

Draft

Environmental Assessment

**for Big Falls Shooting Range, Chippewa County,
Wisconsin**

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Environmental Assessment

Big Falls Shooting Range, Eau Claire Co., Wisconsin

Note to reviewers: This environmental assessment (EA) has been prepared by the Wisconsin Department of Natural Resources to be consistent with National Environmental Policy Act (NEPA) requirements for environmental review. NEPA requirements are relevant since DNR is seeking federal Pittman-Robertson (P-R) funds for the project. The US Fish and Wildlife Service administers P-R funds and will ultimately decide if NEPA and other applicable federal regulations have been met before a funding decision is made. This EA evaluates probable environmental effects and will be used to help determine the need for preparation of an Environmental Impact Statement (EIS). The EA includes a description of alternatives and the affected environment.

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CHAPTER 1 PROJECT SUMMARY, PURPOSE AND NEED

1.1 PROJECT SUMMARY

Location: County: Eau Claire City/Town/Village: Town of Lincoln
Township Range Section(s): SW 1/4 of NW1/4 of Section 19, T27N R7W

Wisconsin Department of Natural Resources (DNR) is seeking \$30,000 in federal Pittman/Robertson funding administered by US Fish and Wildlife Service to help develop a 3.0 acre shooting range in central Eau Claire County (west central Wisconsin - attachment 1). Total project cost is estimated at \$40,000 - \$50,000. Matching non-federal contributions would be provided by a combination of DNR planning and engineering costs and donated construction materials, labor and equipment from local sporting clubs, civic groups, a national guard unit and other support groups.

The proposed Big Falls Shooting Range would be constructed on roughly one-half of a 6.0-acre former sand pit owned by Eau Claire County and located off

county trunk highway K (CTH K) four miles north of the Village of Fall Creek. The site is part of 52,000-acre Eau Claire County Forest (attachment 2). Big Falls is a narrow riffle on the Eau Claire River located about ½ mile northwest of the proposed range site. The range site is adjacent to South Big Falls Park entrance road, which connects with CTH K about 1/4 mile to the east (attachment 3).

A Land Use Agreement has been entered between DNR and Eau Claire County to make the property available for shooting range development and free public use for at least 20 years (attachment 4). The former sand borrow pit, according to county officials, has not been actively mined for at least 10 years. More recently several steep sand faces and sand mounds at the pit have been used haphazardly as a three-season, unofficial shooting range. The site currently has no shooting benches, established directional shooting lanes or other shooting range safety features. The site requires periodic clean up by the County Parks and Forest Department of makeshift targets, spent shells/casings and general litter (household garbage, small appliances, tires, etc. - attachment 5).

The proposed range would require grading of on-site sand materials to construct two parallel shooting lanes (50 and 100 yards) with 12-20' high side and back berms capped with on-site or borrowed topsoil. See proposed range site plan, attachment 6. Each shooting lane would have separate shooting benches and target supports. Two nine-vehicle graveled parking lots with connecting handicapped accessible walking trails would provide access to the shooting lanes. One or more directional road sign(s) for the shooting range would be posted at CTH K and possibly adjoining roads. The range would have an 8' high cyclone fence surrounding the 3-acre range area. Best management practices would be followed to control construction site erosion.

Range construction would be supervised by DNR to assure compliance with site development plans. Operation and maintenance (O&M) would be handled by local volunteer groups including Eau Claire County 4H Shooting Sports, Boy Scout Troop 79 and the Christian Outdoorsmen Association (see Adopt-A-Shooting-Range Agreements, attachments 7-9). O&M responsibilities will mainly consist of litter control, berm and shooting lane mowing (if needed), periodic spent (lead) bullets recovery and recycling, shooting bench and target support replacement and other activities needed to keep the range in good condition. If problems develop DNR will arrange for O&M by others.

1.2 PURPOSE

The purpose of the project is to develop a safe and available public shooting range facility in central Eau Claire County in effort to promote hunter safety and skills training. The purpose of this EA is to look at the feasibility and potential for environmental consequences associated with alternatives considered.

1.3 NEED

The adage that "practice makes perfect" is particularly important considering the safety risk associated with firearm use. The following needs should be

met, to the extent possible, by any selected Alternative:

- Statewide need for additional shooting ranges
- Need for improved safety over current site conditions
- Need for improved hours and days of access by the public
- Need for the site to be accessible for users with disabilities
- Need for improved hunter safety education opportunities/facilities
- Need to develop a local partnership for developing and maintaining the facility
- Need to minimize range development costs, O&M responsibilities and loss of useable wildlife habitat and avoid conflicts with surrounding land uses.

