

# 天塩川水系の魚類生息環境の保全と改善への取り組み



## 1. 流域の概要と課題

天塩川は、日本最北を流れる大河川で、山間部は豊かな森林に囲まれており、流域では稲作や酪農が営まれている。また、サケ、ヤチウグイ、イトウなどが生息しているほか、サクラマスが上流まで遡上し、産卵するなど自然豊かな河川環境が残されている。

一方、流域内には頭首工のほか、支川に落差工や砂防えん堤などが多数設置され、魚類の移動を阻害している状況にある。



**天塩川**  
 幹線流路延長：256km  
 流域面積：5,590km<sup>2</sup>  
 流域人口：約100,000人

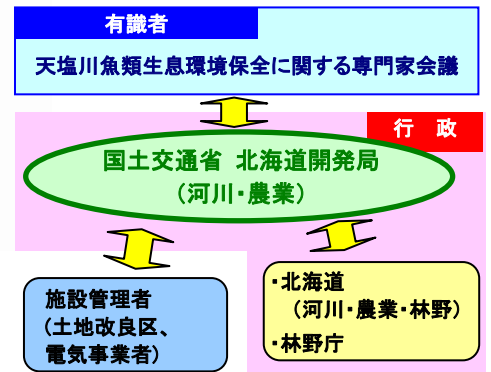


## 2. 目的

サクラマスの産卵床となる中・上流部を含めた天塩川水系全体での魚類の移動の連続性確保等について関係機関と連携して改善に努める。

## 3. 取り組み体制

現在、天塩川魚類生息環境専門家会議で効果的な改善の考え方を検討中であり、その検討状況・結果を踏まえて、関係機関と連携して施設改善に努める。



## 4. 取り組みとその考え方

### ●本川等でのこれまでの取り組み

- ・本川及び支川には、11基の頭首工が存在。2007年までに1基を残して魚道等を設置。
- ・残り1基についても近年魚道を設置予定。



### ●改善に向けた考え方

- ・現在水系内(支川等)には治山、治水等の目的から約1,100基の横断工作物が存在。このため効果的な改善が必要。
- ・関係機関と連携し、改善効果(改善延長、河川環境等)の期待される施設から改善に努める。

### 改善効果が期待できる施設の選定ポイント(案)

改善によって移動可能延長がより大きい施設を優先

優先度(改善距離)

支川① > 支川②

(29箇所所で383kmが改善)

要改善施設の下流に保護すべき魚類等が生息し、上流が良好な環境の河川を優先

優先度(環境)

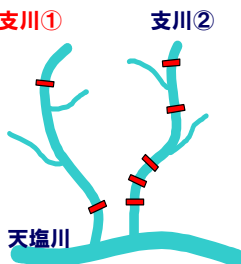
イトウが生息するなど、良好な河川環境

(60箇所所で179kmが改善)

事業実施予定の河川

砂防ダム3河川

(15箇所所で12kmが改善)



■：要改善施設

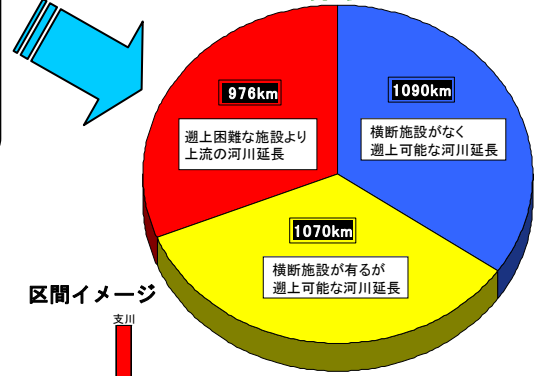


91箇所(約2割)の施設改善で、遡上可能距離が485km増(約5割)となる。(重複分除く)

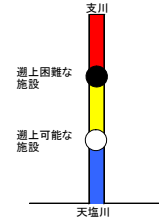
天塩川魚類生息環境保全に関する専門家会議  
 事務局：国土交通省 北海道開発局 旭川開発建設部・留萌開発建設部  
[http://www.as.hkd.mlit.go.jp/teshio\\_kai/gyorui/index.html](http://www.as.hkd.mlit.go.jp/teshio_kai/gyorui/index.html)

