.3\% |
| PABKh | 3 | 9.8 | 24.3 | 0.1\% |
| PABKx | 31 | 19.6 | 48.4 | 0.2\% |
| PEMA | 3,184 | 1,196.6 | 2,956.8 | 14.8\% |
| PEMAd | 95 | 375.8 | 928.6 | 4.7\% |
| PEMAh | 544 | 156.0 | 385.4 | 1.9\% |
| PEMAx | 81 | 17.7 | 43.7 | 0.2\% |
| PEMB | 12 | 8.3 | 20.5 | 0.1\% |
| PEMC | 1,666 | 586.7 | 1,449.8 | 7.3\% |
| PEMCb | 5 | 0.3 | 0.7 | 0.0\% |
| PEMCd | 73 | 219.8 | 543.2 | 2.7\% |
| PEMCh | 2,100 | 449.7 | 1,111.2 | 5.6\% |
| PEMCx | 241 | 106.4 | 262.9 | 1.3\% |
| PEMF | 25 | 27.4 | 67.6 | 0.3\% |
| PEMFb | 4 | 0.9 | 2.2 | 0.0\% |
| PEMFd | 6 | 15.7 | 38.7 | 0.2\% |
| PEMFh | 249 | 168.9 | 417.3 | 2.1\% |
| PEMFX | 13 | 1.4 | 3.5 | 0.0\% |
| PEMKx | 8 | 2.2 | 5.6 | 0.0\% |
| PFOA | 425 | 110.8 | 273.7 | 1.4\% |
| PFOAh | 71 | 9.4 | 23.2 | 0.1\% |
| PFOAx | 53 | 39.7 | 98.0 | 0.5\% |
| PSSA | 330 | 145.7 | 360.1 | 1.8\% |
| PSSAh | 18 | 3.2 | 7.9 | 0.0\% |
| PSSAx | 6 | 1.0 | 2.6 | 0.0\% |
| PSSB | 4 | 4.1 | 10.1 | 0.1\% |
| PSSC | 2 | 0.2 | 0.5 | 0.0\% |

Cnty. NWI Attribute
PSSCb
PSSCh 5
$\begin{array}{ll}\text { PUBF } & 1 \\ \text { PUBFh } & 4\end{array}$
PUBFX 345
$\begin{array}{ll}\text { PUBGh } & 1 \\ \text { PUBGX } & 1 \\ \text { PUBKx }\end{array}$
$\begin{array}{lr}\text { PUBKx } & 8 \\ \text { PUSA } & 114\end{array}$
PUSAd 1
PUSAh 158
$\begin{array}{rr}\text { PUSAX } & 5 \\ \text { PUSC } & 89\end{array}$
PUSCh 465

| PUSCX | 87 |
| :--- | :--- |

$\begin{array}{ll}\text { R2UBF } & 20 \\ \text { R2UBG } & 97\end{array}$
R2UBGx 1
R2USA 427
R2USC 174
R3UBF 26
R3UBG
R3UBG
R3UBH
R3USA
R3USC
R4SBA
R4SBAx
R4SBC
R4SBCx
R4SBF

| L1UBGh | 3 |
| :--- | ---: |
| L1UBHh | 6 |
| L2ABFh | 22 |
| L2ABGh | 3 |


| Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: |
|  |  |  |
| 0.1 | 0.4 | $0.0 \%$ |
| 4.7 | 11.6 | $0.1 \%$ |
| 0.1 | 0.1 | $0.0 \%$ |
| 0.6 | 1.4 | $0.0 \%$ |
| 68.6 | 169.6 | $0.9 \%$ |
| 0.4 | 1.1 | $0.0 \%$ |
| 0.9 | 2.3 | $0.0 \%$ |
| 1.6 | 4.0 | $0.0 \%$ |
| 28.8 | 71.1 | $0.4 \%$ |
| 0.7 | 1.7 | $0.0 \%$ |
| 37.2 | 92.0 | $0.5 \%$ |
| 2.4 | 6.0 | $0.0 \%$ |
| 13.8 | 34.1 | $0.2 \%$ |
| 98.0 | 242.1 | $1.2 \%$ |
| 7.8 | 19.3 | $0.1 \%$ |
| 73.5 | 181.6 | $0.9 \%$ |
| 609.1 | $1,505.0$ | $7.5 \%$ |
| 0.2 | 0.4 | $0.0 \%$ |
| 560.4 | $1,384.8$ | $6.9 \%$ |
| 74.1 | 183.1 | $0.9 \%$ |
| 29.7 | 73.5 | $0.4 \%$ |
| 32.7 | 80.7 | $0.4 \%$ |
| 0.1 | 0.4 | $0.0 \%$ |
| 13.0 | 32.1 | $0.2 \%$ |
| 0.1 | 0.2 | $0.0 \%$ |
| 0.0 | 0.0 | $0.0 \%$ |
| 218.9 | 540.8 | $2.7 \%$ |
| 2.1 | 5.2 | $0.0 \%$ |
| 113.4 | 280.3 | $1.4 \%$ |
| 0.7 | 1.7 | $0.0 \%$ |
| 0.8 | 2.0 | $0.0 \%$ |
| $8,071.4$ |  | $100.0 \%$ |
|  |  |  |

Perkins

| 779.3 | $1,925.7$ | $8.1 \%$ |
| ---: | ---: | ---: |
| $1,244.3$ | $3,074.6$ | $12.9 \%$ |
| 186.1 | 459.7 | $1.9 \%$ |
| 61.9 | 152.8 | $0.6 \%$ |

Cnty. NWI Attribute
L2USA
L2USAh
L2USC
L2USCh
PABF
PABFh
PABFX

| PABGh | 6 |
| :--- | :--- |
| PABKx | 3 |

$\begin{array}{cr}\text { PEMA } & 7,082 \\ \text { PEMAd } & 63\end{array}$
PEMAh 959
$\begin{array}{cr}\text { PEMAx } & 22 \\ \text { PEMB } & 4\end{array}$
$\begin{array}{rr}\text { PEMC } & 2,601 \\ \text { PEMCd } & 18\end{array}$
PEMCh
PEMCX
PEMF
PEMFh
PEMFX
PFOA
PFOAh
PFOC
PFOCh
PSSA
PSSAh
PSSAx
PSSC
PSSCX
PUBFh
$\begin{array}{ll}\text { PUBFX } & 78 \\ \text { PUBKx }\end{array}$
PUSA
PUSAd
PUSAh
PUSC

Number Area (ha)
10.1
31.2
43.7
144.4
17.2
$1,850.9$
2.4
33.0
1.8

1,967.2
521.9
362.1
1.7
2.2
682.4
61.8
394.4
9.5
0.2
62.3
1.7
152.0
42.3
1.4
0.3
21.2
51.1
1

| 126.2 | $0.5 \%$ |
| ---: | ---: |
| 0.2 | $0.0 \%$ |
| 2.5 | $0.0 \%$ |
| 0.9 | $0.0 \%$ |
| 0.1 | $0.0 \%$ |
| 1.6 | $0.0 \%$ |
| 206.4 | $0.9 \%$ |
| 2.0 | $0.0 \%$ |
| 218.7 | $0.9 \%$ |
| 13.7 | $0.1 \%$ |
| 52.4 | $0.2 \%$ |
| 28.4 | $0.1 \%$ |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PUSCh | 90 | 20.3 | 50.3 | 0.2\% |
|  | PUSCx | 10 | 0.9 | 2.2 | 0.0\% |
|  | R2UBF | 64 | 400.2 | 989.0 | 4.2\% |
|  | R2USA | 428 | 138.5 | 342.2 | 1.4\% |
|  | R2USC | 44 | 2.5 | 6.1 | 0.0\% |
|  | R3USC | 1 | 0.1 | 0.2 | 0.0\% |
|  | R4SBA | 45 | 41.4 | 102.2 | 0.4\% |
|  | R4SBC | 22 | 74.2 | 183.3 | 0.8\% |
|  | R4SBF | 1 | 0.0 | 0.1 | 0.0\% |
|  |  |  | 9,633.3 | 23,803.7 | 100.0\% |

Shannon

| L1UBFh | 1 |
| :---: | ---: |
| L1UBGh | 1 |
| L2ABF | 5 |
| L2ABFh | 3 |
| L2ABG | 1 |
| L2ABGh | 1 |
| L2USA | 1 |
| PABF | 49 |
| PABFh | 623 |
| PABFx | 7 |
| PABKx | 13 |
| PEMA | 2,713 |
| PEMAd | 5 |
| PEMAh | 436 |
| PEMAx | 47 |
| PEMB | 8 |
| PEMC | 1,110 |
| PEMCh | 573 |
| PEMCx | 25 |
| PEMF | 120 |
| PEMFh | 93 |
| PEMFx | 3 |
| PEMKx | 6 |
| PFOA | 433 |
| PFOAd | 1 |
| PFOAh | 36 |


| 0.0 | 0.1 | $0.0 \%$ |
| ---: | ---: | ---: |
| 211.1 | 521.6 | $5.3 \%$ |
| 139.3 | 344.3 | $3.5 \%$ |
| 25.4 | 62.8 | $0.6 \%$ |
| 1.9 | 4.8 | $0.0 \%$ |
| 18.8 | 46.4 | $0.5 \%$ |
| 14.3 | 35.2 | $0.4 \%$ |
| 28.4 | 70.3 | $0.7 \%$ |
| 276.7 | 683.6 | $6.9 \%$ |
| 1.8 | 4.5 | $0.0 \%$ |
| 4.4 | 10.7 | $0.1 \%$ |
| 931.0 | $2,300.4$ | $23.2 \%$ |
| 9.6 | 23.6 | $0.2 \%$ |
| 111.4 | 275.4 | $2.8 \%$ |
| 4.0 | 10.0 | $0.1 \%$ |
| 4.5 | 11.0 | $0.1 \%$ |
| 309.7 | 765.2 | $7.7 \%$ |
| 107.0 | 264.5 | $2.7 \%$ |
| 1.4 | 3.5 | $0.0 \%$ |
| 150.9 | 372.8 | $3.8 \%$ |
| 51.9 | 128.3 | $1.3 \%$ |
| 1.4 | 3.5 | $0.0 \%$ |
| 2.7 | 6.7 | $0.1 \%$ |
| 177.0 | 437.3 | $4.4 \%$ |
| 0.3 | 0.7 | $0.0 \%$ |
| 12.1 | 30.0 | $0.3 \%$ |
|  |  |  |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PFOAx | 4 | 0.7 | 1.7 | 0.0\% |
|  | PFOB | 2 | 0.1 | 0.4 | 0.0\% |
|  | PFOC | 8 | 4.5 | 11.0 | 0.1\% |
|  | PFOCh | 6 | 5.7 | 14.2 | 0.1\% |
|  | PSSA | 100 | 53.4 | 131.9 | 1.3\% |
|  | PSSAd | 1 | 0.5 | 1.3 | 0.0\% |
|  | PSSAh | 11 | 2.5 | 6.2 | 0.1\% |
|  | PSSAx | 3 | 0.1 | 0.2 | 0.0\% |
|  | PSSC | 19 | 5.4 | 13.3 | 0.1\% |
|  | PSSCh | 10 | 11.3 | 27.9 | 0.3\% |
|  | PUBFX | 38 | 3.0 | 7.3 | 0.1\% |
|  | PUSA | 84 | 20.8 | 51.4 | 0.5\% |
|  | PUSAh | 126 | 32.4 | 80.0 | 0.8\% |
|  | PUSAx | 4 | 0.4 | 1.1 | 0.0\% |
|  | PUSC | 118 | 12.0 | 29.7 | 0.3\% |
|  | PUSCd | 1 | 0.1 | 0.2 | 0.0\% |
|  | PUSCh | 220 | 52.0 | 128.6 | 1.3\% |
|  | PUSCx | 7 | 0.7 | 1.7 | 0.0\% |
|  | PUSKx | 2 | 8.7 | 21.5 | 0.2\% |
|  | R2UBF | 15 | 423.3 | 1,046.1 | 10.5\% |
|  | R2UBFx | 3 | 7.8 | 19.4 | 0.2\% |
|  | R2UBG | 42 | 63.5 | 157.0 | 1.6\% |
|  | R2UBH | 1 | 0.0 | 0.1 | 0.0\% |
|  | R2USA | 263 | 191.7 | 473.7 | 4.8\% |
|  | R2USC | 167 | 77.5 | 191.5 | 1.9\% |
|  | R4SBA | 240 | 368.5 | 910.6 | 9.2\% |
|  | R4SBAx | 5 | 0.8 | 1.9 | 0.0\% |
|  | R4SBC | 81 | 76.1 | 188.1 | 1.9\% |
|  | R4SBCx | 1 | 0.0 | 0.1 | 0.0\% |
|  | R4SBF | 3 | 0.1 | 0.2 | 0.0\% |
|  |  |  | 4,020.9 | 9,935.5 | 100.0\% |
| Stanley |  |  |  |  |  |
|  | L1UBGh | 226 | 2,619.1 | 6,471.6 | 10.1\% |
|  | L1UBHh | 11 | 16,106.3 | 39,798.2 | 62.4\% |
|  | L2ABFh | 26 | 136.3 | 336.9 | 0.5\% |
|  | L2ABGh | 7 | 108.5 | 268.1 | 0.4\% |
|  | L2UBF | 1 | 1.3 | 3.3 | 0.0\% |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | L2UBFh | 59 | 57.9 | 143.1 | 0.2\% |
|  | L2USAh | 14 | 6.5 | 16.2 | 0.0\% |
|  | L2USCh | 263 | 124.8 | 308.3 | 0.5\% |
|  | PAB/EMFh | 3 | 3.6 | 8.9 | 0.0\% |
|  | PABF | 11 | 7.4 | 18.2 | 0.0\% |
|  | PABFh | 2,408 | 2,368.4 | 5,852.3 | 9.2\% |
|  | PABFhx | 4 | 0.5 | 1.2 | 0.0\% |
|  | PABFx | 130 | 43.9 | 108.5 | 0.2\% |
|  | PABGh | 26 | 133.2 | 329.1 | 0.5\% |
|  | PABGhx | 1 | 0.0 | 0.1 | 0.0\% |
|  | PEM/FOA | 43 | 110.4 | 272.7 | 0.4\% |
|  | PEM/FOC | 6 | 41.5 | 102.6 | 0.2\% |
|  | PEM/FOCh | 1 | 0.5 | 1.3 | 0.0\% |
|  | PEM/FOCx | 1 | 0.1 | 0.2 | 0.0\% |
|  | PEM/SSA | 1 | 3.6 | 8.8 | 0.0\% |
|  | PEM/SSC | 3 | 19.7 | 48.7 | 0.1\% |
|  | PEMA | 1,439 | 754.3 | 1,863.7 | 2.9\% |
|  | PEMAd | 60 | 91.2 | 225.5 | 0.4\% |
|  | PEMAh | 99 | 81.5 | 201.3 | 0.3\% |
|  | PEMAx | 8 | 0.3 | 0.8 | 0.0\% |
|  | PEMC | 962 | 1,487.1 | 3,674.5 | 5.8\% |
|  | PEMCd | 20 | 77.9 | 192.4 | 0.3\% |
|  | PEMCh | 377 | 196.2 | 484.8 | 0.8\% |
|  | PEMCx | 375 | 15.0 | 37.0 | 0.1\% |
|  | PEMF | 12 | 34.5 | 85.3 | 0.1\% |
|  | PEMFh | 95 | 121.7 | 300.7 | 0.5\% |
|  | PEMFx | 13 | 3.9 | 9.7 | 0.0\% |
|  | PFO/EMA | 3 | 1.8 | 4.5 | 0.0\% |
|  | PFO/EMC | 1 | 1.6 | 3.9 | 0.0\% |
|  | PFOA | 30 | 11.8 | 29.1 | 0.0\% |
|  | PFOAh | 15 | 5.5 | 13.5 | 0.0\% |
|  | PFOCh | 1 | 0.4 | 1.0 | 0.0\% |
|  | PSS/EMCh | 1 | 0.2 | 0.6 | 0.0\% |
|  | PSSA | 16 | 6.6 | 16.2 | 0.0\% |
|  | PSSAh | 16 | 44.2 | 109.2 | 0.2\% |
|  | PSSCh | 1 | 0.3 | 0.8 | 0.0\% |
|  | PUBFx | 53 | 8.8 | 21.7 | 0.0\% |
|  | PUBGh | 3 | 11.9 | 29.3 | 0.0\% |

Cnty. NWI Attribute

| PUSA | 2 |
| ---: | ---: |
| PUSAh | 17 |
| PUSC | 8 |
| PUSCh | 36 |
| R2UBF | 9 |
| R2USA | 10 |
| R4SBA | 395 |
| R4SBAx | 2 |
| R4SBC | 133 |
| R4SBCx | 1 |
| R4SBF | 15 |
| R4SBFx | 2 |

