

FINAL  
ENVIRONMENTAL ASSESSMENT

Lost Grove Lake and Facility Construction  
Scott County, Iowa

Submitted by:  
Iowa Department of Natural Resource  
Des Moines, Iowa

Submitted to:  
Region 3  
Division of Federal Aid  
United States Fish and Wildlife Service  
Sport Fish Restoration Program

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TABLE OF CONTENTS

1.0	Purpose and Need .....	3
1.1	Purpose .....	3
1.2	Need .....	3
1.3	Decisions that need to be made .....	4
1.4	Background .....	4
2.0	Alternative, Including the Proposed Action .....	7
2.1	Alternative not considered for Detailed Analysis .....	7
2.2	Alternative Carried Forward for Detailed Analysis .....	8
2.2.1	Alternative A (Proposed Action) .....	8
2.2.2	Alternative B (No Action) .....	10
2.2.3	Alternative C .....	11
2.3	Summary of Alternative Actions Table .....	11
3.0	Affected Environment .....	11
3.1	Physical Characteristics .....	11
3.2	Biological Characteristics .....	12
3.2.1	Habitat/Vegetation .....	12
3.2.2	Threatened, Endangered, Candidate Species .....	12
3.2.3	Other Wildlife Species .....	13
3.3	Land Use .....	13
3.4	Cultural/Paleontological Resources .....	14
3.5	Local Social - Economics Conditions .....	15
4.0	Environmental Consequences .....	16
4.1	Impacts Common to All Alternatives .....	16
4.1.1	Cultural/Paleontological Impacts .....	16
4.1.2	Threatened, Endangered and Candidate Species .....	16
4.1.3	Environmental Justice .....	16
4.2	Alternative A (Proposed Action) .....	17
4.2.1	Habitat Impact .....	17
4.2.2	Biological Impact .....	17
4.2.3	Flood Plain Impact.....	18
4.2.4	Socio-Economic Impact .....	18

4.2.5	Cumulative Impact .....	19
4.3	Alternative B (Do No Raise 220 <sup>th</sup> Avenue).....	20
4.3.1	Habitat Impact .....	20
4.3.2	Biological Impact .....	20
4.3.3	Flood Plain Impact.....	21
4.3.4	Socio-Economic Impact.....	21
4.3.5	Cumulative Impact .....	22
4.4	Alternative C (No Action).....	23
4.4.1	Habitat Impact .....	23
4.4.2	Biological Impact .....	23
4.4.3	Flood Plain Impact .....	23
4.4.4	Socio-Economic Impact .....	23
4.4.5	Cumulative Impact .....	24
4.5	Summary Table, Environmental Consequences by Alternative .....	24
5.0	List of Preparers .....	25
6.0	Consultation and Coordination with the Public and Others .....	25
7.0	Public Comment on Draft EA and Response .....	26
7.1	Summarized Comments and Responses .....	26
7.2	Actual Comments Received .....	27
8.0	References Cited .....	30

APPENDICES:

- Appendix A - Project Location Map
- Appendix B - January 28, 2004 Public Meeting Minutes
- Appendix C - Threatened, Endangered and Candidate Species Investigation
- Appendix D - SHPO Concurrence
- Appendix E - US Fish & Wildlife Section 7 Form

# Final Environmental Assessment

## Lost Grove Lake and Facility Construction Scott County, Iowa

### 1.0 Purpose and Need

#### 1.1 Purpose

In 1987 the Lost Grove Lake site was selected for the future development of a public fishing lake. At that time the site was in private ownership. Over the past sixteen years the Iowa Department of Natural Resources (DNR) acquired in fee title all the land needed to construct Lost Grove Lake. All land was acquired from willing sellers. The purpose of developing a lake is to provide quality fishing opportunities near a population center lacking lake fishing opportunities.

This Environmental Assessment (EA) evaluates the environmental impact of, and considers various alternatives to constructing a dam, reservoir and associated facilities at the Lost Grove Lake site, Scott County, Iowa (Appendix A). These activities are eligible for Sport Fish Restoration (SFR) Program funding which are administered by the U. S. Fish and Wildlife Service (FWS). SFR funding is subject to the National Environmental Protection Act (NEPA) process.

#### 1.2 Need

United States census data (2000) show a trend of Iowans migrating to urban areas, such as the City of Davenport area to seek better employment opportunities. These urban areas are Iowa's fastest growing population centers. Fishing continues to be one of the most popular outdoor recreational activities that Iowans seek and most fishing trips taken are 25 miles or less from home. The Iowa Department of Natural Resources has made a commitment to developing a public fishing lake in eastern Iowa near the City of Davenport. There is a need to develop a lake in the Davenport area, a population center area lacking in lake fishing opportunities.

There is further need to develop a lake at a selected site that is most feasible for:

- Providing the most fishing opportunities by maximizing shoreline and boating access areas.
- Having the least impact to existing area users surrounding the Lost Grove Lake site.
- Having the least impact to existing Lost Grove Lake site users.
- Sustaining quality fishing opportunities.
- Sustaining boating opportunities.
- Sustaining good water quality.
- Having the least environmental impact.
- Being within 25 mile radius of the Davenport area.

### 1.3 Decisions that Need to be Made

The FWS Region 3 Director must select one of the alternatives and decide whether the proposed action will result in a significant impact upon the human environment, necessitating an Environmental Impact Statement or if a Finding of No Significant Impact is appropriate.

### 1.4 Background

United State census data from 1970 to 2000 shows that the State of Iowa is fast becoming a more urban state. People are migrating from rural areas to seek better employment opportunities. The Lost Grove Lake site was selected based on its close proximity to a population center lacking lake fishing opportunities and because the site contained physical characteristic favorable for lake construction and no known environmental consequences.

Historically, Iowa fishable waters consisted of 31 major natural lakes, over 19,000 miles of interior streams, 203,500 acres of border rivers and 266 miles of coldwater streams. Iowa's natural lakes are located in the north central and northwest portion of the state. Coldwater streams are limited to northeast quarter of Iowa. Interior streams are distributed fairly equally throughout the state.

Iowa landforms have a rolling topography of upland divides that drain surface water to major river drainages. These upland divides have soil characteristics which are favorable for constructing dams and holding water in the basins that they create.

The need for lake impoundments in the southern half of Iowa was first identified in the "Report on the Twenty-Five Year Conservation Plan" prepared for the Iowa board of Conservation and the Iowa Fish and Game Commission by Jacob L. Crane, Jr., in 1933. The plan states, "It is not an overestimate to anticipate that existent popular demand will require thirty artificial lakes, or even more, during the next 25 years." At the conclusion of the 25-year period, in 1958, twenty-four lakes had been constructed for fishing and other outdoor activities. In 1962 the Iowa Conservation Commission searched statewide for more lake sites. This initiative leads to the construction of eleven more lakes. Since the inception of County Conservation boards in the 1950's 52 other small lakes were constructed. More impoundments were constructed for municipal water supplies. Today the State of Iowa has over 200 public lake impoundments.

A 1968 "Outdoor Recreation in Iowa" survey found continued need and value for constructing more lake impoundments. The survey found multiple use areas with lake impoundments received more land-base recreation activity than those areas without impoundments. The 1988 Iowa Statewide Comprehensive Outdoor Recreation Plan (SCORP) states, "fishing continues to be one of the most universally popular outdoor recreations for Iowans." Among 24 outdoor recreation activities identified in this survey, fishing ranked second highest in the number of activity days expended and third in the percentage of what recreation

people participate in the most. In the survey people mentioned fishing most often when they were asked; "What outdoor activity they would like to do most but could not because of unsuitable or limited resources." A 1995 State Park Survey further supports the SCORP findings and the importance of fishing to Iowa anglers. A 2000 statewide survey of adult Iowans found fishing ranked fourth out of the top five highest participation activities.

Since 1975 the importance of lake impoundments to Iowa anglers has steadily increased and is expected to increase in future years. Statewide angler surveys (1975, 1981 and 1986) have shown a trend towards lake impoundments as to the preferred water type of Iowa anglers. In 1975, lake impoundments received 16% of the statewide angling days; in 1981 and 1986 this percentage rose to 24 and 21% respectively. These percentages represent a net gain of 86 and 51%, respectively in the number of angler days these lakes received. The most recent survey (1995) found an equal percentage of anglers preferred impoundments and natural lakes as the most preferred type of waters to fish.

The statewide angler surveys find that 63 - 69% of all fishing trips are taken within 25 miles of home. The Lost Grove Lake site (Scott County) was selected based on its close proximity to a population center (Davenport) lacking lake fishing opportunities. It is estimated that 250,000 people reside within a 25 mile radius of the lake site. This does not include neighboring Illinois residents.

