

Susitna-Watana Hydroelectric Project Document ARLIS Uniform Cover Page

Title: Susitna-Watana Hydroelectric Project wildlife data-gap analysis : pre-PAD data-gap analysis meeting August 18, 2011		SuWa 208
Author(s) – Personal: Brian Lawhead		
Author(s) – Corporate: ABR, Inc.		
AEA-identified category, if specified:		
AEA-identified series, if specified:		
Series (ARLIS-assigned report number): Susitna-Watana Hydroelectric Project document number 208		Existing numbers on document:
Published by: [Anchorage, Alaska : ABR, Inc., 2011]		Date published: August 18, 2011
Published for:		Date or date range of report:
Volume and/or Part numbers:		Final or Draft status, as indicated:
Document type: Slide presentation. No commentary.		Pagination: [14] p.
Related work(s):		Pages added/changed by ARLIS:
Notes:		

All reports in the Susitna-Watana Hydroelectric Project Document series include an ARLIS-produced cover page and an ARLIS-assigned number for uniformity and citability. All reports are posted online at <http://www.arlis.org/resources/susitna-watana/>



Susitna–Watana Hydroelectric Project Wildlife Data-gap Analysis




Pre-PAD Data-gap Analysis Meeting
August 18, 2011

Brian Lawhead



Background

- ◆ ABR is one of four term contractors selected by AEA in December 2010 for Railbelt Large Hydro work
 - ◆ Wildlife data-gaps analysis contract awarded in late January
 - ◆ Work commenced in February; all historical SHP references received by end of March
 - ◆ Literature review completed by June
 - ◆ Draft report completed mid-August
- 
- A stylized, dark teal mountain range graphic is located in the bottom right corner of the slide, partially overlapping the text area.

Approach

- ◆ Information review:
 - Historical APA documents from original terrestrial environmental studies program for Susitna Hydro Project (SHP) from scans of ARLIS documents & AEA microfiche
 - Review recent resource literature
 - Resource agency contacts
- ◆ Compiled annotated literature database using *EndNote* software
- ◆ Synthesis & data-gap analysis report based on database annotations

