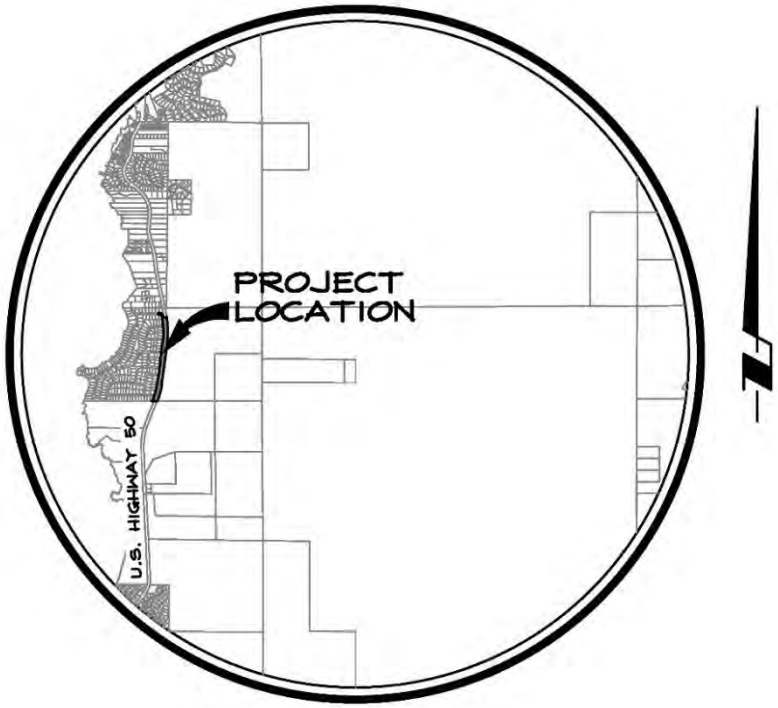
August 11, 2021

USDA Rural Development
1390 S. Curry Street.
Carson City, NV 89706

Skyland Fence Replacement Project
Environmental Report for Categorical Exclusions

To Whom it may Concern:

The community of Skyland, developed in the 1950's, is a 234-unit residential development located along the eastern shore of Lake Tahoe, Nevada. The development's southern boundary is shared with the Zephyr Cove public beach activity area owned by the US Forest Service (USFS), its northern boundary is shared with private landowners, the development's eastern boundary is bordered by the Nevada Department of Transportation (NDOT) right-of-way for US Highway 50 (Highway 50), and the Lake Tahoe shoreline defines the western edge of the development. The development consists of residential lots, public roadways, and several architectural features which define the community. One such feature is the focus of this project, a white wooden fence with white light capped brick pillars located between the eastern edge of Myron Drive and the eastern development boundary.



VICINITY MAP
1" = 4,000'

1603 Esmeralda Avenue
Minden, Nevada 89423
P 775.782.2322
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Every feature, both manmade and natural, has a lifespan. That lifespan is defined by its environment. Lake Tahoe's natural environment includes high altitude, low humidity, intense sun exposure, high winds, and daily winter freeze/thaw cycles which presents unique challenges on unprotected materials. Over the almost 70 years of the development's existence, these factors have naturally impacted the overall state of the original wood and brick fence structure.

Crumbling post footings

The wood fence slats are in constant need of repair and replacement from naturally occurring factors like sun rot and wind damage. The daily freeze/thaw cycles and aging concrete have resulted in the deterioration of the post's foundations, and heaving from the freeze/thaw cycles have negatively impacted structural stability.

In addition to the natural environment's impact on the fence, its location, immediately adjacent to Highway 50, has subjected the fence to manmade challenge's. Snow removal activities conducted on the highway directly impacts the fence throughout the winter. These activities subject the fence to direct impacts from ice, rock, and salts which accelerated the natural degradation of the wood materials, weakened the structural elements of the posts, and resulted

Natural environmental damage of the wood fence materials

in damage to the aging metal and glass lighting elements. The proximity to the highway also subjects the fence to periodic direct impacts by vehicles. These encounters have caused considerable damage to the wooden fence materials, brick posts, lighting and exposed electrical light wiring which runs along the lower rail of the fence.

Damage inflicted from vehicle impact

Although the Skyland GID (GID) has been active in the repairs and maintenance of this feature, the structure itself has exceeded its natural life span. After much consideration, the GID and Skyland community has decided to entirely remove and replace the existing white fence and brick posts with a new fence that pays tribute to the character of the current landmark. A new wooden slat in a natural stained color with the scalloped pattern will replace the white wooden fence. The dated brick posts and metal white cap lighting will be replaced with standard wooden fence posts and lighting will be relocated along Myron Avenue in low impact post lighting. These changes will preserve the original character of the fence alignment with new materials, as well as comply with current Douglas County and the Tahoe Regional Planning Agency (TRPA) code requirements in color and design to better blend with the natural environment.

For safety purposes, the existing exposed electrical wiring and conduit currently located directly below the lower rail of the fence, will be relocated into an underground trench along Myron Drive.

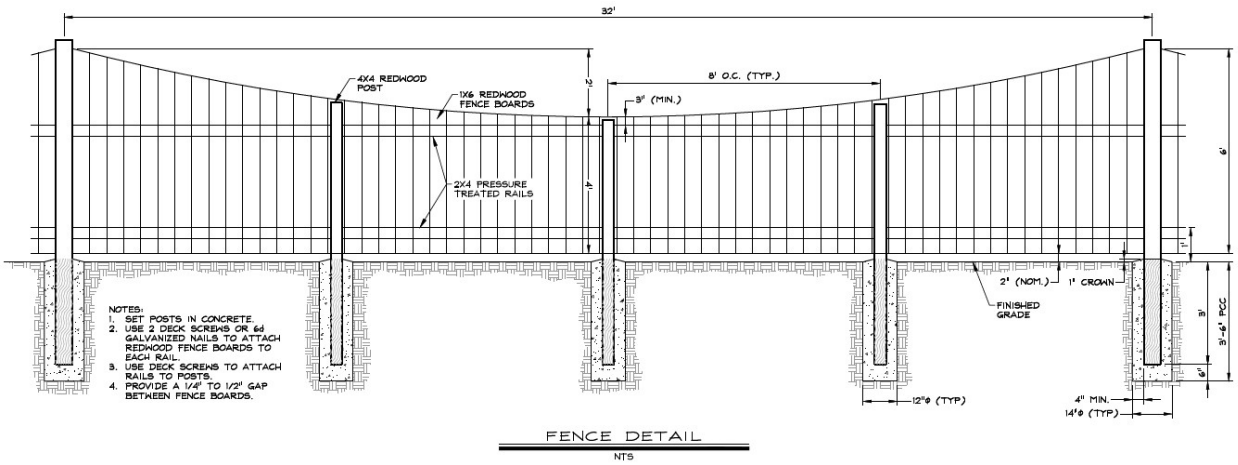
The GID and community members explored several project approaches. These approaches included repairing the existing fence, as well as fully replacing the fence with similar or differing materials.

The above-mentioned damage is found on over 75% of the existing fence structure. An evaluation to fully restore the existing fence was conducted and proved to be extremely expensive and, due to current TRPA and Douglas County code requirements, not possible to permit. This led to the decision that a complete replacement was necessary.

Evaluation of several preplacement fence options was discussed. This evaluation included a 6’ tall precast concrete panel fence, mixed materials wall, iron fence, and vegetated buffer. Evaluations based on historical context, neighborhood character, local and county code, installation and maintenance costs, security, and longevity were discussed over four years. A final decision was made that a wood fence that mimics the current design character but fully complies with local requirements to compliment the natural mountain environment in color and detail and remain sensitive to reducing light pollution would be installed.

Existing light fixtures and exposed electrical wiring.

The new fence, as shown in the image below, will be located in the current fence footprint, thus eliminating the need for extensive grading disturbance, grading and structural encroachment into the adjacent Highway 50 right-of-way, and will reduce the “coverage” area as calculated by TRPA.