1.4 BACKGROUND

Hunting is a strong part of Wisconsin's cultural heritage and a vital part of the state's economy. Demographic trends indicate the number of hunters in Wisconsin will likely hold steady through the next two decades but may be proportionately declining compared to population levels. A DNR report titled Hunting, Fishing and Trapping 2000 - A Report Addressing Long Term Planning for the Secretary's Issue of Hunting, Fishing and Trapping in Wisconsin contains strategies to promote development of hunter skills training. Statewide efforts include development of new or upgraded shooting ranges to meet shooter demand and to expand hunter skills, safety and education opportunities. Another identified strategy is to promote outdoor skills partnerships with user groups, local governments and others. A third strategy seeks non-DNR funding opportunities to help develop outdoor skills training and use facilities. The Big Falls Shooting Range project is consistent with these statewide goals.

DNR is interested in increasing the number of properly designed shooting ranges in Wisconsin to enhance hunter skills and safety. A side benefit is meeting an increasing demand for shooting practice as a public outdoor recreation pursuit.

Firearm use, while hunting or practicing, carries a high safety risk. Since 1967 DNR has had an established hunter education program that attempts to prevent firearms incidents in order to maintain a safe and successful recreational experience. Over the last 45 years the number of hunting accidents have progressively decreased while the number of hunters has increased. New hunters are now required to complete a Basic Hunter Education course before they can purchase a hunting license. Over the last 10 years an average of ~ 30,000 students have been Hunter Education course certified by ~ 4,300 volunteer instructors. Shooting practice is encouraged for graduates to continue to gain experience with safe firearm handling and shooting accuracy. Ranges are an ideal practice training ground. (Statistics taken from Wisconsin Department of Natural Resources Hunting Accident Report 2000).

In addition to a need for statewide shooting ranges, DNR needs local partners to help develop and manage these (new or improved) ranges. Eau Claire County, the land owner, supports range development. According to the Eau Claire

County Forest 10-Year Management Plan, 1996-2005, shooting ranges are a permitted use of county forest lands. Also, for range operation and maintenance, opportunity to partner with local volunteer groups provides for such cooperative efforts. The prospect of federal funding support for range development is an added incentive.

1.5 DECISIONS THAT NEED TO BE MADE

The US FWS's Regional Director will select one of the alternatives analyzed in detail and will determine whether this EA is adequate to support a Finding of No Significant Impact (FONSI) decision, or whether an Environmental Impact Statement (EIS) will need to be prepared.

CHAPTER 2 ALTERNATIVES, INCLUDING THE PROPOSED ACTION

The location of all nearby ranges and other possible siting alternatives, except for the Tilden Range, are shown on attachment 10.

2.1 Alternatives Considered but Dismissed from Detailed Analysis

A number of alternatives were considered but were determined not feasible due to site characteristics, landowner reluctance, distance from user demand location or potential for use/scheduling conflicts with existing users.

2.1.1 Tilden Range Site, Chippewa County.

Use of the Tilden, Chippewa County range for meeting Eau Claire County resident shooting range needs is not considered feasible due to the ~30-mile travel distance from central Eau Claire County. The Tilden Range could accommodate an increased number of range users, but apparently the distance is too great a deterrent for prospective Eau Claire County users.

2.1.2 Law Enforcement Range.

Located about 2 miles southeast from the proposed Big Falls range site. Shared public use of the law enforcement range is not considered a viable alternative. Law enforcement agencies need a private and isolated range, available on an as-needed basis, for security during firearm safety training. Attempting to share time with the public would cause unmanageable scheduling conflicts and other problems.

2.1.3 Eau Claire Rifle Club Range.

There is a long distance, high-powered rifle range on county forest land about 3 miles to the northwest off CTH QQ. That site was developed and is operated, under a land use agreement with the county, by Eau Claire Rifle Club, a non-profit service organization. The club posts the range as available to the public one night a week but the range is not continuously

