



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, NORTHWESTERN DIVISION  
PO BOX 2870  
PORTLAND OR 97208-2870

REPLY TO  
ATTENTION OF

CENWD-PDD (1105)

*Tosh Jackson*

13 DEC 2010

MEMORANDUM FOR Commander, Seattle District (ATTN: CENWS-PM-PL)

SUBJECT: Federal Interest Determination for Stehekin River Flood Risk Reduction, Chelan County, WA (CAP Section 205)

1. Reference memorandum, CENWS-PM-PL, 30 Nov 10, subject as above.
2. Based on your findings and recommendations in the Fact Sheet and accompanying National Park Service Report provided on 30 Nov 10, the Stehekin River Section 205 study is to be terminated and remaining Section 205 funds revoked for reprogramming to other ongoing Section 205 studies.
3. The Northwestern Division review team has reviewed the report and found it to be well written and informative regarding the description of flooding problems in the project area. However, the review team concurs with the findings and conclusions presented in the Fact Sheet which indicate that the potential project fails to have a viable alternative to address flooding problems and lacks justification for further Federal study.
4. Should you have questions regarding this matter please contact Ms. Valerie Ringold, Planning, Environmental Resources, Fish Policy, and Support Division, at 503-808-3984 or by e-mail [Valerie.A.Ringold@usace.army.mil](mailto:Valerie.A.Ringold@usace.army.mil).

FOR THE COMMANDER:

*W. Anderson*  
WITT ANDERSON, SES  
Director, Programs

CF:  
CENWD-PDD (Ringold)  
CENWD-PDC (Kiefel)



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
SEATTLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 3755  
SEATTLE, WASHINGTON 98124-3755

CENWS-PM-PL

MEMORANDUM FOR Commander, Northwestern Division (CENWD-PDD/Jim Fredericks)  
PO Box 2870 Portland, OR 97208-2870

SUBJECT: Federal Interest Determination for Stehekin River Flood Risk Reduction, Chelan County, WA (CAP Section 205)

1. Seattle District has determined that there is no Federal Interest in continuing with a feasibility study for the Stehekin River under Section 205 of the Flood Control Act of 1948, as amended.
2. Request Northwestern Division concurrence on the finding of no Federal Interest so the project may be closed out.
3. On 6 July 2004, the Chelan County Board of Commissioners submitted a request for assistance under Section 205 of the Continuing Authorities Program for flooding in the Stehekin Valley. In a letter dated 30 August 2004, the County stated its understanding of the requirement for it to be a project Sponsor and provide cost share funding if necessary.
4. The problem that the Sponsor wishes to address is the continued flooding and damage to property that has occurred recently in the Stehekin Valley. Large flood events have occurred in 2003 and 2004 that caused large amounts of damage to local residents and infrastructure. The National Parks Service is a major land holder in the area and has completed their own study on mitigating flood damage in the area. All alternatives were ruled out either due to high cost or because they are already being addressed by the NPS project.
5. For further information please contact Mr. Joshua Jackson, Project Manager, at (206) 764-6583 or [joshua.l.jackson@usace.army.mil](mailto:joshua.l.jackson@usace.army.mil).

A handwritten signature in black ink, appearing to read "Martin Hudson".

Enclosure

Martin Hudson  
Acting Chief, Planning Branch

## CONTINUING AUTHORITIES PROJECT FACT SHEET

### 1. Project – Stehekin River

P2# - 121080

Congressional Delegation –

- Senator Patty Murray (D)
- Senator Maria Cantwell (D)
- Representative Doc Hastings (R), WA-4

