

Bill Williams River National Wildlife Refuge Draft Compatibility Determinations

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Draft Compatibility Determination

Title

Draft Compatibility Determination for Bicycling, Bill Williams River National Wildlife Refuge.

Refuge Use Category

Outdoor Recreation (General)

Refuge Use Type(s)

Bicycling

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Bill Williams River National Wildlife Refuge (NWR) was originally established as part of Havasu NWR in 1941 under Executive Order 8647, dated January 22, 1941. Additional lands were acquired through purchase in 1977 under the Refuge Recreation Act (16 USC 460k-1). A withdrawal of public lands in 1981 under the Fish and Wildlife Conservation Act {16 USC 742f(b)(1)} completed the existing refuge boundary.

For lands acquired under Executive Order 8647 “...as a refuge and breeding grounds for migratory birds and other wildlife...” For lands acquired under the Refuge Recreation Act “...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species...”

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes, bicycling was evaluated in conjunction with the Lower Colorado River Refuges:

Comprehensive Management Plan (1994) and found to be compatible.

What is the use?

Bicycling (including e-bikes) on Bill Williams River NWR connects people with nature and facilitates travel and access for the priority public uses--hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation--as defined in the Refuge System Improvement Act of 1997. The use mainly occurs in small groups (less than eight people) or by individuals. Bicycling is a primary means to connect people with nature on the refuge and can facilitate non-consumptive priority public uses, such as wildlife observation by viewing natural landscapes and associated wildlife. The use is also necessary to facilitate consumptive uses by anglers and hunters who access refuge lands.

Is the use a priority public use?

No

Where would the use be conducted?

The primary area of this use is along the 3.5-mile auto tour route and refuge trails (See Figures 1 and 2). The auto tour route is a gravel road that leads travelers along 3.5 miles of the Bill Williams River marsh and floodplain forest. The refuge trails that are suited for bicycle use are the peninsula trail and the delta trails. The peninsula trail is a multiple use trail accommodating foot traffic, bicyclists, and people in wheelchairs on the Americans with Disabilities Act portion of the trail. The delta trails are composed of three trails the upper, middle, and lower delta trails and are accessed from the auto tour road. The roads and trails are identified on maps within refuge publications and on displays at the trailhead and in the visitor center. Bicycle use is restricted to roads and trails open to the public. Electric bicycles, "E-bikes," by definition shall also be permitted anywhere regular bicycles are permitted in accordance with 50 CFR 27.31 and 50 CFR 27.31(m).

When would the use be conducted?

Access to the refuge is open every day from ½ hour before sunrise to ½ hour after sunset; however, certain portions of the refuge may be closed to public access by posting upon occasions of unusual or critical conditions affecting land, water, vegetation, wildlife populations, or public safety. Examples of this would include prescribed or wildfires in progress, seasonal flood events, or poor road conditions.

How would the use be conducted?

Bicycling can facilitate non-consumptive priority public uses by allowing observation of the natural landscape and wildlife viewing. Individuals stop to observe associated animals and plant communities. The use mainly occurs in small groups or by individuals. In recent years, the use of e-bikes has increased with consumptive users. E-bikes have become a popular alternative to ATV/UTV travel and access. Visitors provide their own equipment. All bikers must remain on existing, maintained roadways and trails. Bicyclists make up a very small portion of user. An increase of bicycle use is anticipated due to the increasing popularity of e-bikes. A bicycle rack is located outside of the visitor center to accommodate this user group.

Why is this use being proposed or reevaluated?

This use is being reevaluated due in accordance with Part 603 Section 2.11 H of the Fish and Wildlife Service Manual (USFWS 2000). The use supports other wildlife dependent recreational uses. Bicycling provides the user an opportunity to connect with and increase awareness of the resources on the refuge with limited negative impact to the refuge (FWS, 2021).

Availability of Resources

The analysis of cost for administering and managing bicycling will only include the incremental increase above general operational costs that we can show as being directly caused by the proposed use. The areas used for these activities have been opened to public use since they were acquired. Roads and trails will be maintained in such a manner as is practical to minimize environmental effects and maximize management and public use activities. Roads will be monitored annually to determine if they remain appropriate and safe for cycling use. Supervision and enforcement of these activities will be administered by refuge staff, and adequate resources (including financial, personnel, facilities, and other infrastructure) exist to properly develop, operate, and maintain the use in a way that will not materially interfere with or detract from fulfillment of the refuge purposes and the Refuge System mission.

Table 1. Costs to Administer and Manage Bicycling

Category and Itemization	Recurring Annual Expenses
Staff time (LE, administration, and management)	\$1,000
Maintenance	\$1,000
Total expenses	\$2,000

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The effects and impacts, whether adverse or beneficial, of the proposed use to refuge resources are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This Compatibility Determination includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.”

Short-term impacts

These activities may result in minimal disturbance to soils and vegetation, some minor disturbance to wildlife, minimal conflicts among user groups, and increased litter.

Most studies involving the impacts of bicycle use have focused on impacts to soils and vegetation and comparing bicycle use to hiking and horseback riding and have concluded that, given proper trail design, bicycling had similar impacts as hiking and less impact than horseback riding, especially when looking at erosion and soil compaction (Sprung 2004). Bicycle use will only occur on existing, maintained roads and trails, therefore, the proposed use will not significantly impact soils or vegetation on the refuge.

Some temporary disturbance does occur to wildlife due to human activity, as with any level of public use. The degree of disturbance is highly variable. Studies by Blumstein (2003) and Blumstein et al. (2003) show that ‘flight-initiation-distance’ varies by species and intruder starting distance as well as by things such as flock size, angle of approach, time of year, time of day, reproductive state, distance to refuge, and type of disturbance.

Studies looking at wildlife impacts from disturbance, particularly bicycle use, are inconsistent, mostly due to the varied nature of wildlife and the complex factors influencing behavior (Marion 2019). Most wildlife impacts from bicycling have focused on western species such as elk (*Cervus canadensis*), pronghorn antelope (*Antilocapra americana*), bears (black [*Ursus americanus*] and grizzly [*Ursus arctos*]), and mule deer (*Odocoileus hemionus*). These studies found that these big game species fled greater distances from bicycles as compared to hikers. Another impact that is hard to measure is the impact of the distance bicyclists can travel—bicyclists, especially e-bicyclists, typically travel greater distances than hikers and thus can impact more individuals in wildlife populations (Wisdom et al. 2004).

When evaluating the use of e-bikes, evidence suggests that the impacts of e-bikes (e.g., erosion, noise pollution, effects on wildlife) are no different from conventional bikes (Nielsen et al. 2019); however, e-bikes have the ability to carry riders faster and farther and allow riders to carry more gear. This presents challenges to managers concerned about impacts to remote areas of public lands or the potential for accidents due to increased speed (Nielsen et al. 2019). Neither of these are an issue on Bill Williams River NWR as the areas open for bicycle use are easily reached by average users and the roads are wide enough to allow safe passage when meeting other user groups. One potential impact of e-bikes, is their ability to travel at speeds from 20 to 28 miles per hour with little effort and the potential for serious injury to riders. Some novice users may not be able to adequately control these heavier bicycles and thus may be prone to accidents. Also at higher speeds, e-bike users may encounter wildlife that will not have the ability to flee from the area, resulting in collisions between e-bike users and wildlife.

The use of e-bikes offers positive outcomes for accessibility and inclusion, and many agencies are allowing e-bikes under the Federal Americans with Disabilities Act guidelines as “other power-driven mobility devices.” Several studies have established positive health benefits of e-bike use, given that e-bikers ride more frequently and longer (Nielsen et al. 2019).

Conflicts among user groups is not expected because of the small group size and dispersed use by visitors. Littering is expected to be minimal as well. As with other uses, law enforcement and other staff will monitor visitor use and refuge lands for these impacts any issues will be addressed with visitor contact and education.

Long-term impacts

No significant, adverse, long-term or cumulative impacts are expected from bicycling, on the refuge. Studies have found that after initial impacts to vegetation and soils, subsequent use does not impact trails more, and impacts of bicyclists were the same as hikers and less than horse use (White et al. 2006). Trails that are steeper (greater than 12% slope) tend to have more soil impacts on uphill and downhill sections (White et al. 2006).

Wildlife studies by Taylor and Knight (2003) and Marion (2019) reported no difference in long-term wildlife disturbance between hikers and mountain bikers, while other studies by Papouchis et al. (2001) found that mountain bikers caused less disturbance. Marion (2019) found that visitors who directly approach wildlife are perceived as threatening while wildlife are less disturbed by travel that is slow, quiet, and in directions parallel to or away from them. As seen along most wildlife drives, wildlife are able to adapt to and tolerate consistent recreational activities occurring on roads and trails (Marion 2019). With the use anticipated to be sporadic and dispersed and by individuals and small groups, such effects as habituation, avoidance, and resulting decreased fitness of individuals are not expected to adversely impact wildlife populations. From a wildlife disturbance aspect, no long-term impacts from bicycle use or hiking and backpacking are anticipated.

No cumulative impacts are anticipated; however, the program can may be modified or eliminated to minimize any adverse impacts observed.

Public Review and Comment

This draft compatibility determination is available for public review and comment. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs. E-mail comments to R2_plancomments@fws.gov.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

These stipulations will ensure that bicycling will be compatible on Bill Williams River NWR. The refuge will monitor these uses to evaluate compliance with stated conditions and will modify or eliminate these uses to correct or respond to any serious deviations.

1. All bikers must remain on the existing, maintained roadways and trails so as not to establish side trails through portions of the refuge. Off-road riding is prohibited 50 CFR 27.31.
2. Electronic Bikes, "e-bikes," shall mean "low-speed electric bicycle" as defined by 15 U.S.C. § 2085 and falling within one of the identified classifications.
3. E-bikes shall be allowed where other types of bicycles are allowed; E-bikes shall not be allowed where other types of bicycles are prohibited 50 CFR 27.31(m).

Justification

Based on available science and best professional judgement, the Service has determined that bicycling at Bill Williams River NWR is a compatible use, provided the stipulations necessary to ensure compatibility are implemented and the use does not exceed thresholds necessary for visitor safety and resource protection. This use, as outlined in this compatibility determination, would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Bicycling would not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes for which the refuge was established, will not pose significant adverse effects on refuge resources, will not interfere with other public uses of the refuge, and will not cause an undue administrative burden. Rather, appropriate and compatible bicycling would allow the public the opportunity to develop an appreciation for wildlife and wild lands.

Signature of Determination

Refuge Manager Signature and Date

DRAFT
Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2033

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Figures

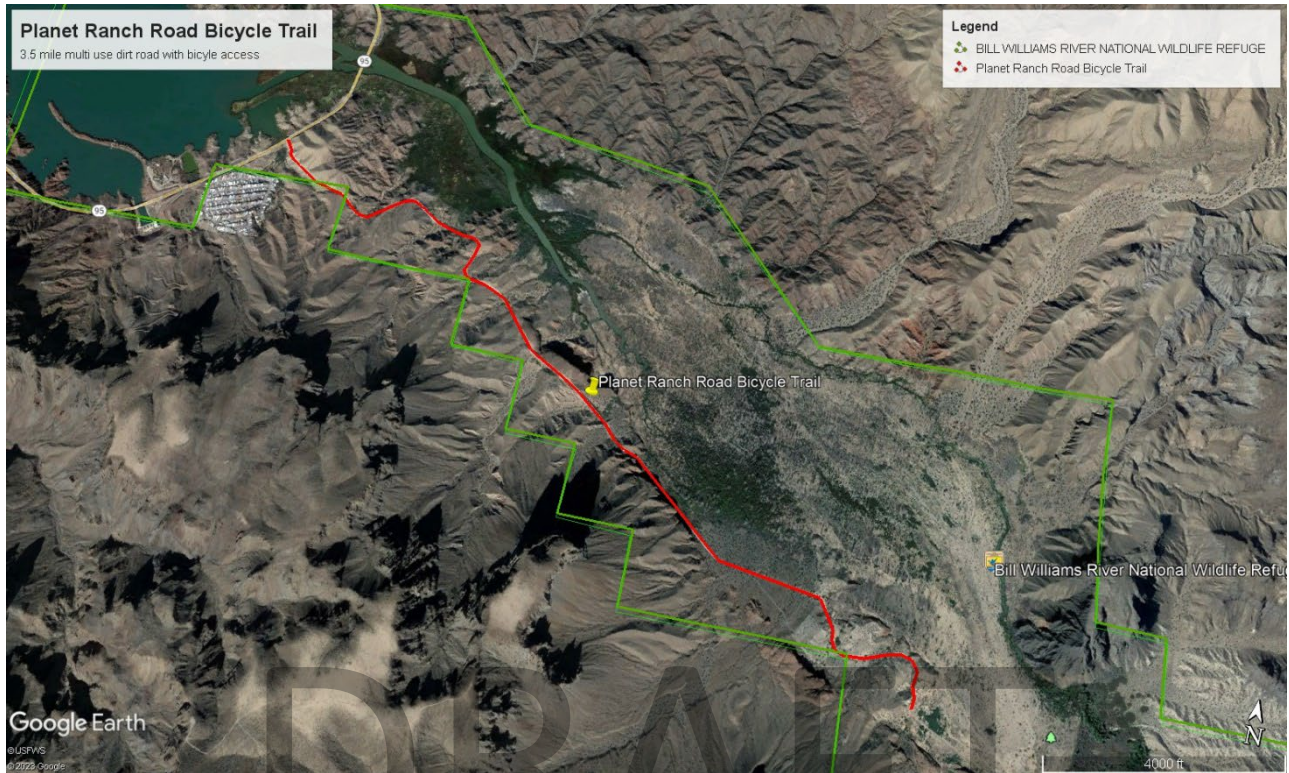


Figure 1. Planet Ranch Road Bicycle Trail a multi-use dirt road with bicycle access.