monitored and is visible to the public off CTH QQ. The range extends north over 600 yards from the edge of CTH QQ, the first 100' of which is owned by the club. The club controls access immediately off CTH QQ by a locked gate. At first glance, shared use of the Eau Claire Rifle Club range would seem a feasible alternative to development of a new range three miles away. The rifle club range was constructed in 1935 and was specifically designed for use by high-powered and small bore rifles. The club and county had an original 50-year land use agreement for use of the site. Since the 1970's the county decided they could only renew the agreement at 5-year intervals (current agreement expires 1/1/07). The agreement allows for public use of the club range, but does not specify schedules for club exclusive use or available public use times. The club has posted a sign at the range gate indicating that Thursday nights are available for public shooting (typically monitored by a club member) and holds a two-week long public "siting-in" clinic before each fall hunting season. The club is interested in keeping the range exclusively available for a busy, April-September, 3 day per week and most weekends schedule of club-sponsored shooting events and weekly league shoots. In August the club annually allows for exclusive use of the range by area state patrol and National Guard units. It has invested substantially in range development, carries liability insurance and reportedly has annual O&M expenses that total over \$15,000. The club does not support unlimited public access to the range due to liability and other concerns. Litter, vandalism and other misuse problems already occur and would likely increase. Public range use is more oriented to hunters mainly interested in shorter distance shooting practice. The county is concerned that less organized and precise non-club shooting at the site could present a hazard to users of the county's Tower Ridge Trail, a portion of which winds just to the northeast. Given the above factors - current high use levels, direct access control, specialty shooting range design, etc. - increased public use at the range would create unmanageable conflicts for all users. As a result, shared range use at this site is not considered a practical alternative.

2.1.4 Eau Claire Rod and Gun Club.

The Eau Claire Rod and Gun Club range is located on private land about six miles to the west off CTH QS. The range is used primarily for trap shooting, is open to members only and has a busy league schedule. Improvements would be needed to develop long distance shooting lanes meeting range safety standards. Serious scheduling conflicts would occur between existing shotgun and prospective rifle users.

2.1.5 Westgate Sportsman Club.

The range is located on private land about 20 miles to the west, is open to members only and is mainly used for shotgun and pistol practice. Major site improvements would be required. Scheduling conflicts would be unavoidable. The site is located too far west to meet the identified user demand in the central part of the county.

2.1.6 Augusta and Fairchild Rod and Gun Clubs.

Both clubs have unimproved shooting ranges located on private lands about 15 and 25 miles to the southeast of the proposed range site. Site improvements would be needed. Location is not nearby to identified user demand.

2.1.7 Plainwell Tissue Company

DNR identified a possible alternative site near a paper company's paper sludge landfill site. That site is located about 6 miles west (of the proposed site) off USH 12 in section 29, T27N, R8W. The site was considered a potential candidate for range development due to its location, the disturbed nature of the property and the presence of a sand ridge area that had been excavated for landfill capping. The sand ridge could be used as a shooting lane safety berm. The land owner, Plainwell Tissue Company, was twice sent letters over the last year by DNR in effort to discuss possible range development at the site. The company never responded. It is presumed the company has determined the site is not available for such use.

2.2 ALTERNATIVES CARRIED FORWARD FOR DETAILED ANALYSIS

2.2.1. Alternative A - Proposed Action.

See Chapter 1, Project Summary. For several years DNR, Eau Claire County and others have cooperated for several months in an effort to identify and develop a safe shooting range centrally located in the county. The Big Falls former sand pit would satisfy location needs and eliminate or deter ongoing shooter safety risks and unauthorized use problems. Natural terrain and past sand excavation form a 40' deep depression compared to surrounding wooded (oak and jack pine) terrain to the south and west. Currently there are several makeshift target areas that can be fired upon from several directions. To reduce risk of stray fire, range development would orient shooting in a consistently east to west direction, with the 40' high pit faces used as a backdrop.

The site has no known history for authorized landfilling or other waste disposal, but general litter clean up is an ongoing problem.

Engineering plans have been developed based on National Rifle Association shooting range design standards (attachment 6). A DNR engineer would monitor construction. Design plans call for two parallel shooting lanes (50 and 100 yards), earth work to construct shooting lane side and back berms, two nine vehicle gravel parking lots, gravel walkways, shooting benches, and target supports. The range would be fenced, signed, and handicapped accessible.

Construction would mainly involve advance site clean up, followed by grading clean sand deposits for construction of shooting range lanes and

side and back berms according to engineering plan specifications.

The range would be open year-round, sunrise to sunset and accessible for free public use. Only stationary targets for rifle and pistol or bow shooting practice would be allowed. Shotguns could be used for firing slugs. No trap and skeet shooting use is planned.

The range will not be manned on a routine basis, although there may be supervised sessions for hunter safety classes, club shooting events, etc. Damage by irresponsible shooters or vandalism will be repaired by O&M volunteers. If repeated vandalism is an issue the county Sheriff's Office will be contacted in attempt to increase surveillance and ward off such activity.