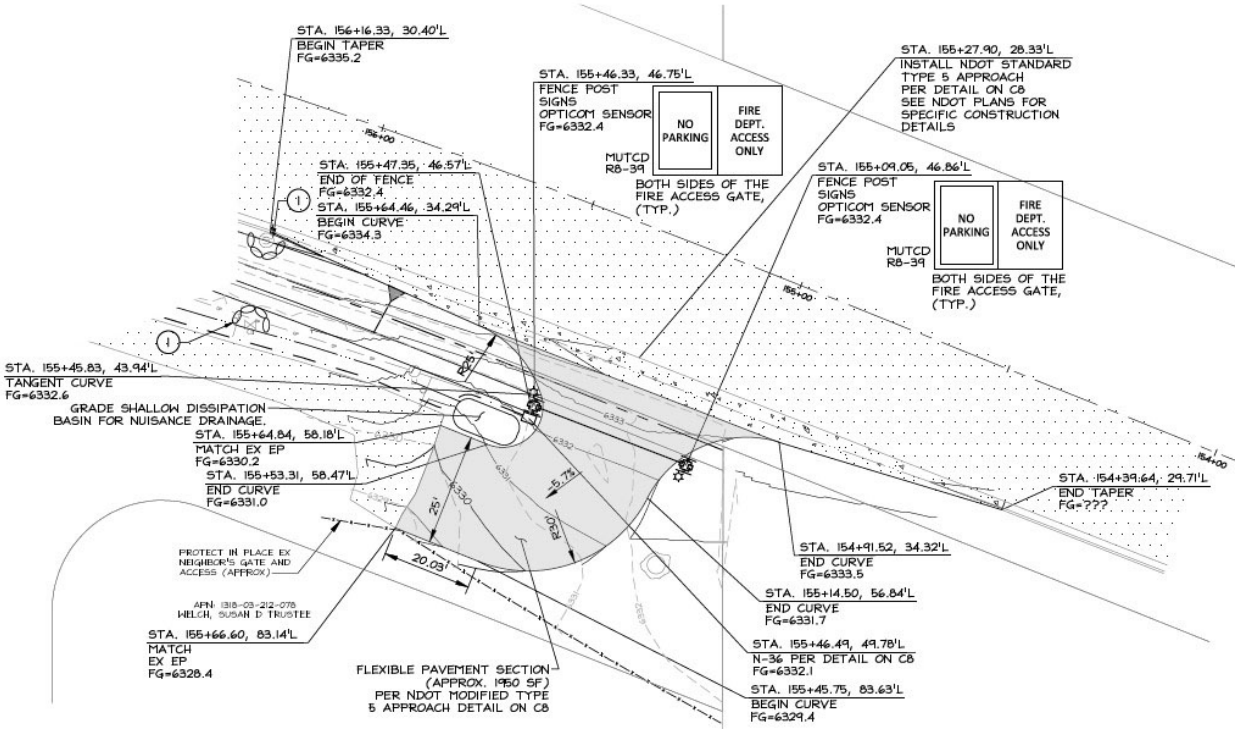


Proposed fence design

The new fence will share the “scalloped” shape of the current fence. To better comply with the natural mountain environment feel, the dated brick posts between the complete scalloped panel series will be replaced with larger redwood posts. In place of the current stark white finish a natural stain will be applied to the wood to help protect the materials from the natural elements. The design is easily repaired when unavoidable human based impacts are made from vehicles and snow removal activity.

Dark sky compliant pole mounted LED light fixtures located along Myron Drive will meet current county and local design criteria, reduce maintenance and utility costs, and will direct lighting to areas more used by vehicle and pedestrian traffic. Underground wiring for the new lights will improve the safety, functionality, and maintenance for the feature.

Furthermore, recent natural disasters, specifically wildland fires, have brought attention to the need for a second dedicated emergency access along the fence frontage into the. development. Because Skyland has only one means of egress, a second access for emergency vehicles is critical to the safety of the community members and first responders. Additionally, current code requires developments of this size to have two access points in the event emergency responders are not able to use the primary entrance. The elevated importance of this feature was shared by the GID board and community.



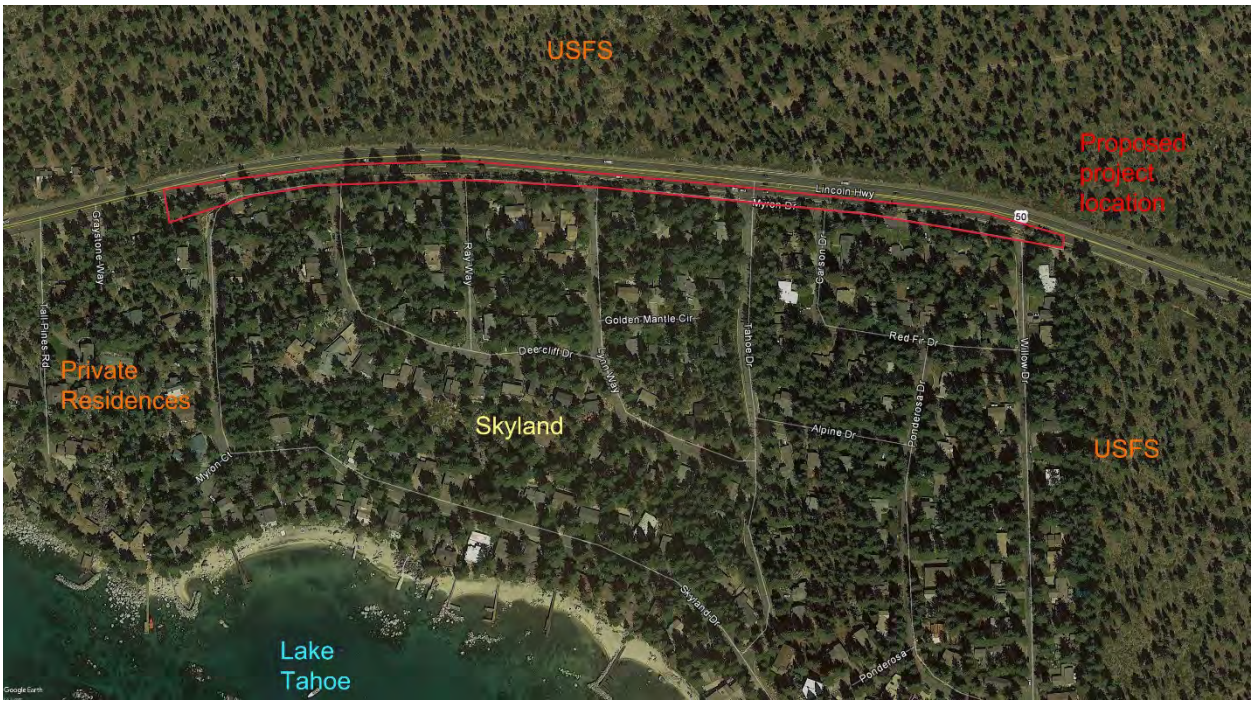
Proposed emergency access and NDOT approach

In response to the request, a location for a dedicated gate and road access to Myron Drive from Highway 50 was selected, as seen in the exhibit above, due to its direct access to Myron Drive, flat topography, close proximity to the adjacent highway, and

lack of infrastructure and vegetation. The location was reviewed and approved by Tahoe Douglas Fire Protection District (TDFP) personnel as meeting their specific requirements for their vehicles. The location was also reviewed and approved by NDOT for highway access safety compliance. This access will be restricted to emergency use only, secured by an automatic gate, and maintained by the GID. The feature will be designed in agreement with the local fire district and NDOT design standards.