### 2. Authority – Section 205, Flood Control Act of 1948, as amended

### 3. Location –

State: WA

City: Stehekin

County: Chelan

Vicinity: The town of Stehekin is located on the northern tip of Lake Chelan at the mouth and the lower reach of the Stehekin River (Figure 1). The Stehekin River Valley (Valley) is a remote area, accessible only by boat, float plane or hiking trails. The Stehekin River is eligible for Wild and Scenic River designation. The Valley and the town of Stehekin are within the boundaries of the Lake Chelan National Recreation Area (LCNRA). The LCNRA is surrounded by the Glacier Peak Wilderness to the west, the North Cascades National Park to the north, and the Chelan-Sawtooth Wilderness to the east. Stehekin is a tourist destination, known for its isolated location on Lake Chelan and outdoor activities such as backpacking, hiking, fishing, and boating. It has a year round population of approximately 100 residents and a summer population of approximately 200 people. The proposed study area is the lower Stehekin River Valley.

### 4. Problem –

The Stehekin Valley experiences frequent flooding from the Stehekin River. The circular shape of the watershed and high levels of precipitation in the drainage basin results in high volumes of water flushing through the valley. The upper reaches of the River and tributaries flow through steep, forested slopes. Large quantities of large woody debris (log jams) and gravel travel through the system and are deposited throughout the Valley. In addition, the River often migrates within the flood plain. Steep forested slopes surrounding the Valley have promoted development of both private and National Park Service properties within the floodplain. Flooding has resulted in the occasional destruction of cabins and has inundated drain fields and septic tanks, negatively impacting water quality and introducing man-made debris into the river system.

Flood risk management for National Park Service properties are currently addressed within the Draft Stehekin River Corridor Implementation Plan/Draft Environmental Impact Study (NPS Draft SRCIP/Draft EIS, Aug 2010, Attachment A). Chelan County is proposing to conduct a flood risk management study for the non-federally owned portions of the Valley with the intent to coordinate their efforts with the National Park Service's management of the LCNRA. Flood damages to private properties are also addressed in the NPS Draft SRCIP/Draft EIS.

## 5. Alternative Plans Considered –

The US Army Corps of Engineers (Corps) analyzed the potential for flood risk management in the Valley in 2004. In a letter dated July 23, 2004, Washington State Governor Gary Locke requested the assistance of the Corps to help protect against a seemingly imminent threat of flooding in the Stehekin Valley to private and public property, utilities, and infrastructure. The Corps responded and commenced an investigation to determine the applicability of the Advanced Measures Program and the assistance that could be offered in a Project Information Report (Project Information Report, Advanced Measures, Stehekin, WA, 2004, Attachment B). The Corps determined that 7 of the 11 investigated sites were eligible for Advanced Measures Assistance and recommended four actions to manage flood risk for individual property owners, assist in flood warning and evacuation, and for long-term flood risk management.

Chelan County has not proposed any alternatives for this study. The Alternative Plans listed below are the recommendations from the Corps PIR and alternatives considered in the NPS Draft SRCIP/Draft EIS. Since the proposed study site falls within the LCNRA, the ability to execute an alternative in the context of NPS policy was used as a screening criterion.

### 1. Develop a flood warning plan

A flood warning plan would determine flows dangerous to residents and inform residents of the dangers associated with remaining in their homes during flooding; however, this alternative would manage the risk for loss of human life but would not manage risk for damage to property. The National Weather Service has developed a flood warning system for the valley. Since the 2003 flood, valley residents and visitors have had the ability to view flood forecasts specifically for the Stehekin River on the internet. There is also a call-in system established by the NPS (NPS Draft SRCIP/Draft EIS 2010). The NPS has outlined the need for additional gages on the upper river to provide enhanced flood forecasting and warnings. Since a flood warning plan has already been established in the Valley, this alternative has been eliminated from further consideration as a recommended alternative for a Section 205 project.

### 2. Removal of development from the channel migration zone

This alternative would minimize future flooding damage to private properties in the Valley and would be an environmentally sustainable approach to management of the

Stehekin River. In their management plan for the Valley, the NPS is evaluating the feasibility of land exchanges to private land owners for relocation outside of the floodplain. New land exchange priorities would favor those properties in the Stehekin River channel migration zone that are already developed (NPS Draft SRCIP/Draft EIS 2010). Since the NPS is currently evaluating removal of development from the channel migration zone, this alternative has been eliminated from further consideration as a recommended alternative for a Section 205 project.