In 1985 the DNR identified areas lacking quality lake fishing opportunities near Iowa population centers. In 1986, a private consulting firm conducted a detailed search for potential lake sites in east central Iowa using predetermined criteria. Criteria A identified the study boundary area. Criteria B dictated that the watershed size should be approximately 4 - 12 square miles to support a 150- to 300-acre lake. Criteria C stated that a lake should not conflict with paved highways or numerous residences. Seventeen lake sites were identified as meeting A, B and C criteria. Potential lake depth ( $\geq 35'$ ) and a geotechnical review (an adequate watershed to surface area ratio to support a permanent lake) were the next screening criteria (D, E) used to determine lake feasibility. The geotechnical review was performed for 12 sites by using existing soil survey mapping and bedrock mapping. Criteria D and E screening reduced the number of lake sites to three. Criteria F (mean basin slope) and Criteria G (preliminary cultural/environmental review) were the final criteria used to identify the most acceptable lake site. Private individuals and local interest groups were also allowed to suggest lake sites, some of these were the same as those locations considered under the above evaluation procedure.

The consulting firm recommended the north branch of Lost Creek located in northeastern Scott County five miles north of Davenport, Iowa as the top priority site for further consideration and a detailed feasibility study. The site's physical characteristics (watershed area to lake surface area ratio and steep lake basin topography) were determined superior over the other two sites. Fisheries research

has determined these characteristics produce good fish populations on a sustained basis and with a minimum of management, effort and cost.

A detailed feasibility study, completed in 1987, concluded that the Lost Grove Lake site contained the features and characteristics needed for constructing a 350 acre lake. This study outlined the location and the proposed development concepts for constructing a lake impoundment. The study encompassed site investigations and results of hydrologic, hydraulic and soils analyses. It included sedimentation potential for a lake impoundment, preliminary geomorphic investigations, and a literature search to identify natural features and cultural resources. The study also provided a preliminary review of potential point source pollutant sources that could affect the impoundment and limit its recreation value. Estimated project costs of lake and facility construction as well as right-of-way acreage requirements were also investigated. The study recommended that the DNR should continue with pursuing the construction of a lake at the site.

On September 24, 1987 the DNR held a meeting at the Princeton Town Hall in Princeton, Iowa to discuss the Lost Grove Lake site. DNR personnel discussed past, present and future development plans for the lake and surrounding land. Discussion items included how the site was selected, what characteristics make a good lake, how the land will be acquired, available funding sources, and how the recreation area will be managed.

The feasibility study suggested 2,176 acres were needed for the lake project. The DNR purchased the first land parcel in 1988 and the last parcel needed for lake construction in 2003. In all, 1,682 acres were purchased. A consultant was hired in 1996 to design a dam for impounding 350 surface acres of water. Since 1996 the DNR completed studies to determine project impacts to cultural resources, threatened and endangered species and wetlands. The Natural Resource Conservation Service (NRCS) also conducted a detailed watershed analysis to determine land use and needed soil conservation measures to minimize sediment and nutrient delivery to the lake. Since the first land parcel was purchased, the DNR Wildlife Bureau has managed the public land for wildlife species and outdoor recreation.

The DNR began the lake and facility construction phase after the last parcel was purchased in August, 2003. Discussions have also taken place with the Scott County Engineer's and Planning and Development offices regarding county zoning and road closures and modifications. Utility companies, MidAmerican Energy Company and Magellan Pipeline have been contacted to discuss relocation or modification needs on lines that are present in or near the lake basin. Dam design consultant, Earth Tech Inc., has been retained to assist in technical issues and submission of state and federal permit applications. The Army Corps of Engineers (Corps), FWS, US Environmental Protection Agency (EPA) and various DNR staff are communicating in efforts to meet state and federal permit

requirements. DNR fisheries staff developed a proposed lake facility plan and solicited local and organization partnerships for fish habitat development.

On January 28, 2004 the DNR held a meeting at North Scott High School in Eldridge, Iowa to inform the public of the DNR plan and schedule to construct a lake at Lost Grove Lake site. As part of the meeting and in cooperation with the FWS, the DNR requested public comments on its proposed plan. The meeting served as the beginning of a 30-day scoping period for the purpose of developing this Environmental Assessment. The completion of this EA is necessary in order for the FWS and Corps to meet their obligations under NEPA. Minutes of the meeting can be found in Appendix B.

To date the DNR has committed extensive resources toward the future development of a 350 acre lake at the Lost Grove Lake site. These resources include purchasing 1,682 acres at a cost of \$3,316,015, dam design services for \$118,000, cultural resource investigations for \$46,825 and \$234,000 for the relocation of a high voltage utility line. Total monetary resources have totaled \$3,714,840.

Intensive project planning efforts from many in the DNR, Scott County employees and federal agency staff have also been committed to the lake project. Countless DNR staff coordination efforts have been direct towards, site feasibility, lake feasibility, land acquisition, land management, dam design, environmental investigations, public meetings, communicating and partnering with the Iowa State Historical Society, Scott County, FWS, NRCS, Corps, MidAmerican Energy and Magellan Pipeline.

## 2.0 Alternatives, Including the Proposed Action

### 2.1 Alternatives not considered for Detailed Analysis

No lake or other alternatives were identified during a 30-day scoping period from January 28, 2004 through February 27, 2004.

Other off site alternatives were not considered because of the intensive 1986 search for a viable lake site in east central Iowa. The screening process used during this search (described in Section 1.4) found the Lost Grove site as the best candidate. The site had the physical characteristics (watershed area to lake surface area ratio and steep lake basin topography) superior to 17 other sites. These are the characteristics that produce good fish populations on a sustained basis and with a minimum of management, effort and cost. More detailed site investigations and evaluations further documented the site's soil characteristics, hydraulic conditions, and environmental conditions as being favorable for lake development.

The 1987 lake feasibility study determined that a 350 acre lake was the maximum lake size for the site and the most desirable for sustaining good water quality and quality fishing opportunities. These findings were determined based on DNR

criteria of constructing the largest lake possible and maintaining a constant lake elevation while minimizing soil and nutrient delivery to the lake. To construct a larger lake, the dam site would have to be moved downstream and/or the pool elevation raised at the proposed dam site. County Road Z30 prevents moving the dam site further downstream. Raising the pool elevation at the proposed dam site would increase construction cost and the watershed would be too small to maintain a constant pool at a higher elevation. A smaller lake was not considered because higher soil and nutrient delivery rates to the lake would eventually lead to poorer water quality, an unsustainable sport fishery and diminishing fishing opportunities. A smaller lake would not provide the fishing opportunities as a larger lake near a population center. For these reasons larger or smaller lake sizes were not considered.

## 2.2 Alternatives Carried Forward for Detailed Analysis

### 2.2.1 Alternative A (Proposed Action)

The Proposed Action (PA) is to construct a dam on the North Branch of Lost Creek to impound 350 surface acres of water at elevation 710 feet. The planned development activities include a dam, shoreline protection, fish habitat, shoreline fishing, road and boat accesses, parking areas, raising the elevation of county road 220<sup>th</sup> Avenue and restroom.

The general location of the proposed dam, shoreline accesses, and road and boat accesses are shown in Figure 1. This plan proposes two major access areas at sites A and B. A three or four lane boat ramp with courtesy dock will serve each site. Shoreline fishing areas are also proposed at each site. A parking area at each site will provide parking space for vehicle-trailers and single vehicles. Restrooms will serve each site. Sites C, D and E are to be developed for shoreline fishing complete with parking areas. A boat ramp, parking area and shoreline fishing development is proposed at Site F.

The elevation of county road, 220<sup>th</sup> Avenue, will be raised 10 feet above normal lake elevation (710'). This will permit continued vehicle traffic use of the road and a 10' by 12' elliptical box culvert will permit boating use to the lake west of the road. The prominent shoreline areas most subject to wind, wave and boat wake action will be armored with rip rap (Figure 2).