Todd

| LIUBGh | 4 |
| ---: | ---: |
| L2ABF | 3 |
| L2ABFh | 7 |
| L2ABG | 1 |
| L2ABGh | 9 |
| L2UBGh | 1 |
| L2USC | 2 |
| L2USCh | 1 |
| PABC | 4 |
| PABCh | 1 |
| PABCx | 1 |
| PABF | 92 |
| PABFh | 594 |
| PABFx | 11 |
| PABGh | 12 |
| PABKx | 7 |
| PEM/ABF | 3 |
| PEMA | 6,461 |
| PEMAd | 30 |
| PEMAh | 92 |
| PEMAx | 9 |
| PEMB | 6 |
| PEMBd | 3 |


| Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: |
|  |  |  |
| 0.1 | 0.3 | $0.0 \%$ |
| 5.1 | 12.7 | $0.0 \%$ |
| 0.4 | 0.9 | $0.0 \%$ |
| 6.6 | 16.4 | $0.0 \%$ |
| 226.4 | 559.3 | $0.9 \%$ |
| 3.7 | 9.1 | $0.0 \%$ |
| 281.7 | 696.0 | $1.1 \%$ |
| 0.3 | 0.7 | $0.0 \%$ |
| 362.6 | 896.0 | $1.4 \%$ |
| 0.1 | 0.3 | $0.0 \%$ |
| 80.4 | 198.6 | $0.3 \%$ |
| 0.3 | 0.7 | $0.0 \%$ |
| $25,817.7$ | $63,794.6$ | $100.0 \%$ |


| 90.2 | 223.0 | $1.8 \%$ |
| ---: | ---: | ---: |
| 87.2 | 215.5 | $1.7 \%$ |
| 13.9 | 34.4 | $0.3 \%$ |
| 0.0 | 0.1 | $0.0 \%$ |
| 104.2 | 257.4 | $2.1 \%$ |
| 10.6 | 26.3 | $0.2 \%$ |
| 3.0 | 7.3 | $0.1 \%$ |
| 0.1 | 0.3 | $0.0 \%$ |
| 0.1 | 0.3 | $0.0 \%$ |
| 0.1 | 0.1 | $0.0 \%$ |
| 0.0 | 0.1 | $0.0 \%$ |
| 67.5 | 166.9 | $1.3 \%$ |
| 429.0 | $1,060.0$ | $8.5 \%$ |
| 4.9 | 12.1 | $0.1 \%$ |
| 55.0 | 135.9 | $1.1 \%$ |
| 12.4 | 30.6 | $0.2 \%$ |
| 0.6 | 1.5 | $0.0 \%$ |
| $2,164.9$ | $5,349.3$ | $43.0 \%$ |
| 52.6 | 130.1 | $1.0 \%$ |
| 29.2 | 72.0 | $0.6 \%$ |
| 0.4 | 0.9 | $0.0 \%$ |
| 1.9 | 4.7 | $0.0 \%$ |
| 121.0 | 298.9 | $2.4 \%$ |

Cnty. NWI Attribute

## PEMC

## PEMCd

PEMCx
PEMF
PEMFd 2

PEMFh 63
PEMFX 7
PEMKX 5
$\begin{array}{cr}\text { PFOA } & 226 \\ \text { PFOAh } & 21\end{array}$

| PFOC | 9 |
| ---: | ---: |
| PFOCh | 16 |


| PSSA | 141 |
| ---: | ---: |
| PSSAh | 12 |
| PSSC | 19 |

PSSCh 11

PUBFh 2
$\begin{array}{lr}\text { PUBFx } & 152 \\ \text { PUBGGx }\end{array}$
$\begin{array}{ll}\text { PUBGX } & 1 \\ \text { PUBKX } & 4\end{array}$
PUSA 6

PUSAh 3
PUSAX 1

| PUSC | 6 |
| ---: | :--- |
| PUSCh | 9 |

PUSCx 1
R2UBF 3
R2UBG 6

R2USA 37
R2USC 102
R4SBA 40
R4SBC 30
R4SBF
R4SBFx 3

| Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: |
| 3,019 | 1,058.1 | 2,614.6 | 21.0\% |
| 10 | 22.5 | 55.6 | 0.4\% |
| 574 | 210.4 | 520.0 | 4.2\% |
| 97 | 5.9 | 14.6 | 0.1\% |
| 72 | 76.1 | 188.1 | 1.5\% |
| 2 | 1.2 | 3.1 | 0.0\% |
| 63 | 44.4 | 109.7 | 0.9\% |
| 7 | 0.5 | 1.3 | 0.0\% |
| 5 | 9.4 | 23.3 | 0.2\% |
| 226 | 91.2 | 225.3 | 1.8\% |
| 21 | 7.1 | 17.6 | 0.1\% |
| 9 | 1.3 | 3.2 | 0.0\% |
| 16 | 4.0 | 9.8 | 0.1\% |
| 141 | 55.1 | 136.0 | 1.1\% |
| 12 | 3.6 | 9.0 | 0.1\% |
| 19 | 2.1 | 5.3 | 0.0\% |
| 11 | 2.2 | 5.4 | 0.0\% |
| 2 | 0.3 | 0.7 | 0.0\% |
| 152 | 15.5 | 38.3 | 0.3\% |
| 1 | 3.6 | 8.9 | 0.1\% |
| 4 | 3.1 | 7.7 | 0.1\% |
| 6 | 2.5 | 6.1 | 0.0\% |
| 3 | 0.4 | 1.0 | 0.0\% |
| 1 | 0.1 | 0.1 | 0.0\% |
| 6 | 0.9 | 2.3 | 0.0\% |
| 9 | 2.4 | 5.9 | 0.0\% |
| 1 | 0.0 | 0.0 | 0.0\% |
| 3 | 7.7 | 19.1 | 0.2\% |
| 6 | 60.6 | 149.7 | 1.2\% |
| 37 | 6.9 | 17.2 | 0.1\% |
| 102 | 22.9 | 56.5 | 0.5\% |
| 40 | 19.5 | 48.2 | 0.4\% |
| 30 | 41.1 | 101.5 | 0.8\% |
| 2 | 0.3 | 0.6 | 0.0\% |
| 3 | 1.4 | 3.4 | 0.0\% |
|  | 5,033.2 | 12,436.9 | 100.0\% |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tripp |  |  |  |  |  |
|  | L1UBGh | 3 | 97.6 | 241.2 | 1.1\% |
|  | L2ABF | 2 | 23.2 | 57.4 | 0.3\% |
|  | L2ABG | 2 | 108.6 | 268.4 | 1.2\% |
|  | L2ABGh | 16 | 181.6 | 448.6 | 2.0\% |
|  | PAB/EMF | 2 | 16.7 | 41.2 | 0.2\% |
|  | PAB/EMFh | 41 | 38.7 | 95.7 | 0.4\% |
|  | PAB/EMFX | 1 | 0.1 | 0.2 | 0.0\% |
|  | PABC | 13 | 1.3 | 3.3 | 0.0\% |
|  | PABF | 131 | 57.7 | 142.5 | 0.6\% |
|  | PABFd | 1 | 0.3 | 0.8 | 0.0\% |
|  | PABFh | 2,158 | 1,023.7 | 2,529.4 | 11.2\% |
|  | PABFhx | 95 | 16.6 | 41.0 | 0.2\% |
|  | PABFx | 799 | 112.8 | 278.7 | 1.2\% |
|  | PABGh | 83 | 225.7 | 557.7 | 2.5\% |
|  | PABGhx | 1 | 0.1 | 0.2 | 0.0\% |
|  | PABGx | 6 | 20.5 | 50.7 | 0.2\% |
|  | PEM/ABF | 67 | 330.8 | 817.3 | 3.6\% |
|  | PEM/ABFd | 3 | 8.2 | 20.3 | 0.1\% |
|  | PEM/ABFh | 63 | 81.5 | 201.4 | 0.9\% |
|  | PEM/ABFhx | 1 | 0.1 | 0.3 | 0.0\% |
|  | PEM/ABFX | 4 | 0.7 | 1.6 | 0.0\% |
|  | PEM/FOA | 28 | 37.6 | 93.0 | 0.4\% |
|  | PEM/FOC | 71 | 64.3 | 159.0 | 0.7\% |
|  | PEM/FOCd | 4 | 5.0 | 12.3 | 0.1\% |
|  | PEM/FOCh | 17 | 5.9 | 14.5 | 0.1\% |
|  | PEM/FOCx | 4 | 0.7 | 1.7 | 0.0\% |
|  | PEM/SSA | 3 | 20.6 | 50.9 | 0.2\% |
|  | PEMA | 7,853 | 1,787.9 | 4,417.9 | 19.5\% |
|  | PEMAd | 444 | 251.1 | 620.5 | 2.7\% |
|  | PEMAh | 33 | 10.0 | 24.6 | 0.1\% |
|  | PEMAx | 41 | 1.2 | 2.9 | 0.0\% |
|  | PEMB | 1 | 0.1 | 0.2 | 0.0\% |
|  | PEMC | 10,332 | 2,679.3 | 6,620.4 | 29.2\% |
|  | PEMCd | 151 | 172.5 | 426.1 | 1.9\% |
|  | PEMCh | 673 | 148.5 | 366.9 | 1.6\% |
|  | PEMCx | 1,336 | 50.6 | 125.1 | 0.6\% |
|  | PEMF | 21 | 48.0 | 118.5 | 0.5\% |

Cnty. NWI Attribute
PEMFd
PEMFh
PEMFh
PEMFX
PFO/EMA
PFO/EMAd
PFO/EMC
PFO/EMCd
PFO/EMCh
$\begin{array}{rr}\text { PFOA } & 658 \\ \text { PFOAd } & 13 \\ \text { PFOAh } & 144\end{array}$
PFOAhx
PFOA
PFO
PFOC
PFOC
PFOC
PSS/EM
PSS/EM
PSS/USA
PSSA
PSSAh
PSSA
PSSC 1

PSSCh
PUBFh 3
PUBFX 315
PUSAh
PUSCh
PUSCX
R2UBF
R2UBG
R2USA
R2USC
R4SBA
R4SBC

Number
1
167
1
26
15
1
50
1
8
658
13
144

1
11
378
9
33
9
3
2
1
103
3
2
17
11

2
17
4
46
6
242
34
86
102

| Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: |
|  |  |  |
| 1.8 | 4.3 | $0.0 \%$ |
| 73.9 | 182.6 | $0.8 \%$ |
| 0.0 | 0.0 | $0.0 \%$ |
| 2.5 | 6.2 | $0.0 \%$ |
| 45.4 | 112.1 | $0.5 \%$ |
| 0.6 | 1.4 | $0.0 \%$ |
| 32.3 | 79.9 | $0.4 \%$ |
| 1.0 | 2.6 | $0.0 \%$ |
| 5.2 | 12.8 | $0.1 \%$ |
| 173.3 | 428.2 | $1.9 \%$ |
| 9.2 | 22.7 | $0.1 \%$ |
| 8.5 | 21.1 | $0.1 \%$ |
| 0.0 | 0.1 | $0.0 \%$ |
| 1.3 | 3.1 | $0.0 \%$ |
| 116.7 | 288.5 | $1.3 \%$ |
| 2.6 | 6.5 | $0.0 \%$ |
| 11.7 | 28.8 | $0.1 \%$ |
| 1.0 | 2.5 | $0.0 \%$ |
| 9.1 | 22.5 | $0.1 \%$ |
| 0.7 | 150.1 | $0.0 \%$ |
| 1.6 | 252.1 | 0.7 |
| 71.1 | 337.7 | 0.9 |


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) |
| :---: | ---: | ---: | ---: | ---: | \% Area


| Cnty. | NWI Attribute | Number | Area (ha) | Area (ac) |
| ---: | ---: | ---: | ---: | ---: | \% Area

Appendix 3. Number and area of NWI-delineated wetlands summed by physiographic region and NWI attribute.

Phy. NWI Attribute

Black Hills

| L1UBGh | 6.0 | 19.1 | 47.3 | 0.6\% |
| :---: | :---: | :---: | :---: | :---: |
| L1UBHh | 7.0 | 699.8 | 1,729.3 | 23.2\% |
| L2ABFh | 1.0 | 1.3 | 3.1 | 0.0\% |
| L2ABGh | 7.0 | 84.7 | 209.4 | 2.8\% |
| L2UBGh | 1.0 | 8.2 | 20.2 | 0.3\% |
| L2USA | 1.0 | 0.3 | 0.7 | 0.0\% |
| L2USAh | 1.0 | 2.7 | 6.8 | 0.1\% |
| L2USCh | 2.0 | 9.9 | 24.5 | 0.3\% |
| PABF | 22.0 | 4.2 | 10.5 | 0.1\% |
| PABFh | 1,665.0 | 279.3 | 690.0 | 9.3\% |
| PABFx | 20.0 | 4.3 | 10.6 | 0.1\% |
| PABGb | 294.0 | 27.5 | 68.1 | 0.9\% |
| PABGh | 40.0 | 38.5 | 95.2 | 1.3\% |
| PABHh | 3.0 | 0.4 | 0.9 | 0.0\% |
| PABKx | 17.0 | 14.1 | 34.9 | 0.5\% |
| PEMA | 1,039.0 | 319.9 | 790.5 | 10.6\% |
| PEMAd | 1.0 | 3.9 | 9.7 | 0.1\% |
| PEMAh | 305.0 | 38.6 | 95.3 | 1.3\% |
| PEMAx | 13.0 | 1.7 | 4.2 | 0.1\% |
| PEMB | 76.0 | 41.6 | 102.8 | 1.4\% |
| PEMC | 1,292.0 | 572.4 | 1,414.4 | 19.0\% |
| PEMCb | 29.0 | 3.6 | 8.9 | 0.1\% |
| PEMCh | 649.0 | 72.4 | 179.0 | 2.4\% |
| PEMCx | 61.0 | 11.1 | 27.4 | 0.4\% |
| PEMF | 27.0 | 5.6 | 13.8 | 0.2\% |
| PEMFb | 21.0 | 3.2 | 7.9 | 0.1\% |
| PEMFh | 55.0 | 17.2 | 42.5 | 0.6\% |
| PEMFx | 3.0 | 0.3 | 0.9 | 0.0\% |
| PEMKx | 13.0 | 30.3 | 74.9 | 1.0\% |
| PFOA | 264.0 | 66.0 | 163.2 | 2.2\% |
| PFOAh | 24.0 | 9.5 | 23.5 | 0.3\% |
| PFOAx | 2.0 | 0.1 | 0.2 | 0.0\% |
| PSSA | 226.0 | 68.1 | 168.2 | 2.3\% |
| PSSAh | 18.0 | 20.0 | 49.3 | 0.7\% |
| PSSAx | 2.0 | 0.1 | 0.2 | 0.0\% |
| PSSB | 6.0 | 5.0 | 12.4 | 0.2\% |
| PSSC | 3.0 | 0.3 | 0.6 | 0.0\% |

Phy. NWI Attribute
PSSCb
PSSCh
PUBF
PUBFh
PUBFX
PUBGh
PUBGX
PUBKx
PUSA
PUSAh
PUSAX
PUSC
PUSCh
PUSCx
PUSKx
R2UBF
R2UBFx
R2UBG
R2UBGX
R2USA
R2USC
R3UBF
R3UBG
R3UBGx
R3UBH
R3USA
R3USC
R3USCx
R4SBA
R4SBAx
R4SBC
R4SBCx
R4SBF
R4SBFx

| Number | Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: | ---: |
|  |  |  |  |
| 3.0 | 0.5 | 1.2 | $0.0 \%$ |
| 3.0 | 4.7 | 11.5 | $0.2 \%$ |
| 1.0 | 0.1 | 0.1 | $0.0 \%$ |
| 4.0 | 0.4 | 0.9 | $0.0 \%$ |
| 72.0 | 8.6 | 21.3 | $0.3 \%$ |
| 1.0 | 0.4 | 1.1 | $0.0 \%$ |
| 1.0 | 0.9 | 2.3 | $0.0 \%$ |
| 13.0 | 2.3 | 5.7 | $0.1 \%$ |
| 10.0 | 0.7 | 1.6 | $0.0 \%$ |
| 100.0 | 11.6 | 28.6 | $0.4 \%$ |
| 6.0 | 0.5 | 1.1 | $0.0 \%$ |
| 25.0 | 2.3 | 5.7 | $0.1 \%$ |
| 214.0 | 17.8 | 43.9 | $0.6 \%$ |
| 61.0 | 4.3 | 10.6 | $0.1 \%$ |
| 1.0 | 0.2 | 0.4 | $0.0 \%$ |
| 21.0 | 13.7 | 33.9 | $0.5 \%$ |
| 1.0 | 0.2 | 0.5 | $0.0 \%$ |
| 20.0 | 7.9 | 19.5 | $0.3 \%$ |
| 1.0 | 0.2 | 0.4 | $0.0 \%$ |
| 41.0 | 38.0 | 93.8 | $1.3 \%$ |
| 9.0 | 2.1 | 5.1 | $0.1 \%$ |
| 47.0 | 57.5 | 142.1 | $1.9 \%$ |
| 58.0 | 75.1 | 185.5 | $2.5 \%$ |
| 6.0 | 0.6 | 1.6 | $0.0 \%$ |
| 22.0 | 28.1 | 69.5 | $0.9 \%$ |
| 13.0 | 1.6 | 3.9 | $0.1 \%$ |
| 2.0 | 0.1 | 0.3 | $0.0 \%$ |
| 1.0 | 0.0 | 0.1 | $0.0 \%$ |
| 143.0 | 197.5 | 488.0 | $6.5 \%$ |
| 9.0 | 3.5 | 8.7 | $0.1 \%$ |
| 45.0 | 41.1 | 101.6 | $1.4 \%$ |
| 5.0 | 1.3 | 3.3 | $0.0 \%$ |
| 5.0 | 8.2 | 20.2 | $0.3 \%$ |
| 2.0 | 0.7 | 1.8 | $0.0 \%$ |
|  | $3,017.9$ | 7.457 .0 | $100.0 \%$ |
|  |  |  |  |