A landscape buffer will run along the entire length of the fence facing Myron Drive. This buffer will serve as a visual and noise buffer for the residences that face Highway 50. The vegetative buffer will also serve as erosion control and support the “mountain” feel required within TRPA designated “Highway Viewshed Corridors”. The proposed plant materials are native or adaptive materials, with a low canopy appropriate under overhead utility infrastructure. The materials have low water requirements and can be sustained on the simple drip irrigation system included in the design. Large plant materials were selected to provide maximum plant cover and visual impact with minimal plant quantities. This helps reduce costs without impacting the density desired by the GID and residents.

Project Description and Location:



Project Area Map

The extents of the construction activity consist of approximately 0.65 acres of land. As shown on the draft plan set included with this report, the construction activity for the GID fence replacement project consists of all necessary construction activity to remove and dispose the existing fence, columns, and lighting in its entirety. The new fence structure will be installed on the existing fence footprint, upgraded dark sky compliant light poles

and fixtures and necessary electrical infrastructure. Native and adapted plantings, with low flow drip irrigation, will be located along the Myron Drive face of the new fence. In addition to the proposed fence improvements, a paved NDOT emergency access approach and driveway will be located at the southern end of the proposed fence alignment. The access will be for emergency personal use only. Signage and an automatic access gate will provide a direct connection between the southern terminus of Myron Drive and the adjacent US Highway 50 road corridor. The access will be designed in accordance with TDFP and NDOT standards. Both agencies approval of the completed design is required prior to construction.

Additional project related activities include removal of existing tree stumps which hinder the construction of the proposed fence and access, minor grading activities to support the new fence and restore the historic flowline and shoulder along the eastern edged of Myron Drive, grading improvements and paving of the proposed emergency access approach and driveway, and necessary underground electrical infrastructure for the proposed lighting and gate. Site clearing is minimized to only what is necessary for the construction of the fence. All on and off-site disturbed areas will be reseeded with a native vegetation, planted with native and/or adapted vegetation or mulched to stabilize the exposed ground. Staging will be located on existing disturbed areas at the proposed emergency access area or along the Myron Drive road frontage. The staging areas will be restored or improved to better than current conditions upon the completion of the construction activities.

Land Ownership and Land Use:

The proposed fence will be located entirely within the footprint of the existing fence, on parcel B Skyland Subdivisions No. 2 and No. 3 shown on the recorded maps included in the appendices; therefore, no additional land, easements, or rights-of-way are necessary for the proposed structure.

As a part of the permitting process, both Douglas County and NDOT will review and approve the final design prior to construction. A small amount of grading activities will occur within the adjacent NDOT right-of-way and within the Myron Drive right-of-way. The design has been communicated and agreed upon with NDOT and Douglas County through earlier discussions with the agency's engineers. All planned construction activity within the existing NDOT right-of-way will be included with the required emergency access improvements under a NDOT encroachment permit obtained as a part of the final permitting process. Grading activities within the Douglas County right-of-way will be reviewed and approved by the County agency prior to construction. The project is located within the jurisdiction of the TRPA as well as the TDFP. Both agencies will review and approve the project prior to receiving the necessary permits for construction.

Threatened and Endangered Species/Biological Resources:

The Nevada Natural Heritage Program's current Endangered and Threatened Species list for Douglas County indicates 3 species for the area.

Department of Conservation and Natural Resources

Nevada Natural Heritage Program

NV.gov Agencies Jobs About Nevada

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D_USESA_ID IN ('01', '02') AND D_COUNTY_ID IN ('2165')

Displaying 1 - 3 out of 3 records

Back to Search | Previous | Next

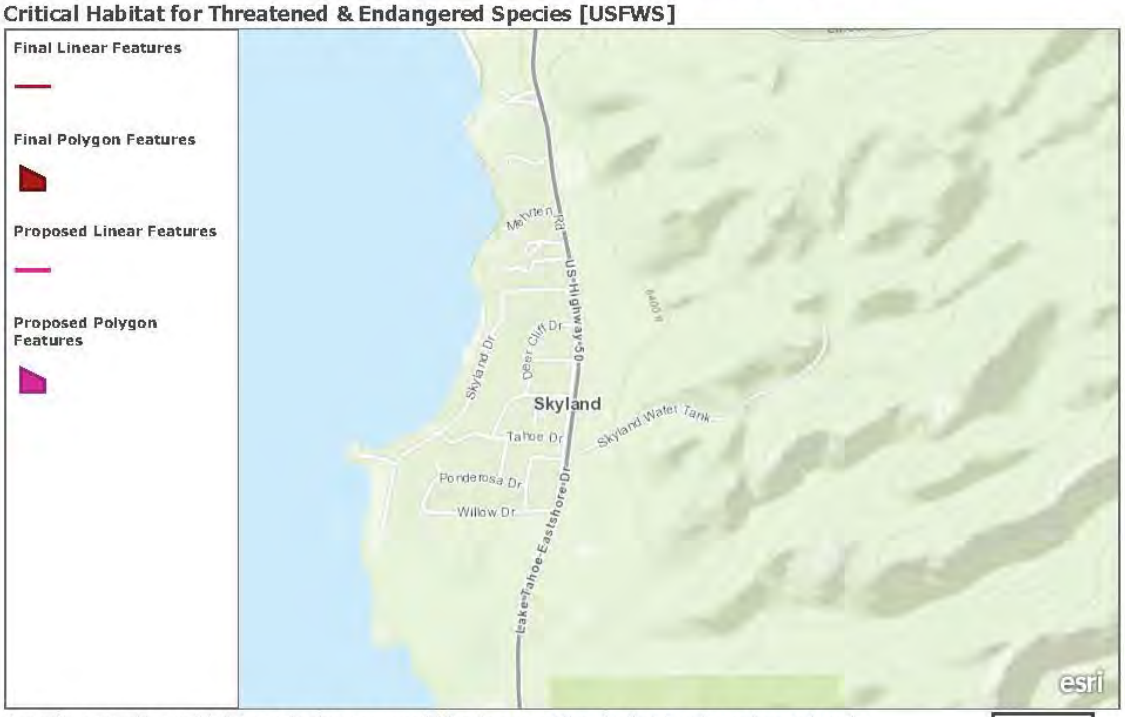
Download results as .xlsx | See Symbol Definitions

Minor Group ID	Common Name	Species	G Rank	S Rank
AA	Sierra Nevada yellow-legged frog	Rana sierrae	G2	SH
II	Carson wandering skipper	Pseudocopaeodes eunus obscurus	G3G4T1	S1
PD	Webber Ivesia	Ivesia webberi	G2	S2

Back to Search | Previous | Next

12/20/2018 Critical Habitat for Threatened & Endangered Species [USFWS]

Critical Habitat for Threatened & Endangered Species [USFWS]



A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

U.S. Fish and Wildlife Service | Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