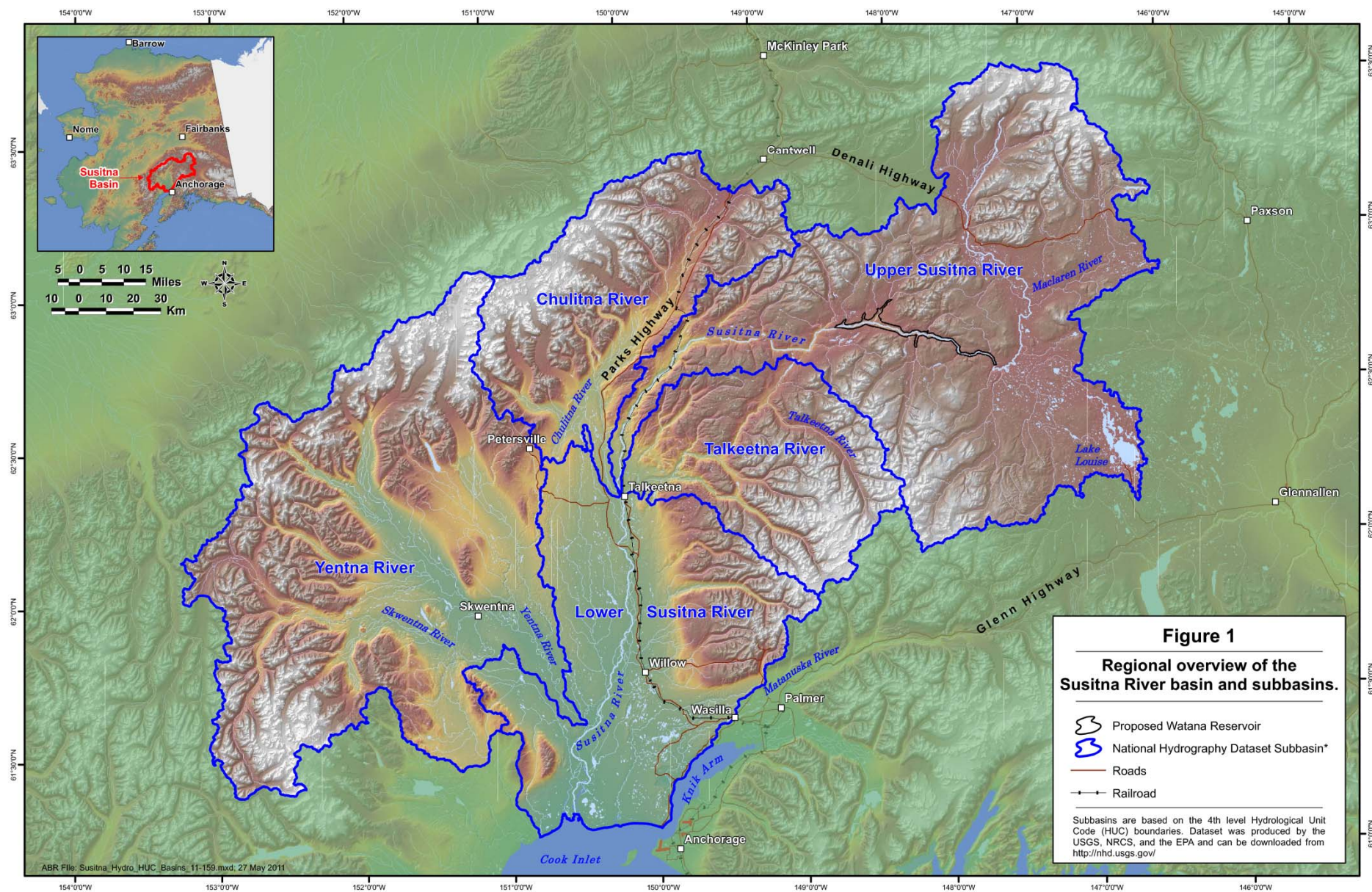
Historical Studies

- ◆ SHP studies (managed by TES & Harza-Ebasco)
 - Big game studies by ADFG
 - Furbearers by ACWRU (UAF)
 - Birds & small mammals by UA Museum
 - Vegetation, wetlands, wildlife habitat evaluation (UAF AFES, USFWS, Kreig & Associates, TES)
 - Impact assessment & mitigation planning (LGL)
- ◆ Other historical study efforts in 1980s
 - Susitna River Basin Study & Susitna Area Plan (Fish & Wildlife Element map atlas)
 - Alaska Habitat Management Guides project