Phy. NWI Attribute

Northern Plateaus

| LIUBGh | 70.0 | 1,405.5 | 3,472.9 | 3.1\% |
| :---: | :---: | :---: | :---: | :---: |
| L1UBHh | 33.0 | 1,292.8 | 3,194.5 | 2.9\% |
| L2ABF | 6.0 | 165.8 | 409.7 | 0.4\% |
| L2ABFh | 94.0 | 713.5 | 1,763.1 | 1.6\% |
| L2ABG | 5.0 | 235.7 | 582.4 | 0.5\% |
| L2ABGh | 27.0 | 324.6 | 802.1 | 0.7\% |
| L2ABKx | 1.0 | 10.5 | 26.0 | 0.0\% |
| L2UBFh | 11.0 | 95.6 | 236.2 | 0.2\% |
| L2UBFx | 2.0 | 0.3 | 0.7 | 0.0\% |
| L2UBGh | 1.0 | 70.4 | 173.9 | 0.2\% |
| L2USA | 28.0 | 230.4 | 569.4 | 0.5\% |
| L2USAh | 82.0 | 127.8 | 315.8 | 0.3\% |
| L2USC | 21.0 | 288.8 | 713.6 | 0.6\% |
| L2USCh | 50.0 | 341.3 | 843.5 | 0.8\% |
| PAB/EMFh | 5.0 | 7.9 | 19.5 | 0.0\% |
| PABC | 1.0 | 0.3 | 0.8 | 0.0\% |
| PABF | 119.0 | 43.9 | 108.4 | 0.1\% |
| PABFh | 12,836.0 | 9,397.5 | 23,221.0 | 20.9\% |
| PABFX | 257.0 | 43.4 | 107.2 | 0.1\% |
| PABGb | 2.0 | 1.0 | 2.5 | 0.0\% |
| PABGh | 49.0 | 239.3 | 591.4 | 0.5\% |
| PABGx | 1.0 | 3.4 | 8.3 | 0.0\% |
| PABKx | 27.0 | 38.9 | 96.2 | 0.1\% |
| PEM/ABF | 3.0 | 3.8 | 9.4 | 0.0\% |
| PEM/ABFh | 6.0 | 11.1 | 27.3 | 0.0\% |
| PEM/FOA | 1.0 | 0.4 | 1.1 | 0.0\% |
| PEM/SSAh | 1.0 | 19.4 | 47.9 | 0.0\% |
| PEMA | 28,445.0 | 11,643.9 | 28,771.7 | 25.9\% |
| PEMAd | 354.0 | 2,738.8 | 6,767.4 | 6.1\% |
| PEMAh | 3,094.0 | 1,178.4 | 2,911.7 | 2.6\% |
| PEMAx | 101.0 | 8.3 | 20.6 | 0.0\% |
| PEMB | 10.0 | 5.3 | 13.0 | 0.0\% |
| PEMC | 9,997.0 | 5,082.8 | 12,559.4 | 11.3\% |
| PEMCb | 2.0 | 0.4 | 1.0 | 0.0\% |
| PEMCd | 134.0 | 558.1 | 1,379.0 | 1.2\% |
| PEMCh | 7,980.0 | 1,979.9 | 4,892.2 | 4.4\% |

Phy. NWI Attribute

| PEMCx | 903.0 | 50.6 | 124.9 | $0.1 \%$ |
| ---: | ---: | ---: | ---: | ---: |
| PEMF | 22.0 | 36.6 | 90.5 | $0.1 \%$ |
| PEMFh | 374.0 | 308.5 | 762.2 | $0.7 \%$ |
| PEMFx | 6.0 | 3.5 | 8.6 | $0.0 \%$ |
| PEMKx | 5.0 | 4.6 | 11.3 | $0.0 \%$ |
| PFO/EMAh | 6.0 | 135.3 | 334.4 | $0.3 \%$ |
| PFO/EMC | 1.0 | 0.2 | 0.5 | $0.0 \%$ |
| PFOA | $1,939.0$ | 736.4 | $1,819.5$ | $1.6 \%$ |
| PFOAd | 4.0 | 3.5 | 8.7 | $0.0 \%$ |
| PFOAh | 269.0 | 122.8 | 303.5 | $0.3 \%$ |
| PFOAx | 2.0 | 0.3 | 0.7 | $0.0 \%$ |
| PFOC | 7.0 | 3.5 | 8.8 | $0.0 \%$ |
| PFOCh | 11.0 | 25.7 | 63.4 | $0.1 \%$ |
| PSS/EMAh | 3.0 | 250.9 | 620.1 | $0.6 \%$ |
| PSSA | 304.0 | 204.2 | 504.5 | $0.5 \%$ |
| PSSAd | 1.0 | 0.3 | 0.6 | $0.0 \%$ |
| PSSAh | 131.0 | 127.4 | 314.9 | $0.3 \%$ |
| PSSAx | 2.0 | 0.1 | 0.2 | $0.0 \%$ |
| PSSC | 3.0 | 2.0 | 4.9 | $0.0 \%$ |
| PSSCh | 12.0 | 13.7 | 33.9 | $0.0 \%$ |
| PSSCx | 1.0 | 0.0 | 0.1 | $0.0 \%$ |
| PUBF | 1.0 | 17.1 | 42.1 | $0.0 \%$ |
| PUBFh | 26.0 | 5.6 | 13.8 | $0.0 \%$ |
| PUBFx | $2,328.0$ | 274.7 | 678.8 | $0.6 \%$ |
| PUBGx | 1.0 | 0.5 | 1.4 | $0.0 \%$ |
| PUBKx | 8.0 | 3.0 | 7.3 | $0.0 \%$ |
| PUSA | $2,092.0$ | 979.3 | $2,419.8$ | $2.2 \%$ |
| PUSAd | 7.0 | 16.8 | 41.5 | $0.0 \%$ |
| PUSAh | 378.0 | 128.3 | 316.9 | $0.3 \%$ |
| PUSAx | 5.0 | 0.4 | 1.0 | $0.0 \%$ |
| PUSC | 676.0 | 372.1 | 919.4 | $0.8 \%$ |
| PUSCd | 7.0 | 17.4 | 43.0 | $0.0 \%$ |
| PUSCh | 460.0 | 164.0 | 405.2 | $0.4 \%$ |
| PUSCx | 35.0 | 3.2 | 7.9 | $0.0 \%$ |
| R2UBF | 136.0 | $1,267.4$ | $3,131.7$ | $2.8 \%$ |
| R2UBH | 8.0 | 0.5 | 1.2 | $0.0 \%$ |
| R2USA | $1,379.0$ | 583.0 | $1,440.6$ | $1.3 \%$ |
|  |  |  |  |  |

Phy. NWI Attribute

| R2USC | 121.0 |
| ---: | ---: |
| R3USC | 1.0 |
| R4SBA | 467.0 |
| R4SBAx | 3.0 |
| R4SBC | 224.0 |
| R4SBCx | 10.0 |
| R4SBF | 11.0 |

Pierre Hills
L1UBG
L1UBGh
L1UBHh
L2ABF
L2ABFh
L2ABG
L2ABGh
L2UBF
L2UBFh
L2UBFx
L2UBGh
L2USA
L2USAh
L2USC
L2USCd
L2USCh
L2USCx
PAB/EMF
PAB/EMFd
PAB/EMFh
PAB/EMFhx
PAB/EMFx
PABC
PABF
PABFb
PABFd
PABFh
Number

121.0
1.0
467.0
3.0
224.0
10.0
11.0
Area (ha)

18.8
0.1
369.9
0.1
446.2
1.0
31.7
$45,040.3$

Area (ac)

| 46.5 | $0.0 \%$ |
| ---: | ---: |
| 0.2 | $0.0 \%$ |
| 914.0 | $0.8 \%$ |
| 0.4 | $0.0 \%$ |
| $1,102.5$ | $1.0 \%$ |
| 2.4 | $0.0 \%$ |
| 78.4 | $0.1 \%$ |
| $111,293.0$ | $100.0 \%$ |

## Phy. NWI Attribute

| PABFhx | 221.0 |
| ---: | ---: |
| PABFx | $2,036.0$ |
| PABGh | 217.0 |
| PABGhx | 2.0 |
| PABGx | 14.0 |
| PABKx | 73.0 |
| PEM/ABF | 120.0 |
| PEM/ABFd | 4.0 |
| PEM/ABFh | 120.0 |
| PEM/ABFhx | 1.0 |
| PEM/ABFx | 7.0 |
| PEM/FOA | 101.0 |
| PEM/FOAh | 1.0 |
| PEM/FOC | 87.0 |
| PEM/FOCd | 1.0 |
| PEM/FOCh | 53.0 |
| PEM/FOCX | 8.0 |
| PEM/SSA | 14.0 |
| PEM/SSAh | 1.0 |
| PEM/SSC | 13.0 |
| PEM/SSCh | 4.0 |
| PEM1Ah | 1.0 |
| PEM1Ch | 1.0 |
| PEMA | $30,081.0$ |
| PEMAd | $1,320.0$ |
| PEMAh | $3,565.0$ |
| PEMAx | 416.0 |
| PEMB | 32.0 |
| PEMC | $18,700.0$ |
| PEMCd | 506.0 |
| PEMCh | $14,687.0$ |
| PEMChx | 1.0 |
| PEMCx | $3,924.0$ |
| PEMF | 231.0 |
| PEMFd | 13.0 |
| PEMFh | $1,503.0$ |
| PEMFhx | 1.0 |


| Number | Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: | ---: |
|  |  |  |  |
| 221.0 | 36.2 | 89.5 | $0.0 \%$ |
| $2,036.0$ | 406.5 | $1,004.4$ | $0.2 \%$ |
| 217.0 | 819.6 | $2,025.2$ | $0.4 \%$ |
| 2.0 | 0.1 | 0.3 | $0.0 \%$ |
| 14.0 | 48.9 | 120.7 | $0.0 \%$ |
| 73.0 | 99.4 | 245.6 | $0.1 \%$ |
| 120.0 | 540.5 | $1,335.6$ | $0.3 \%$ |
| 4.0 | 20.9 | 51.6 | $0.0 \%$ |
| 120.0 | 146.7 | 362.4 | $0.1 \%$ |
| 1.0 | 0.1 | 0.3 | $0.0 \%$ |
| 7.0 | 2.2 | 5.4 | $0.0 \%$ |
| 101.0 | 198.7 | 491.0 | $0.1 \%$ |
| 1.0 | 0.2 | 0.4 | $0.0 \%$ |
| 87.0 | 135.5 | 334.7 | $0.1 \%$ |
| 1.0 | 0.2 | 0.5 | $0.0 \%$ |
| 53.0 | 19.3 | 47.6 | $0.0 \%$ |
| 8.0 | 1.2 | 2.9 | $0.0 \%$ |
| 14.0 | 47.5 | 117.4 | $0.0 \%$ |
| 1.0 | 1.3 | 3.3 | $0.0 \%$ |
| 13.0 | 30.2 | 74.7 | $0.0 \%$ |
| 4.0 | 2.8 | 6.8 | $0.0 \%$ |
| 1.0 | 0.0 | 0.0 | $0.0 \%$ |
| 1.0 | 0.0 | 0.0 | $0.0 \%$ |
| $30,081.0$ | $13,735.6$ | $33,940.3$ | $7.5 \%$ |
| $1,320.0$ | $2,810.7$ | $6,945.2$ | $1.5 \%$ |
| $3,565.0$ | $1,558.8$ | $3,851.8$ | $0.9 \%$ |
| 416.0 | 54.9 | 135.7 | $0.0 \%$ |
| 32.0 | 24.7 | 61.0 | $0.0 \%$ |
| $18,700.0$ | $12,597.0$ | $31,126.7$ | $6.9 \%$ |
| 506.0 | $1,724.8$ | $4,261.9$ | $0.9 \%$ |
| $14,687.0$ | $4,248.7$ | $10,498.3$ | $2.3 \%$ |
| 1.0 | 0.0 | 0.0 | $0.0 \%$ |
| $3,924.0$ | 460.9 | $1,138.8$ | $0.3 \%$ |
| 231.0 | 219.2 | 541.5 | $0.1 \%$ |
| 13.0 | 54.4 | 134.5 | $0.0 \%$ |
| $1,503.0$ | $1,081.2$ | $2,671.5$ | $0.6 \%$ |
| 1.0 | 0.0 | 0.0 | $0.0 \%$ |
|  |  |  |  |

Phy. NWI Attribute

| PEMFX | 65.0 |
| ---: | ---: |
| PEMKx | 18.0 |
| PFO/EMA | 34.0 |
| PFO/EMAh | 3.0 |
| PFO/EMC | 17.0 |
| PFO/EMCh | 12.0 |
| PFO/EMCx | 1.0 |
| PFO/SSA | 3.0 |
| PFO/SSC | 3.0 |
| PFOA | $3,419.0$ |
| PFOAd | 8.0 |
| PFOAh | 633.0 |
| PFOAhx | 1.0 |
| PFOAx | 133.0 |
| PFOC | 338.0 |
| PFOCd | 3.0 |
| PFOCh | 86.0 |
| PFOCx | 16.0 |
| PSS/EMA | 12.0 |
| PSS/EMAh | 1.0 |
| PSS/EMC | 2.0 |
| PSS/EMCh | 2.0 |
| PSS/FOA | 6.0 |
| PSS/FOAh | 2.0 |
| PSS/USA | 2.0 |
| PSS/USAh | 1.0 |
| PSSA | $1,580.0$ |
| PSSAd | 1.0 |
| PSSAh | 219.0 |
| PSSAx | 11.0 |
| PSSB | 2.0 |
| PSSC | 62.0 |
| PSSCh | 51.0 |
| PSSCx | 4.0 |
| PUBF | 30.0 |
| PUBFh | 1.0 |
| PUBFhx |  |


| Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: |
| 12.6 | 31.0 | 0.0\% |
| 19.4 | 47.9 | 0.0\% |
| 350.9 | 867.1 | 0.2\% |
| 42.6 | 105.2 | 0.0\% |
| 24.7 | 61.0 | 0.0\% |
| 5.6 | 13.8 | 0.0\% |
| 0.3 | 0.7 | 0.0\% |
| 164.3 | 405.9 | 0.1\% |
| 5.2 | 12.9 | 0.0\% |
| 2,290.7 | 5,660.2 | 1.3\% |
| 3.8 | 9.3 | 0.0\% |
| 231.8 | 572.9 | 0.1\% |
| 0.0 | 0.1 | 0.0\% |
| 49.6 | 122.6 | 0.0\% |
| 78.8 | 194.8 | 0.0\% |
| 0.4 | 1.1 | 0.0\% |
| 29.3 | 72.3 | 0.0\% |
| 1.9 | 4.8 | 0.0\% |
| 440.6 | 1,088.8 | 0.2\% |
| 0.1 | 0.4 | 0.0\% |
| 10.1 | 24.9 | 0.0\% |
| 1.8 | 4.4 | 0.0\% |
| 36.5 | 90.2 | 0.0\% |
| 8.5 | 21.0 | 0.0\% |
| 5.9 | 14.5 | 0.0\% |
| 80.4 | 198.6 | 0.0\% |
| 1,937.8 | 4,788.2 | 1.1\% |
| 1.4 | 3.5 | 0.0\% |
| 757.5 | 1,871.8 | 0.4\% |
| 1.6 | 3.9 | 0.0\% |
| 0.1 | 0.2 | 0.0\% |
| 33.5 | 82.9 | 0.0\% |
| 124.0 | 306.3 | 0.1\% |
| 0.1 | 0.3 | 0.0\% |
| 1.1 | 2.8 | 0.0\% |
| 7.2 | 17.8 | 0.0\% |
| 0.9 | 2.2 | 0.0\% |