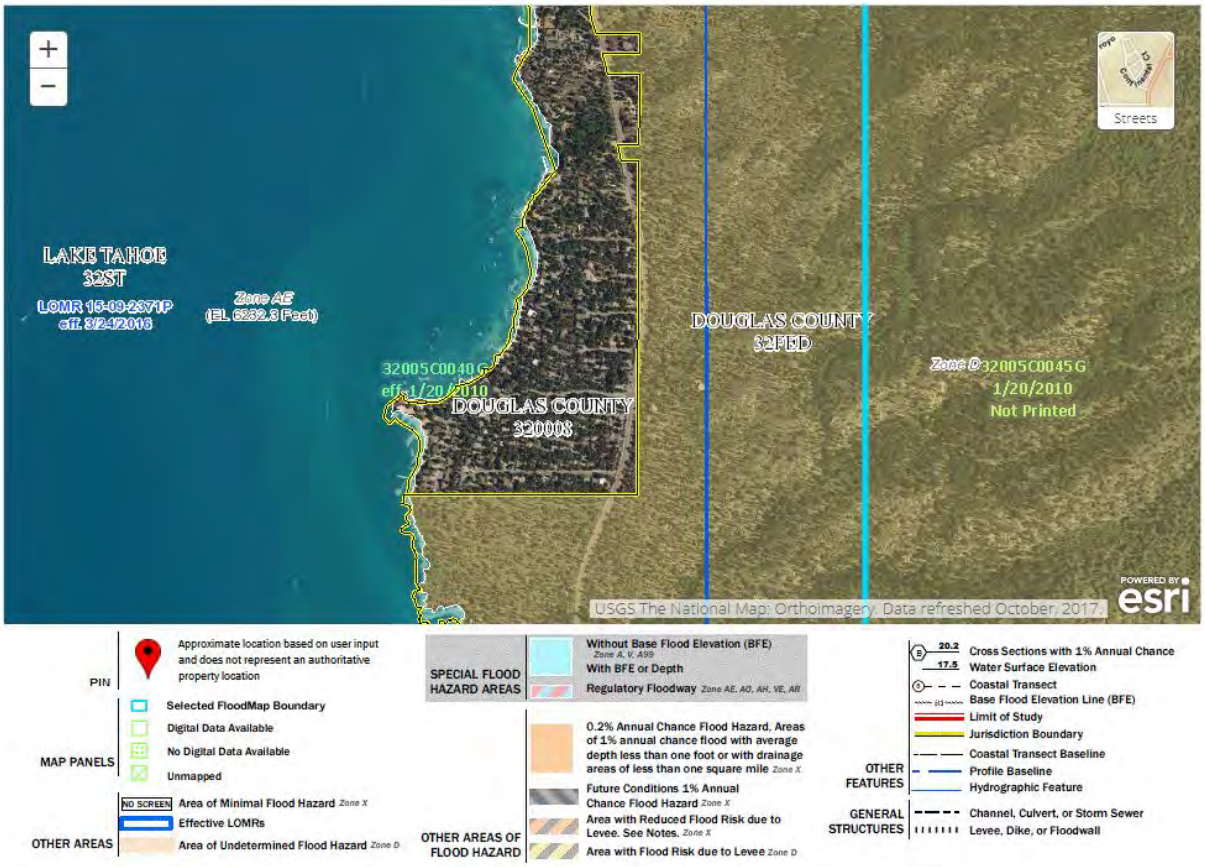
Current USWFS IPaC, provided in the appendix of this document, reports no critical habitat in the project area. The small footprint and busy project location for the project limits the possible disturbance to critical habitat for these spaces. Also, adjacent vast pristine areas further lessen the impact this project will have on these species. Planned revegetation, as seen in the attached landscape plans, will mitigate any habitat deficiency caused by the construction of the fence.

Wetlands:

The areas adjacent to the project contain critical engineered infrastructure to support the local and regional communities. A substantial amount of imported structural fill material, which supports the adjacent Highway 50 road section as well as Myron Drive, makes up most of the project surface material. The structural soils needed for these features require soils which are not compatible for a wetland environment.

Furthermore, current soils reports, as stated in the attached United States Department of Agriculture (USDA) Soils Map, indicate the areas contains rapidly draining soils, which lack the necessary characteristics to support a wetland environment.

Floodplains:



Current FIRM map of the poreposed porject area

FIRM Map 32005C0040 G dated 01/20/2010 indicated the project area is in an Unshaded 'X' flood zone, and therefor is not within a designated floodplain.

Coastal Areas:

The project is located entirely in Nevada. At the time of the drafting of this report, the Office of Ocean and Coastal Resource Management does not recognize any Coastal Zone Management Area or Coastal Barrier Resource Area within the state of Nevada.

Important Farmland:

The project area is not located on active agriculture lands. The site's narrow character and adjacent land uses, and adjacent slopes are not conducive to existing or future agricultural uses.

Environmental Risk Management:

The extents of the construction activity are minimal. All existing fence materials shall be demolished and removed to appropriate facilities outside of the Tahoe Basin. All proposed import materials will be free of hazardous materials, substances, or waste products. All new fence materials will be composed of hazard free materials.

Additionally, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared to contain any construction activity which could produce possible contaminants typical of this type of construction. All existing storm drains and channels will be protected with industry standard BMP's to contain any sediment which may be produced by the activity, from reaching public water sources.

Other Resources:

The project site is located within the Tahoe Basin. The above mentioned SWPPP will be provided to contain runoff form the site. No wellhead protection areas are located within the project boundary. The site is not within a coastal area or watershed, therefor all coastal related concerns are not applicable to this project.

Preliminary Estimated Costs:

A preliminary estimation of construction costs is included as a part of this submittal. The estimate includes a breakdown of development and construction costs, legal fees, architectural/engineering fees, contingencies estimate, and other construction and permitting related costs.

No land or rights-of-way costs are anticipated, as the project is a remove and replace in place item, as shown on the original recorded map. No equipment costs are anticipated for the operation of the fence, emergency access, or landscape elements. Refinancing costs are not applicable as the GID does not hold any existing debt, and therefore will not require any refinancing.

The annual operating costs for the fence is expected to be minimal, consisting of reapplying a protective stain to the entire fence structure every 3 to 5 years, and replacement of damaged fence pickets and posts on an as needed basis. We estimate the complete restaining activity to cost the GID $5,000 and the yearly repairs to be approximately $1,000 per year. All damage that occurs from vehicle impacts is expected to be paid for by the driver's insurance company. Any costs related to the proposed

landscaping will be minimal. Monthly irrigation inspections/repairs weeding, pruning and mulch replacement will occur during the natural growing months. This is estimated at approximately $3,500 per year.

Anticipated Construction Obstacles:

Due to the nature of the construction, remove and replace in-place, no construction obstacles are anticipated.

Conclusions statement on Financing Solutions:

In conclusion, the proposed project has been deemed as a low-cost solution to the much-needed fence replacement goals. The project will preserve the character of the existing fence in a manner that is more conducive to the natural environment and is in complete compliance with local and state permitting agencies. The project will improve safety within the subdivision and provide an attractive buffer between the residential streets and the highly traveled highway travel routes.

The GID anticipates financing the project by contributing approximately $100,000 from existing GID savings and applying to USDA Rural Development office for the remainder of the project funding requirements, based on conversations with USDA. The current interest rate on the USDA loan is 2.25% and the anticipated term is 20 years.

If any other information is necessary, please do not hesitate to contact me at any time.

Sincerely,

R.O. ANDERSON ENGINEERING, INC.

Marie Hulse, PLA, CPESC

Landscape Architect

Appendices

DRAWING NUMBER
Skyland #2
Sheet 1 of 3

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

REVIEWED, APPROVED AND RECOMMENDED TO THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY BY THE DOUGLAS COUNTY PLANNING COMMISSION ON THIS THE 21st DAY OF May 1959

Myron E. Sewalls
CHAIRMAN
By Earnhart W. Ihran
Secretary

APPROVED AND ACCEPTED THIS 5th DAY OF June 1959 BY THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, NEVADA, SUBJECT TO THE STIPULATION THAT BY ADOPTING SAME THE COUNTY HEREBY ASSUMES NO RESPONSIBILITY FOR THE PUBLIC WAYS SHOWN HEREON. THE COUNTY COMMISSIONERS HOWEVER RESERVE THE RIGHT TO ACCEPT THE STREETS AS SHOWN HEREON AT ANY FUTURE DATE.

Marion Settlemeyer
CHAIRMAN

W. H. Beeler Sr.
MEMBER

Ralph H. Plimpton
MEMBER

ATTESTED Earnhart W. Ihran
COUNTY CLERK

THE UNDERSIGNED HEREBY CERTIFIES THAT HE IS THE DULY APPOINTED COUNTY ENGINEER OF DOUGLAS COUNTY, NEVADA, THAT HE HAS EXAMINED THE PLAT TO WHICH THIS CERTIFICATE IS ATTACHED, THAT THE SUBDIVISION AS SHOWN THEREON IS SUBSTANTIALLY THE SAME AS IT APPEARED ON THE TENTATIVE MAP AND ANY APPROVED ALTERATIONS THEREOF, THAT ALL PROVISIONS OF THE LAWS OF THE STATE OF NEVADA AND ORDINANCES OF THE COUNTY OF DOUGLAS APPLICABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH AND THAT HE IS SATISFIED SAID MAP IS TECHNICALLY CORRECT.