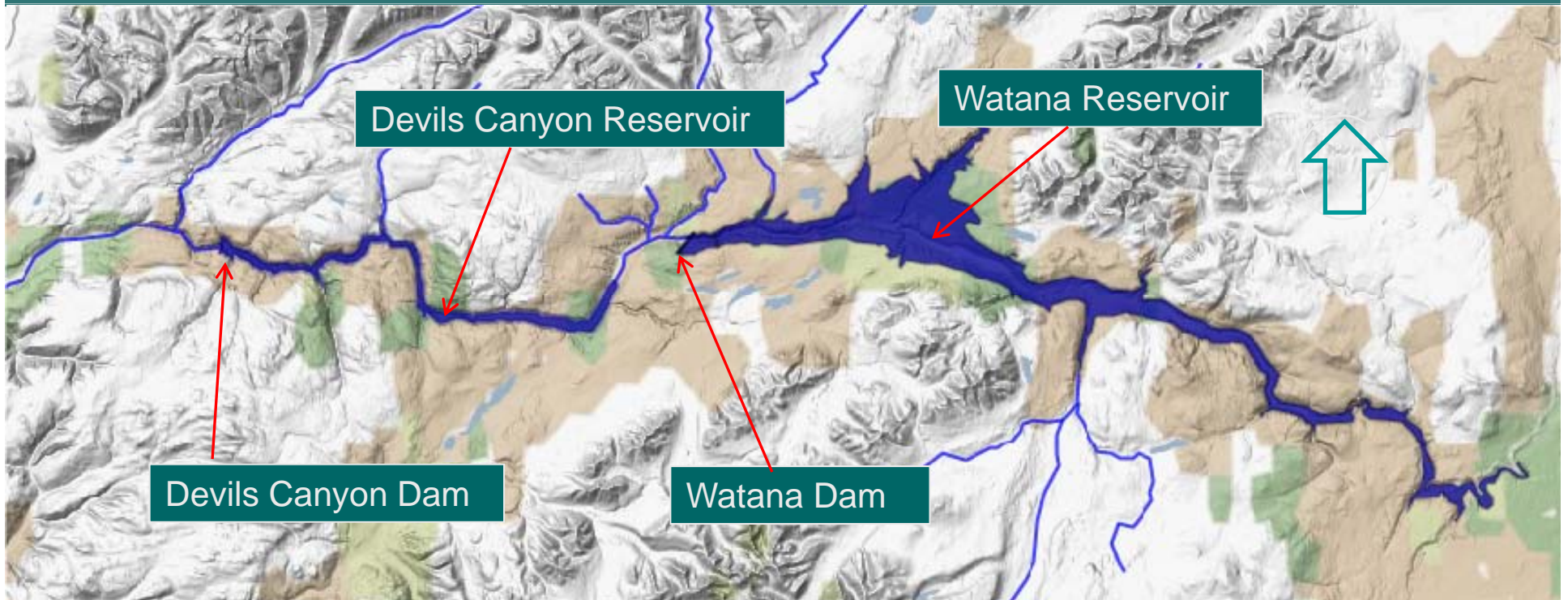
Recent Studies

- ◆ Advances in technology (GIS, satellite & GPS telemetry), sampling methods, spatial & statistical analyses
- ◆ Recent data & literature from resource agencies
 - ADFG management reports & technical reports
 - Telemetry datasets
 - USFWS survey reports (*e.g.*, raptors, waterfowl)
 - New survey & estimation techniques
- ◆ Changes in conservation status
 - No ESA-listed terrestrial species
 - 56 species of conservation & management concern (55 birds, 1 mammal)