Phy. NWI Attribute

| PUBFx | $2,100.0$ | 339.8 | 839.7 | $0.2 \%$ |
| ---: | ---: | ---: | ---: | ---: |
| PUBGh | 3.0 | 11.9 | 29.3 | $0.0 \%$ |
| PUBGx | 8.0 | 13.5 | 33.5 | $0.0 \%$ |
| PUBKx | 20.0 | 7.4 | 18.3 | $0.0 \%$ |
| PUS/EMA | 4.0 | 10.9 | 27.0 | $0.0 \%$ |
| PUSA | 395.0 | 139.0 | 343.4 | $0.1 \%$ |
| PUSAd | 9.0 | 26.9 | 66.4 | $0.0 \%$ |
| PUSAh | 714.0 | 183.1 | 452.3 | $0.1 \%$ |
| PUSAx | 36.0 | 5.2 | 12.7 | $0.0 \%$ |
| PUSC | 197.0 | 62.4 | 154.1 | $0.0 \%$ |
| PUSCd | 3.0 | 7.5 | 18.5 | $0.0 \%$ |
| PUSCh | $1,617.0$ | 431.2 | $1,065.4$ | $0.2 \%$ |
| PUSCx | 153.0 | 17.7 | 43.7 | $0.0 \%$ |
| PUSKx | 6.0 | 23.5 | 58.1 | $0.0 \%$ |
| R2UBF | 139.0 | $2,596.7$ | $6,416.3$ | $1.4 \%$ |
| R2UBFh | 1.0 | 0.0 | 0.1 | $0.0 \%$ |
| R2UBFx | 8.0 | 15.2 | 37.7 | $0.0 \%$ |
| R2UBG | 50.0 | $2,612.7$ | $6,455.8$ | $1.4 \%$ |
| R2UBGx | 5.0 | 1.2 | 3.0 | $0.0 \%$ |
| R2UBH | 5.0 | 250.2 | 618.2 | $0.1 \%$ |
| R2USA | $2,729.0$ | $3,755.0$ | $9,278.5$ | $2.1 \%$ |
| R2USC | 662.0 | 379.1 | 936.6 | $0.2 \%$ |
| R3UBF | 8.0 | 7.4 | 18.2 | $0.0 \%$ |
| R3UBFx | 1.0 | 0.1 | 0.2 | $0.0 \%$ |
| R3UBG | 14.0 | 7.9 | 19.5 | $0.0 \%$ |
| R3UBH | 6.0 | 1.7 | 4.2 | $0.0 \%$ |
| R3USA | 98.0 | 27.8 | 68.8 | $0.0 \%$ |
| R3USC | 16.0 | 3.5 | 8.7 | $0.0 \%$ |
| R4SBA | $2,484.0$ | $1,951.0$ | $4,821.0$ | $1.1 \%$ |
| R4SBAx | 38.0 | 9.5 | 23.4 | $0.0 \%$ |
| R4SBC | 991.0 | $1,876.5$ | $4,636.7$ | $1.0 \%$ |
| R4SBCx | 79.0 | 91.0 | 224.8 | $0.0 \%$ |
| R4SBF | 176.0 | $1,351.5$ | $3,339.6$ | $0.7 \%$ |
| R4SBFx | 7.0 | 1.1 | 2.6 | $0.0 \%$ |
|  |  | $182,874.9$ | $451,877.8$ | $100.0 \%$ |

Phy. NWI Attribute

Sand Hills

| L1UBGh | 2.0 | 29.4 | 72.6 | 0.3\% |
| :---: | :---: | :---: | :---: | :---: |
| L2ABF | 22.0 | 578.5 | 1,429.4 | 5.8\% |
| L2ABFh | 3.0 | 23.4 | 57.9 | 0.2\% |
| L2ABG | 11.0 | 259.0 | 640.1 | 2.6\% |
| L2ABGh | 6.0 | 51.5 | 127.2 | 0.5\% |
| L2UBGh | 1.0 | 10.6 | 26.3 | 0.1\% |
| L2USC | 1.0 | 3.9 | 9.6 | 0.0\% |
| L2USCh | 1.0 | 0.1 | 0.3 | 0.0\% |
| PAB/EMFh | 2.0 | 3.0 | 7.5 | 0.0\% |
| PABC | 9.0 | 1.3 | 3.2 | 0.0\% |
| PABCh | 1.0 | 0.1 | 0.1 | 0.0\% |
| PABF | 188.0 | 188.2 | 465.0 | 1.9\% |
| PABFd | 2.0 | 2.2 | 5.5 | 0.0\% |
| PABFh | 613.0 | 312.9 | 773.1 | 3.1\% |
| PABFhx | 41.0 | 4.8 | 11.9 | 0.0\% |
| PABFx | 441.0 | 59.4 | 146.7 | 0.6\% |
| PABGh | 12.0 | 36.7 | 90.6 | 0.4\% |
| PABGx | 3.0 | 4.8 | 11.8 | 0.0\% |
| PABKX | 2.0 | 0.5 | 1.2 | 0.0\% |
| PEM/ABF | 16.0 | 53.1 | 131.3 | 0.5\% |
| PEM/ABFh | 4.0 | 5.9 | 14.5 | 0.1\% |
| PEM/ABFx | 1.0 | 0.1 | 0.3 | 0.0\% |
| PEM/FOA | 14.0 | 15.8 | 39.1 | 0.2\% |
| PEM/FOC | 39.0 | 40.0 | 98.8 | 0.4\% |
| PEM/FOCd | 3.0 | 4.8 | 11.8 | 0.0\% |
| PEM/FOCh | 2.0 | 0.6 | 1.4 | 0.0\% |
| PEM/SSA | 1.0 | 1.3 | 3.1 | 0.0\% |
| PEMA | 9,260.0 | 3,513.0 | 8,680.4 | 34.9\% |
| PEMAd | 222.0 | 427.0 | 1,055.2 | 4.2\% |
| PEMAh | 74.0 | 21.6 | 53.4 | 0.2\% |
| PEMAx | 30.0 | 1.4 | 3.4 | 0.0\% |
| PEMB | 17.0 | 13.9 | 34.3 | 0.1\% |
| PEMBd | 3.0 | 121.0 | 298.9 | 1.2\% |
| PEMC | 10,097.0 | 2,736.1 | 6,760.8 | 27.2\% |
| PEMCd | 105.0 | 168.7 | 416.9 | 1.7\% |
| PEMCh | 395.0 | 154.7 | 382.2 | 1.5\% |

Phy. NWI Attribute
PEMCX
Number
748.0
247.0
$\begin{array}{ll}\text { PEMFd } & 11.0 \\ \text { PEMFh } & 67.0\end{array}$

| PEMFX | 11.0 |
| ---: | ---: |
| PEMKX | 3.0 |

PFO/EMA
PFO/EMAd
PFO/EMC
PFO/EMCd
PFO/EMCh
PFOA
PFOAd
PFOAh
PFOAx
PFOC
PFOCd
PFOCh
PFOCX
PSS/EMC
PSSA
PSSAd
PSSAh
PSSB
PSSC
PSSCd
PSSCh

| PUBF | 1.0 |
| :---: | :---: |
| PUBFh | 3.0 |


| PUBFx | 301.0 |
| :--- | ---: |
| PUBGx | 2.0 |
| PUBKx |  |


| PUBKX | 4.0 |
| :---: | ---: |
| PUSA | 19.0 |


| PUSAh | 5.0 |
| :--- | ---: |
| PUSAX | 1.0 |
| PUSC | 380 |


| PUSC | 38.0 |
| ---: | ---: |
| PUSCh | 6.0 |


| Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: |
|  |  |  |
| 32.5 | 80.2 | $0.3 \%$ |
| 478.0 | $1,181.2$ | $4.8 \%$ |
| 32.4 | 80.1 | $0.3 \%$ |
| 34.9 | 86.3 | $0.3 \%$ |
| 1.1 | 2.7 | $0.0 \%$ |
| 7.6 | 18.9 | $0.1 \%$ |
| 2.1 | 5.1 | $0.0 \%$ |
| 0.6 | 1.4 | $0.0 \%$ |
| 29.1 | 72.0 | $0.3 \%$ |
| 1.0 | 2.6 | $0.0 \%$ |
| 2.4 | 6.0 | $0.0 \%$ |
| 173.3 | 428.3 | $1.7 \%$ |
| 12.0 | 29.6 | $0.1 \%$ |
| 7.9 | 19.5 | $0.1 \%$ |
| 0.4 | 1.1 | $0.0 \%$ |
| 77.9 | 192.6 | $0.8 \%$ |
| 2.2 | 5.4 | $0.0 \%$ |
| 4.3 | 10.7 | $0.0 \%$ |
| 0.1 | 0.1 | $0.0 \%$ |
| 0.7 | 1.7 | $0.0 \%$ |
| 104.4 | 258.0 | $1.0 \%$ |
| 4.0 | 9.9 | $0.0 \%$ |
| 0.8 | 2.0 | $0.0 \%$ |
| 9.8 | 24.1 | $0.1 \%$ |
| 7.1 | 17.4 | $0.1 \%$ |
| 0.2 | 0.4 | $0.0 \%$ |
| 7.6 | 18.9 | $0.1 \%$ |
| 0.2 | 0.4 | $0.0 \%$ |
| 0.3 | 0.8 | $0.0 \%$ |
| 32.3 | 79.7 | $0.3 \%$ |
| 0.7 | 1.8 | $0.0 \%$ |
| 3.1 | 7.7 | $0.0 \%$ |
| 9.3 | 23.1 | $0.1 \%$ |
| 0.3 | 0.7 | $0.0 \%$ |
| 0.1 | 0.1 | $0.0 \%$ |
| 16.6 | 40.9 | $0.2 \%$ |
| 0.6 | 1.4 | $0.0 \%$ |
|  |  |  |

Appendix 3. Continued.

| Phy. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PUSCx | 3.0 | 0.1 | 0.4 | 0.0\% |
|  | R2UBF | 1.0 | 0.0 | 0.1 | 0.0\% |
|  | R2UBG | 14.0 | 57.5 | 142.1 | 0.6\% |
|  | R2USA | 19.0 | 3.3 | 8.1 | 0.0\% |
|  | R2USC | 104.0 | 23.2 | 57.3 | 0.2\% |
|  | R4SBA | 18.0 | 7.2 | 17.8 | 0.1\% |
|  | R4SBC | 19.0 | 14.5 | 35.9 | 0.1\% |
|  | R4SBF | 10.0 | 5.1 | 12.7 | 0.1\% |
|  | R4SBFx | 7.0 | 2.2 | 5.5 | 0.0\% |
|  |  |  | 10,060.3 | 24,858.6 | 100.0\% |
| Southern Plateaus |  |  |  |  |  |
|  | L1UBFh | 1.0 | 0.0 | 0.1 | 0.0\% |
|  | L1UBGh | 7.0 | 342.1 | 845.3 | 2.1\% |
|  | L2ABF | 4.0 | 49.7 | 122.7 | 0.3\% |
|  | L2ABFh | 23.0 | 115.1 | 284.5 | 0.7\% |
|  | L2ABG | 1.0 | 1.9 | 4.8 | 0.0\% |
|  | L2ABGh | 16.0 | 236.7 | 584.9 | 1.5\% |
|  | L2ABKGh | 14.0 | 866.7 | 2,141.5 | 5.4\% |
|  | L2UBF | 1.0 | 62.0 | 153.3 | 0.4\% |
|  | L2USA | 1.0 | 14.3 | 35.2 | 0.1\% |
|  | L2USAh | 3.0 | 19.8 | 49.0 | 0.1\% |
|  | L2USC | 5.0 | 19.1 | 47.2 | 0.1\% |
|  | L2USCh | 2.0 | 3.1 | 7.7 | 0.0\% |
|  | PAB/EMFh | 27.0 | 20.8 | 51.5 | 0.1\% |
|  | PABC | 9.0 | 0.3 | 0.6 | 0.0\% |
|  | PABCx | 1.0 | 0.0 | 0.1 | 0.0\% |
|  | PABF | 125.0 | 44.8 | 110.7 | 0.3\% |
|  | PABFh | 3,472.0 | 1,921.5 | 4,748.0 | 12.0\% |
|  | PABFhx | 17.0 | 2.0 | 4.9 | 0.0\% |
|  | PABFx | 86.0 | 22.0 | 54.3 | 0.1\% |
|  | PABGb | 3.0 | 0.9 | 2.3 | 0.0\% |
|  | PABGh | 45.0 | 152.5 | 376.9 | 1.0\% |
|  | PABGx | 2.0 | 3.2 | 7.9 | 0.0\% |
|  | PABKFh | 5.0 | 16.1 | 39.7 | 0.1\% |
|  | PABKFX | 6.0 | 5.6 | 13.8 | 0.0\% |
|  | PABKh | 3.0 | 9.8 | 24.3 | 0.1\% |

Phy. NWI Attribute

| PABKx | 32.0 |
| ---: | ---: |
| PEM/ABF | 1.0 |
| PEM/ABFh | 8.0 |
| PEM/FOC | 1.0 |
| PEM/FOCh | 1.0 |
| PEMA | $9,445.0$ |
| PEMAd | 115.0 |
| PEMAh | 762.0 |
| PEMAX | 111.0 |
| PEMB | 68.0 |
| PEMBd | 2.0 |
| PEMC | $4,499.0$ |
| PEMCd | 49.0 |
| PEMCh | $2,429.0$ |
| PEMCX | 190.0 |
| PEMF | 93.0 |
| PEMFd | 4.0 |
| PEMFh | 305.0 |
| PEMFX | 18.0 |
| PEMKAh | 27.0 |
| PEMKCh | 41.0 |
| PEMKCx | 2.0 |
| PEMKFh | 42.0 |
| PEMKh | 1.0 |
| PEMKX | 12.0 |
| PFO/EMA | 1.0 |
| PFO/EMC | 8.0 |
| PFO/EMCh | 3.0 |
| PFO5Ch | 1.0 |
| PFO5Fh | 1.0 |
| PFOA | $1,206.0$ |
| PFOAd | 1.0 |
| PFOAh | 136.0 |
| PFOAx | 30.0 |
| PFOB | 3.0 |
| PFOC | 24.0 |
| PFOCh |  |


| Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: |
| 25.1 | 62.0 | 0.2\% |
| 0.7 | 1.7 | 0.0\% |
| 5.1 | 12.6 | 0.0\% |
| 0.7 | 1.8 | 0.0\% |
| 0.0 | 0.1 | 0.0\% |
| 3,089.0 | 7,632.9 | 19.4\% |
| 472.8 | 1,168.4 | 3.0\% |
| 237.5 | 586.8 | 1.5\% |
| 9.7 | 23.9 | 0.1\% |
| 200.6 | 495.7 | 1.3\% |
| 50.3 | 124.3 | 0.3\% |
| 1,776.8 | 4,390.5 | 11.1\% |
| 264.6 | 653.8 | 1.7\% |
| 650.5 | 1,607.4 | 4.1\% |
| 14.4 | 35.6 | 0.1\% |
| 125.7 | 310.7 | 0.8\% |
| 11.9 | 29.5 | 0.1\% |
| 262.7 | 649.2 | 1.6\% |
| 3.4 | 8.4 | 0.0\% |
| 157.2 | 388.4 | 1.0\% |
| 253.5 | 626.3 | 1.6\% |
| 0.5 | 1.3 | 0.0\% |
| 541.4 | 1,337.7 | 3.4\% |
| 0.8 | 1.9 | 0.0\% |
| 5.4 | 13.4 | 0.0\% |
| 1.4 | 3.5 | 0.0\% |
| 2.3 | 5.8 | 0.0\% |
| 1.7 | 4.1 | 0.0\% |
| 0.8 | 2.0 | 0.0\% |
| 1.2 | 2.9 | 0.0\% |
| 581.8 | 1,437.6 | 3.6\% |
| 0.3 | 0.7 | 0.0\% |
| 35.3 | 87.3 | 0.2\% |
| 2.6 | 6.3 | 0.0\% |
| 0.3 | 0.7 | 0.0\% |
| 33.5 | 82.7 | 0.2\% |
| 11.2 | 27.8 | 0.1\% |


| Phy. | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PFOCx | 1.0 | 0.4 | 0.9 | 0.0\% |
|  | PFOKAh | 3.0 | 0.3 | 0.9 | 0.0\% |
|  | PSSA | 328.0 | 233.5 | 576.9 | 1.5\% |
|  | PSSAd | 1.0 | 0.5 | 1.3 | 0.0\% |
|  | PSSAh | 25.0 | 9.9 | 24.3 | 0.1\% |
|  | PSSAx | 6.0 | 0.2 | 0.4 | 0.0\% |
|  | PSSB | 34.0 | 157.7 | 389.8 | 1.0\% |
|  | PSSBd | 1.0 | 1.3 | 3.2 | 0.0\% |
|  | PSSC | 54.0 | 20.8 | 51.3 | 0.1\% |
|  | PSSCh | 20.0 | 8.8 | 21.8 | 0.1\% |
|  | PSSCx | 1.0 | 0.6 | 1.5 | 0.0\% |
|  | PSSKAh | 4.0 | 4.8 | 11.9 | 0.0\% |
|  | PUBFh | 5.0 | 0.7 | 1.7 | 0.0\% |
|  | PUBFx | 355.0 | 39.7 | 98.1 | 0.2\% |
|  | PUBGX | 1.0 | 3.0 | 7.4 | 0.0\% |
|  | PUBKx | 7.0 | 2.0 | 4.9 | 0.0\% |
|  | PUSA | 174.0 | 40.0 | 98.8 | 0.3\% |
|  | PUSAh | 224.0 | 64.6 | 159.7 | 0.4\% |
|  | PUSAx | 3.0 | 0.2 | 0.5 | 0.0\% |
|  | PUSC | 160.0 | 32.5 | 80.2 | 0.2\% |
|  | PUSCd | 1.0 | 0.1 | 0.2 | 0.0\% |
|  | PUSCh | 351.0 | 96.8 | 239.2 | 0.6\% |
|  | PUSCx | 36.0 | 3.2 | 7.9 | 0.0\% |
|  | PUSKx | 2.0 | 8.7 | 21.5 | 0.1\% |
|  | R2UBF | 62.0 | 682.9 | 1,687.4 | 4.3\% |
|  | R2UBFx | 6.0 | 8.0 | 19.7 | 0.1\% |
|  | R2UBG | 37.0 | 236.8 | 585.2 | 1.5\% |
|  | R2UBGx | 4.0 | 0.8 | 1.9 | 0.0\% |
|  | R2USA | 572.0 | 470.1 | 1,161.6 | 2.9\% |
|  | R2USC | 234.0 | 97.6 | 241.1 | 0.6\% |
|  | R4SBA | 479.0 | 743.9 | 1,838.1 | 4.7\% |
|  | R4SBAx | 14.0 | 2.0 | 5.0 | 0.0\% |
|  | R4SBC | 177.0 | 211.0 | 521.4 | 1.3\% |
|  | R4SBCx | 7.0 | 0.5 | 1.1 | 0.0\% |
|  | R4SBF | 12.0 | 7.7 | 19.1 | 0.0\% |
|  |  |  | 15,954.5 | 39,423.0 | 100.0\% |