The proposed site is considered suitable for several reasons including: located near identified need area, Eau Claire County land ownership and support, beneficial (re)use of a highly disturbed area, clean fill available on site for shooting lane and berm construction and local volunteers are available for range operation and maintenance. The natural sand ridge to the south and west should attenuate noise and help prevent stray rounds release in the surrounding area.

Dialogue between local DNR conservation wardens, county officials and other interested parties identified the sand pit as the most feasible shooting range site available in this area of the county.

2.2.2 Alternative B - No Action.

This alternative would not develop a new range. The existing unimproved sand pit would continue to be used. Safety, shooter skills, and education and range accessibility needs would not be met. Ongoing ATV and dumping issues would not be addressed.

2.2.3 Alternative C - Enlarge proposed range design

The proposed range design has been developed based on site contours of the disturbed sand pit coupled with a rough estimate of current use and estimated public demand. Increasing the size is a future possibility. Once the range site is improved and safe use is established user demand may generate interest in expanding the site by adding more or longer shooting lanes. The existing sand pit footprint limits expansion opportunities. To accommodate expansion would require disturbance to surrounding mature oak and jack pine woodlands and may not be considered a desirable action by the county. Expansion would increase project costs and O&M responsibilities and increase the potential for conflicts with neighboring land owners and other county forest users. An expanded range would also increase the dispersal of spent lead over a larger area.

2.3 Summary of Alternatives Action Table

Actions	Alternative A (proposed action)	Alternative B (no action)	Alternative C (enlarge range design)
County land ownership	yes	yes	yes
Public accessibility	yes	yes	yes
Site development	yes	no	yes
Disturbance acreage	3 acres	0	>3 acres
Utilities present	no	no	no
Habitat present	disturbed upland	disturbed upland	disturbed upland and adjacent woodlands
Risk of recreation use conflicts	low, improved over existing conditions	high	more than Alt. A but improved over existing

CHAPTER 3 AFFECTED ENVIRONMENT

Continued haphazard shooting at the sand pit site presents a safety hazard to users, adjacent county forest land (CFL) recreational users and neighboring private landowners and their property. A busy public road (CTH K) is located 1/4 mile to the east. A nature reserve exists about 1/2 mile northeast. Privately owned lands lie ~1/8 mile to the south. Big Falls County Park and swimming area is located ~1/2 mile to the northwest. Multi-purpose county forest lands extend +1.0 miles to the west.

There are several designated all-terrain vehicle (ATV) trails in the county forest, but the sand pit is not so designated. Nonetheless, unauthorized off-road ATV activity has created trails that crisscross much of the area between South Big Falls Road and the two 40' high former sand pit faces and adjacent sand loading areas. ATV use has isolated four small mature jack pine "islands", totaling less than 1 acre, between the road and sand pit. The site currently has no standard range design safety features - designated line-of-fire shooting lanes, side and back berms to control stray fire, etc. South Big Falls Road runs 3/4-mile northwest past the sand pit to a southern unit of Big Falls County Park. The county park is gated and closes at 11pm, but there is no public access control from CTH K to the sand pit. While there have been no reported firearm-related incidents to date, the potential for accidents is high.

3.1 PHYSICAL CHARACTERISTICS

Construction activities for the proposed alternative (A) would mostly be confined within the disturbed area of the sand pit. A narrow strip of oak and pine trees at

the outer, top perimeter of the sand faces may be disturbed during grading to assure stability of shooting lane side and back berms (3H:1V). Most of the four wooded islands between the pit and South Big Falls Road will be cleared and graded. On-site topsoil would be temporarily stockpiled and subsequently spread on rough graded shooting lanes/berms for revegetation. Construction for alternative C would extend beyond the sand pit area of disturbance.

No wetlands or waterways exist at alternatives A or C or will be impacted. The nearest stream, Eau Claire River, is located about 1/4 mile north of the site. Surface water mainly seeps into porous sandy soils. During heavy run-off periods some standing water collects in rutted road or ATV trail depressions and either evaporates or slowly seeps into the ground. Erosion control measures will be used to stabilize all disturbed areas (berms, shooting lanes, parking lot, etc.). No substantial increase in stormwater generation or off-site runoff is expected.

3.2 BIOLOGICAL ENVIRONMENT (HABITAT/VEGETATION)

The proposed range site (and alternative C) mainly consists of barren sand deposits in the pit area and adjacent wooded islands. A few scattered areas of common invading grasses, weeds and shrubs are present. The disturbed nature of the sand pit area substantially limits potential as useable wildlife habitat. Alternative C would extend into mature oak and jack pine woodlands beyond the disturbed area of the sand pit and result in greater habitat loss if developed.

