

Optima Lake

*North Canadian River
Texas County, Oklahoma*



Initial Appraisal

November 2010

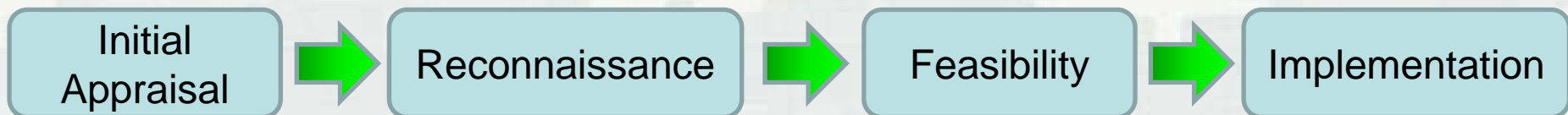


BUILDING STRONG®

Initial Appraisal

Section 216 – Flood Control Act of 1970

- **Authorized for the review of completed Corps of Engineers projects.**
- **Investigates changes to physical and economic conditions to determine:**
 - Impacts to project operations
 - Influence on achieving authorized project purposes
- **Current and expected future project conditions are assessed.**
- **Public Involvement:**
 - Public workshop held to explain study and solicit questions and comments
 - Comments received are evaluated and made a part of the Initial Appraisal
- **Initial Appraisal is the first step in the planning process:**



Project History

- Authorized by River and Harbor and Flood Control Act of 1936.
- Authorized Purposes:
 - Flood Control
 - Water Supply
 - Recreation
 - Fish and Wildlife Conservation
- Construction began in 1966.
- Project was completed in 1978.



Outlet Works

- Compacted earthfill embankment (about 3 miles) and 120 foot high with gated outlet works and an uncontrolled saddle spillway.
- Outlet works located near right abutment
 - Includes concrete gate tower with 2 gates for flood control releases.
 - A 36 inch low flow bypass and a 24 inch water supply line.
- Uncontrolled saddle spillway is 1500 foot wide near the right abutment.



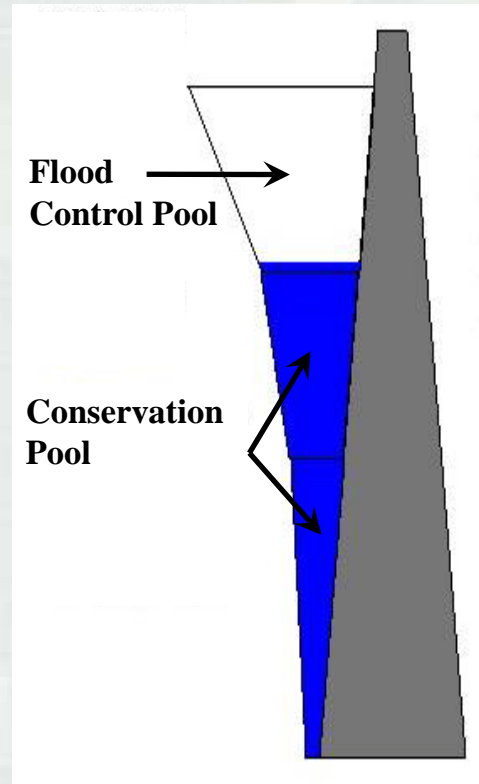
Expected and Existing Conditions

Flood Control and Water Supply Purposes

EXPECTED:

- **Flood Control Pool:**
 - \$661,000 per year of flood damage protection.
 - 100,500 acre-feet of storage.
- **Conservation Pool:**
 - \$105,000 per year in water supply benefits.
 - 76,200 acre-feet for water supply storage.

Pool Subdivisions
Optima Lake



EXISTING:

- **Flood Control Pool:**
 - \$28,300 total of flood damages saved in 2 years of project's life.
 - Flood control storage area is yet to be efficiently used.
- **Conservation Pool:**
 - \$0 per year in water supply benefits.



Expected and Existing Conditions

Recreation Purpose

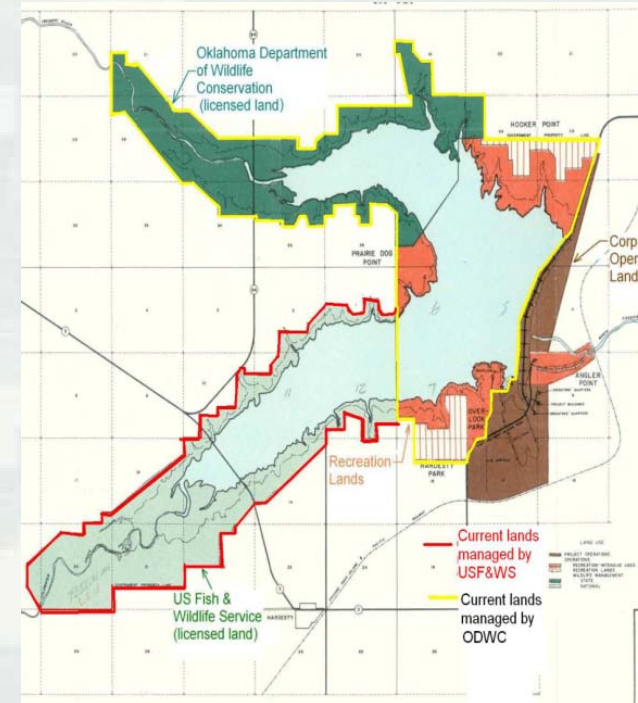
EXPECTED:

- **Authorized 5 Parks:**
 - Hardesty Park – 545 acres.
 - Hooker Point – 862 acres.
 - Prairie Dog Point – 235 acres.
 - Angler Point – 175 acres.
 - Overlook Park – 77 acres.