Appendix 4. Number and area of NWI-delineated wetlands summed by 6-digit hydrologic unit and NWI attribute.

| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 101102 |  |  |  |  |  |
|  | L2ABFh | 3 | 19.6 | 48.4 | 1.2\% |
|  | L2ABGh | 3 | 12.7 | 31.5 | 0.8\% |
|  | L2USA | 2 | 12.8 | 31.6 | 0.8\% |
|  | L2USCh | 2 | 0.3 | 0.6 | 0.0\% |
|  | PABFh | 585 | 355.3 | 877.9 | 22.5\% |
|  | PABFX | 5 | 1.6 | 3.9 | 0.1\% |
|  | PABGb | 2 | 1.0 | 2.5 | 0.1\% |
|  | PABGh | 1 | 7.6 | 18.7 | 0.5\% |
|  | PABKx | 3 | 0.3 | 0.7 | 0.0\% |
|  | PEMA | 1017 | 275.1 | 679.8 | 17.4\% |
|  | PEMAd | 5 | 4.1 | 10.1 | 0.3\% |
|  | PEMAh | 410 | 116.8 | 288.6 | 7.4\% |
|  | PEMAX | 21 | 3.4 | 8.4 | 0.2\% |
|  | PEMB | 4 | 1.2 | 2.9 | 0.1\% |
|  | PEMC | 313 | 81.9 | 202.3 | 5.2\% |
|  | PEMCb | 2 | 0.4 | 1.0 | 0.0\% |
|  | PEMCh | 532 | 88.4 | 218.4 | 5.6\% |
|  | PEMCX | 30 | 1.7 | 4.1 | 0.1\% |
|  | PEMFh | 9 | 2.8 | 6.8 | 0.2\% |
|  | PFOA | 33 | 15.3 | 37.8 | 1.0\% |
|  | PFOAh | 4 | 1.0 | 2.4 | 0.1\% |
|  | PSSA | 31 | 20.5 | 50.6 | 1.3\% |
|  | PSSAh | 6 | 1.8 | 4.5 | 0.1\% |
|  | PUBFh | 3 | 0.3 | 0.8 | 0.0\% |
|  | PUBFX | 69 | 7.4 | 18.2 | 0.5\% |
|  | PUSA | 281 | 130.9 | 323.5 | 8.3\% |
|  | PUSAh | 66 | 30.5 | 75.3 | 1.9\% |
|  | PUSC | 124 | 57.6 | 142.3 | 3.6\% |
|  | PUSCd | 1 | 0.7 | 1.7 | 0.0\% |
|  | PUSCh | 64 | 25.6 | 63.3 | 1.6\% |
|  | PUSCx | 1 | 0.2 | 0.4 | 0.0\% |
|  | R2UBF | 21 | 85.6 | 211.5 | 5.4\% |
|  | R2USA | 440 | 191.8 | 473.8 | 12.1\% |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | R2USC | 29 | 6.1 | 15.0 | 0.4\% |
|  | R4SBA | 24 | 15.6 | 38.7 | 1.0\% |
|  | R4SBC | 2 | 2.9 | 7.3 | 0.2\% |
|  |  |  | 1,580.6 | 3,905.5 | 100.0\% |
| 101201 |  |  |  |  |  |
|  | L1UBGh | 11 | 1,906.8 | 4,711.6 | 6.6\% |
|  | LIUBHh | 7 | 695.8 | 1,719.4 | 2.4\% |
|  | L2ABFh | 35 | 285.8 | 706.2 | 1.0\% |
|  | L2ABGh | 16 | 267.6 | 661.3 | 0.9\% |
|  | L2UBGh | 1 | 10.3 | 25.4 | 0.0\% |
|  | L2USA | 5 | 35.0 | 86.4 | 0.1\% |
|  | L2USAh | 5 | 6.5 | 16.0 | 0.0\% |
|  | L2USC | 4 | 142.7 | 352.6 | 0.5\% |
|  | L2USCd | 2 | 19.3 | 47.7 | 0.1\% |
|  | L2USCh | 17 | 44.5 | 110.0 | 0.2\% |
|  | PABF | 64 | 20.5 | 50.6 | 0.1\% |
|  | PABFh | 12319 | 6,701.9 | 16,560.1 | 23.2\% |
|  | PABFX | 51 | 13.7 | 34.0 | 0.0\% |
|  | PABGb | 179 | 18.9 | 46.6 | 0.1\% |
|  | PABGh | 46 | 101.0 | 249.6 | 0.4\% |
|  | PABKx | 60 | 42.5 | 104.9 | 0.1\% |
|  | PEMA | 12976 | 4,604.4 | 11,377.2 | 16.0\% |
|  | PEMAd | 157 | 575.5 | 1,422.1 | 2.0\% |
|  | PEMAh | 1912 | 545.3 | 1,347.5 | 1.9\% |
|  | PEMAX | 159 | 28.5 | 70.5 | 0.1\% |
|  | PEMB | 102 | 60.3 | 149.0 | 0.2\% |
|  | PEMC | 7605 | 2,432.3 | 6,010.0 | 8.4\% |
|  | PEMCb | 20 | 1.5 | 3.7 | 0.0\% |
|  | PEMCd | 115 | 353.0 | 872.4 | 1.2\% |
|  | PEMCh | 7090 | 1,735.4 | 4,288.0 | 6.0\% |
|  | PEMCx | 564 | 141.3 | 349.1 | 0.5\% |
|  | PEMF | 91 | 57.7 | 142.5 | 0.2\% |
|  | PEMFb | 20 | 3.1 | 7.6 | 0.0\% |
|  | PEMFd | 7 | 18.1 | 44.8 | 0.1\% |
|  | PEMFh | 551 | 381.7 | 943.0 | 1.3\% |
|  | PEMFX | 7 | 1.8 | 4.4 | 0.0\% |

HU NWI Attribute

| PEMKx | 20 |
| ---: | ---: |
| PFOA | 1955 |
| PFOAh | 185 |
| PFOAx | 53 |
| PFOCh | 1 |
| PSSA | 731 |
| PSSAh | 88 |
| PSSAx | 7 |
| PSSB | 8 |
| PSSC | 3 |
| PSSCb | 1 |
| PSSCh | 10 |
| PSSCx | 2 |
| PUBF | 2 |


| PUBFh | 15 |
| :--- | ---: |
| PUBFx | 94 |

PUBGh
PUBGx
PUBKx
$\begin{array}{rr}\text { PUSA } & 385 \\ \text { PUSAd } & 6\end{array}$
$\begin{array}{lr}\text { PUSAh } & 527 \\ \text { PUSAx } & 29\end{array}$
$\begin{array}{rr}\text { PUSC } & 178 \\ \text { PUSCd } & 4 \\ \text { PUSCh } & 1248\end{array}$

| PUSCx | 167 |
| :--- | :--- |

PUSK
R2UBF
R2UBG
R2UBGX
R2USA
R2USC
R3UBF
R3UBFx
R3UBG
R3UBGx
Number
Area (ha) Area (ac)

| 3.7 | 9.2 | $0.0 \%$ |
| ---: | ---: | ---: |
| 949.3 | $2,345.6$ | $3.3 \%$ |
| 104.3 | 257.7 | $0.4 \%$ |
| 39.9 | 98.6 | $0.1 \%$ |
| 6.6 | 16.3 | $0.0 \%$ |
| 568.1 | $1,403.7$ | $2.0 \%$ |
| 71.3 | 176.3 | $0.2 \%$ |
| 1.1 | 2.6 | $0.0 \%$ |
| 5.1 | 12.6 | $0.0 \%$ |
| 0.5 | 1.3 | $0.0 \%$ |
| 0.1 | 0.4 | $0.0 \%$ |
| 7.4 | 18.4 | $0.0 \%$ |
| 0.1 | 0.2 | $0.0 \%$ |
| 0.2 | 0.6 | $0.0 \%$ |
| 2.4 | 6.0 | $0.0 \%$ |
| 134.2 | 331.5 | $0.5 \%$ |
| 0.4 | 1.1 | $0.0 \%$ |
| 4.3 | 10.6 | $0.0 \%$ |
| 3.2 | 7.8 | $0.0 \%$ |
| 78.5 | 193.8 | $0.3 \%$ |
| 10.5 | 26.0 | $0.0 \%$ |
| 113.4 | 280.2 | $0.4 \%$ |
| 3.8 | 9.3 | $0.0 \%$ |
| 67.4 | 166.4 | $0.2 \%$ |
| 9.1 | 22.4 | $0.0 \%$ |
| 329.3 | 813.6 | $1.1 \%$ |
| 15.7 | 38.8 | $0.1 \%$ |
| 15.7 | 38.7 | $0.1 \%$ |
| 214.5 | 530.1 | $0.7 \%$ |
| $1,580.0$ | $3,904.2$ | $5.5 \%$ |
| 0.8 | 1.9 | $0.0 \%$ |
| $1,911.6$ | $4,723.4$ | $6.6 \%$ |
| 148.7 | 367.5 | $0.5 \%$ |
| 62.3 | 154.0 | $0.2 \%$ |
| 0.1 | 0.2 | $0.0 \%$ |
| 62.9 | 155.5 | $0.2 \%$ |
| 0.3 | 0.7 | $0.0 \%$ |

Appendix 4. Continued.

| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | R3UBH | 8 | 15.2 | 37.7 | 0.1\% |
|  | R3USA | 4 | 0.7 | 1.8 | 0.0\% |
|  | R3USC | 1 | 0.3 | 0.7 | 0.0\% |
|  | R3USCx | 1 | 0.0 | 0.1 | 0.0\% |
|  | R4SBA | 609 | 523.7 | 1,294.1 | 1.8\% |
|  | R4SBAx | 22 | 10.1 | 25.0 | 0.0\% |
|  | R4SBC | 191 | 444.8 | 1,099.1 | 1.5\% |
|  | R4SBCx | 44 | 32.1 | 79.2 | 0.1\% |
|  | R4SBF | 10 | 29.2 | 72.2 | 0.1\% |
|  |  |  | 28,835.4 | 71,251.4 | 100.0\% |
| 101202 |  |  |  |  |  |
|  | L1UBGh | 4 | 1,750.5 | 4,325.3 | 13.6\% |
|  | LIUBHh | 4 | 95.6 | 236.2 | 0.7\% |
|  | L2ABFh | 5 | 63.4 | 156.7 | 0.5\% |
|  | L2ABGh | 17 | 239.1 | 590.8 | 1.9\% |
|  | L2UBFh | 2 | 46.0 | 113.7 | 0.4\% |
|  | L2UBFx | 1 | 0.2 | 0.5 | 0.0\% |
|  | L2UBGh | 2 | 626.6 | 1,548.3 | 4.9\% |
|  | L2USAh | 18 | 439.9 | 1,087.1 | 3.4\% |
|  | L2USC | 1 | 72.2 | 178.3 | 0.6\% |
|  | L2USCh | 25 | 61.5 | 151.9 | 0.5\% |
|  | PABF | 40 | 30.5 | 75.3 | 0.2\% |
|  | PABFh | 5433 | 2,487.1 | 6,145.4 | 19.4\% |
|  | PABFx | 50 | 47.7 | 118.0 | 0.4\% |
|  | PABGb | 115 | 8.7 | 21.4 | 0.1\% |
|  | PABGh | 13 | 61.4 | 151.8 | 0.5\% |
|  | PABHh | 3 | 0.4 | 0.9 | 0.0\% |
|  | PABKx | 20 | 56.9 | 140.5 | 0.4\% |
|  | PEM1Ah | 1 | 0.0 | 0.0 | 0.0\% |
|  | PEMA | 3909 | 1,586.0 | 3,919.0 | 12.3\% |
|  | PEMAd | 30 | 199.4 | 492.7 | 1.6\% |
|  | PEMAh | 690 | 364.1 | 899.6 | 2.8\% |
|  | PEMAX | 111 | 21.0 | 51.8 | 0.2\% |
|  | PEMB | 6 | 5.9 | 14.5 | 0.0\% |
|  | PEMC | 2131 | 761.5 | 1,881.7 | 5.9\% |
|  | PEMCb | 9 | 2.1 | 5.2 | 0.0\% |