3.3 THREATENED/ENDANGERED AND CANDIDATE SPECIES, OTHER WILDLIFE SPECIES

DNR's Natural Heritage Inventory (NHI) was reviewed to determine if any state or federal listed endangered or threatened (E/T) species or other special resources are known to reside at or utilize sites A or C. NHI records indicate a number of state or federally listed E/T species have been observed within one mile of alternative A or C sites (see attachment 11): wood turtle (state threatened); tiger beetle (state special concern); sand snaketail (state special concern dragonfly); elktoe (state special concern freshwater mussel). In addition, NHI lists Big Falls rapids on Eau Claire River as a rare natural community. Karner Blue butterfly (federally endangered, state special concern) is not listed in NHI records as present within one mile of the project site, but Karner Blues are known to be present in nearby locations of the county forest and surrounding general area.

Occurrence of wood turtle at the project area is not likely due to the absence of suitable habitat and distance from the Eau Claire River. Wood turtles prefer deciduous forests and open meadows along moderate to fast flowing streams. High south banks adjacent to the river would impede, if not eliminate, turtle access to inland areas (including the proposed sand pit site). Wood turtle was last observed in 1986 along Eau Claire River at Beaver Creek Reserve (located ~

1 mile from the sand pit across CTH K). Although the sand pit may provide suitable nesting habitat for wood turtle, the north-faced orientation of the pit is not preferred nesting habitat. Other sand banks suitable for wood turtle nesting are abundant along the river.

Tiger beetles (sp.) prefer sandy beaches and dry soil. The site is located roughly 50' above the Eau Claire River water level and no sandy beaches would be disturbed. The sand pit otherwise meets tiger beetle habitat requirements.

Sand snaketail and elktoe are both aquatic species. The project site contains no surface waters or wetlands. Recorded observations are likely from the Eau Claire River, which is ¼ mile to the northeast at its nearest location.

Karner Blue butterflies prefer semi-open oak openings, pine barrens, and oak/pine barrens supporting wild lupine, its only larval food plant. The sparseness of vegetation at the sand pit limits potential for lupine growth. The wooded "islands" are dense, mature jack pine stands with poor sunlight penetration through the tree canopy and low-density understory. Eau Claire County and its county forest are enrolled as a partner in the statewide Karner Blue Butterfly Recovery Plan. A Level 1 Survey for Karner Blues and lupine was conducted in May 2004. No Karner Blues or lupine was observed at the project site (see attachment 12).

Deer and common small mammals use the site as a feeding location and travel corridor. Shooting range perimeter fencing would eliminate access and use for larger species.

3.4 LAND USE

Alternative A and C are located on CFL zoned by the county as F-1, exclusive forestry management. The CFL 10 Year Plan lists shooting ranges and county-use-only sand pits as a permitted use.

Surrounding land uses are mainly CFL multi-purpose use described earlier and scattered rural residential lots to the south. A westerly shooting direction at alternative sites A and C would minimize or eliminate risk of conflicts with private land and rural residences.

3.5 CULTURAL/PALEONTOLOGICAL RESOURCES

To reduce project review workloads at State Historical Society (SHS) and promote faster review times for DNR actions, DNR and SHS have a cooperative agreement whereby SHS provides general (screening level) historical/archeological records to DNR. DNR does initial screening and if a project proposal is located within one mile of a recorded cultural/paleontological

resource then DNR consults with SHS. If no resource "hits" are encountered within the one-mile radius SHS policy is that no impacts will occur. Review of screening records provided to DNR by the SHS indicate no archeological or historic features present at alternative range sites A or C. In addition, any unknown resources that may have been present have likely been disturbed or destroyed by past sand mining operations or ATV use.

3.6 LOCAL SOCIO-ECONOMIC CONDITIONS

The project area is rural and sparsely populated. Village of Fall Creek, population ~1200 and four miles to the south, is the nearest municipality.

The sand pit is within and mostly surrounded by county forest land that is managed for multi-purpose forestry, watershed protection and recreation use. CFL is an important revenue source to the county in terms of timber sales and a recreation destination, including that from non-county visitors/tourists. The county has determined that a shooting range at the sand pit site is a desirable recreation amenity that would not conflict with other CFL uses or users. Conversion of the site to range use is expected to reduce existing unauthorized ATV and dumping activities.