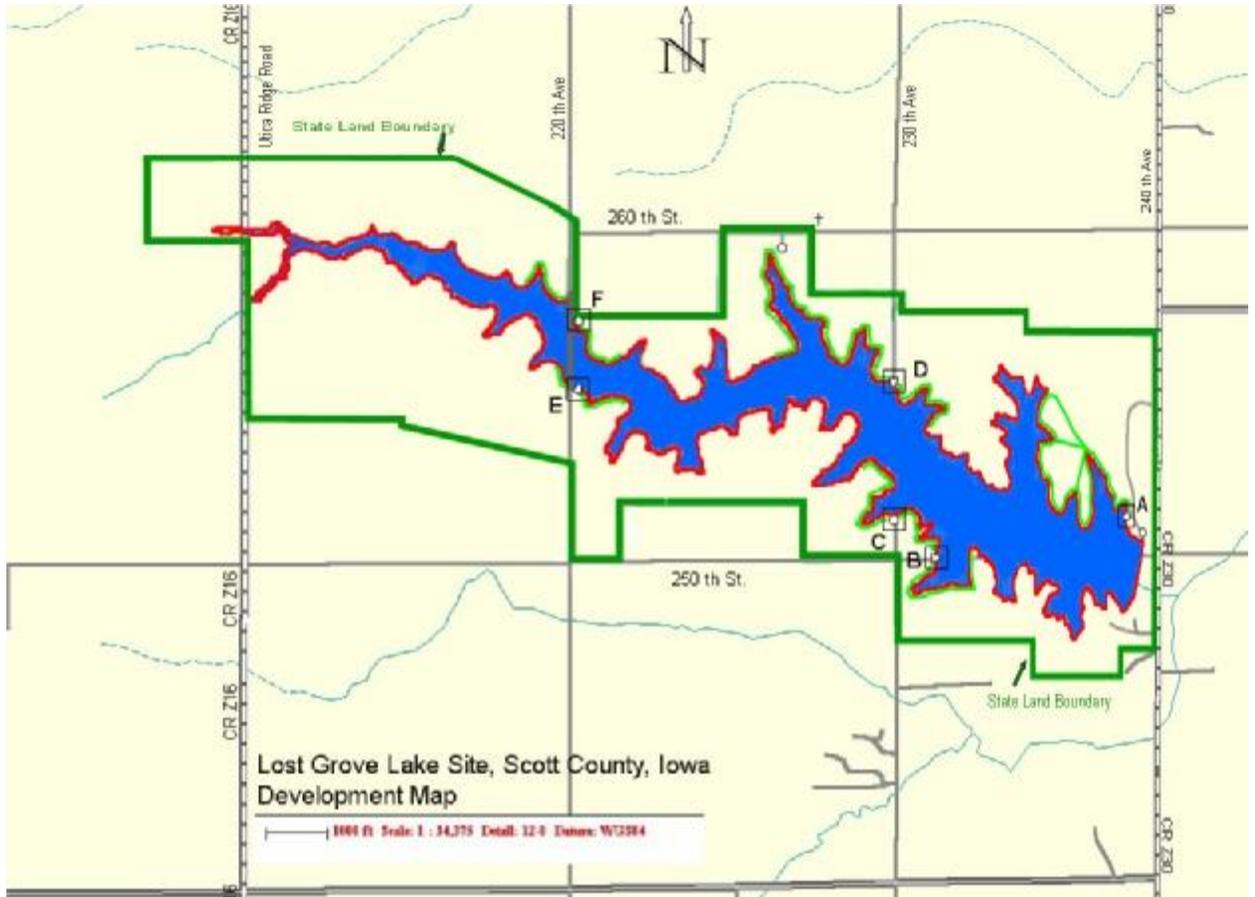


Figure 1. Proposed Lost Grove Lake shore and boat access areas.

Multiple funding sources will be used for lake and facility construction. Sport Fish Restoration funds will be utilized for dam, fish habitat and shoreline fishing access construction. A Corps 404 individual permit is required for the lake dam. The use of federal funds and need for a 404 permit are federal undertakings that are subject to the NEPA process. All facility development using federal money will be designed to meet Americans with Disabilities Act requirements. Other project funding sources include, Resource Enhancement and Protection, Marine Fuel Tax, Parks and Institutional Road and Fish and Wildlife Trust funds.

Land surrounding the lake (approximately 1,332 acres) will be managed to minimize soil and nutrient delivery to the lake. The Natural Resource Conservation Service has developed a land management plan that includes a crop rotation on 200 acres least susceptible to erosion. Remaining acres will be reserved for warm and cool season grasslands and woody vegetation. The DNR Wildlife Bureau will manage the land according to this plan.

All public lands will be available to the public for uses that are compatible with lake fishing. Those compatible uses include but are not limited to

boating, hunting, hiking, nature watching, site seeing, primitive camping and outdoor classrooms.

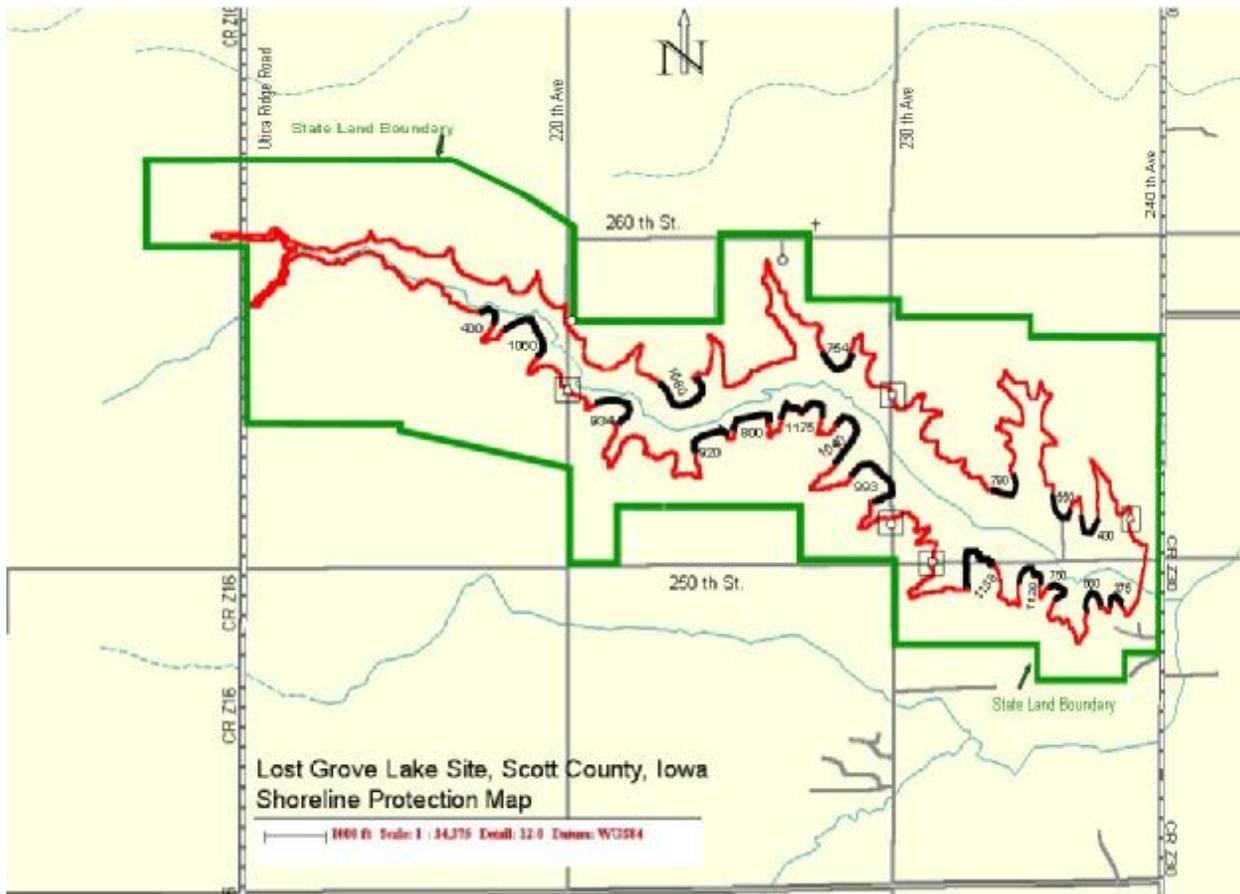


Figure 2. Proposed shoreline rip rap areas.

### 2.2.2 Alternative B (Do not raise County Road, 220<sup>th</sup> Avenue)

Alternative B includes all the developments stated for the PA alternative with the exception of raising the elevation of County Road 220<sup>th</sup> Avenue.

Land surrounding the lake (approximately 1,332 acres) will be managed to minimize soil and nutrient delivery to the lake. The Natural Resource Conservation Service has developed a land management plan that includes a crop rotation on 200 acres least susceptible to erosion. Remaining acres not in crop rotation will be reserved for warm and cool season grasslands and woody vegetation. The DNR Wildlife Bureau will manage the land according to the NRCS plan.