Number PEMCd
12 PEMCh PEMCX PEMF
PEMFb
PEMFd
2817
452

PEMFh
PEMFX

| 33.9 | 83.7 | $0.3 \%$ |
| ---: | ---: | ---: |
| 753.8 | $1,862.7$ | $5.9 \%$ |
| 214.1 | 529.1 | $1.7 \%$ |
| 32.0 | 79.1 | $0.2 \%$ |
| 0.1 | 0.3 | $0.0 \%$ |
| 18.1 | 44.8 | $0.1 \%$ |
| 129.7 | 320.5 | $1.0 \%$ |
| 1.8 | 4.4 | $0.0 \%$ |
| 43.2 | 106.8 | $0.3 \%$ |
| 188.7 | 466.3 | $1.5 \%$ |
| 12.1 | 29.8 | $0.1 \%$ |
| 6.6 | 16.3 | $0.1 \%$ |
| 3.4 | 8.3 | $0.0 \%$ |
| 1.2 | 2.9 | $0.0 \%$ |
| 121.0 | 299.1 | $0.9 \%$ |
| 30.3 | 74.8 | $0.2 \%$ |
| 0.3 | 0.8 | $0.0 \%$ |
| 0.1 | 0.2 | $0.0 \%$ |
| 0.4 | 0.9 | $0.0 \%$ |
| 1.0 | 2.5 | $0.0 \%$ |
| 0.3 | 0.7 | $0.0 \%$ |
| 105.5 | 260.8 | $0.8 \%$ |
| 1.5 | 3.7 | $0.0 \%$ |
| 57.7 | 142.5 | $0.4 \%$ |
| 15.9 | 39.3 | $0.1 \%$ |
| 43.5 | 107.6 | $0.3 \%$ |
| 1.6 | 4.0 | $0.0 \%$ |
| 24.8 | 61.3 | $0.2 \%$ |
| 107.5 | 265.6 | $0.8 \%$ |
| 6.7 | 16.7 | $0.1 \%$ |
| 8.0 | 19.8 | $0.1 \%$ |
| 33.8 | 83.6 | $0.3 \%$ |
| 14.7 | 36.4 | $0.1 \%$ |
| 942.2 | 2328.2 | $7.3 \%$ |
| 284.0 | 701.8 | $2.2 \%$ |
| 33.5 | 82.9 | $0.3 \%$ |
| 2.6 | 6.4 | $0.0 \%$ |
|  |  |  |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | R3UBG | 20 | 20.0 | 49.5 | 0.2\% |
|  | R3UBGx | 2 | 0.4 | 0.9 | 0.0\% |
|  | R3UBH | 17 | 14.6 | 36.0 | 0.1\% |
|  | R3USA | 107 | 28.7 | 70.9 | 0.2\% |
|  | R3USC | 15 | 3.4 | 8.3 | 0.0\% |
|  | R4SBA | 217 | 189.0 | 467.1 | 1.5\% |
|  | R4SBAx | 4 | 1.5 | 3.7 | 0.0\% |
|  | R4SBC | 86 | 207.8 | 513.5 | 1.6\% |
|  | R4SBCx | 26 | 59.5 | 147.0 | 0.5\% |
|  | R4SBF | 9 | 13.2 | 32.6 | 0.1\% |
|  | R4SBFx | 2 | 0.8 | 1.9 | 0.0\% |
|  |  |  | 12,842.3 | 31,732.8 | 100.0\% |
| 101301 |  |  |  |  |  |
|  | L1UBGh | 790 | 12,226.9 | 30,212.4 | 16.4\% |
|  | L1UBHh | 8 | 50,045.5 | 123,660.7 | 67.1\% |
|  | L2ABFh | 21 | 80.3 | 198.4 | 0.1\% |
|  | L2ABG | 1 | 51.9 | 128.2 | 0.1\% |
|  | L2ABGh | 4 | 51.9 | 128.3 | 0.1\% |
|  | L2UBF | 2 | 5.2 | 12.9 | 0.0\% |
|  | L2UBFh | 164 | 806.1 | 1,991.8 | 1.1\% |
|  | L2UBFx | 1 | 0.1 | 0.3 | 0.0\% |
|  | L2UBGh | 7 | 20.8 | 51.3 | 0.0\% |
|  | L2USA | 5 | 7.7 | 19.0 | 0.0\% |
|  | L2USAh | 27 | 203.3 | 502.4 | 0.3\% |
|  | L2USC | 1 | 42.4 | 104.8 | 0.1\% |
|  | L2USCh | 688 | 774.6 | 1,914.1 | 1.0\% |
|  | L2USCx | 1 | 0.1 | 0.2 | 0.0\% |
|  | PAB/EMFh | 5 | 7.9 | 19.5 | 0.0\% |
|  | PABF | 22 | 8.5 | 20.9 | 0.0\% |
|  | PABFh | 3500 | 2,984.2 | 7,373.8 | 4.0\% |
|  | PABFhx | 1 | 0.2 | 0.4 | 0.0\% |
|  | PABFx | 205 | 36.2 | 89.3 | 0.0\% |
|  | PABGh | 46 | 190.0 | 469.5 | 0.3\% |
|  | PABGx | 1 | 3.4 | 8.3 | 0.0\% |
|  | PEM/ABF | 5 | 6.5 | 16.2 | 0.0\% |
|  | PEM/ABFh | 3 | 6.1 | 15.0 | 0.0\% |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PEM/ABFX | 2 | 1.3 | 3.3 | 0.0\% |
|  | PEM/FOA | 2 | 2.1 | 5.1 | 0.0\% |
|  | PEM/FOC | 4 | 2.5 | 6.1 | 0.0\% |
|  | PEM/FOCh | 1 | 0.5 | 1.3 | 0.0\% |
|  | PEM/SSA | 1 | 0.4 | 1.0 | 0.0\% |
|  | PEM/SSAh | 1 | 19.4 | 47.9 | 0.0\% |
|  | PEM/SSC | 1 | 0.6 | 1.4 | 0.0\% |
|  | PEMA | 3262 | 1,656.0 | 4,092.0 | 2.2\% |
|  | PEMAd | 136 | 379.5 | 937.8 | 0.5\% |
|  | PEMAh | 136 | 200.2 | 494.6 | 0.3\% |
|  | PEMAx | 25 | 0.9 | 2.3 | 0.0\% |
|  | PEMC | 1883 | 1,582.9 | 3,911.4 | 2.1\% |
|  | PEMCd | 44 | 215.5 | 532.6 | 0.3\% |
|  | PEMCh | 576 | 278.2 | 687.4 | 0.4\% |
|  | PEMCX | 394 | 14.5 | 35.9 | 0.0\% |
|  | PEMF | 11 | 30.2 | 74.7 | 0.0\% |
|  | PEMFh | 98 | 93.4 | 230.7 | 0.1\% |
|  | PEMFx | 7 | 0.8 | 2.0 | 0.0\% |
|  | PFO/EMA | 3 | 5.9 | 14.5 | 0.0\% |
|  | PFO/EMAh | 5 | 175.2 | 432.8 | 0.2\% |
|  | PFO/EMC | 2 | 0.6 | 1.4 | 0.0\% |
|  | PFOA | 107 | 27.4 | 67.6 | 0.0\% |
|  | PFOAh | 27 | 98.0 | 242.1 | 0.1\% |
|  | PFOC | 14 | 1.7 | 4.2 | 0.0\% |
|  | PFOCh | 7 | 26.5 | 65.6 | 0.0\% |
|  | PSS/EMA | 2 | 5.8 | 14.4 | 0.0\% |
|  | PSS/EMAh | 3 | 251.1 | 620.4 | 0.3\% |
|  | PSS/FOA | 4 | 24.4 | 60.2 | 0.0\% |
|  | PSS/FOAh | 2 | 8.5 | 21.0 | 0.0\% |
|  | PSS/USAh | 1 | 80.4 | 198.6 | 0.1\% |
|  | PSSA | 59 | 64.1 | 158.3 | 0.1\% |
|  | PSSAh | 66 | 653.7 | 1,615.3 | 0.9\% |
|  | PSSC | 5 | 0.5 | 1.3 | 0.0\% |
|  | PSSCh | 14 | 73.2 | 181.0 | 0.1\% |
|  | PUBFh | 3 | 0.7 | 1.6 | 0.0\% |
|  | PUBFX | 89 | 11.8 | 29.1 | 0.0\% |
|  | PUBKx | 2 | 0.3 | 0.8 | 0.0\% |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PUSA | 5 | 0.7 | 1.8 | 0.0\% |
|  | PUSAh | 15 | 2.8 | 7.0 | 0.0\% |
|  | PUSC | 8 | 0.4 | 0.9 | 0.0\% |
|  | PUSCh | 64 | 12.9 | 31.9 | 0.0\% |
|  | PUSCx | 1 | 0.0 | 0.0 | 0.0\% |
|  | R2UBF | 1 | 22.7 | 56.1 | 0.0\% |
|  | R2UBFh | 1 | 0.0 | 0.1 | 0.0\% |
|  | R4SBA | 655 | 582.5 | 1,439.2 | 0.8\% |
|  | R4SBAx | 1 | 0.1 | 0.2 | 0.0\% |
|  | R4SBC | 168 | 281.9 | 696.7 | 0.4\% |
|  | R4SBF | 14 | 109.8 | 271.2 | 0.1\% |
|  | R4SBFx | 1 | 0.1 | 0.3 | 0.0\% |
|  |  |  | 74,562.3 | 184,240.8 | 100.0\% |
| 101302 |  |  |  |  |  |
|  | L1UBGh | 2 | 77.2 | 190.7 | 21.4\% |
|  | L2ABFh | 6 | 10.8 | 26.7 | 3.0\% |
|  | PABF | 16 | 2.1 | 5.3 | 0.6\% |
|  | PABFh | 107 | 65.4 | 161.5 | 18.1\% |
|  | PABKx | 1 | 1.0 | 2.6 | 0.3\% |
|  | PEMA | 401 | 80.6 | 199.2 | 22.3\% |
|  | PEMAd | 7 | 45.2 | 111.8 | 12.5\% |
|  | PEMAh | 33 | 7.5 | 18.5 | 2.1\% |
|  | PEMAX | 4 | 0.5 | 1.1 | 0.1\% |
|  | PEMC | 184 | 39.4 | 97.3 | 10.9\% |
|  | PEMCh | 41 | 8.3 | 20.5 | 2.3\% |
|  | PEMCx | 33 | 3.4 | 8.3 | 0.9\% |
|  | PEMFh | 11 | 8.7 | 21.5 | 2.4\% |
|  | PEMFX | 1 | 0.4 | 0.9 | 0.1\% |
|  | PFOA | 4 | 0.4 | 0.9 | 0.1\% |
|  | PFOAh | 4 | 0.7 | 1.6 | 0.2\% |
|  | PSSA | 6 | 0.4 | 1.1 | 0.1\% |
|  | PSSAh | 1 | 0.1 | 0.3 | 0.0\% |
|  | PUBFx | 66 | 7.2 | 17.9 | 2.0\% |
|  | PUSA | 3 | 1.5 | 3.6 | 0.4\% |
|  | PUSCh | 1 | 0.5 | 1.3 | 0.1\% |
|  |  |  | 361.1 | 892.4 | 100.0\% |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 101303 |  |  |  |  |  |
|  | L1UBGh | 13 | 962.0 | 2,377.0 | 2.6\% |
|  | L1UBHh | 6 | 1,244.3 | 3,074.6 | 3.4\% |
|  | L2ABF | 6 | 165.8 | 409.7 | 0.4\% |
|  | L2ABFh | 82 | 644.6 | 1,592.8 | 1.7\% |
|  | L2ABG | 4 | 183.8 | 454.2 | 0.5\% |
|  | L2ABGh | 20 | 263.4 | 650.9 | 0.7\% |
|  | L2ABKx | 1 | 10.5 | 26.0 | 0.0\% |
|  | L2UBFh | 1 | 28.4 | 70.3 | 0.1\% |
|  | L2UBFx | 1 | 0.2 | 0.4 | 0.0\% |
|  | L2UBGh | 1 | 70.4 | 173.9 | 0.2\% |
|  | L2USA | 20 | 208.2 | 514.4 | 0.6\% |
|  | L2USAh | 82 | 62.3 | 153.9 | 0.2\% |
|  | L2USC | 18 | 221.7 | 547.9 | 0.6\% |
|  | L2USCh | 39 | 328.3 | 811.1 | 0.9\% |
|  | PABC | 1 | 0.3 | 0.8 | 0.0\% |
|  | PABF | 96 | 47.5 | 117.3 | 0.1\% |
|  | PABFh | 9925 | 7,201.2 | 17,793.9 | 19.5\% |
|  | PABFx | 123 | 22.3 | 55.0 | 0.1\% |
|  | PABGh | 16 | 86.5 | 213.7 | 0.2\% |
|  | PABKx | 19 | 33.5 | 82.7 | 0.1\% |
|  | PEM/ABF | 2 | 0.9 | 2.2 | 0.0\% |
|  | PEM/ABFh | 3 | 5.0 | 12.3 | 0.0\% |
|  | PEM/FOA | 1 | 2.0 | 5.1 | 0.0\% |
|  | PEM/FOC | 8 | 20.5 | 50.6 | 0.1\% |
|  | PEM/SSA | 4 | 2.5 | 6.2 | 0.0\% |
|  | PEM/SSAh | 1 | 1.3 | 3.3 | 0.0\% |
|  | PEM/SSC | 4 | 3.7 | 9.1 | 0.0\% |
|  | PEM1Ch | 1 | 0.0 | 0.0 | 0.0\% |
|  | PEMA | 21504 | 9,257.7 | 22,875.4 | 25.0\% |
|  | PEMAd | 241 | 2,385.5 | 5,894.6 | 6.4\% |
|  | PEMAh | 2645 | 1,032.2 | 2,550.6 | 2.8\% |
|  | PEMAx | 58 | 3.6 | 8.9 | 0.0\% |
|  | PEMB | 6 | 4.1 | 10.2 | 0.0\% |
|  | PEMC | 7142 | 3,711.4 | 9,170.8 | 10.0\% |
|  | PEMCd | 100 | 378.3 | 934.6 | 1.0\% |
|  | PEMCh | 6289 | 1,562.7 | 3,861.4 | 4.2\% |


| Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: |
| 587 | 35.8 | 88.5 | 0.1\% |
| 12 | 13.8 | 34.2 | 0.0\% |
| 277 | 250.3 | 618.5 | 0.7\% |
| 5 | 3.1 | 7.7 | 0.0\% |
| 6 | 4.8 | 11.9 | 0.0\% |
| 2 | 7.0 | 17.2 | 0.0\% |
| 3 | 8.5 | 21.0 | 0.0\% |
| 2 | 1.1 | 2.8 | 0.0\% |
| 1 | 4.6 | 11.4 | 0.0\% |
| 1459 | 700.4 | 1,730.6 | 1.9\% |
| 4 | 3.5 | 8.7 | 0.0\% |
| 215 | 68.8 | 170.1 | 0.2\% |
| 2 | 0.3 | 0.7 | 0.0\% |
| 9 | 6.5 | 16.2 | 0.0\% |
| 6 | 1.1 | 2.8 | 0.0\% |
| 3 | 13.0 | 32.1 | 0.0\% |
| 2 | 12.1 | 30.0 | 0.0\% |
| 456 | 400.0 | 988.4 | 1.1\% |
| 2 | 1.7 | 4.2 | 0.0\% |
| 103 | 83.5 | 206.4 | 0.2\% |
| 2 | 0.1 | 0.2 | 0.0\% |
| 14 | 19.5 | 48.1 | 0.1\% |
| 4 | 16.9 | 41.7 | 0.0\% |
| 1 | 0.0 | 0.1 | 0.0\% |
| 2 | 17.1 | 42.4 | 0.0\% |
| 20 | 4.7 | 11.5 | 0.0\% |
| 1898 | 232.9 | 575.5 | 0.6\% |
| 1 | 0.5 | 1.4 | 0.0\% |
| 7 | 2.8 | 7.0 | 0.0\% |
| 1744 | 833.4 | 2,059.4 | 2.3\% |
| 6 | 15.7 | 38.8 | 0.0\% |
| 276 | 84.6 | 209.1 | 0.2\% |
| 1 | 0.1 | 0.3 | 0.0\% |
| 527 | 284.1 | 702.1 | 0.8\% |
| 2 | 7.6 | 18.9 | 0.0\% |
| 231 | 63.2 | 156.1 | 0.2\% |
| 25 | 2.4 | 6.0 | 0.0\% |

Appendix 4. Continued.

| HU Attribute | Number | Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| R2UBF | 109 | $2,023.7$ | $5,000.5$ | $5.5 \%$ |
| R2UBH | 8 | 0.5 | 1.2 | $0.0 \%$ |
| R2USA | 1320 | 680.3 | $1,681.0$ | $1.8 \%$ |
| R2USC | 133 | 42.3 | 104.6 | $0.1 \%$ |
| R3USC | 1 | 0.1 | 0.2 | $0.0 \%$ |
| R4SBA | 382 | 412.6 | $1,019.4$ | $1.1 \%$ |
| R4SBAx | 5 | 0.3 | 0.7 | $0.0 \%$ |
| R4SBC | 196 | 456.1 | $1,127.1$ | $1.2 \%$ |
| R4SBCx | 12 | 1.1 | 2.7 | $0.0 \%$ |
| R4SBF | 8 | 19.0 | 46.9 | $0.1 \%$ |
|  |  | $36,998.6$ | $91,422.3$ | $100.0 \%$ |

101401

| L1UBG | 1 |
| ---: | ---: |
| L1UBGh | 32 |
| L1UBHh | 10 |
| L2ABF | 1 |
| L2ABFh | 38 |
| L2ABG | 3 |
| L2ABGh | 28 |
| L2UBFh | 15 |
| L2USAh | 17 |
| L2USC | 4 |
| L2USCh | 144 |
| PAB/EMF | 7 |
| PAB/EMFd | 1 |
| PAB/EMFh | 52 |
| PAB/EMFhx | 1 |
| PAB/EMFx | 1 |
| PABF | 59 |
| PABFb | 1 |
| PABFh | 10664 |
| PABFhx | 109 |
| PABFx | 1271 |
| PABGh | 106 |