3.7 ECONOMIC ISSUES

The only economic impact would be the use of federal Pittman-Robertson funds for range development. DNR will be requesting \$30,000 to help complete this work.

CHAPTER 4 ENVIRONMENTAL CONSEQUENCES

4.1 IMPACTS SPECIFIC TO ALTERNATIVES CONSIDERED

4.1.1 Alternative A - Proposed Action

Endangered/Threatened Species - Natural Heritage Inventory (NHI) screening records for endangered/threaten species, natural areas or other rare biological communities indicate a low risk that sensitive resources are present or would be impacted for Alternative A.

Cultural Resources – No impacts expected. SHS screening records for sensitive Historical or Archeological features have been reviewed and indicate no resources present for Alternative A (or B or C).

Environmental Justice - Alternative A would have the potential to have a minor positive impact on Environmental Justice by providing a quality, free public shooting facility that would be accessible for all potential user groups, including the handicapped.

Economics – No major economic impacts are expected. DNR is seeking \$30,000 of federal Pittman-Robertson funds to help develop the new shooting range. Range users may increase sales at nearby small businesses (gas stations, restaurants, shooter supply stores, etc.).

Habitat Impacts - Minor negative impacts would be expected. The proposed site is a mostly disturbed sand pit that provides little habitat value. Revegetation of shooting range side and back berms may increase habitat value but perimeter fencing would limit wildlife access for large-sized species. Minor and temporary fugitive dust and equipment exhaust emissions would be generated during range construction.

Biological Impacts - Minor negative biological impacts would be expected. There is little current wildlife use. The sand pit is already used as an unimproved shooting range and constructing and using an improved range would not greatly increase animal startle effect or cause other impacts. Shooting range side and back berms will be seeded for erosion control and grass cover establishment. This may increase habitat value and potential for use by mice, moles, voles and other small-sized species, but year-round shooting use and perimeter fencing would probably limit suitability and access for wildlife.

Social Conditions - Alternative A would meet user needs, improve year-round public access, be handicapped accessible and improve hunter education opportunities.

Safety - There is a safety risk associated with shooter error, firearm malfunction and intentional shooter vandalism. Alternative A would improve safety over the existing condition in several ways. Former sand mining at the site has created a bowl-shaped depression compared to surrounding wooded terrain. Construction of side and back berms and single direction shooting lanes would further help prevent stray fire from escaping the site. Range use and shooting practice would help promote/retain firearm safety practices for hunters and other range users. Intentional vandalism is always a possibility, especially in this case where the site will not be continuously manned and supervised. If vandalism becomes a problem increased surveillance from local law enforcement officials will be requested to discourage such activities.

Noise - Current shooting use at the site is not known to be a noise issue for surrounding receptors. Alternative A will cause increased use and an associated increase in shooting noise frequency. The new facility would be open year-round from sunrise to sunset (winter use will probably be little if any). The existing site topography, CFL buffer around the range site, oriented single shooting direction and presence of side and back berms will help attenuate potential noise impacts to neighbors and other CFL users.

Land Use - No substantial change in land use is expected. The site is already disturbed and used as a (unimproved) shooting range. Existing unauthorized ATV and dumping activities would likely be reduced. Upgrades under Alternative A would be reversible actions. Shooting benches and target supports could be removed, berms leveled and spent lead recovered so as to restore existing site conditions. Though not recently used as a sand borrow source, such use could be restored if use as a shooting range was discontinued in the future. Improvements under Alternative A would be a compatible and beneficial (re)use of the sandpit site.

Lead Recovery - Accumulation of spent lead in berms could create a risk of lead contamination to groundwater. This is not known to cause a problem at other Wisconsin land-based shooting ranges. Shooting ranges over water, particularly shotgun ranges, are typically discouraged due to concerns regarding breakdown of lead in water and 1) ingestion by wildlife feeding in such areas and 2) surface or groundwater contamination and associated negative human/biological health effects. Soil type at the site is Menahga sand with 1-12% slope overlying granite bedrock. Sand deposits vary in depth from 50-100'. This soil type is well drained and has a high degree of permeability and low pH. It is best suited to vegetation such as red and jack pine and oak that do not demand much water. Based on a review of nearest private well construction logs groundwater depth is typically found at the surface soil and bedrock interface, estimated to be ~ 40-60' below ground surface at the range site. Groundwater directional flow is north toward Eau Claire River. There are no wells between the site and the river and, given county ownership and long-term management plans, none are expected in the foreseeable future. The extent of range use over the 20 year land use agreement term and associated volume of spent lead deposition is not known but it is reasonable to assume it will accumulate, especially in back berms, over time. Without lead recovery there will be progressively increased lead contact with water seeping into the ground and risk of increased lead concentration in groundwater (or to surface waters at groundwater discharge points). No special design features beyond those already mentioned are planned to control or contain off-site lead migration and there are no plans to install monitoring wells to measure lead concentrations in groundwater. As stated previously, there are no known instances in Wisconsin where range use has resulted in surface or groundwater contamination or associated health problems. Nonetheless, there is an unknown degree of risk at this or at any other range site. In response, DNR will encourage and may at some future time require operators to develop and implement a lead recovery and recycling program, including record keeping.