J. N. Stahlfeld
COUNTY ENGINEER

BASIS OF BEARINGS:-
SKYLAND SUBDIVISION No. 1
AND SECTION LINE COMMON TO SEC. 3, T13N, R18E & SEC. 34, T14N, R18E, M.D.B.&M. BEARS N 89°38' W.

INDICATES UTILITY EASEMENTS

INDICATES STREET LINE MONUMENTS TO BE SET.
ALL LOT CORNERS, B.C. & E.C. NOT OTHERWISE MONUMENTED WILL BE ½" IRON PINS. MONUMENTS SHOWN WILL BE SET ON OR BEFORE OCT. 1, 1960

STATE OF NEVADA
COUNTY OF DOUGLAS S.S.

THIS IS TO CERTIFY THAT THE UNDERSIGNED, STOCKTON GARDEN HOMES INC. IS THE OWNER OF THE TRACT OF LAND REPRESENTED ON THIS MAP OR PLAT AND THAT THE SAME IS EXECUTED IN COMPLIANCE WITH AND SUBJECT TO THE PROVISIONS OF CHAPTER 278 OF NEVADA REVISED STATUTES AUTHORIZING OWNERS OF LAND TO LAY OUT AND PLAT SUCH LANDS INTO LOTS, BLOCKS, STREETS AND PUBLIC PLACES AND PROVIDING FOR THE APPROVAL AND FILING OF MAPS OR PLATS THEREOF, APPROVED JANUARY 25, 1957, AS AMENDED, AND THAT THE STREETS AND AVENUES AS SHOWN ON THIS MAP OR PLAT ARE HEREBY DEDICATED AND SET APART TO BE USED AS PUBLIC THOROUGHFARES FOREVER.
IN WITNESS WHEREOF, THE SAID STOCKTON GARDEN HOMES INC. HAS CAUSED ITS NAME TO BE SIGNED AND ITS CORPORATE SEAL HERETO AFFIXED BY ITS DULY AUTHORIZED OFFICERS.

STOCKTON GARDEN HOMES INC. - BY John C. Chaney
SECRETARY-TREASURER

STATE OF NEVADA
COUNTY OF DOUGLAS S.S.

ON THIS 18th DAY OF May 1959 PERSONALLY APPEARED BEFORE ME, JOHN CHANEY, KNOWN TO ME TO BE THE SECRETARY-TREASURER OF THE CORPORATION THAT EXECUTED THE FOREGOING INSTRUMENT, AND UPON OATH DID DEPOSE THAT HE IS THE OFFICER OF SAID CORPORATION AS ABOVE DESIGNATED; THAT THE SIGNATURES TO SAID INSTRUMENT WERE MADE BY OFFICERS OF SAID CORPORATION AS INDICATED AFTER SAID SIGNATURES; AND THAT THE SAID CORPORATION EXECUTED THE SAID INSTRUMENT FREELY AND VOLUNTARILY AND FOR THE USES AND PURPOSES THEREIN MENTIONED

Earnhart W. Ihran
DOUGLAS COUNTY CLERK

STATE OF NEVADA
COUNTY OF DOUGLAS S.S.

I, ROBERT H. BARRETT, DO HEREBY CERTIFY THAT THIS PLAT IS A TRUE AND ACCURATE MAP OF THE LANDS REPRESENTED THEREON, SURVEYED BY ME AND LAYED OUT INTO LOTS, BLOCKS, STREETS AND PUBLIC PLACES AT THE INSTANCE OF STOCKTON GARDEN HOMES INC. THAT THE LOCATION OF SAID LOTS, BLOCKS, STREETS AND PUBLIC PLACES HAS BEEN DEFINITELY ESTABLISHED AND PERPETUATED IN ACCORDANCE WITH THE LAW AS SHOWN HEREON; THAT THE LANDS AS SHOWN HEREON BEING A SUBDIVISION OF THE WESTERLY PORTION OF LOTS 3 AND 4 AND THE SE ¼ OF THE NW ¼ OF SECTION 3, T13N, R18E, M.D.B.&M. AND THAT THE SURVEY WAS COMPLETED ON THE 15 DAY OF OCTOBER 1958

Robert H. Barrett
R.E. No. 288

13668
FILE NO.

FILE NO.

FILED FOR RECORD AT THE REQUEST OF STOCKTON GARDEN HOMES INC. July 22, 1959 AT 15 MIN. PAST 4 O'CLOCK P.M. IN Book 1 OF MAPS RECORDS OF DOUGLAS COUNTY, NEV.

FEE $ exempt

Ella Pedebach
RECORDER

BY

SKYLAND SUBDIVISION NO. 2

DOUGLAS COUNTY, NEVADA

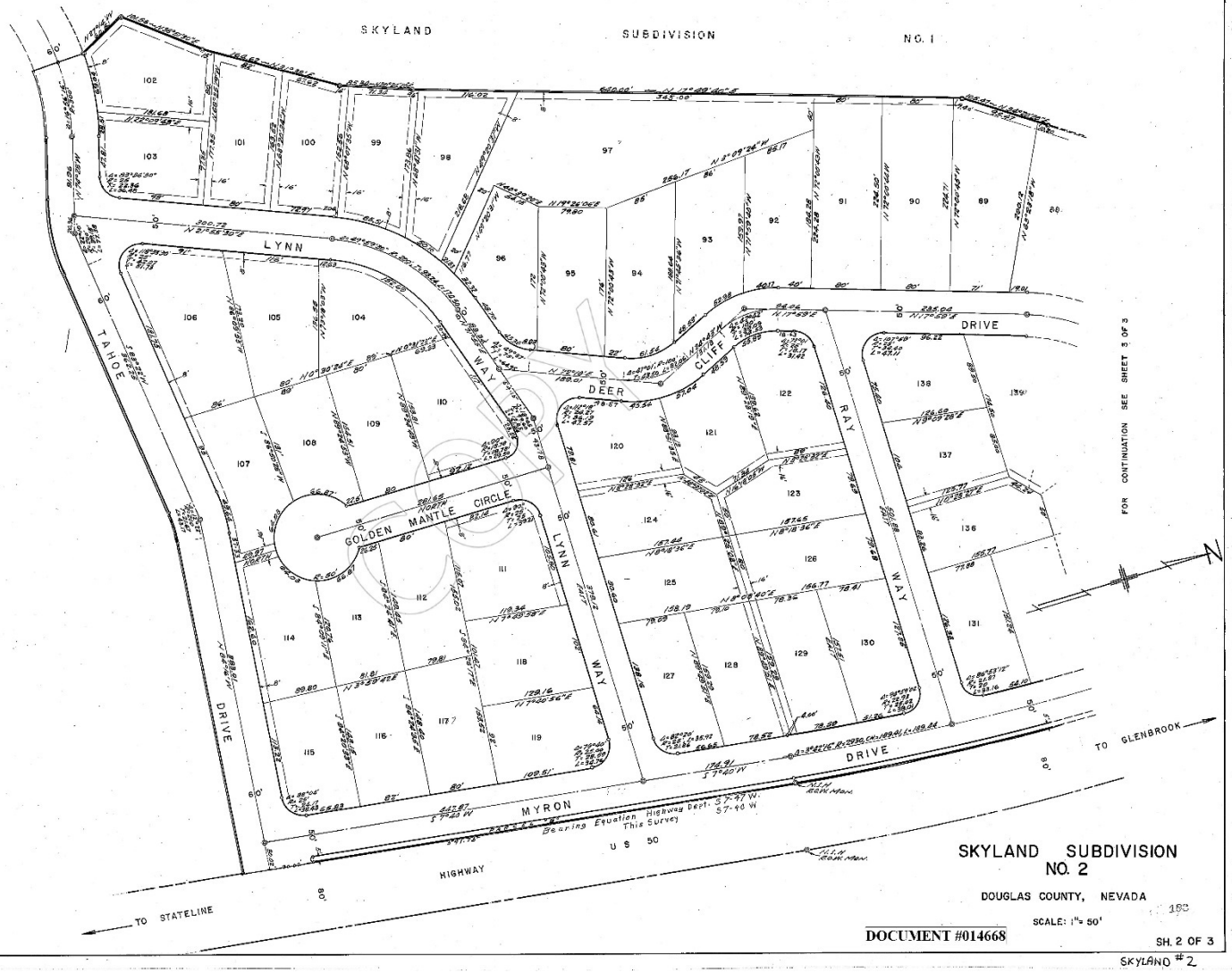
SCALE: 1" = 50'