Number Area (ha) Area (ac) \% Area

| PABKh | 3 | 9.8 | 24.3 | $0.0 \%$ |
| ---: | ---: | ---: | ---: | ---: |
| PABKx | 11 | 15.7 | 38.7 | $0.0 \%$ |
| PEM/ABF | 68 | 343.2 | 848.1 | $0.6 \%$ |
| PEM/ABFd | 2 | 5.1 | 12.7 | $0.0 \%$ |
| PEM/ABFh | 70 | 93.0 | 229.8 | $0.2 \%$ |
| PEM/ABFX | 1 | 0.1 | 0.1 | $0.0 \%$ |
| PEM/FOA | 85 | 172.7 | 426.8 | $0.3 \%$ |
| PEM/FOAh | 1 | 0.2 | 0.4 | $0.0 \%$ |
| PEM/FOC | 44 | 75.4 | 186.4 | $0.1 \%$ |
| PEM/FOCh | 39 | 15.5 | 38.3 | $0.0 \%$ |
| PEM/FOCx | 4 | 0.5 | 1.2 | $0.0 \%$ |
| PEM/SSA | 7 | 25.0 | 61.7 | $0.0 \%$ |
| PEM/SSC | 6 | 21.3 | 52.5 | $0.0 \%$ |
| PEM/SSCh | 4 | 2.8 | 6.8 | $0.0 \%$ |
| PEMA | 9343 | $5,563.5$ | $13,747.3$ | $9.6 \%$ |
| PEMAd | 672 | $1,171.6$ | $2,895.1$ | $2.0 \%$ |
| PEMAh | 814 | 422.2 | $1,043.2$ | $0.7 \%$ |
| PEMAx | 102 | 6.1 | 15.0 | $0.0 \%$ |
| PEMC | 6235 | $6,938.1$ | $17,143.8$ | $12.0 \%$ |
| PEMCd | 242 | 762.9 | $1,885.1$ | $1.3 \%$ |
| PEMCh | 4060 | $1,478.5$ | $3,653.4$ | $2.5 \%$ |
| PEMChx | 1 | 0.0 | 0.0 | $0.0 \%$ |
| PEMCx | 1885 | 73.4 | 181.5 | $0.1 \%$ |
| PEMF | 103 | 87.2 | 215.5 | $0.2 \%$ |
| PEMFd | 4 | 16.6 | 41.1 | $0.0 \%$ |
| PEMFh | 531 | 444.7 | $1,098.8$ | $0.8 \%$ |
| PEMFx | 30 | 5.7 | 14.2 | $0.0 \%$ |
| PEMKX | 1 | 2.3 | 5.6 | $0.0 \%$ |
| PFO/EMA | 11 | 87.2 | 215.5 | $0.2 \%$ |
| PFO/EMAh | 1 | 2.7 | 6.7 | $0.0 \%$ |
| PFO/EMC | 6 | 4.2 | 10.4 | $0.0 \%$ |
| PFO/EMCh | 6 | 3.2 | 7.8 | $0.0 \%$ |
| PFO/EMCx | 1 | 0.3 | 0.7 | $0.0 \%$ |
| PFO/SSA | 1 | 163.1 | 403.1 | $0.3 \%$ |
| PFO/SSC | 0.4 | 0.9 | $0.0 \%$ |  |
| PFOA | 485.1 | $1,198.8$ | $0.8 \%$ |  |
| PFOAd | 0.9 | 2.2 | $0.0 \%$ |  |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PFOAh | 281 | 52.3 | 129.3 | 0.1\% |
|  | PFOAx | 31 | 2.2 | 5.5 | 0.0\% |
|  | PFOC | 132 | 25.3 | 62.4 | 0.0\% |
|  | PFOCh | 36 | 9.6 | 23.7 | 0.0\% |
|  | PFOCx | 4 | 0.8 | 2.1 | 0.0\% |
|  | PSS/EMA | 4 | 391.5 | 967.4 | 0.7\% |
|  | PSS/EMC | 2 | 10.1 | 24.9 | 0.0\% |
|  | PSS/EMCh | 2 | 1.8 | 4.4 | 0.0\% |
|  | PSS/USA | 1 | 0.3 | 0.7 | 0.0\% |
|  | PSSA | 148 | 120.0 | 296.4 | 0.2\% |
|  | PSSAh | 36 | 53.5 | 132.3 | 0.1\% |
|  | PSSAx | 3 | 0.2 | 0.5 | 0.0\% |
|  | PSSC | 18 | 7.0 | 17.2 | 0.0\% |
|  | PSSCh | 16 | 41.1 | 101.7 | 0.1\% |
|  | PUBFh | 5 | 0.9 | 2.2 | 0.0\% |
|  | PUBFX | 597 | 82.5 | 203.8 | 0.1\% |
|  | PUBGh | 3 | 11.9 | 29.3 | 0.0\% |
|  | PUBGx | 1 | 0.1 | 0.2 | 0.0\% |
|  | PUBKx | 3 | 0.8 | 2.0 | 0.0\% |
|  | PUS/EMA | 4 | 10.9 | 27.0 | 0.0\% |
|  | PUSA | 30 | 15.4 | 38.0 | 0.0\% |
|  | PUSAd | 2 | 1.6 | 3.9 | 0.0\% |
|  | PUSAh | 111 | 40.1 | 99.0 | 0.1\% |
|  | PUSC | 10 | 1.4 | 3.6 | 0.0\% |
|  | PUSCd | 1 | 1.5 | 3.7 | 0.0\% |
|  | PUSCh | 185 | 49.3 | 121.7 | 0.1\% |
|  | PUSCx | 9 | 0.4 | 1.1 | 0.0\% |
|  | R2UBF | 27 | 537.4 | 1,327.8 | 0.9\% |
|  | R2UBFx | 3 | 0.7 | 1.8 | 0.0\% |
|  | R2USA | 36 | 8.5 | 21.0 | 0.0\% |
|  | R2USC | 2 | 0.4 | 1.0 | 0.0\% |
|  | R4SBA | 782 | 587.1 | 1,450.8 | 1.0\% |
|  | R4SBAx | 9 | 1.0 | 2.5 | 0.0\% |
|  | R4SBC | 310 | 618.3 | 1,527.8 | 1.1\% |
|  | R4SBCx | 5 | 0.4 | 0.9 | 0.0\% |
|  | R4SBF | 78 | 329.2 | 813.5 | 0.6\% |
|  | R4SBFx | 6 | 0.9 | 2.3 | 0.0\% |
|  |  |  | 58,009.0 | 143,338.4 | 100.0\% |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 101402 |  |  |  |  |  |
|  | L1UBFh | 1 | 0.0 | 0.1 | 0.0\% |
|  | L1UBGh | 13 | 298.1 | 736.6 | 0.9\% |
|  | L2ABF | 9 | 326.9 | 807.7 | 1.0\% |
|  | L2ABFh | 26 | 102.9 | 254.3 | 0.3\% |
|  | L2ABG | 7 | 122.2 | 302.0 | 0.4\% |
|  | L2ABGh | 19 | 287.2 | 709.6 | 0.8\% |
|  | L2ABKGh | 14 | 866.7 | 2,141.5 | 2.6\% |
|  | L2UBF | 1 | 62.0 | 153.3 | 0.2\% |
|  | L2UBGh | 1 | 10.6 | 26.3 | 0.0\% |
|  | L2USA | 1 | 14.3 | 35.2 | 0.0\% |
|  | L2USC | 3 | 20.1 | 49.5 | 0.1\% |
|  | L2USCh | 2 | 0.5 | 1.1 | 0.0\% |
|  | PAB/EMF | 5 | 52.6 | 129.9 | 0.2\% |
|  | PAB/EMFh | 16 | 21.9 | 54.2 | 0.1\% |
|  | PAB/EMFX | 1 | 0.1 | 0.2 | 0.0\% |
|  | PABC | 6 | 0.2 | 0.5 | 0.0\% |
|  | PABCX | 1 | 0.0 | 0.1 | 0.0\% |
|  | PABF | 177 | 110.9 | 274.0 | 0.3\% |
|  | PABFd | 3 | 2.6 | 6.4 | 0.0\% |
|  | PABFh | 7839 | 4,534.2 | 11,203.8 | 13.4\% |
|  | PABFhx | 47 | 9.2 | 22.7 | 0.0\% |
|  | PABFx | 489 | 82.1 | 203.0 | 0.2\% |
|  | PABGb | 3 | 0.9 | 2.3 | 0.0\% |
|  | PABGh | 97 | 311.9 | 770.6 | 0.9\% |
|  | PABGhx | 1 | 0.1 | 0.2 | 0.0\% |
|  | PABGx | 9 | 28.5 | 70.3 | 0.1\% |
|  | PABKFh | 5 | 16.1 | 39.7 | 0.0\% |
|  | PABKFX | 6 | 5.6 | 13.8 | 0.0\% |
|  | PABKx | 32 | 18.1 | 44.8 | 0.1\% |
|  | PEM/ABF | 45 | 169.8 | 419.5 | 0.5\% |
|  | PEM/ABFd | 2 | 15.8 | 39.0 | 0.0\% |
|  | PEM/ABFh | 38 | 42.6 | 105.3 | 0.1\% |
|  | PEM/ABFhx | 1 | 0.1 | 0.3 | 0.0\% |
|  | PEM/ABFX | 4 | 0.8 | 2.0 | 0.0\% |
|  | PEM/FOA | 14 | 22.3 | 55.1 | 0.1\% |
|  | PEM/FOC | 34 | 38.6 | 95.3 | 0.1\% |

HU NWI Attribute

| PEM/FOCd | 1 | 0.2 | 0.5 | 0.0\% |
| :---: | :---: | :---: | :---: | :---: |
| PEM/FOCh | 9 | 1.9 | 4.6 | 0.0\% |
| PEM/FOCx | 4 | 0.7 | 1.7 | 0.0\% |
| PEM/SSA | 2 | 19.6 | 48.5 | 0.1\% |
| PEM/SSC | 2 | 4.8 | 11.7 | 0.0\% |
| PEMA | 14520 | 6,461.0 | 15,964.8 | 19.1\% |
| PEMAd | 378 | 1,404.5 | 3,470.5 | 4.1\% |
| PEMAh | 1082 | 323.1 | 798.4 | 1.0\% |
| PEMAx | 140 | 10.8 | 26.7 | 0.0\% |
| PEMB | 78 | 213.7 | 528.0 | 0.6\% |
| PEMBd | 2 | 50.3 | 124.3 | 0.1\% |
| PEMC | 7860 | 4,396.7 | 10,864.0 | 13.0\% |
| PEMCd | 183 | 832.0 | 2,055.7 | 2.5\% |
| PEMCh | 4287 | 1,028.8 | 2,542.1 | 3.0\% |
| PEMCx | 968 | 52.0 | 128.5 | 0.2\% |
| PEMF | 240 | 370.6 | 915.7 | 1.1\% |
| PEMFd | 6 | 21.9 | 54.1 | 0.1\% |
| PEMFh | 553 | 354.8 | 876.7 | 1.0\% |
| PEMFhx | 1 | 0.0 | 0.0 | 0.0\% |
| PEMFx | 38 | 6.0 | 14.8 | 0.0\% |
| PEMKAh | 27 | 157.2 | 388.4 | 0.5\% |
| PEMKCh | 41 | 253.5 | 626.3 | 0.7\% |
| PEMKCx | 2 | 0.5 | 1.3 | 0.0\% |
| PEMKFh | 42 | 541.4 | 1,337.7 | 1.6\% |
| PEMKh | 1 | 0.8 | 1.9 | 0.0\% |
| PEMKx | 15 | 12.2 | 30.1 | 0.0\% |
| PFO/EMA | 21 | 251.4 | 621.2 | 0.7\% |
| PFO/EMC | 6 | 11.4 | 28.2 | 0.0\% |
| PFO/EMCh | 3 | 2.6 | 6.4 | 0.0\% |
| PFO/SSC | 1 | 0.3 | 0.6 | 0.0\% |
| PFO5Ch | 1 | 0.8 | 2.0 | 0.0\% |
| PFO5Fh | 1 | 1.2 | 2.9 | 0.0\% |
| PFOA | 1789 | 1,316.3 | 3,252.6 | 3.9\% |
| PFOAd | 6 | 6.7 | 16.6 | 0.0\% |
| PFOAh | 254 | 56.1 | 138.7 | 0.2\% |
| PFOAhx | 1 | 0.0 | 0.1 | 0.0\% |
| PFOAx | 31 | 3.5 | 8.7 | 0.0\% |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PFOB | 3 | 0.3 | 0.7 | 0.0\% |
|  | PFOC | 132 | 47.3 | 116.8 | 0.1\% |
|  | PFOCd | 6 | 2.0 | 5.0 | 0.0\% |
|  | PFOCh | 57 | 17.8 | 44.1 | 0.1\% |
|  | PFOCx | 10 | 1.4 | 3.4 | 0.0\% |
|  | PFOKAh | 3 | 0.3 | 0.9 | 0.0\% |
|  | PSS/EMA | 3 | 30.3 | 75.0 | 0.1\% |
|  | PSS/USA | 2 | 5.6 | 13.8 | 0.0\% |
|  | PSSA | 823 | 1,223.3 | 3,022.7 | 3.6\% |
|  | PSSAd | 5 | 3.2 | 8.0 | 0.0\% |
|  | PSSAh | 43 | 20.0 | 49.4 | 0.1\% |
|  | PSSAx | 7 | 0.3 | 0.6 | 0.0\% |
|  | PSSB | 34 | 167.5 | 413.9 | 0.5\% |
|  | PSSBd | 1 | 1.3 | 3.2 | 0.0\% |
|  | PSSC | 78 | 31.1 | 76.8 | 0.1\% |
|  | PSSCd | 1 | 0.2 | 0.4 | 0.0\% |
|  | PSSCh | 39 | 18.1 | 44.7 | 0.1\% |
|  | PSSCx | 3 | 0.7 | 1.7 | 0.0\% |
|  | PSSKAh | 4 | 4.8 | 11.9 | 0.0\% |
|  | PUBFh | 7 | 4.4 | 11.0 | 0.0\% |
|  | PUBFX | 692 | 86.4 | 213.5 | 0.3\% |
|  | PUBGX | 6 | 10.2 | 25.3 | 0.0\% |
|  | PUBKx | 14 | 9.1 | 22.5 | 0.0\% |
|  | PUSA | 171 | 46.7 | 115.4 | 0.1\% |
|  | PUSAh | 263 | 72.7 | 179.6 | 0.2\% |
|  | PUSAx | 5 | 0.7 | 1.7 | 0.0\% |
|  | PUSC | 173 | 48.4 | 119.5 | 0.1\% |
|  | PUSCd | 4 | 6.1 | 15.0 | 0.0\% |
|  | PUSCh | 428 | 121.3 | 299.6 | 0.4\% |
|  | PUSCx | 33 | 3.0 | 7.3 | 0.0\% |
|  | PUSKx | 2 | 8.7 | 21.5 | 0.0\% |
|  | R2UBF | 78 | 1,634.4 | 4,038.5 | 4.8\% |
|  | R2UBFx | 6 | 8.0 | 19.7 | 0.0\% |
|  | R2UBG | 29 | 221.8 | 548.1 | 0.7\% |
|  | R2UBGx | 8 | 1.4 | 3.4 | 0.0\% |
|  | R2UBH | 2 | 0.1 | 0.2 | 0.0\% |
|  | R2USA | 1371 | 1,689.2 | 4,173.9 | 5.0\% |

Appendix 4. Continued.

## HU NWI Attribute

| R2USC | 589 |
| ---: | ---: |
| R4SBA | 717 |
| R4SBAx | 16 |
| R4SBC | 330 |
| R4SBCx | 8 |
| R4SBF | 43 |
| R4SBFx | 2 |


| Number | Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: | ---: |
|  |  |  |  |
| 589 | 259.6 | 641.5 | $0.8 \%$ |
| 717 | 953.4 | $2,355.7$ | $2.8 \%$ |
| 16 | 2.2 | 5.4 | $0.0 \%$ |
| 330 | 552.0 | $1,364.0$ | $1.6 \%$ |
| 8 | 0.6 | 1.6 | $0.0 \%$ |
| 43 | 824.7 | $2,037.7$ | $2.4 \%$ |
| 2 | 0.3 | 0.8 | $0.0 \%$ |
|  | $33,906.3$ | $83,781.3$ | $100.0 \%$ |

101500

| L1UBGh | 8 |
| ---: | ---: |
| L2ABF | 15 |
| L2ABFh | 5 |
| L2ABG | 5 |
| L2ABGh | 13 |
| L2USC | 2 |
| L2USCh | 1 |
| PAB/EMFh | 38 |
| PABC | 13 |
| PABCh | 1 |
| PABF | 218 |
| PABFh | 1187 |
| PABFhx | 118 |
| PABFX | 628 |
| PABGh | 31 |
| PABGx | 4 |
| PABKx | 4 |
| PEM/ABF | 23 |
| PEM/ABFh | 23 |
| PEM/ABFX | 1 |
| PEM/FOA | 14 |
| PEM/FOC | 37 |
| PEM/FOCd | 3 |
| PEM/FOCh | 5 |
| PEM/SSA | 1 |
| PEMA | 10960 |
| PEMAd | 383 |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PEMAh | 58 | 23.6 | 58.2 | 0.3\% |
|  | PEMAx | 46 | 1.3 | 3.2 | 0.0\% |
|  | PEMB | 2 | 0.9 | 2.3 | 0.0\% |
|  | PEMBd | 3 | 121.0 | 298.9 | 1.3\% |
|  | PEMC | 10914 | 2,816.8 | 6,960.1 | 30.0\% |
|  | PEMCd | 98 | 139.4 | 344.5 | 1.5\% |
|  | PEMCh | 402 | 173.7 | 429.2 | 1.8\% |
|  | PEMCX | 884 | 32.9 | 81.3 | 0.3\% |
|  | PEMF | 124 | 273.5 | 675.9 | 2.9\% |
|  | PEMFd | 8 | 24.0 | 59.2 | 0.3\% |
|  | PEMFh | 62 | 39.1 | 96.7 | 0.4\% |
|  | PEMFX | 11 | 1.3 | 3.2 | 0.0\% |
|  | PEMKX | 1 | 1.1 | 2.8 | 0.0\% |
|  | PFO/EMA | 4 | 2.9 | 7.1 | 0.0\% |
|  | PFO/EMAd | 1 | 0.6 | 1.4 | 0.0\% |
|  | PFO/EMC | 51 | 31.7 | 78.2 | 0.3\% |
|  | PFO/EMCd | 1 | 1.0 | 2.6 | 0.0\% |
|  | PFO/EMCh | 10 | 3.9 | 9.6 | 0.0\% |
|  | PFOA | 701 | 161.4 | 398.8 | 1.7\% |
|  | PFOAd | 10 | 8.4 | 20.9 | 0.1\% |
|  | PFOAh | 84 | 14.1 | 34.8 | 0.1\% |
|  | PFOAx | 14 | 0.4 | 1.1 | 0.0\% |
|  | PFOC | 398 | 105.6 | 260.9 | 1.1\% |
|  | PFOCd | 3 | 0.6 | 1.4 | 0.0\% |
|  | PFOCh | 22 | 7.1 | 17.7 | 0.1\% |
|  | PFOCx | 4 | 0.2 | 0.4 | 0.0\% |
|  | PSS/EMC | 2 | 0.7 | 1.7 | 0.0\% |
|  | PSSA | 69 | 28.6 | 70.6 | 0.3\% |
|  | PSSAd | 3 | 1.3 | 3.2 | 0.0\% |
|  | PSSAh | 6 | 1.3 | 3.1 | 0.0\% |
|  | PSSC | 27 | 4.9 | 12.2 | 0.1\% |
|  | PSSCh | 4 | 1.0 | 2.4 | 0.0\% |
|  | PUBF | 1 | 0.2 | 0.4 | 0.0\% |
|  | PUBFh | 4 | 0.4 | 1.0 | 0.0\% |
|  | PUBFhx | 1 | 0.9 | 2.2 | 0.0\% |
|  | PUBFx | 264 | 27.4 | 67.7 | 0.3\% |
|  | PUBGx | 1 | 3.6 | 8.9 | 0.0\% |