Recreation - The new range under Alternative A would improve opportunity for recreational practice shooting but would mostly preclude other types of recreation. The disturbed condition of the site deters other recreation uses, with the exception being unauthorized ATV use. Given the small size of the range (3.0 acres) within the 52,000 acre county forest any impact would be negligible. Serious conflicts with other CFL users on adjacent county forest land are not expected.

Cumulative Impacts - Cumulative impact has been defined in the National Environmental Policy Act as "the impact on the environment which results from the incremental impact of the action (in this case new shooting range development) when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other action". Chapter 1 describes DNR interest in developing new shooting ranges across Wisconsin to promote hunting safety. No criteria have been set as to the demand for new ranges, how many should be built, location of such facilities, etc. Similarly DNR has no regulations regarding safe setback distances from other types of land uses. It is not expected that so many new ranges would be proposed in near proximity to each other that there would be an additive cumulative effect such as for safety or noise. An (improved) range, whether alternative A or C, would not set a precedent resulting in substantial increased demand for such facilities elsewhere. But it would create a safer and more accessible facility to meet local and statewide shooting range

demand. No conflicts with local, state or federal plans or policies are expected. Lead deposition and cumulative spent lead build-up in earthen berms is not known in Wisconsin to present a serious risk of groundwater contamination or other environmental risk (see above Lead Recovery discussion). DNR would not support or seek federal funding for any new shooting ranges over water. At some future time DNR may want to consider a mandatory, unified lead recovery program for any ranges they seek to develop to help prevent or minimize lead contamination problems.

Controversy - None. The landowner, Eau Claire County, is making the sand pit area available without cost. The range is expected to draw users mostly from within a 30-mile radius. The proposed range improvement project has received considerable news coverage locally and no one has voiced concerns or objections. The nearest residences are ~ 1/8 to the south.

4.1.2 Alternative B - No Action

Endangered/Threatened Species - No change. Low risk that sensitive resources are present.

Cultural Resources – No impacts.

Environmental Justice - No change. The site is open to the public. It is currently marginally accessible for persons with disabilities and would remain so.

Economics - No major impact. Federal funding could be used for other projects.

Habitat Impacts - None. The existing unimproved range would not be altered and there would be no change in habitat value.

Biological Impacts - None. No new disturbance would take place. Public use as an unimproved shooting range would continue, as would unauthorized ATV use and littering.

Social conditions - No change.

Safety - No change. Safety at the (unimproved) range would continue to be low and the potential for an accident would remain elevated.

Noise - No change.

Land Use - None.

Lead Recovery - None.

Recreation - None. The site would remain accessible for public use.

Cumulative Impacts - No change. Current haphazard shooting practices would continue. DNR statewide goals of siting ranges to promote hunter safety and skills training would not be addressed. Continued risk for cumulative impacts from lead build-up (as compared to Alternatives A or C) since no O&M is planned if range improvements are not made. Damage from ongoing ATV use and dumping would continue.

Controversy - No change.

4.1.3 Alternative C - Enlarge the proposed (alternative A) range design.

Endangered/Threatened Species – Same as for Alternative A.

Cultural Resources – Same as for Alternative A (no impact expected).

Environmental Justice - Same as for Alternative A.

Economics – Greater range development costs than for Alternative A.

Habitat Impacts - Similar but larger woodland loss than for Alternative A.

Biological Impacts - Similar but greater impact than Alternative A.

Social Conditions - Same as for Alternative A.

Safety - Generally same as for Alternative A depending on exact layout/design of larger, longer or more shooting lanes. Expansion at some future time may increase shooter appreciation of the safe distance (range) and accuracy of their weapons.

Noise - Generally same as for Alternative A.

Land Use - Same as for Alternative A.

Lead Recovery - Same as for Alternative A.

Recreation - Generally same as Alternative A, possible increased loss of other CFL recreation opportunity if lanes are added or extended.

