



Skagit System Cooperative

P.O. Box 368 LaConner, WA 98257-0368 Ph. (206) 466-3450

July 22, 1992

Mr. David Hough
Skagit County Planning Department
Room 204, County Administration Building
Mount Vernon, WA 98273

Re: DNS - Sediment Pond Construction on Hansen Creek

Dear Mr. Hough:

" 'Skagit System Cooperative, the fisheries resource management unit for the Swinomish, Upper Skagit and Sauk-Suiattle Indian Tribes, submits the following comments regarding the proposed Hansen Creek sediment pond. On July 13, 1992 two SSC staff personnel (J. Shedlock and K. Wyman) met with Mr. J. Abenroth of Skagit County Public Works at the site of the proposed project. Mr. Abenroth reviewed the details of the project as proposed by Skagit County Public Works and responded to our questions regarding this project.

Subsequent to our evaluation of the project site, SSC has determined that this project, as proposed, will have adverse impacts upon the treaty protected fisheries' resources in the Hansen Creek watershed. SSC reminds the lead agency of its accountability for the continued security of treaty protected fish resources as affected by approved local activities.

Based upon our assessment of the present conditions of the Hansen Creek watershed, this proposed sediment pond violates sound ecological and economic principles. We question the reasoning of Skagit County Public Works regarding the location of this project based upon their specific problem description. We believe the selected project location and design are inadequate for containing the volumes of bedload this system will carry during storm events.

Secondly, this project does not address the requirements for hydraulic energy dissipation resulting from channel modifications nor the adverse impact upon biological communities resulting from hydromodification. Finally, the continuous expenses involving maintenance plus the costs associated with lost fishing opportunities related to degraded habitat conditions, will continually increase over time.

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Presently, the low gradient section of Hansen Creek has been reduced to a drainage ditch with minimal self-cleaning capacity or fish habitat. Additionally, land use practices in the upper watershed have established an extensive network of gravel roads and removed vast tracts of vegetation from the steep slopes. Considering the seasonal weather pattern for this low elevation watershed, we anticipate an "emergency situation", necessitating the use of heavy equipment in the stream channel. We anticipate this situation will have a high probability of occurring during future storm events at the proposed project site.

SSC cites the following concerns relative to this project:

Access to a significant spawning tributary (03.0270) is threatened by sediment deposition at the site. Fish passage through an old culvert on 03.0270 will be questionable when pond level increases. Construction of the proposed pond will impair present fish habitat by altering the existing channel. Flow velocities upstream and downstream will be altered by this project which will change the form and function of the channel in each area. During each forthcoming season, fish passage for returning adults and outmigrating juveniles will be confounded by the design, function and maintenance of this project. We recommend removal of the old bridge with its abutments and the removal of the culvert on 03.0270. These measures will allow the stream to re-establish its natural characteristics in this area.

SSC has identified four major physical changes to Hansen Creek watershed as a result of the activities of local government agencies and landowners over time. These are: 1) loss of stream length; 2) loss of riffles and pools; 3) loss of riparian wetlands and floodplains; and, 4) loss of vegetation along the stream. These alterations have changed the hydraulics and biology of this stream; which have been expressed as the problems identified by Skagit County Public Works and SSC. As a solution to the drainage and sedimentation problems as well as addressing the loss of fish and wildlife habitat, SSC recommends a sequence of alternative restoration measures for the modified sections of Hansen Creek watershed:

1. Set aside land along the stream channel to act as a buffer strip between the land and the running water. Results are nutrient input reduction and sediment retention in addition to stabilization of the banks.

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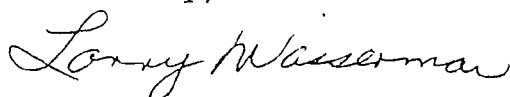
2. Revegetation of the buffer zone either naturally or by planting native species. Riparian vegetation will improve water quality and provide wildlife habitat and a natural food source for the adjacent stream.

3. Reduce the stream channel side slope to 1:4 within the area of the buffer zone. Benefits are reduction of bank slope failure and soil loss. Reduced slopes increase channel width and allow the channel to function as a flood plain. At peak flows energy is dissipated, reducing velocity and sediment transport. Deposition occurs on the side slopes rather than downstream. The channel will revert to its natural tendency to develop meanders. Coarser sediments will fall out to establish pools and riffle areas which will bring the stream back into equilibrium with its load.

4. Where necessary, overflow setback dikes can be established at the perimeter of the former meander zone. In the long term, these measures will re-establish the natural functions and characteristics of the stream channel while facilitating the restoration of biological diversity.

SSC appreciates the opportunity to submit comments regarding this proposal. If you have any further questions contact Joe Shedlock of my staff at (206) 466-7226.

Sincerely,



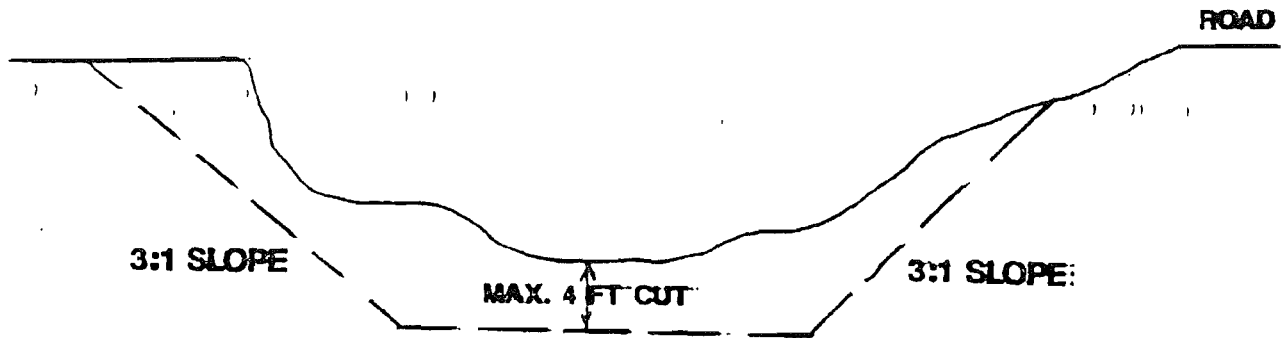
LARRY WASSERMAN,
Environmental Services Director

cc: Doreen Maloney, SSC Fisheries
J. Abenroth, Skagit Co. Public Works
K. Buchanan, WDF

HANSEN CREEK POND PROJECT

TYPICAL CROSS-SECTIONS

POND SITE



DISPOSAL SITE