| HU | NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | PUSA | 7 | 3.5 | 8.7 | 0.0\% |
|  | PUSAh | 3 | 0.2 | 0.5 | 0.0\% |
|  | PUSAx | 1 | 0.1 | 0.1 | 0.0\% |
|  | PUSC | 16 | 2.1 | 5.2 | 0.0\% |
|  | PUSCh | 13 | 0.8 | 1.9 | 0.0\% |
|  | PUSCx | 1 | 0.0 | 0.0 | 0.0\% |
|  | R2UBF | 4 | 13.1 | 32.4 | 0.1\% |
|  | R2UBG | 6 | 170.8 | 422.0 | 1.8\% |
|  | R2USA | 147 | 23.8 | 58.8 | 0.3\% |
|  | R2USC | 2 | 0.1 | 0.3 | 0.0\% |
|  | R4SBA | 8 | 1.0 | 2.5 | 0.0\% |
|  | R4SBC | 21 | 25.0 | 61.7 | 0.3\% |
|  | R4SBCx | 1 | 0.1 | 0.2 | 0.0\% |
|  | R4SBF | 43 | 76.1 | 188.2 | 0.8\% |
|  | R4SBFx | 5 | 1.9 | 4.7 | 0.0\% |
|  |  |  | 9,404.7 | 23,238.7 | 100.0\% |
| 101701 |  |  |  |  |  |
|  | L1UBHh | 1 | 70.1 | 173.3 | 13.9\% |
|  | PAB/EMFh | 1 | 0.4 | 1.1 | 0.1\% |
|  | PABFh | 97 | 22.7 | 56.1 | 4.5\% |
|  | PABFhx | 3 | 0.4 | 1.0 | 0.1\% |
|  | PABFx | 9 | 1.1 | 2.6 | 0.2\% |
|  | PABGh | 1 | 2.4 | 5.9 | 0.5\% |
|  | PEM/FOCh | 2 | 0.2 | 0.6 | 0.0\% |
|  | PEMA | 61 | 28.8 | 71.3 | 5.7\% |
|  | PEMAd | 21 | 4.7 | 11.5 | 0.9\% |
|  | PEMAh | 1 | 0.1 | 0.3 | 0.0\% |
|  | PEMAx | 1 | 0.0 | 0.0 | 0.0\% |
|  | PEMC | 33 | 12.3 | 30.3 | 2.4\% |
|  | PEMCd | 1 | 1.2 | 2.9 | 0.2\% |
|  | PEMCh | 2 | 0.1 | 0.2 | 0.0\% |
|  | PEMCx | 11 | 0.3 | 0.8 | 0.1\% |
|  | PFOA | 9 | 4.0 | 9.9 | 0.8\% |
|  | PFOAh | 1 | 0.0 | 0.1 | 0.0\% |
|  | PFOC | 3 | 4.1 | 10.0 | 0.8\% |
|  | PFOCh | 4 | 0.5 | 1.2 | 0.1\% |


| HU NWI Attribute | Number | Area (ha) | Area (ac) | \% Area |
| ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| PSSA | 3 | 2.1 | 5.1 | $0.4 \%$ |
| PUBF | 1 | 0.9 | 2.2 | $0.2 \%$ |
| PUSCx | 1 | 0.0 | 0.0 | $0.0 \%$ |
| R2UBH | 3 | 250.1 | 618.1 | $49.4 \%$ |
| R2USA | 11 | 60.3 | 148.9 | $11.9 \%$ |
| R2USC | 8 | 29.9 | 74.0 | $5.9 \%$ |
| R4SBA | 8 | 5.1 | 12.5 | $1.0 \%$ |
| R4SBC | 1 | 0.7 | 1.7 | $0.1 \%$ |
| R4SBF | 1 | 3.5 | 8.6 | $0.7 \%$ |
|  |  | 506.0 | $1,250.4$ | $100.0 \%$ |

Appendix 5. Number and Area of basins in western South Dakota summed by county and water regime.

| Cty. | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bennett |  |  |  |  |  |  |
|  | Temporary | 1,688 | 51.6\% | 871.9 | 2,154.6 | 15.7\% |
|  | Seasonal | 1,122 | 34.3\% | 983.3 | 2,429.6 | 17.7\% |
|  | Semipermanent | 407 | 12.4\% | 902.3 | 2,229.6 | 16.2\% |
|  | Permanent | 54 | 1.7\% | 2,805.6 | 6,932.6 | 50.4\% |
|  |  | 3,271 | 100.0\% | 5,563.1 | 13,746.3 | 100.0\% |
| Butte |  |  |  |  |  |  |
|  | Temporary | 2,320 | 25.5\% | 656.1 | 1,621.2 | 7.5\% |
|  | Seasonal | 2,233 | 24.6\% | 626.5 | 1,548.0 | 7.1\% |
|  | Semipermanent | 4,461 | 49.1\% | 3,819.8 | 9,438.5 | 43.5\% |
|  | Permanent | 67 | 0.7\% | 3,673.1 | 9,076.1 | 41.9\% |
|  |  | 9,081 | 100.0\% | 8,775.4 | 21,683.7 | 100.0\% |
| Corson |  |  |  |  |  |  |
|  | Temporary | 5,322 | 53.8\% | 1,450.0 | 3,583.0 | 23.5\% |
|  | Seasonal | 2,082 | 21.1\% | 1,426.5 | 3,524.9 | 23.2\% |
|  | Semipermanent | 2,421 | 24.5\% | 2,497.9 | 6,172.2 | 40.5\% |
|  | Permanent | 59 | 0.6\% | 786.2 | 1,942.8 | 12.8\% |
|  |  | 9,884 | 100.0\% | 6,160.7 | 15,222.9 | 100.0\% |
| Custer |  |  |  |  |  |  |
|  | Temporary | 957 | 28.7\% | 160.6 | 396.8 | 15.1\% |
|  | Seasonal | 943 | 28.3\% | 147.3 | 363.9 | 13.8\% |
|  | Semipermanent | 1,377 | 41.3\% | 620.1 | 1,532.2 | 58.2\% |
|  | Permanent | 56 | 1.7\% | 138.1 | 341.4 | 13.0\% |
|  |  | 3,333 | 100.0\% | 1,066.1 | 2,634.2 | 100.0\% |
| Dewey |  |  |  |  |  |  |
|  | Temporary | 2,621 | 36.0\% | 1,966.5 | 4,859.1 | 22.3\% |
|  | Seasonal | 1,665 | 22.9\% | 1,909.2 | 4,717.7 | 21.7\% |
|  | Semipermanent | 2,924 | 40.2\% | 3,619.0 | 8,942.3 | 41.1\% |
|  | Permanent | 70 | 1.0\% | 1,320.3 | 3,262.4 | 15.0\% |
|  |  | 7,280 | 100.0\% | 8,814.9 | 21,781.4 | 100.0\% |


| Cty. | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall River |  |  |  |  |  |  |
|  | Temporary | 1,764 | 22.4\% | 238.7 | 589.8 | 4.7\% |
|  | Seasonal | 2,840 | 36.0\% | 551.3 | 1,362.2 | 10.8\% |
|  | Semipermanent | 3,244 | 41.2\% | 2,042.2 | 5,046.2 | 39.9\% |
|  | Permanent | 35 | 0.4\% | 2,286.6 | 5,650.0 | 44.7\% |
|  |  | 7,883 | 100.0\% | 5,118.7 | 12,648.2 | 100.0\% |
| Gregory |  |  |  |  |  |  |
|  | Temporary | 3,045 | 33.0\% | 524.5 | 1,296.1 | 18.5\% |
|  | Seasonal | 2,936 | 31.8\% | 600.5 | 1,483.8 | 21.2\% |
|  | Semipermanent | 3,211 | 34.8\% | 1,358.8 | 3,357.5 | 48.0\% |
|  | Permanent | 45 | 0.5\% | 348.5 | 861.3 | 12.3\% |
|  |  | 9,237 | 100.0\% | 2,832.4 | 6,998.7 | 100.0\% |
| Haakon |  |  |  |  |  |  |
|  | Temporary | 1,643 | 26.7\% | 787.3 | 1,945.5 | 15.7\% |
|  | Seasonal | 1,780 | 29.0\% | 1,162.8 | 2,873.2 | 23.3\% |
|  | Semipermanent | 2,700 | 44.0\% | 2,799.5 | 6,917.5 | 56.0\% |
|  | Permanent | 20 | 0.3\% | 250.3 | 618.4 | 5.0\% |
|  |  | 6,143 | 100.0\% | 4,999.9 | 12,354.6 | 100.0\% |
| Harding |  |  |  |  |  |  |
|  | Temporary | 6,211 | 49.8\% | 1,257.1 | 3,106.2 | 23.1\% |
|  | Seasonal | 2,987 | 23.9\% | 901.9 | 2,228.7 | 16.6\% |
|  | Semipermanent | 3,233 | 25.9\% | 2,715.0 | 6,708.7 | 49.9\% |
|  | Permanent | 43 | 0.3\% | 565.4 | 1,397.0 | 10.4\% |
|  |  | 12,474 | 100.0\% | 5,439.4 | 13,440.5 | 100.0\% |
| Jackson |  |  |  |  |  |  |
|  | Temporary | 1,698 | 30.5\% | 385.1 | 951.6 | 14.4\% |
|  | Seasonal | 1,709 | 30.7\% | 558.3 | 1,379.7 | 20.9\% |
|  | Semipermanent | 2,128 | 38.2\% | 1,522.1 | 3,761.2 | 57.0\% |
|  | Permanent | 32 | 0.6\% | 206.9 | 511.3 | 7.7\% |
|  |  | 5,567 | 100.0\% | 2,672.5 | 6,603.7 | 100.0\% |

Cty. Water Regime Number \% Number Area (ha) Area (ac) \% Area

| Jones |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Temporary | 1,065 | 21.9\% | 553.9 | 1,368.8 | 10.2\% |
| Seasonal | 1,180 | 24.3\% | 972.4 | 2,402.8 | 18.0\% |
| Semipermanent | 2,570 | 52.8\% | 3,524.8 | 8,709.7 | 65.2\% |
| Permanent | 48 | 1.0\% | 356.5 | 880.9 | 6.6\% |
|  | 4,863 | 100.0\% | 5,407.7 | 13,362.3 | 100.0\% |
| Lawrence |  |  |  |  |  |
| Temporary | 182 | 15.0\% | 28.2 | 69.7 | 8.6\% |
| Seasonal | 305 | 25.2\% | 32.4 | 80.1 | 9.9\% |
| Semipermanent | 542 | 44.7\% | 165.1 | 407.9 | 50.6\% |
| Permanent | 183 | 15.1\% | 100.7 | 248.9 | 30.9\% |
|  | 1,212 | 100.0\% | 326.4 | 806.6 | 100.0\% |
| Lyman |  |  |  |  |  |
| Temporary | 2,384 | 26.9\% | 2,177.2 | 5,379.8 | 18.7\% |
| Seasonal | 2,356 | 26.6\% | 2,400.8 | 5,932.3 | 20.7\% |
| Semipermanent | 4,070 | 45.9\% | 6,594.9 | 16,295.7 | 56.8\% |
| Permanent | 51 | 0.6\% | 444.4 | 1,098.0 | 3.8\% |
|  | 8,861 | 100.0\% | 11,617.3 | 28,705.9 | 100.0\% |
| Meade |  |  |  |  |  |
| Temporary | 4,282 | 29.8\% | 1,035.2 | 2,558.0 | 15.6\% |
| Seasonal | 3,679 | 25.6\% | 1,044.9 | 2,581.9 | 15.7\% |
| Semipermanent | 6,350 | 44.2\% | 4,199.2 | 10,376.0 | 63.1\% |
| Permanent | 40 | 0.3\% | 372.0 | 919.3 | 5.6\% |
|  | 14,351 | 100.0\% | 6,651.3 | 16,435.1 | 100.0\% |
| Mellette |  |  |  |  |  |
| Temporary | 2,152 | 37.4\% | 329.7 | 814.8 | 10.8\% |
| Seasonal | 1,317 | 22.9\% | 765.9 | 1,892.6 | 25.2\% |
| Semipermanent | 2,266 | 39.3\% | 1,812.8 | 4,479.4 | 59.5\% |
| Permanent | 26 | 0.5\% | 136.5 | 337.3 | 4.5\% |
|  | 5,761 | 100.0\% | 3,045.0 | 7,524.0 | 100.0\% |


| Cty. | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pennington |  |  |  |  |  |  |
|  | Temporary | 2,387 | 26.8\% | 845.0 | 2,087.9 | 16.3\% |
|  | Seasonal | 2,494 | 28.0\% | 840.0 | 2,075.5 | 16.2\% |
|  | Semipermanent | 3,833 | 43.1\% | 2,573.7 | 6,359.5 | 49.7\% |
|  | Permanent | 188 | 2.1\% | 916.8 | 2,265.3 | 17.7\% |
|  |  | 8,902 | 100.0\% | 5,175.4 | 12,788.2 | 100.0\% |
| Perkins |  |  |  |  |  |  |
|  | Temporary | 4,820 | 45.8\% | 1,231.7 | 3,043.5 | 16.2\% |
|  | Seasonal | 2,291 | 21.8\% | 743.1 | 1,836.1 | 9.8\% |
|  | Semipermanent | 3,383 | 32.1\% | 2,901.4 | 7,169.3 | 38.2\% |
|  | Permanent | 33 | 0.3\% | 2,729.0 | 6,743.4 | 35.9\% |
|  |  | 10,527 | 100.0\% | 7,605.2 | 18,792.3 | 100.0\% |
| Shannon |  |  |  |  |  |  |
|  | Temporary | 2,333 | 54.3\% | 326.7 | 807.2 | 18.4\% |
|  | Seasonal | 1,186 | 27.6\% | 398.4 | 984.5 | 22.5\% |
|  | Semipermanent | 749 | 17.4\% | 541.1 | 1,337.1 | 30.5\% |
|  | Permanent | 31 | 0.7\% | 505.2 | 1,248.4 | 28.5\% |
|  |  | 4,299 | 100.0\% | 1,771.4 | 4,377.2 | 100.0\% |
| Stanley |  |  |  |  |  |  |
|  | Temporary | 1,243 | 24.0\% | 515.0 | 1,272.5 | 9.7\% |
|  | Seasonal | 1,267 | 24.5\% | 1,003.6 | 2,479.8 | 18.9\% |
|  | Semipermanent | 2,604 | 50.3\% | 3,297.8 | 8,148.7 | 62.1\% |
|  | Permanent | 63 | 1.2\% | 497.9 | 1,230.4 | 9.4\% |
|  |  | 5,177 | 100.0\% | 5,314.2 | 13,131.3 | 100.0\% |
| Todd |  |  |  |  |  |  |
|  | Temporary | 5,042 | 59.7\% | 443.9 | 1,096.8 | 18.2\% |
|  | Seasonal | 2,576 | 30.5\% | 829.8 | 2,050.4 | 34.0\% |
|  | Semipermanent | 791 | 9.4\% | 775.0 | 1,915.0 | 31.7\% |
|  | Permanent | 41 | 0.5\% | 393.2 | 971.7 | 16.1\% |
|  |  | 8,450 | 100.0\% | 2,441.9 | 6,033.9 | 100.0\% |


| Cty. | Water Regime | Number | \% Number | Area (ha) | Area (ac) | \% Area |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Tripp |  |  |  |  |  |  |
|  | Temporary | 6,656 | $31.8 \%$ | $1,084.4$ | $2,679.5$ | $16.2 \%$ |
|  | Seasonal | 10,771 | $51.4 \%$ | $2,442.8$ | $6,036.1$ | $36.5 \%$ |
|  | Semipermanent | 3,403 | $16.3 \%$ | $2,380.9$ | $5,883.1$ | $35.6 \%$ |
|  | Permanent | 111 | $0.5 \%$ | 778.7 | $1,924.1$ | $11.6 \%$ |
|  |  | 20,941 | $100.0 \%$ | $6,686.8$ | $16,522.8$ | $100.0 \%$ |
|  |  |  |  |  |  |  |
| Ziebach |  |  |  |  |  |  |
|  |  | 2,012 | $35.8 \%$ | $1,019.8$ | $2,519.9$ | $17.0 \%$ |
|  | Temporary | 800 | $14.2 \%$ | 781.7 | $1,931.5$ | $13.0 \%$ |
|  | Seasonal | 2,783 | $49.5 \%$ | $3,869.3$ | $9,560.8$ | $64.4 \%$ |
|  | Semipermanent | 32 | $0.6 \%$ | 337.1 | 833.1 | $5.6 \%$ |
|  | Permanent | 5,627 | $100.0 \%$ | $6,007.9$ | $14,845.3$ | $100.0 \%$ |