EXISTING:

- **All park areas, including lake bottom area, are now managed by the Oklahoma Department of Wildlife Conservation and the U.S. Fish & Wildlife Service.**
- **Park areas remain available to public for use.**

Recreational Land Uses
Optima Lake

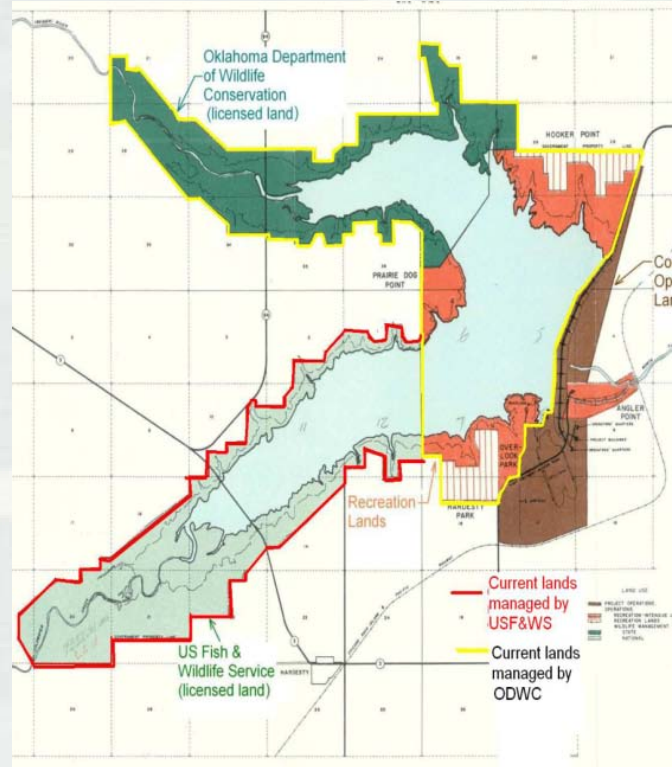


Expected and Existing Conditions

Fish and Wildlife Conservation Purpose

EXPECTED:

- Oklahoma Department of Wildlife Conservation – 2,141 acres.
- United States Fish & Wildlife Service – 2,605 acres.
- Improved fish and wildlife habitat.



EXISTING:

- All Optima land (except dam, outlet works, etc.) are now managed by Oklahoma Department of Wildlife Conservation and United States Fish & Wildlife Service.
 - ODWC – 8,062 acres.
 - USF&WS – 4,334 acres.
- Fishing and other water activities are minimal due to lack of water.
- Hunting, bird watching, and other wildlife activities have been successfully used.



Summary of Problems

- **Flood Control Pool has contributed minimal benefits.**
- **Conservation pool (lake) source of water supply has never materialized.**
- **Recreational use less than expected.**
- **Fish and Wildlife habitats not totally realized.**
 - Rainfall (17 inches per year) in the watershed area remains the same.
 - Runoff has significantly decreased since 1960 (32 cfs to 7 cfs in 1986 approximately 75 percent reduction).
 - Land use changes - irrigation wells have increased significantly (450-2500).
 - The absence of water has had a negative impact on visitation.
 - Minimal water – no fishing, no boating, no swimming equal less than expected visitors.
 - Minimal water - campers and picnickers less than expected.
 - Lack of water has hampered the improvement of fish and aquatic habitat.



Conclusions

- **Lands managed by Oklahoma Department of Wildlife Conservation and the U.S. Fish & Wildlife Service have been very successful.**
- **Flood Control, Water Supply, and Recreation are less than expected.**
- **Public Workshop on June 29, 2010.**
- **Summary of Comments Received:**
 - Keep project lands open to the public.
 - Sell project lands back to original owners.
 - Allow lands to continue to be managed by the U.S. Fish & Wildlife Service and the Oklahoma Department of Wildlife Conservation.
 - Keep project as is for future flood control.
 - Build new picnic and camping areas.



Recommendations

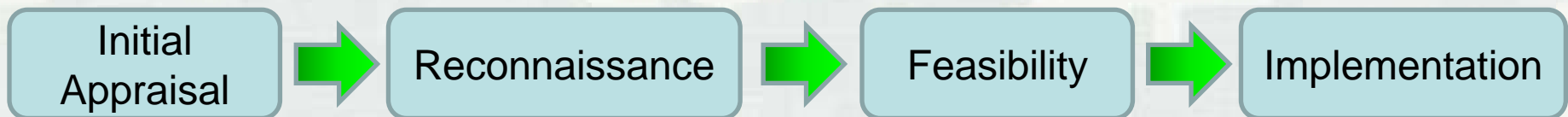
- **Initiate a Reconnaissance study to:**
 - Continue assessment of project problems.
 - Refine preliminary alternative plans.
 - Determine Federal interest in pursuing restorative, preventative, or enhancing actions.
 - Identify non-Federal cost sharing sponsor(s) for Feasibility and Implementation phases.

- **Continue to maintain public involvement and inter-agency coordination efforts so stakeholder interests are fully considered.**



Next Steps and Funding

- **Initial Appraisal (completed):** Recommended that further study be initiated.
- **Reconnaissance Study:** Not currently funded. Provides more details about problems and alternative plans being considered. Determines Federal interest in further work. Identifies non-Federal sponsor(s) for Feasibility study. (will be 100% Federally funded)
- **Feasibility Study:** If recommended and funded, evaluates and revises alternatives. May recommend to Congress that the most advisable solution(s) be implemented. (Cost shared: 50% Federal and 50% non-Federal sponsor)
- **Implementation:** If authorized and funded by Congress, implements selected solution(s) at project. (Cost shared: 50% Federal and 50% non-Federal sponsor)



Initial Appraisal of Optima Lake

Questions and Comments

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Thank you for your participation!