All public lands will be available to the public for uses that are compatible with lake fishing. Those compatible uses include but are not limited to boating, hunting, hiking, nature watching, site seeing, primitive camping and outdoor classrooms.

### 2.2.3 Alternative C (No Action)

The No Action Alternative is not to construct a lake at the Lost Grove Lake site.

Without a lake the Lost Grove site (1,682 acres) will be managed for upland game. The Natural Resource Conservation Service will develop a land management plan to minimize soil loss. This plan will include crop rotation on lands least susceptible to erosion. Lands not in crop rotation will be reserved for warm and cool season grasslands and woody vegetation. The DNR Wildlife Bureau will manage the land according to the NRCS plan.

All public lands will be available to the public for uses that are compatible with hunting. Those compatible uses include but are not limited to hiking, nature watching, site seeing, primitive camping and outdoor classrooms

### 2.3 Summary of Alternative Actions Table.

Alternative Actions Summary					
	Alternatives				
	A: Proposed		B: Do not raise 220 <sup>th</sup> Ave		C: No Action
Lake Size (acres)	350		350		0
Number of boat ramps	3		3		0
Number of restrooms	2		2		0
Number of shoreline fishing areas	6		6		0
Number of parking areas	6		6		0
Number of shore protection areas	18		18		0
Fish habitat areas	Yes		Yes		0
Raise elevation of 220 <sup>th</sup> Avenue	Yes		No		No
Estimated Cost of Construction	\$4,300,000		\$4,000,000		0
Acres (available for compatible uses)	Land	1,332	Land	1,332	Land 1,682
	Lake	350	Lake	350	Lake 0

## 3.0 Affected Environment

### 3.1 Physical Characteristics

The proposed project site is located Sections 1, 2 and 3 of Lincoln Township and Sections 33 and 34 of Butler Township, Scott County (Appendix A). This is in east central Iowa near the eastern boundary of a geomorphic region known as the "Southern Iowa Drift Plain." This topographic region is characterized by steeply rolling hills, with areas of level upland divides and alluvial lowland. In general, the soils represent silty clays, clayey silts, sandy silts and sandy clays. The

project site is in the North Branch Lost Creek watershed, that surface drains approximately 4,540 acres (7.1 square miles).

County roads 220<sup>th</sup> and 230<sup>th</sup> Avenue pass in a north and south direction through the proposed site. County road 250<sup>th</sup> Street passes in an east and west direction through the very south portion of the proposed area. Major county paved roads (Z30 and Utica Ridge Road) border the site to the east and west.

Utilities located adjacent and/or crossing the proposed lake includes an electrical power transmission line and a petroleum/propane/fiber optics pipeline. The transmission line crosses the east line of Section 3 as it extends in an east-west direction. The pipeline corridor crosses the area near in the northwest corner of Section 3 adjacent to Utica Ridge Road. The pipeline traverses north of the lake site and in an east-west direction.

## 3.2 Biological Environment

### 3.2.1 Habitat/Vegetation

Prior to public ownership, the site was in intensive agricultural row crop production (field corn and soybean). Of the 1682 acre purchased, 1,565 acres were in row crop, 64 acres in pasture, 18 acres in cool season grasses, 10 acres in woody vegetation (trees/brush) and 5 acres in building sites and roads. Brice, Petrides-Donohue Company (1987) identified no native vegetation present in the project site.

As the land was purchased the DNR Wildlife Bureau, responsible for land management, reduced the number of row crop (corn, corn, oats, hay, hay, hay, hay rotation) acres to 505. 594 acres above the proposed lake's normal water elevation is now in warm season grasses and forbs consisting of big bluestem, Indian grass, switchgrass, Canada wild rye, little bluestem, grey headed coneflower, evening primrose, stiff goldenrod, maxmillian sunflower, begamont, purple coneflower, partridge pea, black eyed Susan and St. Johns wort. 286 acres remain in cool season grasses consisting of brome, canary grass, timothy and bluegrass. There is approximately 35 acres of annual and perennial weed consisting of giant ragweed, Canada thistle, musk thistle, bull thistle, mares tail, foxtail and common goldenrod. 198 acres are now in trees and other woody vegetation consisting mostly of white pine, red pine, Scotch pine, red cedar, boxelder, silver maple, cottonwood, willow, Osage orange, choke cherry, Chinese elm, and American elm. Many of the boxelder, silver maple and cottonwood trees were planted in the lake basin for fish habitat.

### 3.2.2 Threatened, Endangered, and Candidate Species

The threatened Bald eagle (*Haliaeetus leucocephalus*), the endangered Higgins' eye pearly mussel (*Lampsilis higginsii*), and candidate species sheepsnose, (*Plethobasus cyphus*) and spectaclecase, (*Cumberlandia*

*monodonta*) are federal species of concern that reside in Scott County. These species are not found in the project site.

During 1996, DNR Endangered Species Program staff evaluated the site for federal and state listed species. Prior to a site investigation, aerial photographs and soil maps were examined for indications of remnant prairies, blocks of forest, and unusual soils such as peat, deep sand, or bedrock outcroppings. None were detected. The site investigation determined that past row crop agriculture resulted in essentially no areas remaining uncultivated other than a thin line of trees along Lost Creek. No part of the project site contained suitable habitat for state or federally listed plant species. The investigation report concluded that no further surveys for listed species are recommended due to the lack of any suitable habitats (Appendix C).

### 3.2.3 Other Wildlife Species

Common fish, mammal, bird, and reptile species inhabiting the project site are listed in Table 1.

Table 1. Common species present in the Lost Grove Lake site.

Group	Species (common names)
Fish	Sand shiner, river shiner, emerald shiner, common shiner, central stoneroller, creek chub, hornyhead chub, largemouth bass, green sunfish, black bullhead
Mammal	Coyote, red fox, skunk, opossum, raccoon, mink, weasel, muskrat, pheasant, white-tailed deer, cotton tailed rabbit, bat, voles, mice
Bird	Cardinal, cowbird, red winged blackbird, crow, house wren, house sparrow, robin, common flicker, red headed woodpecker, downy woodpecker, meadow lark, bluejay, goldfinch, eastern bluebird, starling, catbird, American kestrel, redtailed hawk, tufted tit mouse, chickadee
Reptile	Green frog, leopard frog, garter snake, bull snake, painted turtle, snapping turtle, tiger salamander
Crustaceans	Crayfish species

### 3.3 Land use

Land use prior to public ownership, was intensive agricultural crop. Brice, Petrides-Donohue Company (1987) identified no native vegetation in the project site. Currently 505 acres are in a corn, corn, oats, hay, hay, hay, hay rotation. Soybean plants are used after one to three years of corn production as a precursor for seeding native warm season grasses.

The project site is currently be managed to minimize soil loss and for wildlife production. The site is open to the public for hunting, trapping, hiking and nature watching. Hunted wildlife species include pheasant, Hungarian partridge, white-tailed deer, cottontail rabbit, coyote and bobwhite quail.

There is a designated dog training area where dog owners are allowed to conduct informal "fun trials". No formal dog trials are allowed.

### 3.4 Cultural/Paleontological Resources

In 1998, a Phase I archaeological investigation was completed on all project site land (1,682 acres) in public ownership. Primary investigation goals were to identify and to provide assessments for all cultural resources present within the site. The Phase 1 investigation included a survey of the site's valley landscapes to assess the age and depositional environments of deposits exposed at and underlying the present landscape. This was included to determine the potential of deeply buried cultural resources.

The Phase I cultural resource survey identified and evaluated 25 cultural properties; 13 prehistoric sites, 8 historic (Euro-American) sites, 1 prehistoric find sport, and three extant farmsteads (architectural properties). Of these 25 properties, one archaeological site was found to be potentially eligible for National Register of Historical Places. This site was determined to be a deeply buried (120 - 160 cm) Late Archaic period prehistoric habitation site.

The geomorphic setting of the project site uplands and the extensive erosion that was documented on these lands indicate that these properties have a low potential for containing intact buried cultural deposits. Sellars (1998) recommended no further geomorphological or archaeological investigations within the upland landforms of the investigated project corridor. But he did recommend that none of the proposed lake construction activities should be implemented until an opinion was rendered on the status of the Late Archaic period prehistoric habitation site.

Sellars (1998) also recommended further archaeological investigations should be conducted to evaluate the prehistoric habitation site and a series of additional geoarchaeological investigations within selected tracts of the proposed lake construction corridor. Various tracts totaling 22.25 acres within the proposed lake construction corridor were selected for the purpose of searching other deeply buried prehistoric habitation sites.