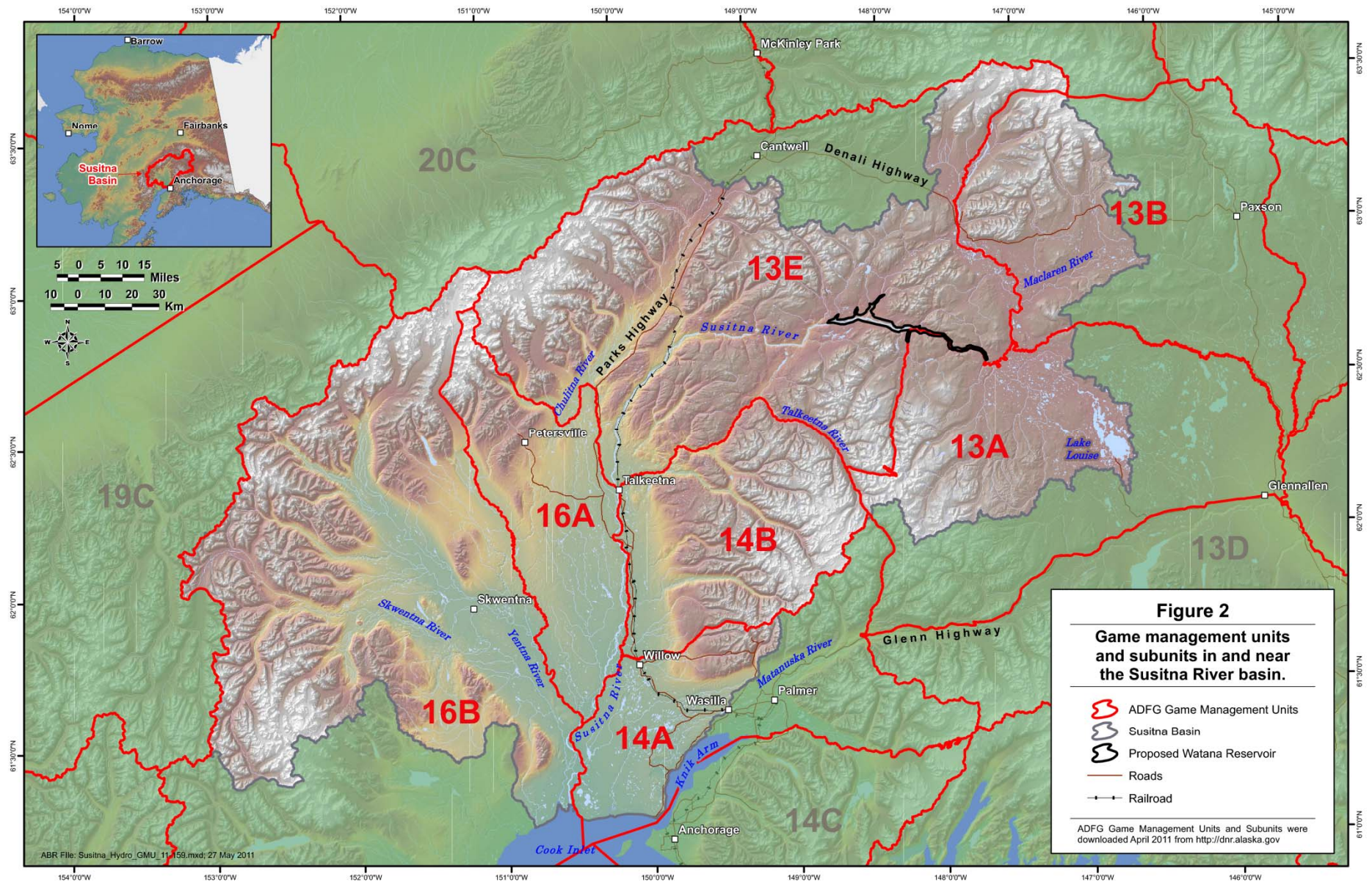
Susitna River Basin