Figure 2. Peninsula Trail hiking trail with bicycle access

Draft Compatibility Determination

Draft Compatibility Determination for Motorized and Non-Motorized Boating, Bill Williams River National Wildlife Refuge

Refuge Use Category

Boating

Refuge Use Type(s)

- Human-powered boating
- Motorized boating
- Boating (wind driven)

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Bill Williams River National Wildlife Refuge was originally established as part of Havasu NWR in 1941 under Executive Order 8647, dated January 22, 1941. Additional lands were acquired through purchase in 1977 under the Refuge Recreation Act (16 USC 460k-1). A withdrawal of public lands in 1981 under the Fish and Wildlife Conservation Act {16 USC 742f(b)(1)} completed the existing refuge boundary.

For lands acquired under Executive Order 8647 "*...as a refuge and breeding grounds for migratory birds and other wildlife...*" For lands acquired under the Refuge Recreation Act "*...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species...*" For lands acquired under the Fish and Wildlife Conservation Act "*...for the development, advancement, management, conservation, and protection of fish and wildlife resources...for the benefit of the United States Fish and Wildlife Service [Service], in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude...*"

Certain types of watercraft are specifically prohibited in the refuge specific regulations for Bill Williams National Wildlife Refuge at 50 CFR § 26.43 "(b) *Arizona - (1) Bill Williams River National Wildlife Refuge.* (i) We prohibit personal watercraft (PWC as governed by State law), air thrust boats, and hovercraft on all waters within

the boundaries of the refuge. (ii) We designate all refuge waters as wakeless speed zones (as governed by State law) as indicated by signs or regulatory buoys. (iii) The nonmotorized watercraft launch and Central Arizona Project (CAP) peninsula are day-use only areas and are open from ½ hour before legal sunrise to ½ hour after legal sunset. We allow fishing and the launching of watercraft at these and other areas 24 hours a day.”

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes, boating is an existing recreational use on the refuge. This compatibility determination reviews and replaces the 1994 compatibility determination for boating (USFWS, 1994).

What is the use?

Recreational boating consists of multiple mechanisms for boating, including motorized boating, non-motorized boating, and personal watercraft. Non-motorized boating is travel by canoe, kayak, raft, rowboat, sailboat, or similar boat propelled through the water by oars, paddles, poles, or other human-powered devices or wind. Motorized boating is travel by boat powered by means other than those listed above, including gas powered engine or electric motor. Airboats and personal watercraft, including Jet skis, Waverunners, and Seadoos, are prohibited on refuge waters. Motorized boat speed is limited to no wake, and any water sports such as waterskiing, or wakeboarding are prohibited. Although recreational boating is not identified as one of the six wildlife-dependent recreational uses in the National Wildlife Refuge System Improvement Act of 1997, this activity does support popular wildlife-dependent priority activities on the refuge such as fishing and wildlife observation.

Is the use a priority public use?

No

Where would the use be conducted?

Recreational boating occurs sporadically throughout the Bill Williams River in areas

that are deep enough for boat travel, and on Lake Havasu. The refuge has a non-motorized boat ramp that is open to the public for non-motorized boats only (see maps). The refuge does not support the launching of motorized boats on refuge property, so visitors must go to a motorized boat launch, such as those on state parks or on Bureau of Land Management property, to launch motorized boats (see Figure 1 and 2).



Figure 1. Navigable waterways

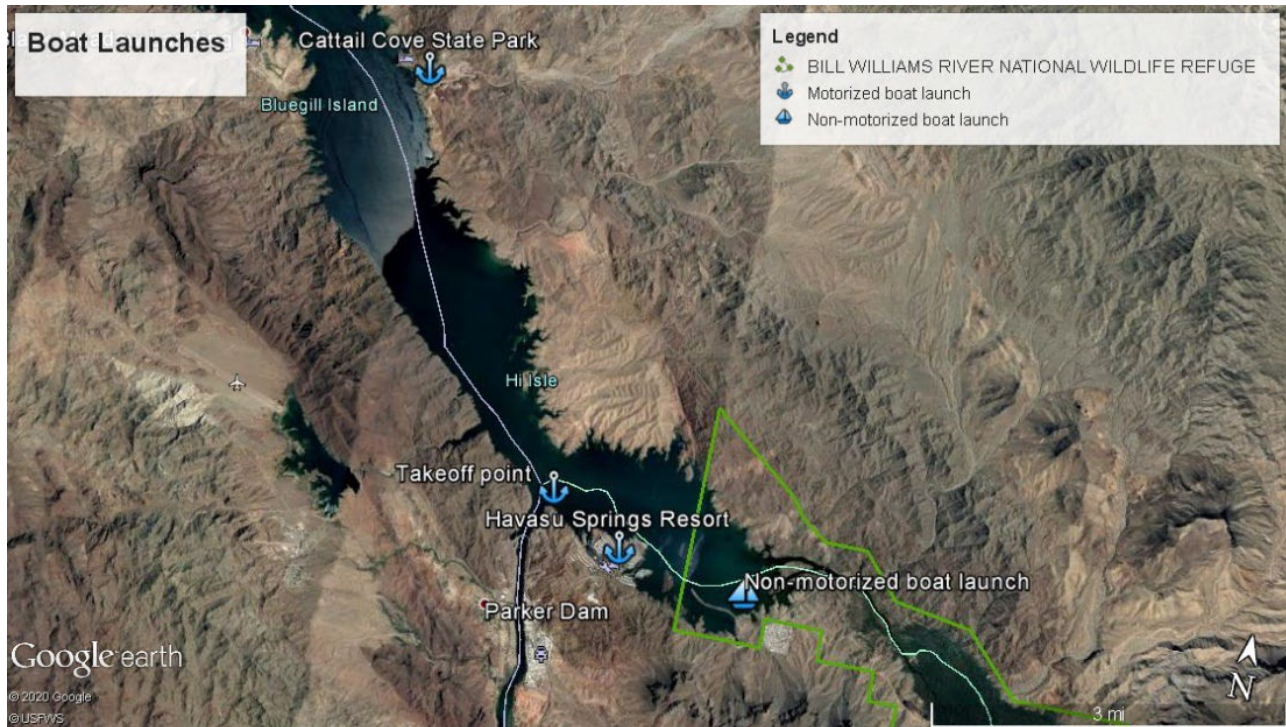


Figure 2. Vicinity boat launches

When would the use be conducted?

The nonmotorized watercraft launch and Central Arizona Project (CAP) peninsula are day-use only areas and are open from 1/2 hour before legal sunrise to 1/2 hour after legal sunset. We allow fishing and the launching of watercraft at these and other designated areas 24 hours a day.

How would the use be conducted?

All motorized boaters must have their watercraft registered and must comply with the regulations for motorized boats in the state of Arizona. Any boating on refuge waters must be at *No Wake Speed* and personal watercraft are prohibited. Non-motorized boats, such as canoes and kayaks, can be launched at the non-motorized boat ramp on the refuge near the Bill Williams River delta.

Commercial guided kayaking and canoeing may occur and if tied to the refuge's purpose through the support of wildlife observation during the activity. All operators and organizations are required to obtain a special use permit (SUP) to conduct their activities on the refuge. The permit holder and any visitors participating in the activity are required to follow the terms of the permit, which include provisions to protect the natural and cultural resources of the refuge. Generally, group sizes average 4-6 people, but groups may be as large as 20. Tours are more common during the winter months when cooler temperatures prevail. Group leaders arrange the transportation logistics with their guests. Sufficient parking facilities are available for participants to use while conducting this use.

Why is this use being proposed or reevaluated?

This use is being reevaluated due in accordance with Part 603 Section 2.11 H of the Fish and Wildlife Service Manual (USFWS 2000).

Although boating is not a priority public use, it does support fishing, wildlife observation, interpretation, and environmental education which are popular priority public uses on the refuge. Anglers rely on both motorized and non-motorized boats as a means of transportation to fishing grounds. Fishing is a priority public use identified in the National Wildlife Refuge System Improvement Act of 1997, and it helps accomplish refuge goals and promotes understanding, appreciation, and support for the missions of the Service and the Refuge System. Visitors may also use boating to facilitate wildlife photography and wildlife observation.

Availability of Resources

The analysis of cost for administering and managing each use will only include the incremental increase above general operational costs that we can show as being directly caused by the proposed use. Staffing and funding levels can limit the refuge's ability to properly facilitate some public uses. Facility maintenance must occur to continue to allow boating on the refuge. Budget constraints can hinder the ability of the refuge to meet the minimum maintenance needed to keep facilities used for boating open to the public year-round. Law enforcement also contributes to management of boating on the refuge by ensuring compliance with regulations and promoting public safety of the approximately 20,000 users. During times when law enforcement staff are limited, the capacity for patrolling the water and enforcing refuge and boater safety regulations can strain our ability to promote public safety and protect refuge resources. Some staff time will be required to administer SUPs.

Table 1. Costs to Administer and Manage Boating

Category and Itemization	Recurring Annual Expenses
Staff time (L.E., administration and management)	\$1,000
Maintenance	\$1,000
Total Expenses	\$2,000

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The effects and impacts of the proposed use to refuge resources, whether adverse or

beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.”

Short-term impacts

Recreational boating can cause minor, short-term disturbances to wildlife and habitat in Lake Havasu and the Bill Williams River. The presence of boaters may disturb wildlife while they are resting, courting, caring for young, or feeding (Boyle & Samson, 1985). This disturbance causes minor hardship to wildlife. Boats passing by can cause wildlife to leave the area temporarily and to be interrupted during the above-mentioned activities. Wildlife typically becomes accustomed to boats in the area traveling at no-wake speed and disturbance is minimal. Some pollution from fossil fuels is anticipated from the use of motorized boats on Lake Havasu and Bill Williams River.

Long-term impacts

This use may increase the viewers’ understanding and appreciation of fish and wildlife, their habitat needs, and the role of the NWRS in their conservation. Experiences shared with others increase public awareness of the refuge and, in turn, can help enhance the overall mission of the Service.

Public Review and Comment

This draft compatibility determination is available for public review and comment. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs. Comments can be e-mailed to R2_plancomments@fws.gov.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the mission of the NWRS and refuge goals and objectives, recreational boating can only occur under the following conditions:

1. All motorized boats must have current registration and operators must comply with all State of Arizona boating regulations.
2. The nonmotorized watercraft launch and Central Arizona Project (CAP) peninsula are day-use only areas and are open from 1/2 hour before legal

sunrise to 1/2 hour after legal sunset. We allow fishing and the launching of watercraft at these and other areas 24 hours a day.

3. Any boating must be at *No Wake Speed* and the use of airboats and personal watercraft (Jet Ski, Waverunner, Sea Doo, etc.) is prohibited on refuge waters.
4. Motorized boats may be launched from Take Off Point boat launch, a mile below the Visitor Center at Havasu Springs Resort (private BLM concessionaire), 1 mile west of the refuge (via Highway 95 South), Cattail Cove State Park, 8 miles North of the refuge, or other public or private boat launches.
5. We may regulate times, open areas, and conditions for the use based on the needs of the refuge, to protect refuge resources and to protect the quality of the visitor experience and visitor safety.
6. We do not allow feeding or harassment of wildlife.
7. Boaters are not permitted to moor or anchor after sunset or before sunrise unless actively engaged in attended fishing.
8. Commercial guided boating including but not limited to fishing, kayaking, and canoeing outfitters, must obtain a SUP.