Supplemental geoarchaeological investigations included the inspection of cutbanks along the active Lost Creek channel and the mechanical

excavation of 20 backhoe trenches. No cultural resources were identified within any of the excavated trenches or cutbanks.

Phase II Archaeological investigations at the Late Archaic site indicated that it represented a hunting camp or resource procurement site of short term occupation. A Late Archaic affiliation was determined for the site. Based on Phase II cultural resource findings, it is the opinion of Sellars (1998 and 2001) that the Late Archaic site does not meet minimum NRHP eligibility criteria and no further investigations are recommended. The Iowa State Historic Preservation Officer has concurred with this recommendation and the recommendation that no further investigations are needed on the Lost Grove Lake site (Appendix D).

### 3.5 Local Social - Economics Conditions

Angling ranks forth out of the five highest outdoor activities Iowans participate in most and nearly 70% all fishing trips are taken within 25 miles of home. In 1985 the DNR began long term lake planning near populated areas lacking in lake fishing opportunities. Davenport, Council Bluffs and Dubuque areas were selected for future lakes. The construction of Lost Grove Lake is part of the DNR plan to meet fishing demand in the Davenport area. The lake site is located in such an area and within five mile of the City of Davenport. Approximately 250,000 people reside within a 25 mile radius of the lake site. This does include neighboring Illinois residents. Demographic trends indicate the population in and around the Davenport area will increase faster than most areas in Iowa. Iowa 2000 census data when compared to 1970 census data show that people are migrating from rural counties to urban counties to seek better employment opportunities. As the suburbs around these counties grow, they spill over county lines and expand the population base for neighboring counties. The fastest growing urban areas are located near transportation lanes. Interstate 80 provide a quick access for neighboring residents to travel to Davenport and its suburbs. Interstate 80 skirts the northern part of the City of Davenport and is within 5 miles of the Lost Grove Lake site.

The lake will benefit the economics of the area which it will serve. It will have 350 surface acres, if constructed as proposed. Fishing, hunting, pleasure boating and nature watching will be the principal recreation activities associated with the lake and public land surrounding the lake. Lake fishing alone is expected to generate \$720,600 annually to the local economy. This estimate is based on the lake receiving 52,500 angling trips per year with a fishing trip-related value of \$13.73 (US Fish & Wildlife Service, 2002).

## 4.0 Environmental Consequences

### 4.1 Impacts Common to All Alternatives

#### 4.1.1 Cultural/Paleontological Resources

No adverse effect on cultural resources would be anticipated from carrying out the Proposed Action or any of the other alternatives. A Phase I investigation was conducted on entire 1,682 acres in public ownership followed by a Phase II investigation of a site thought to eligible for the National Register of Historic Places. Phase I investigation goals were to identify and to provide assessments for all cultural resources present within the site. This investigation also assessed the potential of deeply buried cultural resources.

Phase I investigation report indicated that the uplands and the extensive erosion that was documented on these lands had a low potential for containing intact buried cultural deposits. No further geomorphological or archaeological investigations are recommended within the upland landforms of the investigated project corridor. The report did recommend further archaeological investigations be conducted to evaluate the prehistoric habitation site and a series of additional geoarchaeological investigations within selected tracts of the proposed lake construction corridor. Supplemental geoarchaeological investigations found no cultural resources. The Phase II investigation of the Lake Archaic site determined the site not eligible for the NRHP. Based on Phase I and II cultural resource findings, it is the opinion Sellars (1998, 2001) that no further investigations are needed. The Iowa State Historic Preservation Officer concurs with this opinion (Appendix D).

#### 4.1.2 Threatened, Endangered, and Candidate Species

The threatened Bald eagle (*Haliaeetus leucocephalus*) and the endangered Higgins' eye pearly mussel (*Lampsilis higginsii*), and candidate species **sheepnose, (*Plethobasus cyphus*) and spectaclecase, (*Cumberlandia monodonta*)** are federal species of concern that reside in Scott County. Habitats present on the project site are not favorable for these species. A site evaluation concluded that no further survey for listed species were recommended due to the lack of any suitable habitats (Section 3.2.2). The Iowa State Endangered Species Coordinator is in agreement with the US Fish and Wildlife's Intra-Service Phase 1 Section 7 form (Appendix E) designation that the project site has "*No Species or Critical Habitat Present*" for threatened, endangered and candidate species.

#### 4.1.3 Environmental Justice

Executive Order 12899, *Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations*, 59 Federal Register 7629 (1994), directs federal agencies to incorporate environmental justice

in their decision making process. Federal agencies are directed to identify and address as appropriate, and disproportionately high and adverse environmental effects of their programs, policies, and activities on minority or low-income populations.

No environmental justice issues exist for any of the alternatives. The project area is currently used for public hunting, trapping, hiking, and nature walking. None of the alternatives would create any environmental pollution. No minority or low-income populations would be displaced or negatively affected in any other way by the proposed action or any of the alternatives. The lake's close proximity to the Davenport area and the DNR intent to maximize lake shoreline access may benefit low-income people who have limited resources for long distance travel or do not have access to a fishing boat.

#### 4.2 Alternative A (Proposed Action)

##### 4.2.1 Habitat Impact

Dam, road access, parking area and shoreline fishing access facility construction and lake basin inundation will create a loss of approximately 375 acres of habitat. These acres contain 146 acres of cool season grasslands, 100 acres of woodlands, 69 acres of annual/perennial weeds, 16 acres of building/road/parking area, 42 acres of agriculture production and two acres (approximately 3 miles) of stream habitat. The grasslands either existed when the land was purchased or established in anticipation of future lake development. The woodland habitat existing prior to acquisition was limited to a narrow band of boxelder, elm and cottonwood tree along the Lost Creek perimeter and a pine tree grove planted by a previous landowner. Many of the trees present in the proposed lake basin area were planted for future growth to serve as fish habitat.

The Natural Resource Conservation Service complete wetland evaluations on the project site and determined that no wetlands were present.

The creation of a 350 acre lake will replace the lost upland and stream habitat with the lake basin. The upland habitat lost due to associated public access facilities cannot be mitigated. The DNR is working with the Scott County Soil and Water Conservation District on a program to establish buffer strips along the entire border of the North Branch Lost Creek above the lake. This program will educate and aid the agriculture producers on Buffer Strip farm program and other monetary incentives that minimize soil and nutrient losses.

##### 4.2.2 Biological Impact

Lake development activities and the inundation of the lake basin will create a loss of 375 acres of vegetation (trees, grasses, row crop) and

stream habitat. This loss of vegetation will occur slowly (2 to 3 years) and displace those wildlife species mentioned in Section 3.2.3. This displacement will cause increased incidents of death as individuals move and search for suitable replacement habitat.

Prior to lake basin inundation the DNR will treat nearly three miles of stream or approximately two surface acre of water with rotenone to eliminate green sunfish and black bullhead species that are undesirable in lake environments. This activity will cause almost 100% mortality to the fish species (Section 3.2.3), crayfish species, immature amphibians (requiring dissolved oxygen present in water) and insect life inhabiting the stream.

Lake creation will make excellent habitat for a sport fishery (largemouth bass, bluegill, crappie, channel catfish and muskellunge). Aquatic and semi-aquatic species populations such as waterfowl species, turtle species, aquatic insects, muskrat, mink, beaver, frog species, crayfish species, shorebird species and snake species are expected to flourish. Population numbers for these species currently inhabiting the site should greatly exceed their existing populations.

#### 4.2.3 Floodplain Impact

Constructing a dam across the North Branch of Lost Creek will backup water to create a 350 surface acre lake and inundate nearly three miles of floodplain. The dam's principal spillway is designed to convey the 50-year storm without utilizing the emergency spillway. The emergency spillway, in conjunction with the principal spillway, will convey one-half the probable maximum flood hydrograph without overtopping the top of dam. A Saint Anthony Falls type stilling basin is planned for energy dissipation at the outlet below the dam. Stream flow below the dam, except for seepage through dam gates, will be limited after the gates are closed to allow the lake basin to fill. Potential flooding during high rain fall events are expected to be minimized after the lake reaches pool elevation.

#### 4.2.4 Socio-economic Impact

The lake will help meet the DNR long term plan to create fishing opportunities near a population center lacking in lake fishing. Area anglers will benefit by have a quality and sustainable lake fishery that is close to home. Developed shoreline and boat accesses will maximum use.