### 3. Structural flood protection measures such as rip rap or levees

Utilization of riprap or levees on the banks of the Stehekin River could potentially address some flooding issues in the lower valley. This alternative has been evaluated by NPS and has been determined as unacceptable because of the high cost of importing construction materials into the Valley, potential adverse impacts to stream and riparian habitat, potential increased channelization of the river, and the high uncertainty of impacts to downstream banks and flows (NPS Draft SRCIP/Draft EIS 2010, Corps 2004). This alternative conflicts with the LCNRA General Management Plan goal of maintaining the Stehekin River in its natural state. Additionally, flood protection measures would endanger the Stehekin River's eligibility for Wild and Scenic River designation. This alternative has been eliminated from further consideration as a recommended alternative for a Section 205 project.

### 4. Dredging of Gravel Deposits

Dredging of gravel deposits would be a potential short-term solution for management of flooding in the Valley; however, this alternative is not economically or ecologically sustainable. This alternative requires active, long-term management and removal of large volumes of gravel. The Corps and NPS has estimated that one-time removal of 50,000 cy of gravel from two one-kilometer long stretches of river (at the river mouth and at McGregor Meadows) would cost an estimated \$12 million (NPS Draft SRCIP/Draft EIS 2010). This alternative has been eliminated from further consideration as a recommended alternative for a Section 205 project.

### 5. Manipulation of Large Woody Debris

Anchoring or removal of large woody debris or log jams would potentially alleviate flooding and re-direct river flows in the Valley. This alternative would require annual active management which is not economically sustainable. Due to the random nature of wood distribution in the river system, it is difficult to predict future benefits and downstream impacts of this alternative (Corps 2004, NPS Draft SRCIP/Draft EIS 2010). Additionally, large woody debris is a critical element of wildlife habitat in the Stehekin River. This alternative has been eliminated from further consideration as a recommended alternative for a Section 205 project.

### 6. Long-term research and monitoring of the Stehekin River

Due to the high complexity of the Stehekin River system and existing flooding problems, long term research and monitoring should be conducted on the Stehekin River to assist in evaluation of future alternatives for flood risk management in the Valley. (Corps 2004) The NPS has already proposed conducting long-term research and monitoring of

the River in the NPS Draft SRCIP/Draft EIS. Since this alternative has been proposed by the National Park Service, long-term research and monitoring of the Stehekin River has been eliminated from further consideration as a recommended alternative for a Section 205 Project.

## 6. Description of Recommended Plan -

a. Description – There is no recommended plan at this time.

b. If not the NED Plan, briefly describe NED Plan and rationale for not recommending –The National Park Service is another Federal agency who currently has a draft report with Environmental Impact Statement (Draft NPS SRCIP/Draft EIS, 2010) out for public comment until 9 December 2010. The plan's preferred alternative includes rerouting two miles of Stehekin Valley Road around a flood-prone meadow, revising land-exchange priorities and changing how the agency manages wood at the mouth of the Stehekin River. Additionally, the NPS is proposing additional recreation facilities and relocation of a NPS maintenance facility and some housing out of the floodplain. The Corps has implemented some non-structural measures as a result of the 2004 Advanced Measures PIR. Other proposed alternatives studied by the Corps or NPS were eliminated from further study due to lack of economic justification or environmental impacts.

## 7. Views of Sponsor –

The non-federal sponsor, Chelan County has not developed alternatives in support of a Section 205 study. The County intends to coordinate their flood risk management efforts with the NPS management plan for the LCNRA. Study financing is an issue. The County has been made aware of the feasibility study cost share but has not taken any internal planning steps towards signing a Feasibility Cost Share Agreement (FCSA).