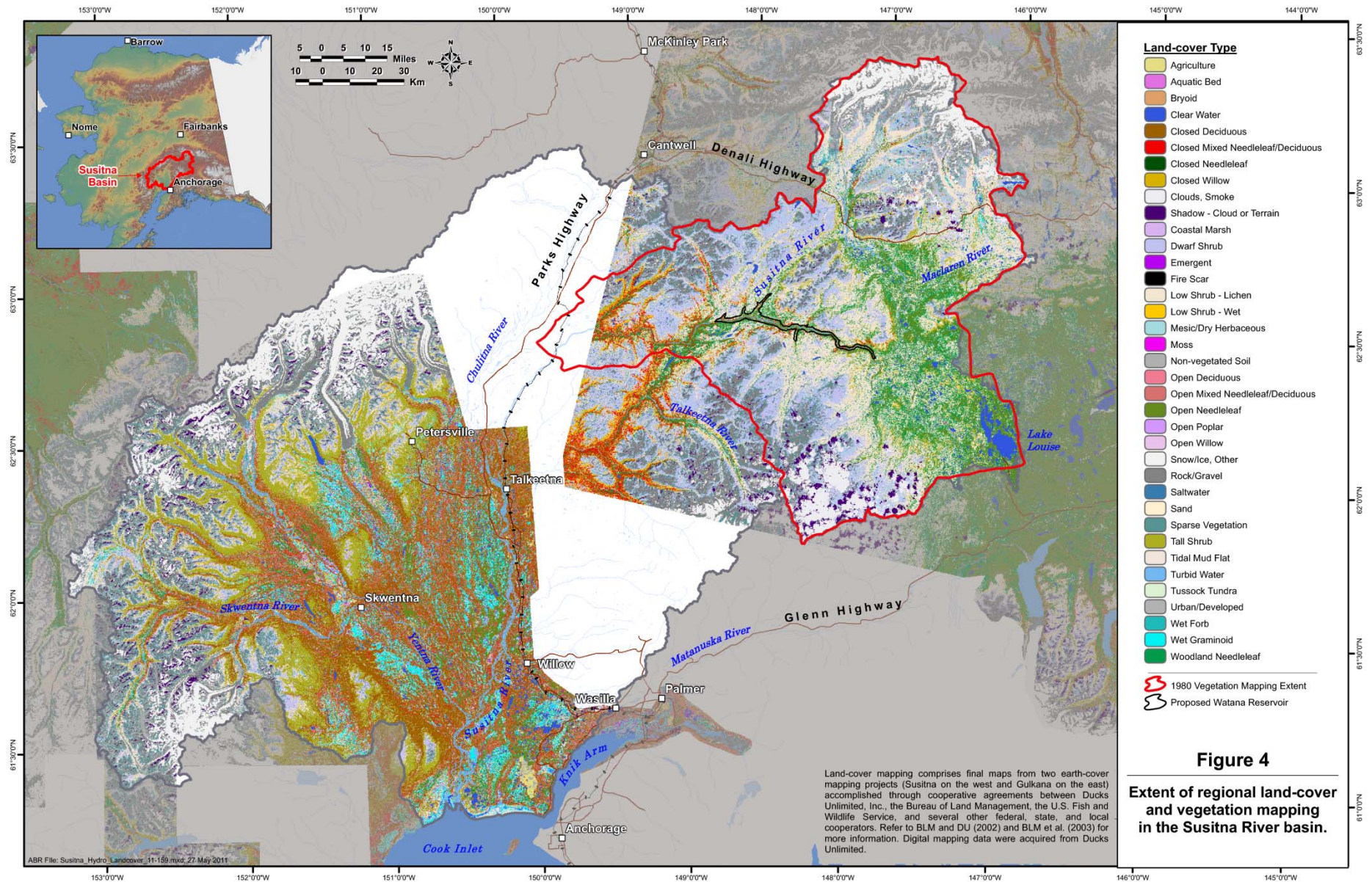
Original Susitna Hydro Project (SHP)