The lake will benefit the economics of the area which it will serve. It will have 350 surface acres, if constructed as proposed. Fishing, hunting, pleasure boating and nature watching will be the principal recreation activities associated with the lake and public land surrounding the lake. Lake fishing alone is expected to generate \$720,600 annually to the local

economy. This estimate is based on the lake receiving 52,500 angling trips per year with a fishing trip-related value of \$13.73 (US Fish & Wildlife Service, 2002). Other users previously mentioned will also add a positive benefit to the economy. Area businesses selling outdoor equipment, such as boats and related supplies, rods, reel, and terminal tackle, should also benefit economically from the lake's presence.

The proposed lake fits in well with the General Assembly's and Governor Vilsack's Grow Iowa Values Fund, an initiative targeted to make Iowa's population and economy grow and to improve the quality of life all Iowans. The Vision Iowa program, a part of the Grow Iowa Values Fund, is aimed at creating and strengthening the cultural, recreational opportunities in Iowa communities. The lake, as proposed will improve, the quality of life to those that enjoy fishing, boating, hunting, hiking and related activities.

County road 230<sup>th</sup> Avenue and 250<sup>th</sup> Street will be inundated and thus prohibit through vehicle traffic. Area residents now using 230<sup>th</sup> Avenue will be diverted one mile east or west to either 220<sup>th</sup> Avenue or Z30. Area resident now traveling 250<sup>th</sup> Street will be directed one mile north or south to either 240<sup>th</sup> or 260<sup>th</sup> Street.

#### 4.2.5 Cumulative Impacts

The proposed lake along with associated access facilities will increase area recreational use and has the potential to accelerate housing development of existing rural areas zoned for residential use. Increased recreational use will be mainly from angling and boating enthusiasts. But lake presence often draws more people seeking to pleasure drive, hunt, site see, hike and nature watch. Increased litter and vehicle traffic is expected to correspond with the increase in recreation use. Increased vehicle traffic as area housing developments growth will eventually add pressure to county roads leading to the lake area. These actions may lead to conflicts with area residents.

Construction and management of lake area facilities (roads, parking, and restrooms) and raising the elevation of 220<sup>th</sup> Avenue are efforts employed to minimize litter and future vehicle traffic congestion. Lake area facilities will help distribute users and give them a place to park while using the lake. 220<sup>th</sup> Avenue divides the upper end of the lake. By raising this road, area residents will be able to use this county gravel road without inhibiting their destination. The road will allow recreationalists easy access to all lake use facilities. Roads crossing water bodies are popular areas for fishing, pleasure driving and site seers. Ten foot shoulders will be added to the raised portion of 220<sup>th</sup> Avenue. The Scott County Engineers office has also agreed to reduce the speed limit through this section from 55 miles per hour to 35 miles per hour. This will help

minimize safety concerns of moving vehicles versus lake users parking along the road shoulders.

In 1985 the DNR began long term lake planning efforts near populated areas lacking in lake fishing opportunities. The Davenport, Council Bluffs, Dubuque and Marshalltown areas were selected for future lake development. Constructing Lost Grove Lake as proposed will meet the DNR long term lake plan. Once completed the DNR can begin to focus and divert its resources on the Council Bluffs, Dubuque and Marshalltown lake sites.

The presence of Lost Grove Lake will take some fishing pressure off smaller area ponds and lakes and create motor boating opportunities. There are only seven water bodies within a 25 mile radius of the lake site. Four of these (West Park Lakes) are in the Davenport area and have a total surface area of 87 acres. Kildeer and Malone Lakes are located in DeWitt, Iowa and have a total surface area of 18 acres. Crow Creek Lake is present on the east edge of Mt. Joy and is 20 surface acres. None of these permit boats operating with a gas motor, only electric trolling motors are allowed.

#### 4.3 Alternative B (Do Not Raise 220<sup>th</sup> Avenue)

##### 4.3.1 Habitat Impact

Dam, road access, parking area and shore access facility construction and lake basin inundation will create a loss of approximately 375 acres of habitat. These acres contain cool season grasslands, woodlands and stream habitats. The grasslands either existed when the land was purchased or established in anticipation of future development. The woodland habitat existing prior to acquisition is limited to a narrow band of boxelder, elm and cottonwood tree along the Lost Creek perimeter and a pine tree grove planted by a previous landowner. Many of the trees present in the proposed lake basin area were planted for future growth to serve as fish habitat.

The Natural Resource Conservation Service complete wetland evaluations on the project site and determined that no wetlands were present.

The creation of a 350 acre lake will replace the lost upland and stream habitat with the lake basin. The upland habitat lost due to associated public access facilities cannot be mitigated.

##### 4.3.2 Biological Impact

Lake development activities and the inundation of the lake basin will create a loss of 375 acres of vegetation (trees and grasses) and stream habitat. This loss of vegetation will occur slowly and displace those

wildlife species mentioned in Section 3.2.3. This displacement will cause increased incidents of death as individuals move and search for suitable replacement habitat.

Prior to lake basin inundation the DNR will treat nearly three miles of stream or approximately one surface acre of water with rotenone to eliminate green sunfish and black bullhead that are undesirable in lake environments. This activity will cause almost 100% mortality to the fish species (Section 3.2.3), crayfish species, immature amphibians (requiring dissolved oxygen present in water) and insect life inhabiting the stream.

Lake creation will make excellent habitat for a sport fishery (largemouth bass, bluegill, crappie, channel catfish and muskellunge). Aquatic and semi-aquatic species populations such as waterfowl species, turtle species, muskrat, mink, beaver, frog species, crayfish species, shorebird species and snake species are expected to flourish. Population numbers for these species currently inhabiting the site should greatly exceed their existing population.

#### 4.3.3 Floodplain Impact

Constructing a dam across the North Branch of Lost Creek will backup water to create a 350 surface acre lake and inundate nearly three miles of floodplain. The lake will minimize downstream flooding. The dam's principal spillway is designed to convey the 50-year storm without utilizing the emergency spillway. The emergency spillway, in conjunction with the principal spillway, will convey one-half the probable maximum flood hydrograph without overtopping the top of dam. A Saint Anthony Falls type stilling basin is planned for energy dissipation at the outlet below the dam. Stream flow below the dam, except for seepage through dam gates, will be limited after the gates are closed to allow the lake basin to fill. Potential flooding during high rain fall events are expected to be minimized after the lake reaches pool elevation.

#### 4.3.4 Socio-economic Impact

The lake will help meet the DNR long term plan to create fishing opportunities near a population center lacking in lake fishing. Area anglers will benefit by have a quality and sustainable lake fishery that is close to home. Developed shoreline and boat accesses will maximum use.

The lake will benefit the economics of the area which it will serve. Lost Grove Lake will have 350 surface acres, if constructed as proposed. Fishing, hunting, pleasure boating and nature watching will be the principal recreation activities associated with the lake and public land surrounding the lake. Lake fishing alone is expected to generate \$720,600 annually to the local economy. This estimate is based on the lake receiving 52,500 angling trips per year with a fishing trip-related value of

\$13.73 (US Fish & Wildlife Service, 2002). Area businesses selling outdoor equipment, such as boats and related supplies, rods, reel, and terminal tackle, should also benefit economically from the lake's presence.

The proposed lake fits in well with the General Assembly's and Governor Vilsack's Grow Iowa Values Fund, an initiative targeted to make Iowa's population and economy grow and improve the quality of life all Iowans. The Vision Iowa program, a part of the Grow Iowa Values Fund, is aimed at creating and strengthening the cultural, recreational opportunities in Iowa communities. The lake, as proposed will improve, the quality of life to those that enjoy fishing, boating, hunting, hiking and related activities.

County roads 220<sup>th</sup> Avenue, 230<sup>th</sup> Avenue and 250<sup>th</sup> Street will be closed to through traffic as the result of lake inundation. Area residents now traveling 250<sup>th</sup> Street will be directed one mile to the north or south to either 240<sup>th</sup> Street or 260<sup>th</sup> Street. Residents now using 220<sup>th</sup> or 230<sup>th</sup> Avenues will be forced to use either Z16 or Z30. Area residents requested 220<sup>th</sup> Avenue to be raised to lessen residential traffic impacts. Raising 220<sup>th</sup> Avenue has other benefits. It will also provide easier access to all parts of the lake for anglers, boaters and other area uses plus and ease traffic congestion.

#### 4.3.5 Cumulative Impact

The proposed lake along with associated access facilities will increase area recreational use and has the potential to accelerate housing development of existing rural areas zoned for residential use. Increased recreational use will be mainly from angling and boating enthusiasts. But lake presence often draws more people seeking to pleasure drive, hunt, site see, hike and nature watch. Increase litter and vehicle traffic is expected to correspond with the increase in recreation use. Increase vehicle traffic as area housing developments growth will eventually add pressure to state and county roads leading to the lake area. These actions may lead to conflicts with area residents.