Cumulative Impacts - Same as for Alternative A.

Controversy - Same as for Alternative A.

4.3 Summary Comparison of Environmental Consequences by Alternative

Impact type	Alternative A (Proposed)	Alternative B (No Action)	Alternative C (Enlarge)
End./Thr. Species	low risk of adverse impact	no impact	Same as Alt. A
Cultural Resources	No impact	no impact	no impact
Envir. Justice	minor access improvement	no impact	Same as Alt. A
Economics	Minor boost to local business's	no use of federal grant \$	> Range development cost and O&M
Habitat	loss of < 1 acre woodlands	no impact	Woodland loss > than Alt A
Biological	Reduced large-species access	no impact	Similar but > as Alt. A
Social Conditions	improved opportunity for social activity	present use issues continue	Same as Alt. A
Safety	substantial increase shooting safety	no impact	Same as Alt. A
Noise	minor increased noise	no impact	Same as Alt. A
Land Use	reduces present use issues	existing problems unresolved	Same as Alt. A
Lead Recovery	possible spent lead recycling	continued lead deposition	> lead dispersal
Recreation	Improve shooting/minor loss other uses	no impact	Same but > than Alt. A
Cumulative	meets "Need" (section 1.3)	need goals not met	Same as Alt. A

Controversy	none known or expected	same as Alt. A	Same as Alt. A
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CHAPTER 5 LIST OF PREPARER(S)

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CHAPTER 6 CONSULTATION AND COORDINATION WITH THE PUBLIC AND OTHERS

The range site is owned by Eau Claire County and is located in the Town of Lincoln. DNR has consulted with various prospective user groups, local hunter safety instructors, civic groups and county officials during concept development and EA preparation. DNR made presentations to a number of county committees and the full County Board. News coverage of some of these meetings has generated no known controversy. DNR and Eau Claire County have entered into a land use agreement with the county for the proposed site development and use.

Shooting ranges are a permitted use of CFL. The property is currently zoned F-1, Exclusive Forestry Management. Aside from county permission to use the range site, no other federal, state or local permits/approvals are required.

DNR Conservation Warden Bill Yearman made arrangements for local volunteers for shooting range O&M (attachments 7-9).

Mike Blodgett, DNR Engineer, prepared engineering plans and a cost estimate for range development (attachment 6). Mr. Blodgett would supervise project construction if and when the project is approved and funded.

This environmental assessment will be made available as a draft document for public review and comments, further allowing identification of any controversy associated with the project. Per FWS instruction a news release will be sent by DNR to local and statewide media describing the project and requesting comments. If new issues or controversy emerge DNR will attempt to resolve them before forwarding the EA and grant application to FWS. All comments received and a description of any actions taken to resolve them would be forwarded to FWS as part of the final EA. FWS would make a final determination on the need for an EIS and a decision on the grant application.

CHAPTER 7 PUBLIC COMMENT ON DRAFT EA/EIS AND RESPONSE

This chapter will be developed after the public comment period is completed.

CHAPTER 8 REFERENCES CITED

Copies of references cited can be obtained from DNR contact person listed on page 1.

- National Rifle Association Range Manual, 1989.
- Hunting, Fishing and Trapping 2000 - A Report Addressing Long Term Planning for the Secretary's Issue of Hunting, Fishing and Trapping in Wisconsin, WDNR, 2000.
- Wisconsin Department of Natural Resources Hunting Accident Report 2000, Pub-LE-006-01
- Eau Claire County 10 Year Comprehensive Management Plan, 1996-2005

ATTACHMENTS

- Attachment 1 - Location Map - Eau Claire County
- Attachment 2 - Eau Claire Co. Forest Land Map (source: 1996-2005 Eau Claire Co. Forest 10 Year Plan)
- Attachment 3 - Marked-up 1998 aerial photo of proposed range location and layout
- Attachment 4 - DNR - Eau Claire County Land Use Agreement
- Attachment 5 - 2003 Photo of proposed range site
- Attachment 6 - Engineering plan of proposed range facility
- Attachment 7 - O&M agreement with EC County 4H Shooting Sports
- Attachment 8 - O&M agreement with Boy Scout Troop 79
- Attachment 9 - O&M agreement with Christian Outdoorsmens Association
- Alternative 10 - Alternative range sites map (source: Eau Claire County 2000-2005 Outdoor Recreation Plan)
- Attachment 11 - NHI records of E/T species or rare communities within one mile of the proposed range site
- Attachment 12 - Level 1 Lupine and KBB Survey