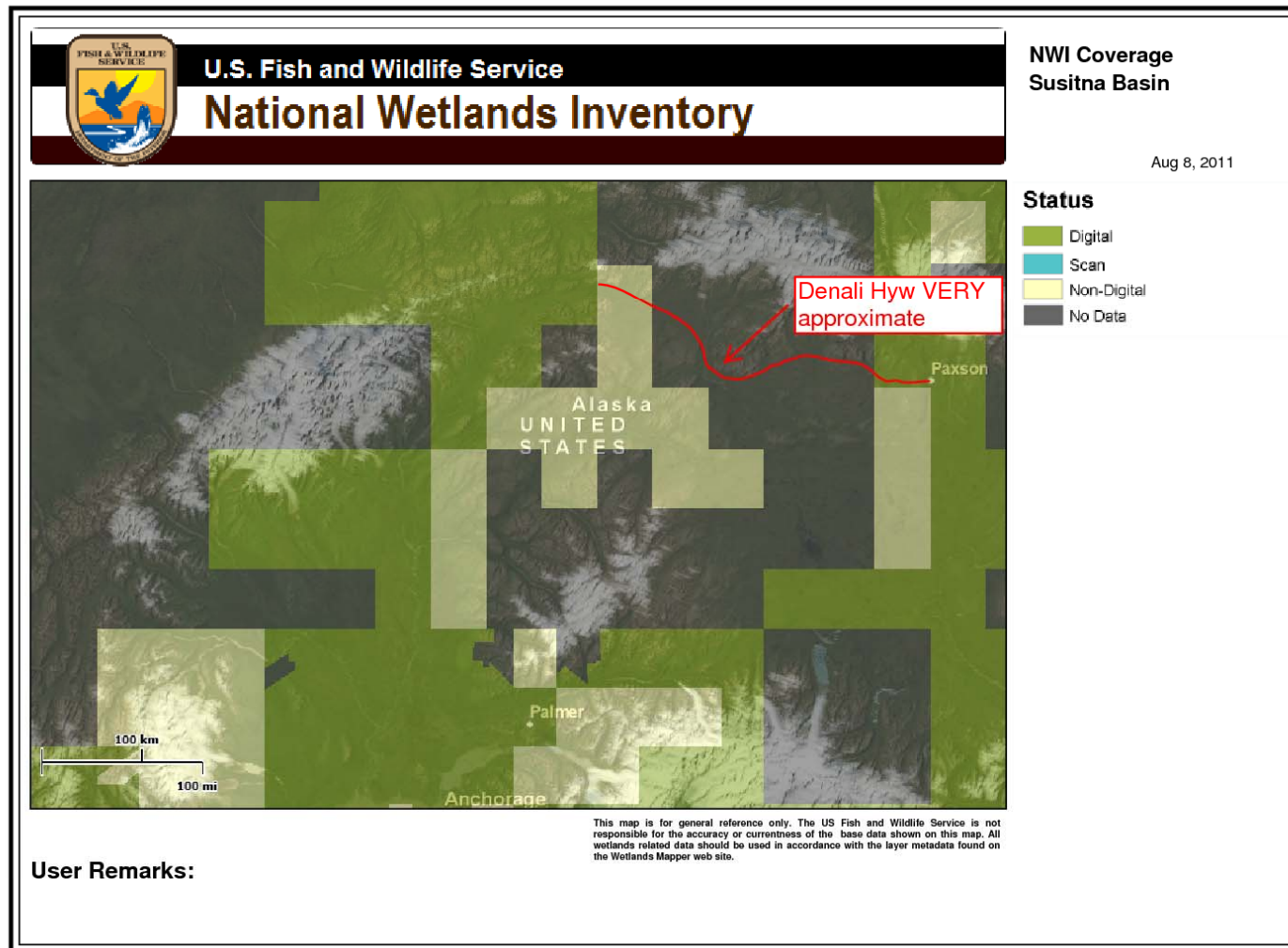
Game Management Units / Subunits



Vegetation / Land-cover Mapping



NWI Wetlands Mapping



Potential Information Needs – I

◆ Mammals:

- Current surveys & population estimates using newer methods (moose, bears, furbearers)
- Spatial analyses of existing ADFG telemetry datasets (moose, caribou, bears, wolf)
- Evaluate caribou subherds & movements
- Evaluate/update moose carrying-capacity model & habitat compensation options
- Assess current condition & use of sheep licks
- Downstream surveys of floodplain herbivores & furbearers, especially beaver colonies
- Small mammal survey in impoundment zone
- Compilation of ADFG harvest statistics

Potential Information Needs – II

◆ Birds:

- Current nesting status of raptors, especially eagles
- Waterbird breeding data (brood surveys)
- Waterbird migration data (spring & fall surveys)
- Breeding landbird & shorebird densities, using ground-based point-counts with distance sampling
- Evaluation of breeding status for species of conservation & management concern

◆ Amphibians:

- Wood frog breeding surveys

Potential Information Needs – III

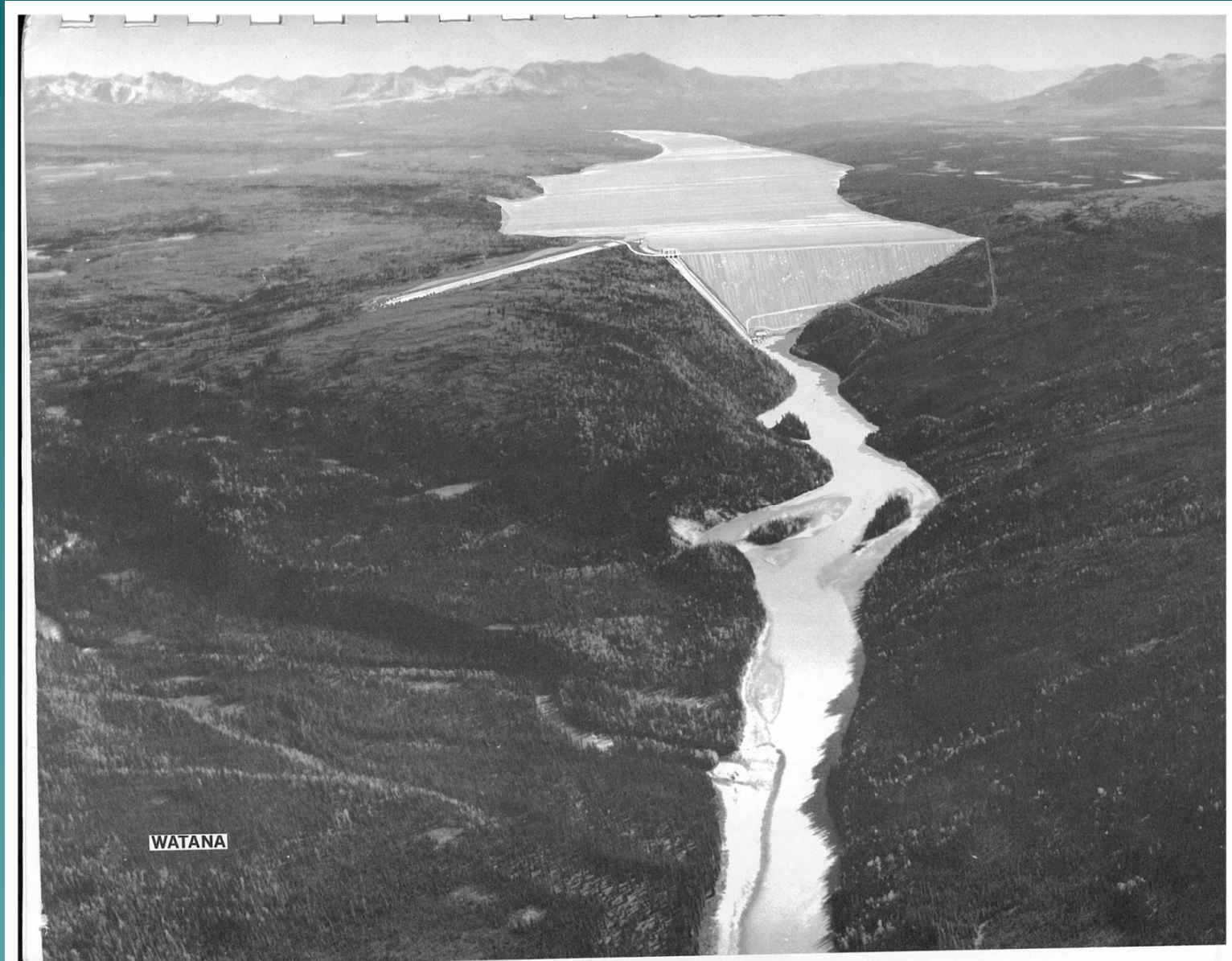
◆ Vegetation & Wetlands:

- Vegetation (AVC Level IV) geodatabase
- Wetlands mapping in sufficient detail to support 404(b)(1) analysis & assess functions/values
- Mapped area needs to cover all access/transmission line corridors
- Recovery of historical mapping products & documentation to expedite mapping efforts

◆ Wildlife habitats:

- Spatially explicit habitat evaluations using GIS database for habitat map, incorporating habitat-use data from historical & recent studies
- Updated browse inventory in Watana impoundment zone
- Riparian habitat evaluation downstream (based on hydrological modeling); reexamine historical plots

Questions?



WATANA