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Justification

Although boating is not a priority public use, it does support fishing and wildlife observation and photography, which are popular and frequent priority public uses on the refuge. Boating as described above is consistent with current management goals and objectives. This activity will not conflict with any of the other priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, the refuge has determined that recreational boating on the refuge, in accordance with the stipulations provided here, would not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the Bill Williams River National Wildlife Refuge. Rather, appropriate and compatible boating would be the use of the Bill Williams River National Wildlife Refuge through which the public can develop an appreciation for wildlife and wild lands.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date
2033

DRAFT

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Compatibility Determination

Draft Compatibility Determination for Environmental Education and Interpretation at Bill Williams River National Wildlife Refuge

Refuge Use Category

Environmental Education and Interpretation

Refuge Use Type(s)

- Environmental Education (General)
- Environmental Education (not conducted by NWRS staff or authorized agents)
- Environmental Education (NWRS Staff or Authorized Agents)
- Interpretation (Commercial)
- Interpretation (not conducted by NWRS staff or authorized agents)
- Interpretations (NWRS staff and authorized agents)

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

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National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

No

What is the use?

Environmental education is a formal curriculum-guided program for any age to learn about and investigate the natural environment and develop skills and motivations that focus on the sustainable and harmonious co-existence of humans and the rest of the natural world. Environmental education within the Refuge System incorporates onsite, offsite, and distance learning materials, activities, programs, and products that address the audience's interest, the mission of the Refuge System and the management purposes of the field station. Environmental education integrates that station's purposes with national and state curricula or course of study. While it may include state and national education standards for schools, environmental education also includes other programs, such as, scout badge programs, home schooling, and adult education courses.

Interpretation is a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource. Interpretation translates the technical language of science into terms and ideas that the non-scientist can readily understand. Personal interpretation occurs through informal contacts and formal programs led by guest presenters, refuge staff or refuge volunteers. Non-personal interpretation occurs through visitor use of interpretive exhibits, interpretive panels, interpretive brochures, and self-guided interpretive programs. Interpretation can incorporate elements of wildlife observation and wildlife photography.

Is the use a priority public use?

Yes

Where would the use be conducted?

Environmental education programs can occur throughout the refuge in areas that are open to the public. They mainly occur in and around the visitor center facilities, which include the visitor center display area, peninsula and delta trails and the environmental education building (See figures 1-3).

Interpretation can also occur throughout the refuge but, is most likely to occur around the visitor center, along trails, and along the auto-tour route (See figures 1-3).

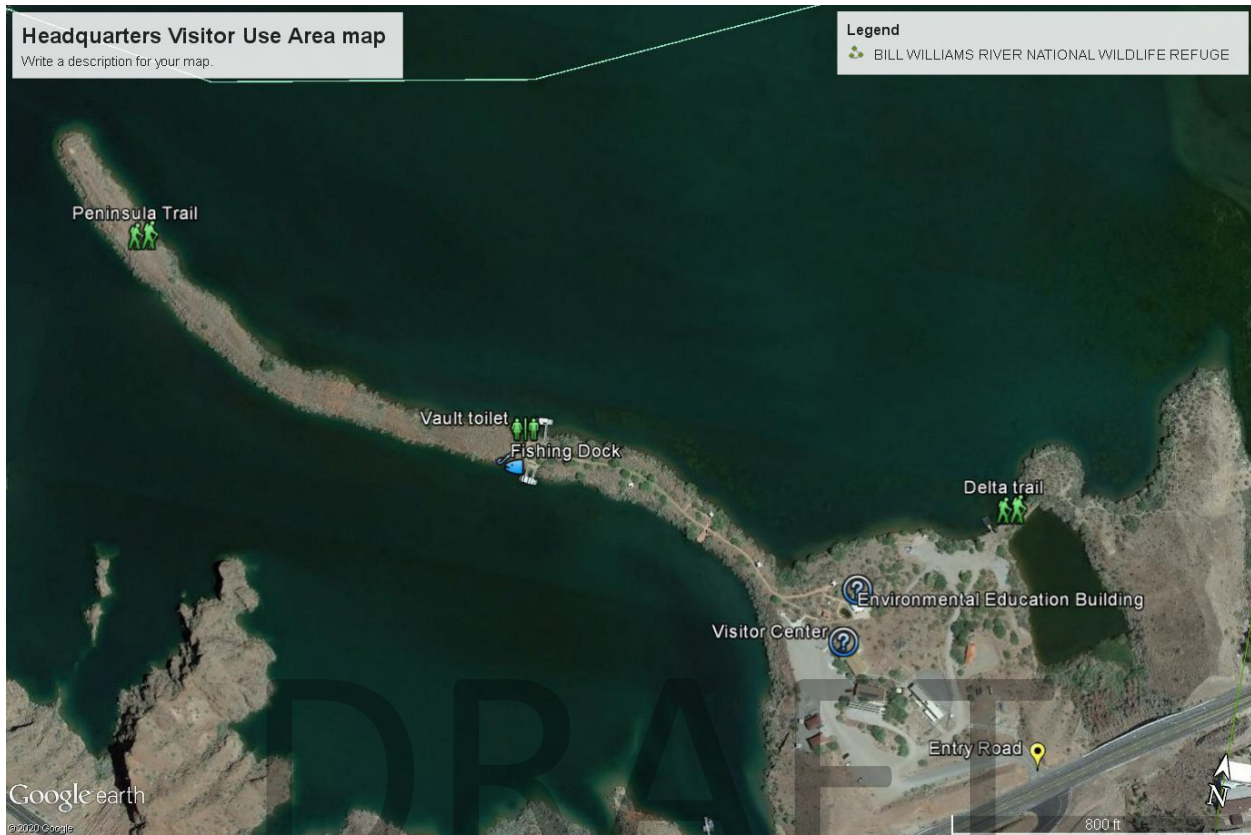


Figure 1. Headquarters visitor use area map



Figure 2. A closer look at headquarters visitor use area

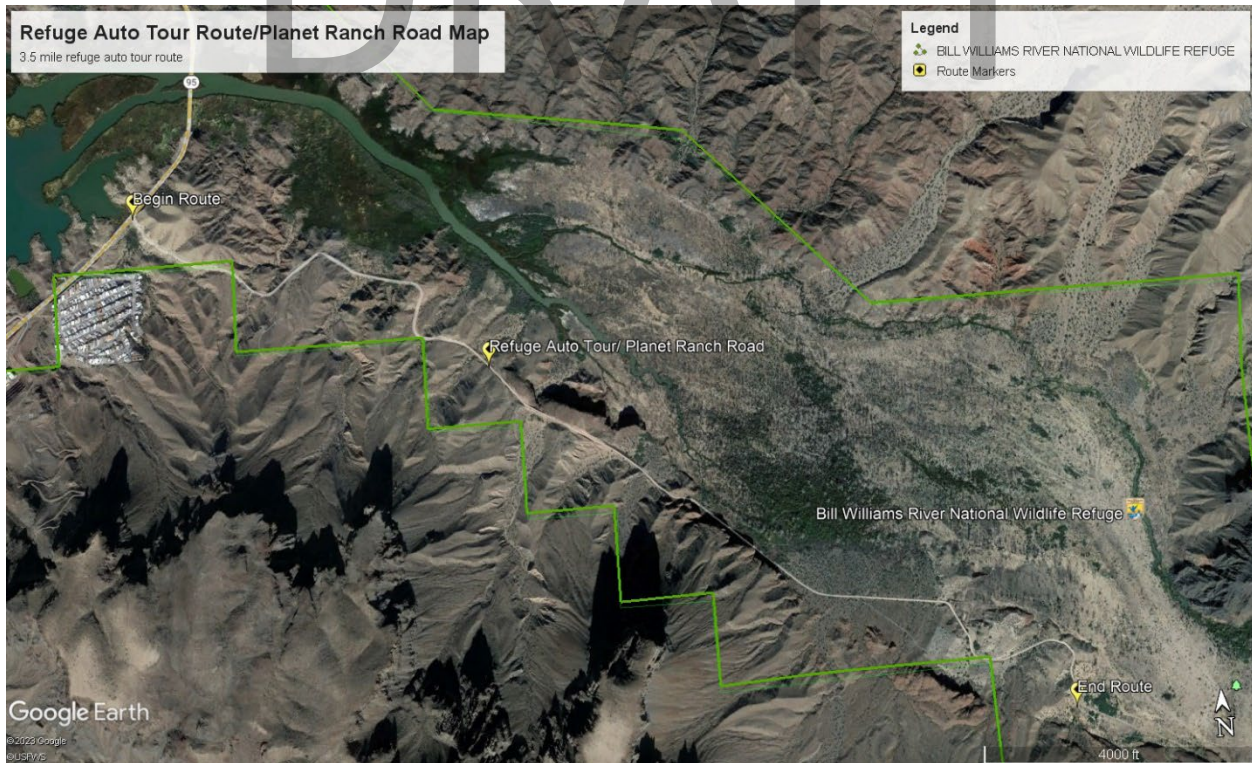


Figure 3. Refuge auto tour/Planet Ranch Road map

When would the use be conducted?

Contingent upon adequate staffing levels, environmental education occurs during specified staffed hours. The refuge may offer programs, arranged in advance, usually Monday through Friday, 9AM – 3PM, and most often from September – May.

Interpretation occurs during refuge open hours, ½ hour before sunrise to ½ hour after sunset.

How would the use be conducted?

Environmental education is a curriculum-based program led by refuge staff and volunteers through field trips to the refuge and presentations given to students at both the refuge and nearby schools. Schools in Mohave and La Paz counties, Arizona, scouts, homeschools, and nature clubs all visit the refuge for environmental education programs. The refuge provides curricula for school groups who visit the refuge and staff guides students through a unique learning experience. Grade levels vary based on the interest of the schools.

Interpretation generally occurs through self-guided products including wayside panels, kiosks, and visitor center exhibits, but may also involve nature tours led by refuge staff and/or volunteers.

Environmental Education or Interpretation may occur through commercial guided tours. All operators and organizations are required to obtain a special use permit (SUP) to conduct their activities on the refuge. The permit holder and any visitors participating in the activity are required to follow the terms of the permit, which include provisions to protect the natural and cultural resources of the refuge.

Why is this use being proposed or reevaluated?

Environmental education and interpretation are both priority public uses identified in the National Wildlife Refuge System Improvement Act of 1997, and both help accomplish refuge goals and promote understanding, appreciation, and support for the missions of the Service and the Refuge System.

Availability of Resources

At any given time, staff vacancies may limit availability to participate in environmental education. When fully staffed, the refuge and complex will have a visitor services specialist, a wildlife refuge specialist, a refuge manager, and a wildlife biologist who may participate in these uses. Limited staff hinders the ability of the refuge to offer extensive educational programs for students in the community. Environmental education programs rely upon the ability of refuge staff to devote their time to organizing and running the programs.

Interpretive programs may also require staff time and are conducted on a limited basis. Additionally, maintenance of educational and interpretive facilities, including brochures, interpretive signage, visitor center displays, and an environmental education building, requires adequate funding and available staff. Preparing, issuing, and enforcing Special Use Permits may also require additional staff time.

Anticipated Impacts of the Use

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.”

Short-term impacts

The use of refuge roadways and foot trails to facilitate interpretation may result in some environmental impacts to the refuge, its habitat, and wildlife species. These impacts would be short-term and minor. Motor vehicles traveling along the auto-tour loop can cause minor disturbances to wildlife (Boyle & Samson, 1985). Most animals become accustomed to motor vehicles and the presence of people on trails.

Long-term impacts

Both environmental education and interpretation result in long-term beneficial impacts to the human environment. Environmental education and interpretation both increase public understanding and appreciation of wildlife, refuge natural resources, and the role of the Refuge System in resource conservation.

No reasonably foreseeable adverse resource conditions are expected to result from environmental education or interpretation. Making educational and interpretive opportunities available on the refuge will increase public awareness about conservation issues and the National Wildlife Refuge System. This will benefit the Service’s overall mission and the purpose of the refuge.

Public Review and Comment

This draft compatibility determination is available for public review and comment. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs. Comments can be e-mailed to R2_plancomments@fws.gov.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the National Wildlife Refuge System and the refuge goals and objectives, both environmental education and interpretation can only occur under the following conditions:

- All programs will be grade appropriate (and curriculum-based in the case of environmental education).
- We may regulate times, open areas, and conditions for the uses based on the needs of the refuge, to protect refuge resources and to protect the quality of the visitor experience and visitor safety.
- The refuge will evaluate the compatibility of these uses as staff and/or funding availability change over time.
- SUPs may be issued for commercial tours or entities outside of NWRS staff or authorized agent with additional stipulations as appropriate.

Justification

Environmental education and interpretation are both priority public uses of the Refuge System as defined by the National Wildlife Refuge System Improvement Act of 1997. Environmental education and interpretation as described above are both consistent with current management goals and objectives. These activities will not conflict with any of the other priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, the refuge has determined that both environmental education and interpretation on the refuge, in accordance with the stipulations provided above, are compatible uses that will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purpose of the refuge.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

May 2038

Literature Cited/References

Boyle, S. A., & Samson, F. B. (1985). Effects of no consumptive recreation on wildlife: a review. *Wildlife Society Bulletin (1973-2006)*, 13(2), 110-116.