## 8. Views of Federal, State, and Regional Agencies –

Stehekin is located within the boundaries of the Lake Chelan National Recreation Area, managed by the National Park Service. NPS management policies for the LCNRA have significant effects on management of private property and flood risk management efforts in the Stehekin Valley. In August 2010, the NPS released their Stehekin River Corridor Implementation Plan (SRCIP) and Draft Environmental Impact Statement for public comment. All of the alternatives discussed in this report are discussed in the NPS plan.

## 9. Status of Environmental Statutes Compliance -

There are several federally listed species that may occur in the project area including:

- Gray Wolf (*Canis lupus*) Endangered
- Canada Lynx (*Lynx Canadensis*) Threatened

- Grizzly bear (*Ursus arctos horribilis*) Threatened
- Northern Spotted Owl (*Strix occidentalis caurina*) Threatened
- Bull Trout (*Salvelinus confluentus*) Threatened
- Chinook Salmon (*Oncorhynchus tshawytscha*) Threatened

Project impacts to listed species and Essential Fish Habitat would require consultation with U.S. Fish and Wildlife Service and National Marine Fisheries Service.

Section 404 of the Clean Water Act authorized a permit program for the disposal of dredged or fill material into waters of the United States, and defined conditions which must be met by Federal projects before they may make such discharges. The Corps retains primary responsibility for this permit program. The Corps does not issue itself a permit under the program it administers, but rather demonstrates compliance with the substantive requirements of the Act through preparation of a 404(b)(1) evaluation. This may potentially require a Water Quality Certification from the Washington Department of Ecology for compliance with Section 401 of the Clean Water Act.

The National Historic Preservation Act (NHPA) requires that the effects of proposed federal undertakings on sites, buildings structures, or objects included or eligible for the National Register of Historic Places must be identified and evaluated.

10. Significant Effects -

Under Section 205, Flood Control Act of 1948, as amended it has been determined there is no federal interest in this study; therefore there will be no significant effects.

11. Implementation Schedule –

Under Section 205, Flood Control Act of 1948, as amended there is no federal interest to continue with the study. No implementation schedule has been developed.

- a. Initiate Feasibility phase.....
- b. Submit Initial Assessment.....
- c. Submit Final Decision Documentation.....
- d. Decision Document Approval.....
- e. Initiate D& I phase .....
- f. PPA approval by NWD or HQUSACE.....
- g. Project Approval.....
- h. HQUSACE Commitment & Authority to Execute PPA...
- i. Execute PPA.....
- j. RE Certification.....
- k. Initiate Advertising.....
- l. Open Bids.....
- m. Construction Contract Award.....
- n. Project Completion.....



## 12. Supplemental Information

- a. Real Estate Summary – Include a concise, summary description of
  - i. Real Estate interests required for project construction and O&M – There is no recommended plan.
  - ii. Estimated value of LERRD, including incidental and administrative costs – There is no recommended plan.
- b. Monitoring and O&M costs (If not applicable, include explanation) - There is no recommended plan.
- c. Project Specific Legislation and/or Report Language – None.
- d. Other – Since there is no recommended plan, Table 1: Economic and Financial Data for Recommended Plan; is not included in this Federal Interest Determination.

## References

National Park Service, North Cascades National Park Service Complex: Lake Chelan National Recreation Area. *Draft Stehekin River Corridor Implementation Plan, Draft Environmental Impact Statement*. August 2010.

Riedel, Jon. *Stehekin River Information Base, Lake Chelan National Recreation Area, White Paper #1 Stehekin River Corridor Implementation Plan*. National Park Service. 18 Jan 2008.

United States Army Corps of Engineers, Seattle District. *Project Information Report, Advanced Measures*. 2004.