182

DOCUMENT #014668

SH. 1 OF 3

SKYLAND #2



SKYLAND SUBDIVISION NO. 2

DOUGLAS COUNTY, NEVADA

SCALE: 1" = 50'

DOCUMENT #014668

SH. 2 OF 3

SKYLAND #2

DRAWING NUMBER Skyland #2 Sheet 2 of 3

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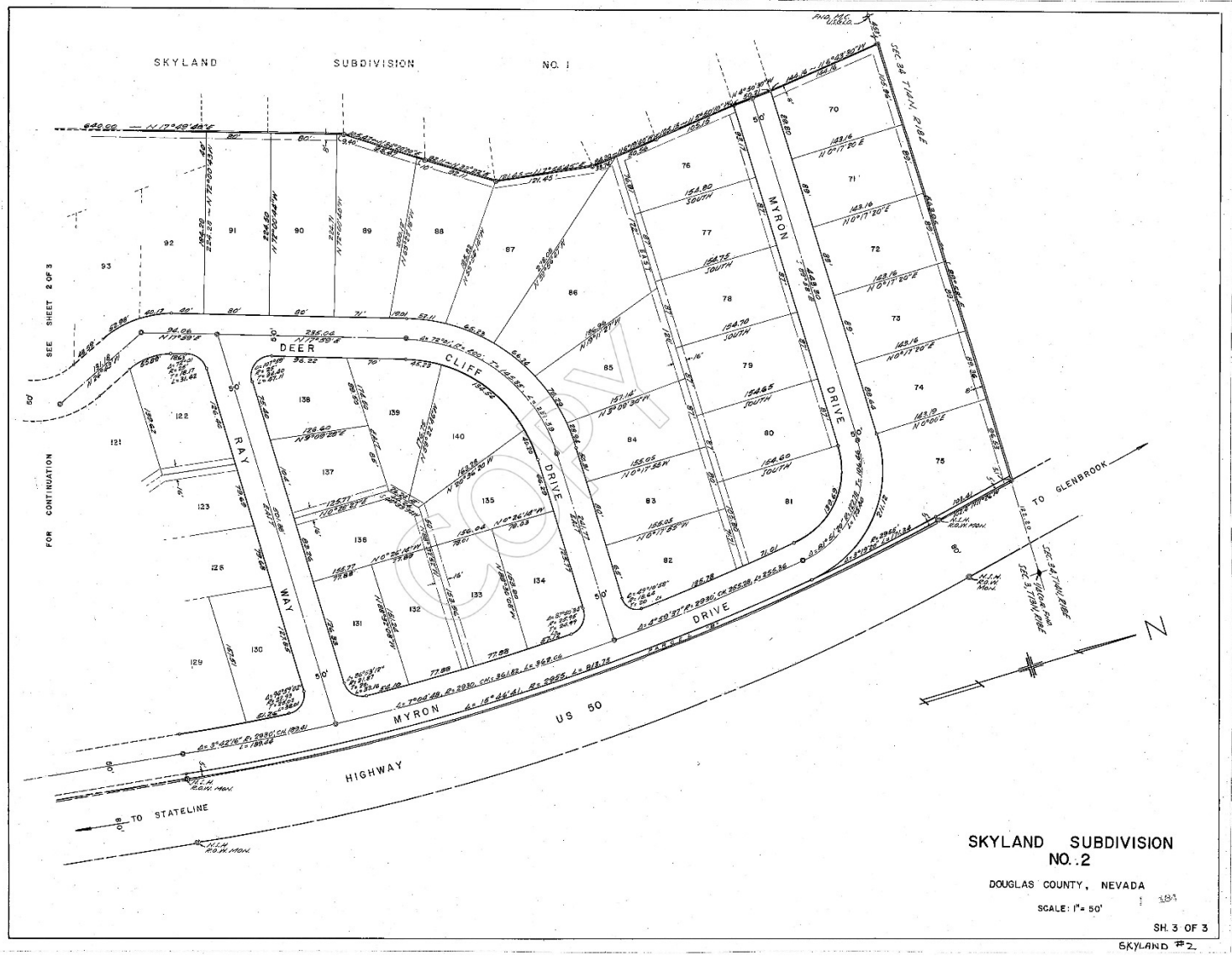


SKYLAND SUBDIVISION NO. 2

DOUGLAS COUNTY, NEVADA

SCALE: 1" = 50'

SH. 3 OF 3

SKYLAND #2

DRAWING NUMBER Skyland #2 Sheet 3 of 3

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER Skyland #3 Sheet 1 of 3

SKYLAND NO. 3

REVIEWED, APPROVED AND RECOMMENDED TO THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY BY THE DOUGLAS COUNTY PLANNING COMMISSION ON THIS THE 12 DAY OF January 1960.

CHAIRMAN

APPROVED AND ACCEPTED THIS 5 DAY OF Feb. 1960 BY THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, NEVADA, SUBJECT TO THE STIPULATION THAT BY ADOPTING SAME THE COUNTY HEREBY ASSUMES NO RESPONSIBILITY FOR THE PUBLIC WAYS SHOWN HEREON. THE COUNTY COMMISSIONERS HOWEVER RESERVE THE RIGHT TO ACCEPT THE STREETS AS SHOWN HEREON AT ANY FUTURE DATE.

Marvin Stallmeyer — CHAIRMAN
MEMBER
MEMBER

ATTESTED
COUNTY CLERK

THE UNDERSIGNED HEREBY CERTIFIES THAT HE IS THE DULY APPOINTED COUNTY ENGINEER OF DOUGLAS COUNTY, NEVADA. THAT HE HAS EXAMINED THE PLAT TO WHICH THIS CERTIFICATE IS ATTACHED, THAT THE SUBDIVISION AS SHOWN THEREON IS SUBSTANTIALLY THE SAME AS IT APPEARED ON THE TENTATIVE MAP AND ANY APPROVED ALTERATIONS THEREOF, THAT ALL PROVISIONS OF THE LAWS OF THE STATE OF NEVADA AND ORDINANCES OF THE COUNTY OF DOUGLAS APPLIABLE AT THE TIME OF APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH AND THAT HE IS SATISFIED SAID MAP IS TECHNICALLY CORRECT.

COUNTY ENGINEER

BASIS OF BEARINGS:
SKYLAND SUBDIVISION NO. 1
AND SECTION LINE COMMON TO SEC. 3, T. 13 N., R. 18 E. & SEC. 34, T. 14 N., R. 18 E., M.D.B.&M. BEARS N.89°58'W.

INDICATES UTILITY EASEMENTS
ALL EASEMENTS ARE OF THIS DIMENSION

INDICATES STREET LINE MONUMENTS TO BE SET. BY-Prior to RELEASE OF BOND.
ALL LOT CORNERS, B.C. & E.C. NOT OTHERWISE MONUMENTED WILL B ½" IRON PINS.

STATE OF NEVADA
COUNTY OF DOUGLAS S.S.