Draft Compatibility Determination

Draft Compatibility Determination for Fishing, Bill Williams National Wildlife Refuge

Refuge Use Category

Fishing

Refuge Use Type(s)

- Fishing (Commercial guiding and outfitting)
- Fishing (Non-Commercial)
- Fishing (Special Events)
- Fishing (Tournament)

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Bill Williams River National Wildlife Refuge (NWR) was originally established as part of Havasu NWR in 1941 under Executive Order 8647, dated January 22, 1941. Additional lands were acquired through purchase in 1977 under the Refuge Recreation Act (16 USC 460k-1). A withdrawal of public lands in 1981 under the Fish and Wildlife Conservation Act {16 USC 742f(b)(1)} completed the existing refuge boundary.

For lands acquired under Executive Order 8647 “...as a refuge and breeding grounds for migratory birds and other wildlife...” For lands acquired under the Refuge Recreation Act “...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species...” For lands acquired under the Fish and Wildlife Conservation Act “...for the development, advancement, management, conservation, and protection of fish and wildlife resources...for the benefit of the United States Fish and Wildlife Service [Service], in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude...”

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes

What is the use?

Recreational fishing is an activity conducted by the public under regulation authority of the Refuge System Improvement Act; it is considered a priority public use. The use is to allow recreational fishing on the refuge in accordance with State regulations and seasons. Private individuals or commercial guides may undertake recreational fishing within designated areas and at appropriate times.

Is the use a priority public use?

Yes

Where would the use be conducted?

Recreational fishing takes place on the refuge's navigable waterways on the portion of Lake Havasu which falls within refuge boundaries and a 2-mile section of the Bill Williams River channel which is navigable (see Navigable waterways map). Fishing from land occurs at our three fishing piers which are Americans with Disabilities Act compliant. The refuge has a non-motorized boat ramp which is open to the public for non-motorized boats only. The refuge does not support the launching of motorized boats on refuge property and visitors must use one of three motorized boat launches in the area as follows (figure 1 and 2).

- Takeoff Point boat launch 3 miles south of the refuge visitor center.
- Havasu Springs Resort (Private BLM concessionaire) 2.5 miles south of the refuge visitor center.
- Cattail Cove State Park, 8 miles north of the refuge visitor center.



Figure 1. Navigable waterways



Figure 2. Boat launches in the refuge vicinity

When would the use be conducted?

The nonmotorized watercraft launch and Central Arizona Project (CAP) peninsula are day-use only areas and are open from 1/2 hour before legal sunrise to 1/2 hour after legal sunset. We allow fishing and the launching of watercraft at these and other areas 24 hours a day. Solar powered lights keep the walkways and fishing piers lit through the night providing convenient nighttime user access.

How would the use be conducted?

All recreational anglers must have a fishing license through either Arizona Game and Fish Department or the California Department of Fish and Game and obey all the rules and regulations of the state for which they are licensed. Anglers using a motorboat must have their watercraft registered and must comply with the regulations for motorized boats in the State of Arizona. Any boating on refuge waters must be at No Wake Speed and personal watercrafts are prohibited. Camping is not permitted on refuge lands so persons fishing through the night must be actively fishing while they are present on the grounds.

Commercial guided fishing may be allowed only under a Special Use Permit.

Why is this use being proposed or reevaluated?

Fishing is a priority public use identified in the Refuge System Improvement Act of 1997, and it helps accomplish refuge goals and promotes understanding, appreciation, and support for the missions of the Service.

Availability of Resources

Annual refuge operation and maintenance funds are used to support public fishing activities. Fishing license sales are conducted by the Arizona Game and Fish Department (AZGFD) and the proceeds remain with the state agency, so expenses for maintaining the fishing program are not recuperated through fees. Expenses associated with management and monitoring of fishing include staff salaries and time, support for the volunteer program, supplies and equipment, fuel and wear on vehicles. Coordinating the fishing program with AZGFD is the refuge manager's responsibility. Enforcement of rules and restrictions is conducted by Federal wildlife officers with occasional assistance from AZGFD officers. Other staff provide information to anglers, report violations and keep the refuge free of trash. In the winter, refuge volunteers provide much of this support. In addition, maintenance staff time is required for installation, or replacement of signs and periodic maintenance of the roads and parking areas as part of the fishing program. Approximate annual costs to maintain infrastructure for fishing activities and administer the program are outlined below (table 1).

Table 1. Costs to Administer and Manage Recreational Fishing

Category and Itemization	Recurring Annual Expenses
Purchase regulation signage and hardware	\$1,000
Staff time (LE, administration and management)	\$4,000
Maintenance	\$1,000

Total recurring annual expenses	\$6,000
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Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.”

The refuge evaluated fishing in the 2021 Environmental Assessment for the Hunting and Fishing Program on Bill Williams River National Wildlife Refuge, (USFWS, 2021) Please refer to this plan for additional analysis.

Short-term impacts

Recreational fishing has minimal short and long-term impacts on wildlife and habitats. The primary direct impact of recreational fishing is the direct mortality of sportfish species and improper disposal of fishing line on refuge lands and water. Indirect impacts from recreational fishing are generated by anglers’ use of boats. Boating has the potential to have a minor, short-term negative impact on wildlife and habitat in Lake Havasu and the Bill Williams River due to its potential to disturb wildlife while they are resting, courting, caring for young, or feeding (Boyle & Samson, 1985). This disturbance causes minor hardship to wildlife. Boats passing by can cause wildlife to leave the area temporarily and to be interrupted during the above-mentioned activities. Wildlife typically become accustomed to boats in the area traveling at no-wake speed and disturbance is minimal. Some pollution from fossil fuels is anticipated from the use of motorized boats on Lake Havasu and Bill Williams River.

This use may increase visitors’ understanding and appreciation of fish and wildlife, their habitat needs, and the role of the Refuge System in their conservation. Experiences shared with others increase public awareness of the refuge and, in turn, can help enhance the overall mission of the Service.

Long-term impacts

No adverse long-term impacts are expected to result from recreational fishing. Making recreational fishing opportunities available on the refuge will increase public awareness about conservation issues and the Refuge System. This will benefit the Service’s overall mission and the purpose of the refuge.

Public Review and Comment

This draft compatibility determination is available for public review and comment. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs [e-mail comments to R2_plancomments@fws.gov](mailto:R2_plancomments@fws.gov). The 2021 Hunting and Fishing Plan and EA included a public comment period April 15 until July 6, 2021. We received six comments from the public, none of which were about the fishing portion of the plan.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the Refuge System and refuge goals and objectives, fishing can only occur under the following conditions:

- All persons engaged in recreational fishing must possess a valid fishing license through Arizona Game and Fish Department or California Department of Fish and Game and must comply with all regulations for the state by which they are licensed.
- The nonmotorized watercraft launch and Central Arizona Project (CAP) peninsula are day-use only areas and are open from 1/2 hour before legal sunrise to 1/2 hour after legal sunset. We allow fishing and the launching of watercraft at these and other areas 24 hours a day.
- Any boating must be at No Wake Speed and the use of personal watercrafts (Jet Ski, Waverunner, Sea Doo, Airboats, etc.) is prohibited on refuge waters.
- Motorized boats may be launched from take-off point boat launch, approximately 3 miles south of the visitor center, at Havasu Springs Resort (private Bureau of Land Management concessionaire) 2.5 miles south of the refuge, or Cattail Cove State Park, 8 miles north of the refuge.
- We may regulate times, open areas, and conditions for the use based on the needs of the refuge, to protect refuge resources and to protect the quality of the visitor experience and visitor safety.
- We prohibit feeding or harassment of wildlife.
- Boaters are not permitted to moor or anchor after sunset or before sunrise unless actively fishing.
- Any native fish species (e.g., bonytail chub or razorback sucker) caught must be immediately released unharmed and reported to refuge staff. Instructional signs are posted at the refuge.
- Any special events, tournaments or commercial guided fishing may occur under a Special Use Permit with additional stipulations as necessary to protect

natural resources.

Justification

Recreational fishing is a priority public use identified in the Refuge System Improvement Act of 1997, and it helps accomplish refuge goals and promotes understanding, appreciation, and support for the missions of the Service. Recreational fishing as described above is consistent with current management goals and objectives. This activity will not conflict with any of the other priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, the refuge has determined that recreational fishing on the refuge, in accordance with the stipulations provided above, is a compatible use that will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purpose of the refuge.

DRAFT

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2038
DRAFT

Literature Cited/References

Boyle, S. A., & Samson, F. B. (1985). Effects of nonconsumptive recreation on wildlife: a review. *Wildlife Society Bulletin (1973-2006)*, 13(2), 110-116.

U.S. Fish and Wildlife Service. (2021). Environmental Assessment: Hunt and Fish Plan for Bill Williams River National Wildlife Refuge

Draft Compatibility Determination

Draft Compatibility Determination for Picnicking, Bill Williams River National Wildlife Refuge

Refuge Use Category

Outdoor Recreation (General)

Refuge Use Type(s)

Picnicking

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Bill Williams River National Wildlife Refuge (NWR) was originally established as part of Havasu NWR in 1941 under Executive Order 8647, dated January 22, 1941. Additional lands were acquired through purchase in 1977 under the Refuge Recreation Act (16 USC 460k-1). A withdrawal of public lands in 1981 under the Fish and Wildlife Conservation Act {16 USC 742f(b)(1)} completed the existing refuge boundary.

For lands acquired under Executive Order 8647 *"...as a refuge and breeding grounds for migratory birds and other wildlife..."* For lands acquired under the Refuge Recreation Act *"...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..."* For lands acquired under the Fish and Wildlife Conservation Act *"...for the development, advancement, management, conservation, and protection of fish and wildlife resources...for the benefit of the United States Fish and Wildlife Service [Service], in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..."*

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes

What is the use?

Picnicking is an excursion where the members of a group typically provide their own food for consumption in the outdoors. Although this use is not one of the priority public uses, picnicking often coincides with other priority wildlife-dependent recreational uses.

Is the use a priority public use?

No

Where would the use be conducted?

Refuge visitors may enjoy picnicking at the two developed picnic sites located near the Peninsula nature trail (see Figure 1). Picnic tables, multiple shade structures, restroom facilities, and trash receptacles are provided. Picnicking on the refuge can also occur in combination with other compatible recreational uses, such as boating, kayaking, fishing, interpretation, and wildlife observation and photography, in areas of the refuge without developed picnic facilities. In addition to these designated areas, picnicking frequently occurs on shaded benches along the ADA accessible Peninsula nature trail near the visitor center.



Figure 1. Picnic sites within refuge headquarters

When would the use be conducted?

Picnicking is allowed from ½ hour before sunrise to ½ hour after sunset and typically occurs in the cooler seasons of the year beginning in fall and lasts throughout the winter and into the spring months. Picnickers usually arrive from late morning into the early afternoon and will typically stay for one hour per group.

How would the use be conducted?

Picnicking is free for all guests on a first-come, first-served basis. Tables, shade structures, trash receptacles, and restrooms are available at the refuge near the developed picnic sites. Visitors may also consume food in any refuge areas open to the public. All visitors are asked to respect the “Leave No Trace” ethic and pack their trash out, leaving no trace so the next visitors can enjoy clean surroundings. Visitors are not permitted to feed wildlife at any time. No campfires are permitted on refuge lands.

Why is this use being proposed or reevaluated?

Picnicking is a secondary supportive use that allows the public to enjoy their national wildlife refuges for longer periods. According to the Refuge Annual Performance Plan (RAPP), the refuge receives approximately 90,000 visits per year. We encourage visitors to be on the refuge early in the morning and in the evening in order to take

advantage of the best hunting, fishing, wildlife observation, and wildlife photography opportunities. Visitors engaged in a full day of wildlife-dependent recreation may spend one or more meal periods on the refuge. These visitors often consume food on the refuge to avoid long drives into the nearest town. Picnicking enhances the visitor's experience by enabling them to spend more time on the refuge engaging in wildlife-dependent recreational activities. If visitors must drive internal combustion vehicles off the refuge to eat, an increased level of gases associated with climate change will be emitted. If visitors who have biked or walked to the refuge leave to get food, they are unlikely to return and continue their visit.

Picnicking is not one of the priority public uses; however, it supports wildlife-dependent recreational uses such as hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation, which can increase the public's awareness, understanding, and appreciation of fish and wildlife resources.

Availability of Resources

Refuge resources required to administer picnicking are minimal. However, some staff time and finances are required to provide this use and to maintain the picnicking facilities. The primary tasks related to this use are maintenance of the existing picnic sites, litter and recycling pickup, and law enforcement to ensure that visitors comply with refuge regulations. This use is compatible based on availability of the above-mentioned resources.

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an "affected resource."

Wildlife habitat in the visitor use area will not be more than negligibly impacted by the action and has been dismissed from further analyses.