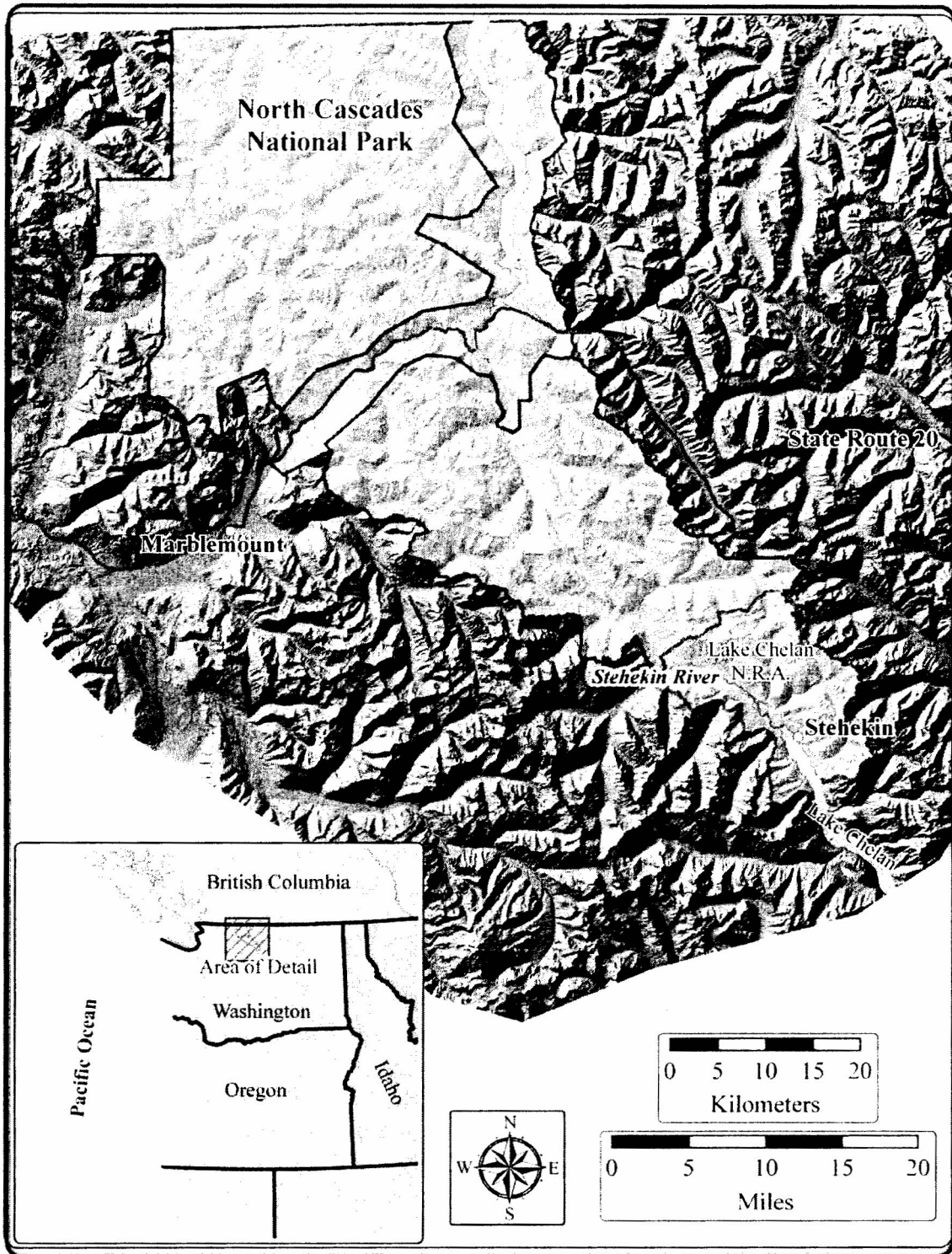


Figure 1. Location of the Stehekin River in north-central Washington (inset) and within North Cascades National Park and Lake Chelan National Recreation Area. (Riedel, 2008)