THIS IS TO CERTIFY THAT THE UNDERSIGNED, STOCKTON GARDEN HOMES INC. IS THE OWNER OF THE TRACT OF LAND REPRESENTED ON THIS MAP OR PLAT AND THAT THE SAME IS EXECUTED IN COMPLIANCE WITH AND SUBJECT TO THE PROVISIONS OF CHAPTER 278 OF NEVADA REVISED STATUTES AUTHORIZING OWNERS OF LAND TO LAY OUT AND PLAT SUCH LANDS INTO LOTS, BLOCKS, STREETS AND PUBLIC PLACES AND PROVIDING FOR THE APPROVAL AND FILING OF MAPS OR PLATS THEREOF, APPROVED JANUARY 25, 1957, AS AMENDED, AND THAT THE STREETS AND AVENUES AS SHOWN ON THIS MAP OR PLAT ARE HEREBY DEDICATED AND SET APART TO BE USED AS PUBLIC THOROUGHFARES FOREVER.

IN WITNESS WHEREOF, THE SAID STOCKTON GARDEN HOMES INC. HAS CAUSED ITS NAME TO BE SIGNED AND ITS CORPORATE SEAL HERETO AFFIXED BY ITS DULY-ELECTED OFFICER

STOCKTON GARDEN HOMES INC. - BY John Cheney
SECRETARY-TREASURER

STATE OF NEVADA
COUNTY OF DOUGLAS S.S.

ON THIS 17th DAY OF Feb. 1959 PERSONALLY APPEARED BEFORE ME, JOHN CHENEY, KNOWN TO ME TO BE THE SECRETARY-TREASURER OF THE CORPORATION THAT EXECUTED THE FOREGOING INSTRUMENT AND UPON OATH DID DEPOSE THAT HE IS THE OFFICER OF SAID CORPORATION AS ABOVE DESIGNATED; THAT THE SIGNATURES TO SAID INSTRUMENT WERE MADE BY THE OFFICERS OF SAID CORPORATION AS INDICATED AFTER SAID SIGNATURES; AND THAT SAID CORPORATION EXECUTED THE SAID INSTRUMENT FREELY AND VOLUNTARILY AND FOR THE USES AND PURPOSES THEREIN MENTIONED.

DOUGLAS COUNTY CLERK

STATE OF NEVADA
COUNTY OF DOUGLAS S.S.

I, ROBERT H. BARRETT, DO HEREBY CERTIFY THAT THIS PLAT IS A TRUE AND ACCURATE MAP OF THE LANDS REPRESENTED THEREON, SURVEYED BY ME AND LAYED OUT INTO LOTS, BLOCKS, STREETS AND PUBLIC PLACES AT THE INSTANCE OF STOCKTON GARDEN HOMES INC., THAT THE LOCATION OF SAID LOTS, BLOCKS, STREETS AND PUBLIC PLACES HAS BEEN DEFINITELY ESTABLISHED AND PERPETUATED IN ACCORDANCE WITH THE LAW AS SHOWN HEREON, THAT THE LANDS AS SHOWN HEREON BEING A SUBDIVISION OF THE WESTERLY PORTION OF LOTS 3 AND 4 AND THE SE ¼ OF THE NW ¼ OF SECTION 3, T. 13 N., R. 18 E., M.D.B.&M. AND THAT THE SURVEY WAS COMPLETED ON THE 31 DAY OF OCTOBER 1959. THIS PLAT INCLUDES A RE-SUBDIVISION OF LOTS 45 & 46 IN SKYLAND SUBDIVISION NO 1

Robert H Barrett
R.E. No. 288

FILE NO.

FILE NO.

FILED FOR RECORD AT THE REQUEST OF STOCKTON GARDEN HOMES INC. February 24 1960 AT 25 MIN. PAST 2 O'CLOCK P. M. RECORDS OF DOUGLAS COUNTY, NEV.

FEE $5.00

RECORDER

BY

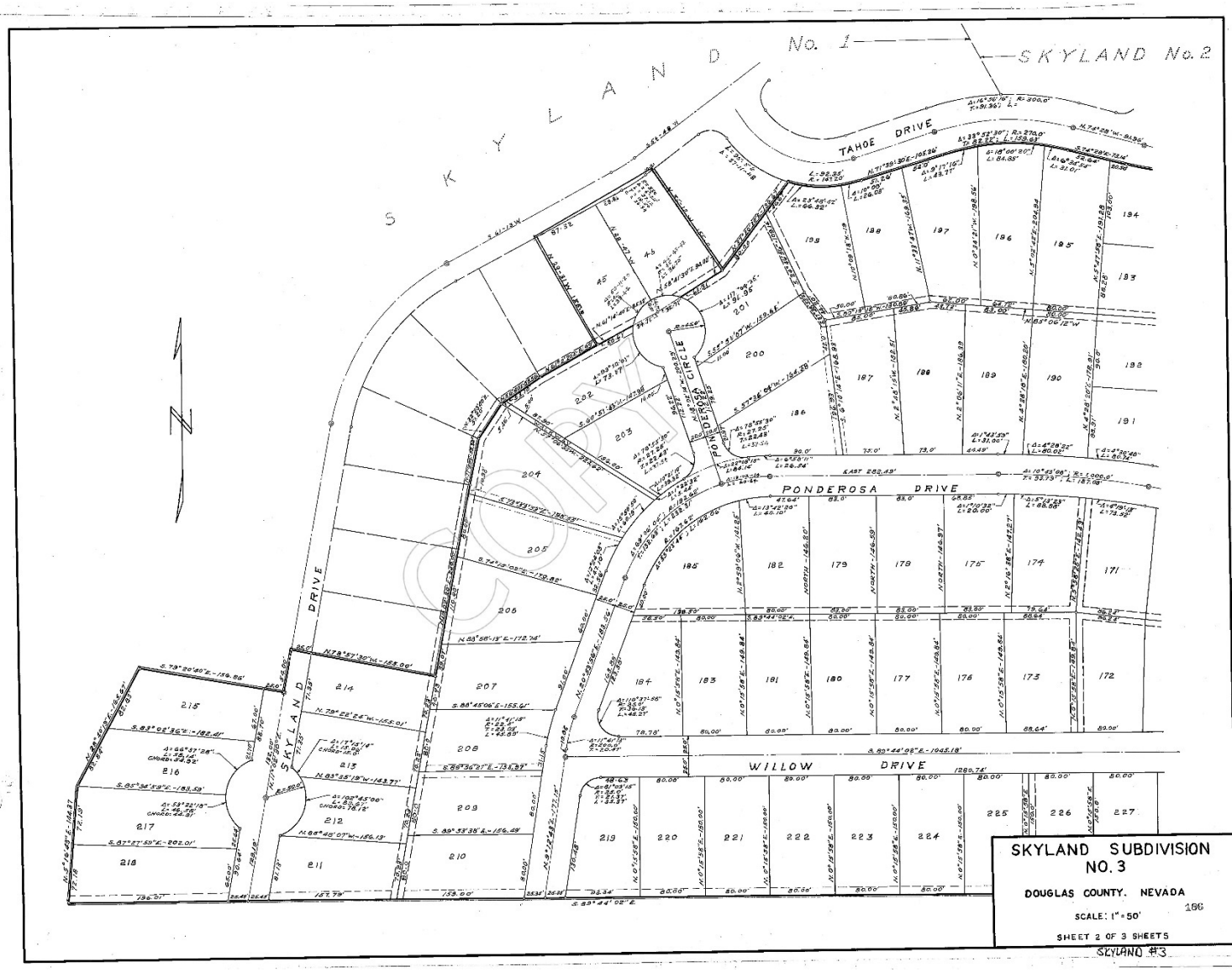
SKYLAND SUBDIVISION NO. 3

DOUGLAS COUNTY, NEVADA

SCALE: 1" = 50'

SHEET 1 OF 3 SHEETS

SKYLAND #3



SKYLAND SUBDIVISION NO. 3

DOUGLAS COUNTY, NEVADA

SCALE: 1" = 50'

SHEET 2 OF 3 SHEETS

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SKYLAND #3

DRAWING NUMBER Skyland #3 Sheet 2 of 3

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

SKYLAND SUBDIVISION NO. 3

DOUGLAS COUNTY, NEVADA

SCALE: 1" = 50'

SHEET 3 OF 3 SHEETS

SKYLAND #3

DRAWING NUMBER Skyland #3 Sheet 3 of 3

DRAWING NUMBER

DRAWING NUMBER

DRAWING NUMBER

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Douglas County, Nevada

Local office

Reno Fish And Wildlife Office

(775) 861-6300
(775) 861-6301

1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147

http://www.fws.gov/nevada/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

North American Wolverine Gulo gulo luscus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Amphibians

NAME	STATUS
Sierra Nevada Yellow-legged Frog Rana sierrae There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/9529	Endangered

Fishes

NAME	STATUS
Lahontan Cutthroat Trout Oncorhynchus clarkii henshawi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3964	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/

conservation-measures.php

- Nationwide conservation measures for birds
  http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Cassin's Finch *Carpodacus cassinii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Williamson's Sapsucker Sphyrapicus thyroideus — Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8832

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ( )

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Map Scale: 1:4,560 if printed on A portrait (8.5" x 11") sheet.