Short-term impacts

Picnicking has the potential to adversely impact the physical, biological, and human environment where the use is allowed. Human presence at picnicking sites may result in minimal disturbance to wildlife, but the degree of this disturbance at the two developed picnicking sites is anticipated to be inconsequential (Boyle, 1985). Littering

is nominal and the vast majority of visitors have been respectful and compliant with refuge policy. Trash receptacles are provided at developed picnic sites to deter visitors from littering. Visitors are expected to leave picnic areas clean and free of trash and other debris.

Long-term impacts

Picnicking may result in long-term beneficial impacts to the visitor experience and the mission of the Refuge System. Picnicking supports all six of the wildlife-dependent recreational uses allowed on the refuge, which will increase public awareness of Bill Williams River NWR. Furthermore, picnicking may draw more visitors to the refuge that will participate in other wildlife-dependent recreational uses or those available on nearby lands, possibly resulting in short-term benefits to the socioeconomics of the community. Picnicking may also increase the visitor's understanding and appreciation of wildlife and their habitat needs as well as the role of the Refuge System in resource conservation.

Public Review and Comment

This draft compatibility determination is available for public review and comment. A categorical exclusion was prepared for this use to analyze its impact on the refuges purpose and Refuge System mission. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs [e-mail comments to R2_plancomments@fws.gov](mailto:R2_plancomments@fws.gov).

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the Refuge System and the refuge goals and objectives, picnicking can only occur under the following conditions:

- We allow picnicking only in areas open to the public.
- Open fires are prohibited. Portable stoves are permitted; however, they may be temporarily prohibited during periods of high fire danger. 50 C.F.R. 27.95
- All trash must be placed in a trash receptacle or packed out. 50 C.F.R. 27.94
- We do not allow feeding or harassing of wildlife. 50 C.F.R. 27.51
- We require that all pets be on leash and under control. 50 C.F.R. 26.21

- We will evaluate the impacts of picnicking annually to assess compliance with these stipulations, impacts to wildlife and wildlife habitat, and conflicts between user groups. The stipulations may be modified to ensure continued compatibility.

Justification

Although picnicking is not a priority public use as defined by the National Wildlife Refuge System Improvement Act of 1997, it is supportive of priority wildlife-dependent recreation uses such as wildlife observation, interpretation, and wildlife photography. Picnicking enhances the visitor experience by providing people an opportunity to eat their meals without having to leave the refuge. This activity will not conflict with any of the priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, Bill Williams River NWR has determined that picnicking, in accordance with the stipulations provided above, will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purposes of the refuge.

DRAFT

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2038
DRAFT
Literature Cited/References

Boyle, S. A., & Samson, F. B. (1985). Effects of nonconsumptive recreation on wildlife: a review. *Wildlife Society Bulletin (1973-2006)*, 13(2), 110-116.

Draft Compatibility Determination

Draft Compatibility Determination For Research, Bill Williams River National Wildlife Refuge

Refuge Use Category

Research and Surveys

Refuge Use Type(s)

- Research
- Scientific Collecting
- Surveys

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Bill Williams River National Wildlife Refuge (NWR) was originally established as part of Havasu NWR in 1941 under Executive Order 8647, dated January 22, 1941. Additional lands were acquired through purchase in 1977 under the Refuge Recreation Act (16 USC 460k-1). A withdrawal of public lands in 1981 under the Fish and Wildlife Conservation Act {16 USC 742f(b)(1)} completed the existing refuge boundary.

For lands acquired under Executive Order 8647 *"...as a refuge and breeding grounds for migratory birds and other wildlife..."* For lands acquired under the Refuge Recreation Act *"...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..."* For lands acquired under the Fish and Wildlife Conservation Act *"...for the development, advancement, management, conservation, and protection of fish and wildlife resources...for the benefit of the United States Fish and Wildlife Service [Service], in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..."*

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and

future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

No

What is the use?

Scientific research is an appropriate use when found to benefit the refuge. Scientific research includes surveys and inventories and is conducted by outside entities, other than the Service, throughout the year in accordance with refuge regulations, goals, and objectives. The use involves collection of information that is used for analysis and reporting, and often entails collection of plant, animal, soil, rock, water, or air samples from the refuge. All proposed scientific research is evaluated on a case-by-case basis before approval is granted to ensure compatibility. This activity is not a priority public use of the Refuge System, requires a Special Use Permit (SUP) and, depending upon the project, other appropriate permits (e.g. Endangered Species Act compliance, state and federal collection permits, Wilderness Act compliance, etc.) may be necessary.

Is the use a priority public use?

No

Where would the use be conducted?

Scientific research may occur refuge-wide or in specific locations of the refuge described in the individual SUP.

When would the use be conducted?

Scientific research can occur year-round at any time of the day. Timeframes vary depending on the research proposal and restrictions outlined in the individual SUP.

How would the use be conducted?

FWS encourages research that enhances scientific innovation, planning, coordination, communication and the effective use of science for management decisions. The following criteria are used to assess research proposals:

- The information gained from the research must aid in the enhancement of species, habitat, or population management and increase understanding of refuge resources
- The purpose of the research must align with refuge goals and objectives and be compatible with Service policy.

- Research methods, techniques, tools, and equipment must be appropriate and adhere to a high standard of ethics.

A research SUP application consists of a letter of request, a study proposal, and the SUP application which can be accessed at:

<http://www.fws.gov/refuges/visitors/permits.html>. These should be submitted to the Refuge Manager at least 30 days prior to the beginning of proposed fieldwork. Proposals will be reviewed by refuge staff, and, if needed, other experts on the specific subject. The SUP outlines deliverables (e.g. annual report) and specific conditions on the allowable timing, location, and methods of scientific research. They are valid for up to one calendar year, renewable for up to three years.

Why is this use being proposed or reevaluated?

Scientific research may provide information that could be informative for refuge management decisions. Refuge staff time and funding are generally limited. Scientific researchers provide additional expertise and information needed to make better-informed resource management decisions.

The Service Manual (603 FW1.10D(4)) provides supplemental guidance in terms of the appropriateness of research on refuges, as follows: “We actively encourage cooperative natural and cultural research activities that address our management needs. We also encourage research related to the management of priority general public uses. Such research activities are generally appropriate. However, we must review all research activities to decide if they are appropriate as defined in section 1.11. Research that directly benefits refuge management has priority over other research.”

The rationale for this conclusion is clearly stated in the preamble to that policy (71 FR 36415): Not all research may be appropriate. Some research may affect fish, wildlife, and plants in a manner neither consistent with refuge management plans nor compatible with refuge purposes or the Refuge System mission. Some research may interfere with or preclude refuge management activities, be more appropriate off the refuge, and/or interfere with appropriate and compatible public uses, or other research. For example, some natural and physical research may not be wildlife-dependent and may be accomplished successfully at locations off the refuge. Because not all research supports establishing purposes of refuges or the Refuge System mission, we cannot define research as a refuge management activity.

Availability of Resources

Oversight of scientific research may require a substantial commitment of refuge staff time. Current refuge budgets allow for limited administration of this use. Capacity would need to be re-evaluated if research requests increase. Staff time associated

with the administration of this use is primarily related to interactions with individuals who request the use, the review and issuance of SUPs, monitoring project implementation, review of deliverables, and monitoring of the project's impacts to refuge resources.

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an "affected resource."

Short-term impacts

Human activity in natural habitats, including activities associated with research and surveys, can have adverse impacts on plants and wildlife, as described in the environmental assessment prepared for the CMP (USFWS 1994). Of particular concern are impacts to federally listed species. The refuge supports southwestern willow flycatcher (*Empidonax trailii extimus*), Yuma Ridgway's rail (*Rallus obsoletus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), northern Mexican gartersnake (*Thamnophis eques megalops*), razorback sucker (*Xyrauchen texanus*) and bonytail chub (*Gila elegans*).

Research activities on the Bill Williams River NWR have the potential to disrupt bird nesting or foraging activities for species such as the southwestern willow flycatcher, Yuma Ridgway's rail, and western yellow-billed cuckoo.

All research proposals will be evaluated to ensure that no adverse effects to listed species or their habitat would occur because of the study design and/or implementation, or to ensure that if adverse effects occur, they are minimal and are outweighed by the benefit to the management of the species. Researchers working directly with federally listed species would be required to comply with section 10(a)(1)(A) of the Endangered Species Act and possess the appropriate permit. In addition to potential impacts to listed species, human disturbance associated with research and surveys of natural resources can also affect other plant and wildlife species, as well as overall habitat quality. Riparian areas and native upland habitats support a broad range of wildlife species that can be affected by noise, trampling, and other forms of disturbance (Steidl & Powell, 2006). Therefore, the degree and type of

disturbance that could occur must be carefully weighed when evaluating a research request. Through the SUP process, project-specific conditions, including but not limited to where, when, and how access can occur on the refuge during research activities, will be included in each SUP's case-specific stipulations. Some level of disturbance is expected with all research activities since most researchers will be entering areas that are not normally accessed by the public and may be collecting samples or handling wildlife or plants. However, stipulations included in the SUP will be tailored to specific work sites and research.

In addition to addressing potential impacts to biological resources, SUP stipulations will also address the need to minimize soil disturbance and avoid activities that could impact water quality, prohibit ground disturbing activities where sensitive cultural resources are known to be present, and require monitoring during ground disturbance in areas where cultural resources may be present. The SUP process will address the need to limit the potential for conflicts with approved wildlife dependent recreational uses occurring on the refuge.

Prior to initiating field work, the permittee must provide documentation that recognized Institutional Animal Care and Use Committee (IACUC) personnel have reviewed and approved (as required by the Animal Welfare Act) activities and proposed procedures that could harm or materially alter the behavior of an animal under study.

Long-term impacts

Based on past and ongoing research proposals, the refuge has determined that the frequency and duration of research uses do not result in adverse impacts on refuge resources. Long-term beneficial impacts that improve refuge management or species conservation may result from research projects or surveys.

Public Review and Comment

This draft compatibility determination is available for public review and comment. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs [e-mail comments to R2_plancomments@fws.gov](mailto:R2_plancomments@fws.gov).

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

Refuge staff will monitor all research being conducted on the refuge. Findings from these monitoring efforts will be used to determine what additional management

actions, if any, are needed to ensure that research activities remain compatible with refuge purposes. Monitoring of all authorized research activities will continue to ensure compliance with specific terms and conditions tailored for each research project permit as well as with the following general conditions that are incorporated into all research SUPs to minimize impacts on refuge lands and resources.

- The permittee is responsible for obtaining appropriate state and federal permits.
- The permittee will conduct scientific and scholarly activities as defined in Department of the Interior policy 305 DM 3, Integrity of Scientific and Scholarly Activities that are intended for use in Service decision-making processes and/or publications. Acceptance of a SUP carries with it the responsibility to be aware of and follow the Code of Scientific and Scholarly Conduct described in 305 DM 3, Section 3.7 to the best of your ability.
- The permittee is responsible for ensuring that all employees, party members, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- A copy of this permit must be in the permittee's or field party chief's possession at all times while exercising the privileges of this permit.
- Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager and to the Arizona Game and Fish Department. Animals taken in defense of life or property must be salvaged in accordance with state regulations.
- The permittee does not have the exclusive use of the site(s) or lands covered by the SUP.
- The SUP may be canceled or revised at any time by the Refuge Manager in case of emergency (e.g., high fire danger, flooding, unusual resource problems etc.).
- Off-road vehicles must be licensed for road use and are not permitted to be driven off designated, public roads.
- Prior to beginning any activities allowed by the SUP, the permittee shall provide the Refuge Manager with the following: (1) name and method of contact for the field party chief or supervisor; vehicle types to be used, identification information for these vehicles; and names of assistants; (2) any changes in information provided in the original permit application.

- Failure to abide by any part of a SUP; violation of any refuge-related provision in Titles 43 (Part 36) or 50(sub-chapters B and C), Code of Federal Regulations; or violation of any pertinent state regulation (e.g., fish or game violation) will, with due process, be considered grounds for revocation of this permit and could result in denial of future permit requests for lands administered by the Service. This provision applies to all persons working under the authority of this permit. Appeals of decisions relative to permits are handled in accordance with Title 50 Code of Federal Regulations Part 36.41.

Current and future research will be evaluated on a case-by-case basis to determine if the project supports refuge and Service goals and if the project will be beneficial to refuge purposes. Project-specific stipulations (Special Conditions) will be defined in individual SUPs.

Justification

Use of the refuge to conduct research, scientific collecting, and surveys will generally provide information that would benefit fish, wildlife, plants and their habitats because they will expand scientific information available for resource management decisions. Scientific findings gained through these projects provide important information regarding life-history needs of species and species groups as well as identify or refine management actions to achieve resource management objectives in refuge management plans. Reducing uncertainty regarding wildlife and habitat responses to refuge management actions to achieve desired outcomes reflected in resource management objectives is essential for adaptive management in accordance with 522 DM 1.