Construction and management of lake area facilities (roads, parking, restrooms will be efforts employed to minimize litter and future vehicle traffic congestion. Lake area facilities will help distribute users and give them a place to park while using the lake. 220<sup>th</sup> Avenue divides the upper end of the lake. By not raising this road, area residents and lake users will have limited access to their destinations and to the lake.

The presence of Lost Grove Lake will take some fishing pressure off smaller area ponds and lakes and create motor boating opportunities. There are only seven water bodies within a 25 mile radius of the lake site. Four of these (West Park Lakes) are in the Davenport area and have a total surface area of 87 acres. Kildeer and Malone Lakes are located in DeWitt,

Iowa and have a total surface area of 18 acres. Crow Creek Lake is present on the east edge of Mt. Joy and is 20 surface acres. None of these permit boats operating with a gas motor, only electric trolling motors are allowed.

In 1985 the DNR began long term lake planning efforts near populated areas lacking in lake fishing opportunities. The Davenport, Council Bluffs, Dubuque and Marshalltown areas were selected for future lake development. Constructing Lost Grove Lake as proposed will meet the DNR long term lake plan. Once completed the DNR can begin to focus and divert its resources on the Council Bluffs, Dubuque and Marshalltown lake sites.

#### 4.4 Alternative C (No Action)

##### 4.4.1 Habitat Impact

Terrestrial habitats will improve as the area is managed for wildlife species. Areas in the proposed lake basin, vegetated by cool season grass will slowly be converted to warm season grass and native forb species. Land least susceptible to erosion will be in a row crop rotation

##### 4.4.2 Biological Impact

Terrestrial wildlife species will benefit under the No Action Alternative as warm season grasses replace cool season grass areas. Aquatic and semi-aquatic species will not benefit under this alternative.

##### 4.4.3 Floodplain Impact

No change in existing floodplain impacts will result with the No Action Alternative.

##### 4.4.4 Socio-economic Impact

The No Action Alternative would hamper the DNR in providing a quality lake close to a population center lacking lake fishing opportunities. This alternative would not benefit the economics of the surrounding area. The annual economic loss from fishing alone is \$720,600. This estimate is based on the lake receiving 52,500 angling trips per year with a fishing trip-related value of \$13.73 (US Fish & Wildlife Service, 2002). Area businesses selling outdoor equipment, such as boats and related supplies, rods, reel, and terminal tackle, would not benefit economically from this No Action Alternative.

The No Action Alternative would also hamper the General Assembly's and Governor Vilsack's Grow Iowa Values Fund initiative targeted to make Iowa's population and economy grow and improve the quality of life

all Iowans. This alternative will not will improve the quality of life to those that enjoy fishing, boating, hunting, hiking and related activities.

#### 4.4.5 Cumulative Impact

The No Action Alternative, however, will continue to maintain the status quo transportation for area resident using area roads. But will fail to meet DNR goals of constructing a lake near the Davenport area that is lacking lake fishing opportunities. Motor boating opportunities will not be created through this alternative. The population of the City of Davenport and surrounding areas will continue to grow. People seeking to fish and boat will travel further to pursue their recreational interests. Those unable to travel will continue to put heavier fishing pressure on area small lakes and ponds.

#### 4.5 Summary of Environmental Consequences by Alternatives.

<b>Environmental Consequences Summary</b>			
	<b>Alternatives</b>		
	A: Proposed	B: Do Not Raise 220 <sup>th</sup> Avenue	C: No Action
Vegetative Habitat	- Minimal adverse effect	- Minimal adverse effect	- Minimal benefit
Biological	- Minimal adverse effect on terrestrial wildlife - Adverse effect on stream organisms - Benefit to sport fishes, aquatic and semi - aquatic organisms	- Minimal adverse effect on terrestrial wildlife - Adverse effect on stream organisms - Benefit to sport fishes, aquatic and semi - aquatic organisms	- No adverse impact to aquatic or terrestrial organisms
Floodplain	- Minimal adverse effect	- Minimal adverse effect	- No change in status
Socio-economic	-Meets DNR long term plan to create fishing opportunities - Positive economic impact to area - Benefit to area residents and lake users traveling on 220 <sup>th</sup> Avenue	-Meets DNR long term plan to create fishing opportunities - Positive economic impact to area - Adverse effect to area residents traveling on 220 <sup>th</sup> Avenue	- No change in status
Cumulative	- Increase benefit to anglers, boaters and other users	- Increase benefit to anglers, boaters and other users	- No change in status

	- Increase in litter - Increase in vehicle traffic	- Increase in litter - Increase in vehicle traffic	
Environmental Justice	Potentially positive	Potentially positive	No change in status
Cultural/ Paleontological Resources	No impact	No impact	No impact
Listed Species	No impact	No impact	No impact

5.0 List of Preparers

Martin Konrad, Iowa Department of Natural Resources, Des Moines, Iowa

6.0 Consultation and Coordination with the Public and Others

The following meetings have been held to date on the future development of this project.

Public Meetings

September 24, 1987 7:00 pm Princeton Town Hall  
January 28, 2004 7:00 pm North Scott High School

County Meetings

January 23, 2004 10:00 am Scott County Engineer's Office

Regulatory Agency Meetings

February 26, 2003 9:00 am Scott County NRCS District Office  
February 24, 2004 10:00 am Wallace State Office Building

Consultant Meetings

February 12, 2004 9:00 am Wallace State Office Building

The January 28, 2004 public meeting informed the public of the project's history, lake construction proposal and the initiation of a 30-day environmental scoping process. Public meeting notes can be found in Appendix 1. There were no project alternatives or opposition expressed during the meeting or during the 30-day scoping period.

The US Fish & Wildlife Service (FWS) will prepare a news release and distribute statewide by the External Affairs Office after an draft Environmental Assessment (EA) is accepted. The EA and all Appendices will be posted on the FWS website. The DNR will also prepare a new release soliciting comments on the draft EA. After the required 30-day comments period, and assuming no additional revisions

are necessary, the EA and supporting grant documents will be considered eligible for approval.

## 7.0 Public Comment on Draft EA and Response

No comments were received from governmental bodies or organized entities. Six written comments were received from individuals. Five were received by email and one was received by facsimile. All comments are reproduced in full in Section 7.2.

### 7.1 Summarized Comments and Responses

**Comments 1, 2 and 3** are favorable in nature and in support of the "Proposed Action".

**Response:** The DNR appreciates the supportive comments and the time the each commenter took to express their support.

**Comment 4** was received May 1<sup>st</sup> and states that the Draft EA could not be found on the Fish and Wildlife Service web site.

**Response:** The DNR news release was sent out Tuesday afternoon April 27, 2004 stating, "commencing immediately" that the DNR and FWS was accepting comments on the Draft EA. The Draft EA was not published on the FWS website until May 3, 2004. A reply was sent to the individual on May 3<sup>rd</sup> apologizing for the inconvenience and alerting the person that the Draft EA was now available for review. The individual did not submit any comment.

**Comments 5 and 6** were in favor of Alternative B (Do Not Raise 220<sup>th</sup> Avenue). Commenter 5 would rather have the money budgeted to raise 220<sup>th</sup> Avenue be spent for other and believed to be more desirable lake developments. The person did not believe closing 220<sup>th</sup> Avenue to through traffic would inconvenience area residence or people using the lake. The person also believed that raising the road would detract from the lake's natural setting, cause clouds of dust to drift over the lake, and be an attractive nuisance for teenagers to gather and cause excessive noise pollution. Commenter 6 believes the raising of 220<sup>th</sup> Avenue will increase traffic flow, will not benefit the "fisherman", and that the DNR yielded to pressure generated to raise the road.