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

N

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tahoe Basin Area, California and Nevada
Survey Area Data: Version 13, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2015—Oct 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7421	Cassenai gravelly loamy coarse sand, 5 to 15 percent slopes, very stony	3.8	86.4%
7444	Christopher-Gefo complex, 0 to 5 percent slopes	0.6	13.6%
Totals for Area of Interest		**4.4**	**100.0%**

All Ecological Sites — Forestland

Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
7421	Cassenai gravelly loamy coarse sand, 5 to 15 percent slopes, very stony	Cassenai, gravelly loamy coarse sand (78%)	F022AF005CA — Frigid, Deep To Very Deep, Sandy-Loamy Mountain Slopes	3.8	86.4%
		Cagwin (12%)	F022AF004CA — Frigid, Shallow To Deep, Sandy Mountain Slopes		
		Toem (4%)	F022AF004CA — Frigid, Shallow To Deep, Sandy Mountain Slopes		
		Rock outcrop, Granitic (3%)			
		Christopher, Loamy coarse sand (1%)	F022AF002CA — Frigid, Sandy, Or Loamy Outwash		
		Christopher, Gravelly Loamy Coarse Sand (1%)	F022AF002CA — Frigid, Sandy, Or Loamy Outwash		
		Marla (1%)	F022AX100CA — Frigid, Sandy, Moist, Outwash Fan		
7444	Christopher-Gefo complex, 0 to 5 percent slopes	Christopher, Loamy coarse sand (45%)	F022AF002CA — Frigid, Sandy, Or Loamy Outwash	0.6	13.6%
		Gefo, gravelly loamy coarse sand (35%)	F022AF002CA — Frigid, Sandy, Or Loamy Outwash		
		Jabu (5%)	F022AF002CA — Frigid, Sandy, Or Loamy Outwash		
		Marla (5%)	F022AX100CA — Frigid, Sandy, Moist, Outwash Fan		
		Oneidas (5%)	F022AF003CA — Frigid, Loamy, Fragipan, Outwash		
		Ubaj (5%)	F022AX100CA — Frigid, Sandy, Moist, Outwash Fan		

Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
Totals for Area of Interest				**4.4**	**100.0%**

Tahoe Basin Area, California and Nevada

7421—Cassenai gravelly loamy coarse sand, 5 to 15 percent slopes, very stony

Map Unit Setting

National map unit symbol: 1sg2s
Elevation: 6,230 to 7,920 feet
Mean annual precipitation: 21 to 43 inches
Mean annual air temperature: 42 to 46 degrees F
Frost-free period: 40 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Cassenai, gravelly loamy coarse sand, and similar soils: 78 percent
Minor components: 22 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cassenai, Gravelly Loamy Coarse Sand

Setting

Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Colluvium derived from granodiorite

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 6 inches: gravelly loamy coarse sand
Bw - 6 to 43 inches: gravelly loamy coarse sand
C - 43 to 79 inches: gravelly loamy coarse sand

Properties and qualities

Slope: 5 to 15 percent
Percent of area covered with surface fragments: 3.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A

Ecological site: Frigid, Deep To Very Deep, Sandy-Loamy Mountain Slopes (F022AF005CA)
Hydric soil rating: No

Minor Components

Cagwin
Percent of map unit: 12 percent
Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Frigid, Shallow To Deep, Sandy Mountain Slopes (F022AF004CA)
Hydric soil rating: No

Toem
Percent of map unit: 4 percent
Landform: Hillslopes, mountain slopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Mountainflank, side slope, nose slope
Down-slope shape: Convex, linear
Across-slope shape: Convex
Ecological site: Frigid, Shallow To Deep, Sandy Mountain Slopes (F022AF004CA)
Hydric soil rating: No

Rock outcrop, granitic
Percent of map unit: 3 percent
Landform: Mountains
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Mountainflank, side slope
Hydric soil rating: No

Marla
Percent of map unit: 1 percent
Landform: Outwash terraces, valley flats
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread, talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Frigid, Sandy, Moist, Outwash Fan (F022AX100CA)
Hydric soil rating: Yes

Christopher, loamy coarse sand
Percent of map unit: 1 percent
Landform: Hillslopes on outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear

Ecological site: Frigid, Sandy, Or Loamy Outwash (F022AF002CA)
Hydric soil rating: No

Christopher, gravelly loamy coarse sand
Percent of map unit: 1 percent
Landform: Hillslopes on outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Frigid, Sandy, Or Loamy Outwash (F022AF002CA)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Tahoe Basin Area, California and Nevada
Survey Area Data: Version 13, Sep 12, 2018

Tahoe Basin Area, California and Nevada

7444—Christopher-Gefo complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1sg39
Elevation: 6,220 to 6,410 feet
Mean annual precipitation: 21 to 27 inches
Mean annual air temperature: 41 to 46 degrees F
Frost-free period: 40 to 90 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Christopher, loamy coarse sand, and similar soils: 45 percent
Gefo, gravelly loamy coarse sand, and similar soils: 35 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Christopher, Loamy Coarse Sand

Setting

Landform: Hillslopes on outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Outwash derived from granodiorite

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
A - 1 to 8 inches: loamy coarse sand
Bw1 - 8 to 26 inches: loamy coarse sand
Bw2 - 26 to 42 inches: loamy coarse sand
Bw3 - 42 to 61 inches: loamy coarse sand

Properties and qualities

Slope: 0 to 5 percent
Percent of area covered with surface fragments: 0.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A
Ecological site: Frigid, Sandy, Or Loamy Outwash (F022AF002CA)
Hydric soil rating: No

Description of Gefo, Gravelly Loamy Coarse Sand

Setting

Landform: Hillslopes on outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Outwash derived from granodiorite

Typical profile

A - 0 to 15 inches: gravelly loamy coarse sand
C - 15 to 75 inches: gravelly coarse sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: A
Ecological site: Frigid, Sandy, Or Loamy Outwash (F022AF002CA)
Hydric soil rating: No

Minor Components

Ubaj

Percent of map unit: 5 percent
Landform: Lake terraces, outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Frigid, Sandy, Moist, Outwash Fan (F022AX100CA)
Hydric soil rating: No

Jabu

Percent of map unit: 5 percent
Landform: Hillslopes on outwash terraces
Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Frigid, Sandy, Or Loamy Outwash (F022AF002CA)
Hydric soil rating: No

Marla

Percent of map unit: 5 percent
Landform: Outwash terraces, valley flats
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Tread, tail
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Frigid, Sandy, Moist, Outwash Fan (F022AX100CA)
Hydric soil rating: Yes

Oneidas

Percent of map unit: 5 percent
Landform: Hillslopes on outwash terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Frigid, Loamy, Fragipan, Outwash (F022AF003CA)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Tahoe Basin Area, California and Nevada
Survey Area Data: Version 13, Sep 12, 2018