We have determined that the benefit received from information gathered from scientific research outweighs minor short-term adverse impacts. This activity will not conflict with any of the other priority public uses or adversely affect biological resources. Therefore, through the compatibility determination process, the Bill Williams River NWR has determined that scientific research, in accordance with the stipulations provided above will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuge.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2038
DRAFT
Literature Cited/References

U.S. Fish and Wildlife Service. (1994). Lower Colorado River National Wildlife Refuges Comprehensive Management Plan and Environmental Assessment.

Steidl, R. J., & Powell, B. F. (2006, January). Assessing the effects of human activities on wildlife. In *The George Wright Forum* (Vol. 23, No. 2, pp. 50-58). George Wright Society.

Draft Compatibility Determination

Draft Compatibility Determination For Rights of way and Rights of Access for 12.5 kV Electrical Transmission Line, Bill Williams River National Wildlife Refuge

Refuge Use Category

Rights-of-way and Rights to Access

Refuge Use Type(s)

- Utility

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Bill Williams River National Wildlife Refuge (NWR) was originally established as part of Havasu NWR in 1941 under Executive Order 8647, dated January 22, 1941. Additional lands were acquired through purchase in 1977 under the Refuge Recreation Act (16 USC 460k-1). A withdrawal of public lands in 1981 under the Fish and Wildlife Conservation Act {16 USC 742f(b)(1)} completed the existing refuge boundary.

For lands acquired under Executive Order 8647 *"...as a refuge and breeding grounds for migratory birds and other wildlife..."* For lands acquired under the Refuge Recreation Act *"...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..."* For lands acquired under the Fish and Wildlife Conservation Act *"...for the development, advancement, management, conservation, and protection of fish and wildlife resources...for the benefit of the United States Fish and Wildlife Service [Service], in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..."*

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes

What is the use?

A Right of Way (ROW) permit issued to Western Area Power Administration (WAPA) for the above ground 12.5 kV electric transmission line. The ROW is requested for maintenance of the existing ROW on refuge lands conducted by Arizona Public Service Company (APS). Maintenance activities include vegetation management to reduce the potential for fire damage to infrastructure and to maintain APS personnel access to the power poles for maintenance activities.

Is the use a priority public use?

No

Where would the use be conducted?

The 12.5 kV transmission line runs through the central and eastern portion of the refuge. The ROW measures 15-foot-wide 7.5 feet from either side of the center line and extends 2.23 miles across refuge land.

Legal Description:

Township 11 North

Range 17 west

Gila Salt River Base Meridian

North ½ Section 35 La Paz County, Arizona

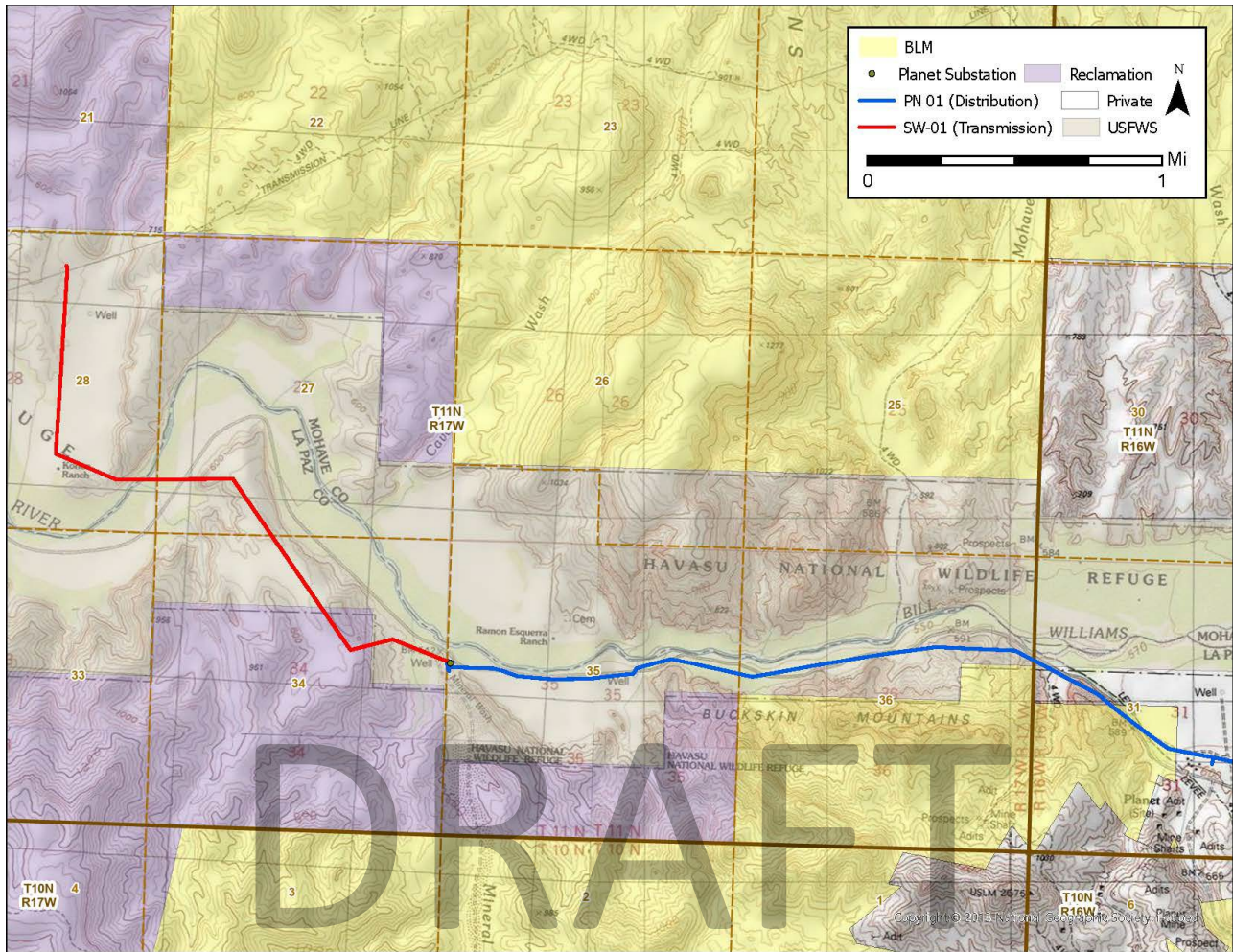


Figure 1. Map of transmission lines 69 kV distribution line in red 12.5 kV line in blue

When would the use be conducted?

The transmission line is currently in place and only minor maintenance is required to continue proper function. Utility work, vegetation removal, and road maintenance may be conducted between October 1st and March 31st. Any utility work during September 1st to October 1st would require additional approval because it is within the migratory bird nesting season observed by the refuge. Emergency utility work can be conducted as needed any time of year to ensure continued electrical service to customers.

How would the use be conducted?

Maintenance of the ROW will be conducted to keep the area beneath the transmission line clear of vegetation to prevent fire damage to the infrastructure and to maintain road access. Vegetation clearing includes manual removal and disposal of any vegetation growing within the ROW, it may also include the use of approved herbicides to remove vegetation. Herbicide use requires a permit generated through the Pesticide Use Proposal (PUP) system and can be obtained from the refuge manager.

Road maintenance includes minor grading of roads to repair damage caused by erosion. Prior to conducting maintenance activities, a project proposal and Special Use Permit (SUP) application must be approved by the refuge manager, the SUP must be in the possession of work crews when on site work is conducted. All stipulations in this CD and in the SUP issued by the manager must be followed.

Why is this use being proposed or reevaluated?

This use is not a priority public use of refuge resources however it is being reevaluated because the previous compatibility certificate (USFWS, 1980) for this use is overdue for a ten-year reevaluation. Further, this use continues to provide an important public service by providing the location for the utility infrastructure with minimal negative impact to refuge resources.

Availability of Resources

Refuge resources required to administer the ROW are minimal. However, some staff time and finances are required to provide this use. Staff time will consist of processing SUPs and PUPs and conducting occasional field visits with APS staff prior to approval of maintenance plans and SUPs. This use is compatible based on availability of the above-mentioned resources.

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.”

Short-term impacts

Human activity in natural habitats, including activities associated with ROW and utility line maintenance, can have adverse impacts on plants and wildlife, as described in the Environmental Assessment prepared for the Comprehensive Management Plan (USFWS 1994). Of particular concern are impacts to federally listed species. The refuge supports habitats for southwestern willow flycatcher (*Empidonax trailii extimus*), Yuma Ridgway's rail (*Rallus obsoletus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), northern Mexican gartersnake (*Thamnophis eques megalops*), razorback sucker (*Xyrauchen texanus*) and bonytail chub (*Gila*

elegans).

The presence and noise generated by people and equipment during maintenance activities is likely to cause disturbance to some wildlife species and cause individuals to leave the area temporarily during work activities.

Soil disturbance will occur during grading activities on access roads and while driving vehicles and equipment to work areas within the ROW.

Exhaust from vehicles and equipment used in maintenance activities as well as dust from soil disturbance and equipment use is likely to temporarily impact air quality while work is being completed.

No impacts to threatened or endangered species is anticipated from maintenance activities on the transmission lines, or the ROW maintenance activities will be conducted outside of the season when species would be present and active in the area (USFWS, 1980). Some migratory breeding bird habitats will be disturbed due to vegetation removal in the uplands and in a small area of riparian forest that the ROW passes through, but the impact would be minimal and there is sufficient existing habitat throughout the surrounding area to meet nesting habitat needs.

Long-term impacts

The presence of the transmission line impacts the scenic value of the land on the refuge by introducing a manmade structure into a natural environment. Vegetation removal will also detract from the scenic value of the land within the ROW. The extent of the impact is not significant enough to preclude the use from compatibility with refuge purposes and the mission of the Service.

Transmission lines emit a low-level persistent humming noise. This noise is not likely to cause serious disturbance to wildlife in the area or people using the area for recreational purposes.

Occasional maintenance activities on the roads built for access to the power poles would disturb soil and channel water, potentially increasing erosion in the impacted areas. Vegetation removal in the ROW will have a minor impact on wildlife habitat. These impacts are not likely to cause hardship to wildlife or irreparable damage to soils.

Federally listed species habitat consists primarily of cattail bullrush marsh, open water habitats, and riparian cottonwood willow gallery forests and does exist near the ROW. The ROW primarily exists on upland desert habitats which do not contain endangered species. A small portion of the ROW goes through riparian forest habitat, APS may need to occasionally remove plant material from this area to protect the transmission lines. The work would be done outside of migratory bird nesting season and therefore would not cause a significant negative impact to migratory bird

populations or listed species.

Public Review and Comment

This draft compatibility determination is available for public review and comment. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs e-mail comments to R2_plancomments@fws.gov.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the mission of the refuge system and the refuge purposes, goals, and objectives, the following stipulations must be followed when maintenance activities are conducted on the ROW:

- To conduct maintenance activities on the ROW APS must obtain a SUP from the refuge manager permitting the activities
- The permittee is responsible for ensuring that all employees, party members, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- A copy of this permit must be in the permittees or field party chief's possession at all times while exercising the privileges of this permit.
- The SUP may be canceled or revised at any time by the refuge manager in case of emergency (e.g., high fire danger, flooding, unusual resource problems etc.).
- Off-road vehicles must be licensed for road use and are not permitted to be driven off designated, public roads, APS access roads or over land outside of the ROW.
- Prior to beginning any activities allowed by the SUP, the permittee shall provide the refuge manager with the following: (1) name and method of contact for the field party chief or supervisor; vehicle types to be used, identification

information for these vehicles; and names of assistants; (2) any changes in information provided in the original permit application.

Current and future maintenance activities will be evaluated on a case-by-case basis to determine if the project is compatible with refuge and Service goals and if the project will be beneficial to refuge purposes. Project-specific stipulations (Special Conditions) will be defined in individual SUPs.

Justification

Although Right of Way access is not a priority public use as defined by the National Wildlife Refuge System Improvement Act of 1997, the refuge as a public landowner has a responsibility to adjacent landowners and municipalities to provide certain services such as a ROW for a transmission line to contribute to the greater good of the public in the surrounding area. This use will not conflict with any of the priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, the refuge has determined that this ROW, in accordance with the stipulations provided above, will not materially interfere with or detract from the fulfillment of the refuge system mission or the purposes of the refuge.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2033

Literature Cited/References

U.S. Fish and Wildlife Service. (1980). LA - Arizona Havasu NWR Permit (E-11) Arizona Public Service Company.

U.S. Fish and Wildlife Service. (1994). Lower Colorado River National Wildlife Refuges Comprehensive Management Plan and Environmental Assessment.