**Response:** Commenters 5 and 6 do raise the negative issues of raising 220<sup>th</sup> Avenue. Initially the DNR Fisheries Bureau staff intended to close 220<sup>th</sup> Avenue to through traffic. DNR communication with Scott County Secondary Roads Department stated no preference to closing or raising the road. The DNR did reconsider its intent after being approached by local users. The decision to raise the road came after weighing the both the positive and negative issues. The DNR Engineering and Realty Services Bureau prepared design plans and provided a cost estimate to raising the road. The plans were approved by the Scott County

Secondary Roads Department with the County agreeing to maintain the road and shoulder surfaces and to implement a 35 mph speed limit restriction. The County also agreed to restrict the speed limit to 25 mph if necessary. The road shoulders were added to improve safety to those using the shoulder for fishing or sight seeing. On June 16, 2004 the Scott County Secondary Roads Engineer stated possible solutions to further enhance safety and prevent dust delivery to the lake. These solutions will be considered if safety and dust become a problem. Some Scott County roads receive as much as 400 to 500 vehicle use/day, this is much higher use than 220<sup>th</sup> Avenue is currently receiving. In high use road situations the County applies a seal coat to improve safety and reduce dust. If speeding, noise and/or improper uses become issues, the County Sheriff is contacted to increase patrol frequency. The DNR believes this section of 220<sup>th</sup> Avenue will become the most used road for those wanting access to the upper reaches of the lake. But 250<sup>th</sup> Street, 260<sup>th</sup> Street, 240<sup>th</sup> Avenue and 230<sup>th</sup> Avenue will be the roads receiving the greatest vehicular use because of their direct access to four more significant areas to the main lake.

Raising 220<sup>th</sup> Avenue will provide more positive benefit and convenience to lake users than to area residents. Approximately 65% of all annual fishing trips are taken by anglers fishing from the shore. Constructing and maintaining shorelines that have easy access and good fishing opportunities is expensive. Spreading shoreline fish opportunities evenly to as many areas as possible is difficult. The DNR minimizes construction costs, maximizes shore access and spreads out shore angling by improving areas near existing roads. Lake water depth along the road embankment and rock armoring of the road embankment are positive attributes for making good fish habitat and fishing opportunities. The possibility of increase litter is briefly mentioned in Section 4.2.5, Cumulative Impacts. Littering is considered an unavoidable impact. It is hope that road users will help police the area and contact County and State officials in majoring littering instances. The DNR believes that the expense of raising 220<sup>th</sup> Avenue is in the best use of developing Lost Grove Lake.

## 7.2 Actual Comments Received

**Comment 1.** I am a citizen living close to where the Lost Grove Lake is being built. I wish to express my support for this project. It will give the area much needed recreational opportunities and will only add to the wildlife habitat and diversity.

I am part of a group that has adopted a cove to design and build fish habitat before the lake is flooded. Most of the people involved in my group are from the same area as I, and their involvement indicates to me enthusiasm for the lake. Only strong support of the project would lead people to volunteer their time and energy to help the DNR build a great lake.

**Comment 2.** This Lake is a long awaited addition to fishing opportunities in eastern Iowa. The river in this area is not very accessible to fishermen without a boat so the lake will provide easier access for the less agile fisherman and also young children.

**Comment 3.** We are in favor of the proposed road and culvert under the road at 220<sup>th</sup> Ave. We live north on 220<sup>th</sup> Ave and desire to keep that access open. We tried to email, but the address of [Martin.Konrad@dnr.state.ia.us](mailto:Martin.Konrad@dnr.state.ia.us) came back as invalid address and undeliverable. Request that you speed up the process as I would like to use the lake in my lifetime.

**Comment 4.** Your web site says the EA for Lost Grove Lake is on the FWS web site. I could not find it there. Can I find it somewhere else? This makes it difficult to submit comments.

**Comment 5.** I am submitting my two cents worth on the proposed construction of Lost Grove Lake, Scott County, Iowa. I am currently a resident of Bettendorf, IA, and do enjoy the sports of fishing and canoeing. I see this lake as a needed outdoor resource for many. I look forward to the construction of the lake.

One of the alternatives that is outlined in the Draft Environmental Assessment report is raising 220th Ave. I'd like to express my belief that I feel this is not necessary. I'd rather see the additional \$300,000 (budgeted for this road building action) to be used for other shoreline development - for clearing of areas, rip-rap, for primitive camping grounds, or better yet to go to the Iowa fisheries program earmarked to help pay for the initial fish stocking of this lake.

I encourage the department to stick with Alternative B (Do not raise County Road, 220th Avenue).

To me, developing a 'natural' area means that you remove as much as possible all the man-made elements - especially roadways. I do not like the idea of a road cutting across this lake. I feel this lake not big enough to warrant keeping this roadway. I especially do not favor this because plenty of alternative pathways to the lake area will remain available. Travel to any side of the lake would still be easy. (1 mile alternative routing west, and 2 miles to the east) for those heading north or south. I see this road as a potential eyesore on the water.

The report states, "... that by raising this road, area residents will be able to use this county gravel road without inhibiting their destination." I maintain that the population in this area will not be inconvenienced because they will no longer have a 'straight' route to a destination - a three minute diversion to get back on course is not enough to justify keeping this roadway. Keeping this lake as natural as possible by removing the man-made roadway is a better alternative. The convenience for a few does not justify the disruption of a beautiful area for all.

The report states, "...will allow recreationalists easy access to all lake use facilities." Without this road the access to all areas is still easily attainable. I don't think driving an extra 5-10 minutes to any area of this lake would be considered a burden to anyone.

Scott County has agreed to lower the speed limit (to 35mph) on this road should it remain - I contend that this speed limit will be all but ignored by too many people, and thus add to the noise and danger levels to this stretch of road. 35 miles per hour is still too fast for any natural area.

Gravel roads create an enormous amount of dust. The prevailing winds from the west and north will mean that this road will keep 'dusting' Lost Grove Lake. This lake and the recreational opportunities do not need more clouds of dust from the many drivers that will be on this stretch of road - if it remains.

The report mentions that, "Roads crossing water bodies are popular areas for fishing, pleasure driving and site seers." I agree that this site has a potential to be a beautiful location. However, I wouldn't want anyone driving near a potentially populated area if they are not going to be focusing on the road. If anyone wants to see the sites, which I strongly encourage - I'd prefer it to be done out of the vehicle and on their feet. Fishing from the roadway only encourages congested parking on the shoulder, excessive trash left behind, and an unnecessary level of noise. Fishing is supposed to be a relatively quiet sport. I unfortunately see and hear the common practice of too many people of pulling their car up to a camping site or fishing area, leaving their doors open (their car stereo blaring) so they can "hear" THEIR music. I can just see this stretch of the road being a magnet for teenagers to park and see how loud they can turn up their BASS setting on their cheap radios. (and I don't mean the fish type of BASS of course).

I thank you for your efforts and the report. It is well prepared and informative.

**Comment 6.** I am opposed to the alternative of keeping 220th Ave open to allow for vehicular traffic.

I have reached this conclusion for the reasons that are listed below:

-keeping the road open will increase the traffic flow. {I have already noted an increase in the number of vehicles, the speed of the vehicles, size of vehicles and the related hazards and inconvenience; i.e. danger and dust} I can see 220th Avenue becoming the most popular access to the lake. You combine that with the already heavy farm traffic; i.e. semis and other heavy equipment from Schnekloth Farms, and add to it sight seers "scooping the loop", I see 220th Avenue to be a very busy, dangerous road.

- I am concerned that there has been pressure placed on DNR to keep the roads open, not to benefit the fisherman, but for a few members of the local farm

community. I found it interesting that a petition was submitted to the DNR requesting that 220th remain open. At no time was I approached to react to that petition and I have been a property owner for over 15 years.

-I have some political concerns as well. It seems that "squeaky wheels" are getting the most attention. I talked with officials from the DNR last fall on several occasions and was advised that 220th Ave. would be closed to traffic. Based on those conversations, I was confident with the system and was willing to allow the process to work. Then all of a sudden, there is a press release that says local land owners headed by Gary Holst had put enough pressure on the DNR so it was necessary to do a complete 180 with the plan for 220th and spend additional time and money for the convenience of a few families. Now come on? This lake will cost millions of dollars and will impact many generations to come. A few families can make that kind of impact in such a short time?

So in summary, I would propose that the original plan be maintained, close the road. This will allow for wildlife to flourish, noise and dust levels to be maintained and would not negatively impact the tenants along the road.

Thank you for your time and allowing me to express my view.

#### 8.0 References Cited

1995 Iowa State Park User Survey, Prepared by Center for Social and Behavioral Research University of Northern Iowa for Division of Parks, Recreation and Preserves Iowa Department of Natural Resources Des Moines, Iowa March, 1996.

Eastern Iowa Lake Location Study, for the Iowa Department of Natural Resources. Prepared by Brice, Petrides-Donohue Waterloo & Des Moines, Iowa June 1987.

Evaluation of Lost Lake Project. Daryl Howell and J. Pearson, Endangered Species Program, September 13, 1996.

Fishing in Iowa, A Survey of Iowa Anglers, May 1976. Prepared for the Iowa Conservation Commission by Central Research Corporation, Topeka, Kansas.

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