DRAFT

Draft Compatibility Determination

Draft Compatibility Determination For Rights of way and Rights of Access for 69 kV Electrical Transmission Line, Bill Williams River National Wildlife Refuge

Refuge Use Category

Rights-of-way and Rights to Access

Refuge Use Type(s)

- Utility

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Bill Williams River National Wildlife Refuge (NWR) was originally established as part of Havasu NWR in 1941 under Executive Order 8647, dated January 22, 1941. Additional lands were acquired through purchase in 1977 under the Refuge Recreation Act (16 USC 460k-1). A withdrawal of public lands in 1981 under the Fish and Wildlife Conservation Act {16 USC 742f(b)(1)} completed the existing refuge boundary.

For lands acquired under Executive Order 8647 *"...as a refuge and breeding grounds for migratory birds and other wildlife..."* For lands acquired under the Refuge Recreation Act *"...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..."* For lands acquired under the Fish and Wildlife Conservation Act *"...for the development, advancement, management, conservation, and protection of fish and wildlife resources...for the benefit of the United States Fish and Wildlife Service [Service], in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..."*

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes

What is the use?

A Right of Way (ROW) permit issued to Western Area Power Administration (WAPA) for the above ground 69 kV electric transmission line. The ROW is requested for maintenance of the existing ROW on refuge lands conducted by Arizona Public Service Company (APS). Maintenance activities include vegetation management to reduce the potential for fire damage to infrastructure and to maintain APS personnel access to the power poles for maintenance activities.

Is the use a priority public use?

No

Where would the use be conducted?

The 69 KV transmission line runs from Parker dam to Bagdad, Arizona and runs through the western portion of the refuge (see Figure 1 below). The area for the transmission line is 100-foot-wide, 50 feet on either side of the centerline of the existing transmission line the access road ROW is 50 wide 25 feet from center line equaling 51.84 acres (USFWS, 2010).

Legal Description:

Gila and Salt River Base and Meridian:

T.11N. R. 17W.

Section 19: S/2NW/4, NE/4SW/4,SE/4.

Section 20: S/2SW/4.

Section 28: N/2, N/2SW/4, SE/4SW/4, NW/4SE/4.

Section 29: E/2NW/4, NE/4.

T.11N R18W.

Section 13: SE/4SW/4, SW/4SE/4.

Section 14: SW/4SE/4

Section 24: NE/4NE/4 (USFWS, 2010)

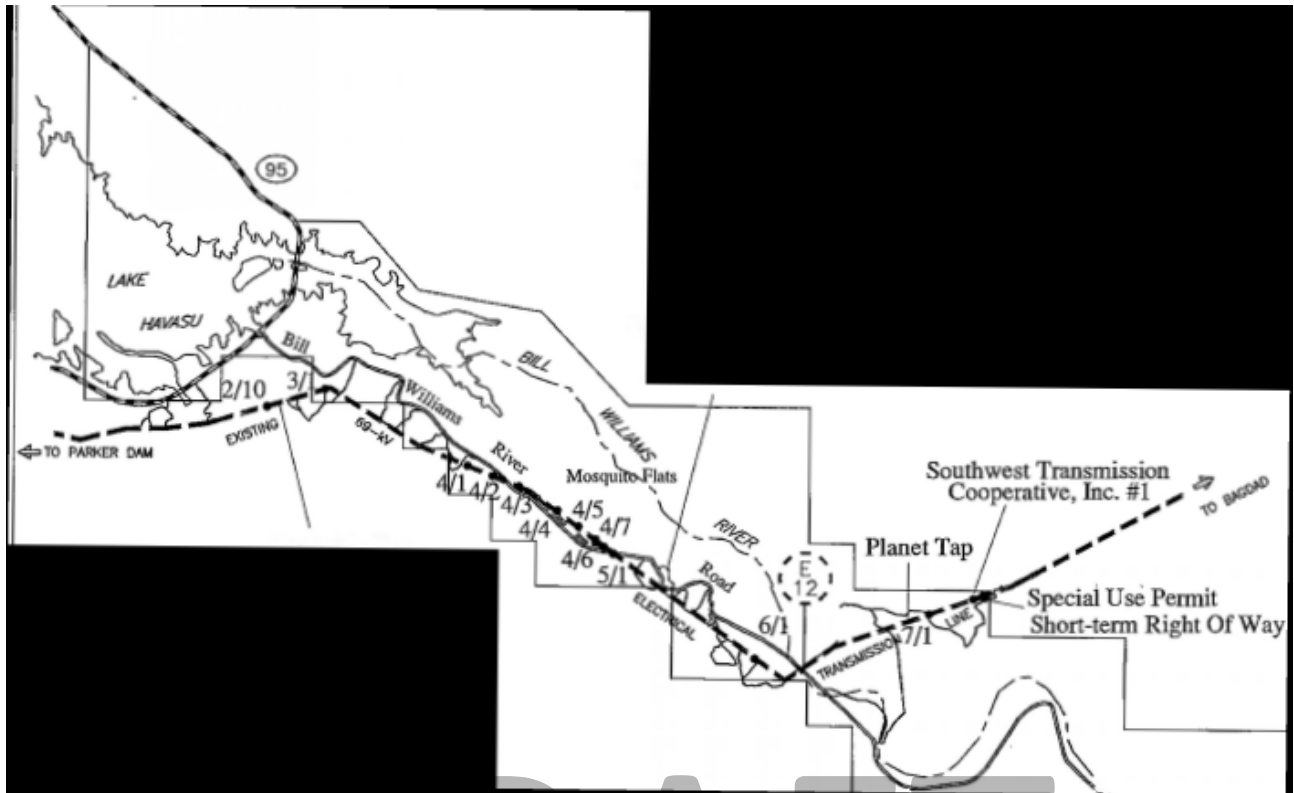


Figure 1. Map of 69 kV transmission line

When would the use be conducted?

The transmission line is currently in place and only minor maintenance is required to continue proper function. Utility work, vegetation removal, and road maintenance may be conducted between October 1st and March 31st. Any utility work during September 1st to October 1st would require additional approval because it is within the migratory bird nesting season observed by the refuge. Emergency utility work can be conducted as needed any time of year to ensure continued electrical service to customers.

How would the use be conducted?

Maintenance of the ROW will be conducted to keep the area beneath the transmission line clear of vegetation to prevent fire damage to the infrastructure and to maintain road access. Vegetation clearing includes manual removal and disposal of any vegetation growing within the ROW, it may also include the use of approved herbicides to remove vegetation. Herbicide use requires a permit generated through the Pesticide Use Proposal (PUP) system and can be obtained from the refuge manager.

Road maintenance includes minor grading of roads to repair damage caused by erosion. Prior to conducting maintenance activities, a project proposal and Special

Use Permit (SUP) application must be approved by the refuge manager, the SUP must be in the possession of work crews when on site work is conducted. All stipulations in this CD and in the SUP issued by the manager must be followed.

Why is this use being proposed or reevaluated?

This use is not a priority public use of refuge resources however it is being reevaluated because the previous compatibility determination (USFWS, 2010) for this use is overdue for a ten-year reevaluation. Further, this use continues to provide an important public service by providing the location for the utility infrastructure with minimal negative impact to refuge resources.

Availability of Resources

Refuge resources required to administer the ROW are minimal. However, some staff time and finances are required to provide this use. Staff time will consist of processing SUPs and PUPs and conducting occasional field visits with APS staff prior to approval of maintenance plans and SUPs. This use is compatible based on availability of the above-mentioned resources.

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.”

Short-term impacts

Human activity in natural habitats, including activities associated with ROW and utility line maintenance, can have adverse impacts on plants and wildlife, as described in the Environmental Assessment prepared for the Comprehensive Management Plan (USFWS 1994). Of particular concern are impacts to federally listed species. The refuge supports habitats for southwestern willow flycatcher (*Empidonax trailii extimus*), Yuma Ridgway's rail (*Rallus obsoletus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), northern Mexican gartersnake (*Thamnophis eques megalops*), razorback sucker (*Xyrauchen texanus*) and bonytail chub (*Gila elegans*).

The presence and noise generated by people and equipment during maintenance activities is likely to cause disturbance to some wildlife species and cause individuals

to leave the area temporarily during work activities.

Soil disturbance will occur during grading activities on access roads and while driving vehicles and equipment to work areas within the ROW.

Exhaust from vehicles and equipment used in maintenance activities as well as dust from soil disturbance and equipment use is likely to temporarily impact air quality while work is being completed.

No impacts to threatened or endangered species are anticipated from maintenance activities on the transmission lines or the ROW. The majority of threatened and endangered species habitat is outside of the ROW (DOE, 2008). Some migratory breeding bird habitat will be disturbed due to vegetation removal in the uplands and in a small area of riparian forest that the ROW passes through but the impact would be minimal and there is sufficient existing habitat throughout the surrounding area to meet nesting habitat needs.

Long-term impacts

The presence of the transmission line impacts the scenic value of the land on the refuge by introducing a manmade structure into a natural environment. Vegetation removal will also detract from the scenic value of the land within the ROW. The extent of the impact is not significant enough to preclude the use from compatibility with refuge purposes and the mission of the Service.

Transmission lines emit a low-level persistent humming noise. This noise is not likely to cause serious disturbance to wildlife in the area or people using the area for recreational purposes.

Occasional maintenance activities on the roads built for access to the power poles would disturb soil and channel water, potentially increasing erosion in the impacted areas. Vegetation removal in the ROW will have a minor impact on wildlife habitat. These impacts are not likely to cause hardship to wildlife or irreparable damage to soils.

Federally listed species habitat consists primarily of cattail bullrush marsh, open water habitats, and riparian cottonwood willow gallery forests and does exist near the ROW. The ROW primarily exists in upland desert habitats which according to the Biological Assessment (DOE, 2008) for the project do not contain endangered species. A small portion of the ROW goes through riparian forest habitat, APS may need to occasionally remove plant material from this area to protect the transmission lines. The work would be done outside of migratory bird nesting season and therefore would not cause a significant negative impact to migratory bird populations or listed species.

Public Review and Comment

This draft compatibility determination is available for public review and comment. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs e-mail comments to R2_plancomments@fws.gov.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the mission of the refuge system and the refuge purposes, goals, and objectives, the following stipulations must be followed when maintenance activities are conducted on the ROW:

- To conduct maintenance activities on the ROW, APS must obtain a SUP from the refuge manager permitting the activities
- The permittee is responsible for ensuring that all employees, party members, and any other persons working for the permittee and conducting activities allowed by this permit are familiar with and adhere to the conditions of this permit.
- A copy of this permit must be in the permittees or field party chief's possession at all times while exercising the privileges of this permit.
- The SUP may be canceled or revised at any time by the refuge manager in case of emergency (e.g., high fire danger, flooding, unusual resource problems etc.).
- Off-road vehicles must be licensed for road use and are not permitted to be driven off designated, public roads, APS access roads or over land outside of the ROW.
- Prior to beginning any activities allowed by the SUP, the permittee shall provide the refuge manager with the following: (1) name and method of contact for the field party chief or supervisor; vehicle types to be used, identification information for these vehicles; and names of assistants; (2) any changes in information provided in the original permit application.

Current and future maintenance activities will be evaluated on a case-by-case basis

to determine if the project is compatible with refuge and Service goals and if the project will be beneficial to refuge purposes. Project-specific stipulations (Special Conditions) will be defined in individual SUPs.

Justification

Although Right of Way access is not a priority public use as defined by the National Wildlife Refuge System Improvement Act of 1997, the refuge as a public landowner has a responsibility to adjacent landowners and municipalities to provide certain services such as a ROW for a transmission line to contribute to the greater good of the public in the surrounding area. This use will not conflict with any of the priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, the refuge has determined that this ROW, in accordance with the stipulations provided above, will not materially interfere with, or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the refuge.

DRAFT
Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2033

Literature Cited/References

U.S. Department of Energy. (2008). Draft Biological Assessment. Western's Parker to Buckskin Tap 69-kV Transmission Line Rebuild and Upgrade Project San Bernardino County, California and La Paz County, Arizona.

U.S. Fish and Wildlife Service. (2010). Compatibility Determination. Utility Right of Way – Parker-Planet Tap 69 kV Transmission Line Rebuild, Upgrade and Right of Way Action on existing Western Area Power Administration overhead power line. Bill Williams River National Wildlife Refuge, Parker, Arizona.

U.S. Fish and Wildlife Service. (1994). Lower Colorado River National Wildlife Refuges Comprehensive Management Plan and Environmental Assessment.

DRAFT

Draft Compatibility Determination

Draft Compatibility Determination for Wildlife Observation & Photography, Bill Williams River National Wildlife Refuge

Refuge Use Category

Wildlife Observation and Photography

Refuge Use Type(s)

- Photography video, filming, or audio recording
- Photography, video, filming, or audio recording (Commercial)
- Photography, video, filming, or audio recording (News)
- Wildlife Observation
- Wildlife Observation (Commercial)

Refuge

Bill Williams River National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Bill Williams River National Wildlife Refuge was originally established as part of Havasu NWR in 1941 under Executive Order 8647, dated January 22, 1941. Additional lands were acquired through purchase in 1977 under the Refuge Recreation Act (16 USC 460k-1). A withdrawal of public lands in 1981 under the Fish and Wildlife Conservation Act {16 USC 742f(b)(1)} completed the existing refuge boundary.

For lands acquired under Executive Order 8647 *"...as a refuge and breeding grounds for migratory birds and other wildlife..."* For lands acquired under the Refuge Recreation Act *"...suitable for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..."* For lands acquired under the Fish and Wildlife Conservation Act *"...for the development, advancement, management, conservation, and protection of fish and wildlife resources...for the benefit of the United States Fish and Wildlife Service [Service], in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude..."*

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant

resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes

What is the use?

Wildlife observation and photography are both existing wildlife-dependent recreational uses that occur on the refuge. Wildlife observation is the act of spotting, listening to, and watching wildlife.

Wildlife photography encompasses observation and takes it a step further by capturing images of wildlife in nature. There are abundant opportunities on the refuge to observe and photograph a variety of resident and migratory species.

Wildlife observation and photography may occur as a commercial use in the form of guided wildlife tours, wildlife photography classes, or documentary filmmaking featuring refuge wildlife or scenery. Such commercial uses will occur under a Special Use Permit.

Is the use a priority public use?

Yes

Where would the use be conducted?

Wildlife observation and photography occur throughout public use areas on the refuge, including two pedestrian trails, a 3.5-mile auto tour route, fishing piers, waters accessible by boats or kayaks (See Figures 1-3), and designated birding hotspots (i.e. Important Bird Areas).

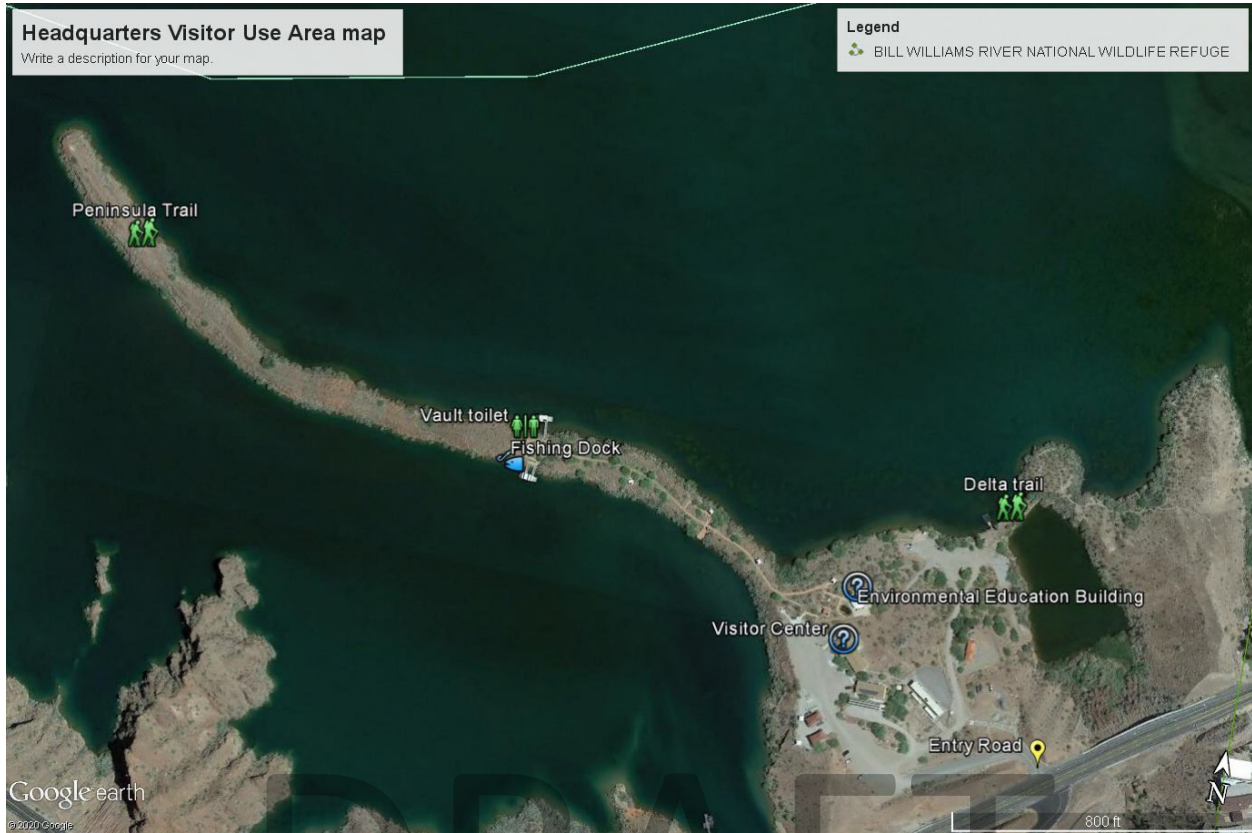


Figure 1. Headquarters visitor use area map



Figure 2. Headquarters visitor use area map

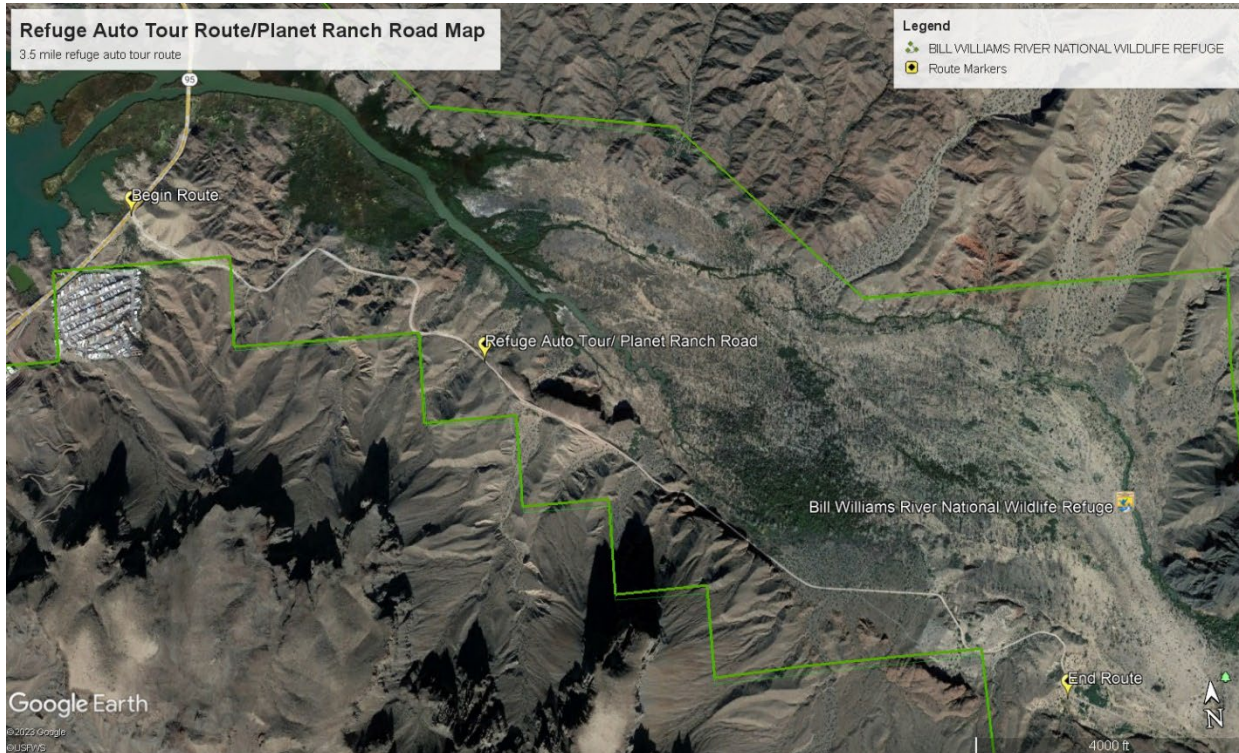


Figure 3. Auto tour route map

When would the use be conducted?

Wildlife observation and photography occur throughout the year. The public use areas, including trails, are open to the public year-round from sunrise to sunset. Visitors may use refuge fishing piers and the non-motorized boat ramp for wildlife observation and photography. The nonmotorized watercraft launch and Central Arizona Project (CAP) peninsula are day-use only areas and are open from 1/2 hour before legal sunrise to 1/2 hour after legal sunset. We allow fishing and the launching of watercraft at these and other areas 24 hours a day. The refuge visitor center is generally open from 9am to 4pm, Monday through Friday as staffing allows, and on weekends as staffing allows. The visitor center is closed on all Federal holidays.

How would the use be conducted?

All wildlife observation and photography activities are conducted in support of refuge purposes, goals, and objectives. The majority of both wildlife observation and photography activities are self-guided and allow visitors to explore the refuge on their own. Refuge staff and volunteers provide brochures, including bird lists, resident species lists, and wildlife watching tips to best observe and photograph on the refuge.

Why is this use being proposed or reevaluated?

Both wildlife observation and photography are priority public uses on National

Wildlife Refuge System lands as identified in the National Wildlife Refuge System Improvement Act of 1997. Allowing access to the refuge for wildlife observation and photography is consistent with goals of the refuge and the Refuge System.

Availability of Resources

Wildlife viewing and photography is available in times when staff and volunteer resources are sufficient to maintain the facilities. Facilities and infrastructure that support these uses, such as trails, benches, bathrooms, solar panels, piers, viewing glasses, boat launches, signage, and the visitor center, are maintained by volunteers and staff. Some staff time will be required for preparing, issuing, and enforcing SUPs.

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This CD includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.”

Short-term impacts

Both wildlife observation and photography can cause minor, short-term disturbances to wildlife (FWS, 1994). Animals generally become accustomed to foot traffic on trails and motor vehicles along the auto tour road. Incidents that may occur due to wildlife observation or photography would be rare and minor. Trail use and maintenance can result in minimal soil erosion and vegetation disturbance. Public use areas concentrate visitor activity within designated sites and prevent greater disturbance and degradation to other areas of the refuge.

Long-term impacts

Wildlife observation and photography both may result in long-term beneficial impacts to the refuge. These uses may stimulate visitors' respect, understanding, and appreciation for wildlife and the refuge's conservation goals and objectives. Experiences and photographs shared with others increase public awareness of the refuge and, in turn, can help enhance accomplishment of the missions of the Service and the Refuge System.

Public Review and Comment

This draft compatibility determination is available for public review and comment. Comments on this use are invited and due by the deadline stated on the cover of the Draft CDs e-mail comments to R2_plancomments@fws.gov.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

To ensure compatibility with the mission of the Refuge System and the refuge purposes, goals, and objectives, both wildlife observation and photography can only occur under the following conditions:

- We allow the uses to occur year-round from ½ hour before sunrise to ½ hour after sunset.
- Use of devices with auditory projection speakers that can attract, disrupt, or alter the behavior of wildlife (such as recorded bird calls, predator calls, etc.) are not permitted.
- We do not allow the use of artificial lights which can cause disturbance of wildlife.
- We allow access to day use areas from ½ hour before sunrise to ½ hour after sunset. Visitors using fishing piers and the non-motorized boat launch can access these facilities 24 hours a day, though visitors from sunset to sunrise need to be actively fishing.
- We may regulate times, open areas, and conditions for both uses based on the needs of the refuge to protect refuge resources and to protect the quality of the visitor experience and visitor safety.
- We allow motor vehicles only on designated public roads, including the auto tour route. Vehicles must observe posted speed limits to protect wildlife.
- We do not allow feeding or harassment of wildlife.
- We do not allow public engagement with wildlife, including touching young animals that may appear abandoned.
- Disturbance and collection of all plants, animals, minerals, and historic objects is prohibited except under authority of a SUP.
- We do not allow commercial photography except under authority of a special use permit.
- Pets must be leashed and controlled at all times.
- Any use that requires more than basic photography or filming equipment (camera, microphone) will need to apply for a special use permit. Obtaining a SUP may require fees, including cost recovery, consistent with current FWS

policy.

Justification

Wildlife observation and photography are both priority public uses of the Refuge System as defined by the National Wildlife Refuge System Improvement Act of 1997. Wildlife observation and photography as described above are consistent with current management goals and objectives. This activity will not conflict with any of the other priority public uses or adversely impact biological resources. Therefore, through the compatibility determination process, the refuge has determined that both wildlife observation and photography on the refuge, in accordance with the stipulations provided above, are compatible uses that will not materially interfere with or detract from the fulfillment of the Refuge System mission or the purpose of the refuge.

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Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Acting Regional Chief Signature and Date

Mandatory Reevaluation Date

2038

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Literature Cited/References

U.S. FWS. 1994. Environmental Assessment - Lower Colorado River National Wildlife Refuges Comprehensive Management Plan. U.S. Fish and Wildlife Service Region 2, Albuquerque, NM.

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