河川総延長 3,136km  
 総施設数 1,123 箇所

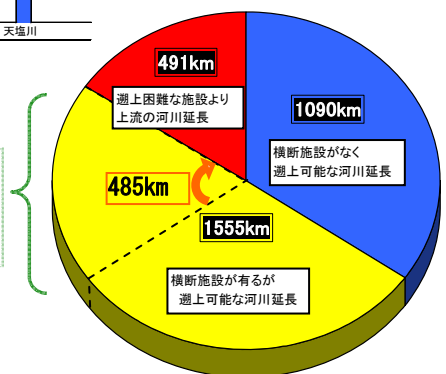
現状



区間イメージ



効果的な施設整備(案)



※効果的な施設整備(案)は、今後、関係機関との調整により追加・修正を行う予定。

# Project for Conservation and Improvement of Fish Habitats in the Teshio River System



## 1. The basin and its problems

The Teshio River, that is large in northeastern Japan, flows through thick forest, paddy fields and dairy farm fields in the basin.

Its natural environment creates habitat for salmon, Sakhalin lake minnow, Japanese huchen and other fishes. Cherry salmon migrates to its upper reaches to spawn.

However, fish migration is hindered by many cross-channel structures, such as head works, falling works, check dams and others in its tributaries.



Head works



falling works



Check Dams

**Teshio R.**  
Main stream: 256 km  
Catchment area: 5,590 km<sup>2</sup>  
Basin pop.: 100,000 people



Cherry salmon



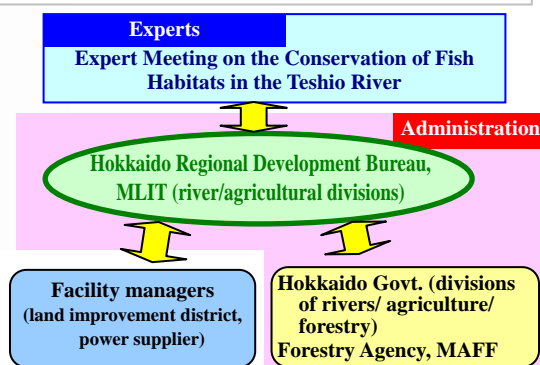
The Teshio River Basin

## 2. Objectives

The projects aim to secure river continuity and fish passage throughout the Teshio river system -- especially at the mid- and upper-reaches, which serve as spawning beds for cherry salmon -- in cooperation with related organizations.

## 3. Framework

Effective measures for river continuity improvement are being discussed at the Expert Meeting on the Conservation of Fish Habitats in the Teshio River. Facility improvements will be promoted in cooperation with related organizations based on those discussions.



## 4. Outline of the Project

### Improvement Projects implemented in the Teshio River System

- As of the end of 2007, fishways were installed at 10 of the 11 head works.
- Fishway installation at the remaining head works is scheduled for the near future.



Fishway installed at a head works

### Ideas for river continuity improvement

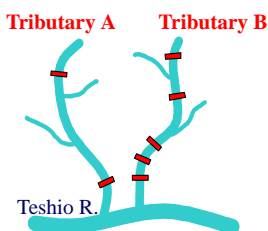
- Effective measures to secure river continuity are necessary, because there are approximately 1,100 cross-channel structures in the river system (mainly in the tributaries) for erosion control, flood control and other purposes.
- In cooperation with related organizations, priority is given to projects whose benefits (e.g.: river continuity improvement, environmental improvement) are expected to be the greatest.

### Criteria for selecting the facilities where improvements are expected to have the greatest effect (draft)

Priority is given to structures where the planned improvement will afford the greatest increase in distance of free fish passage

#### Priority on increases in length of river continuity

**Tributary A > Tributary B**  
(29 sites: increasing river continuity by 383 km)

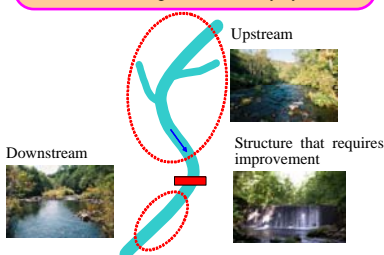


Structure that requires improvement to allow fish passage

Priority is given to facilities fulfilling both of these conditions: fishes requiring preservation inhabit sections downstream from the facilities, and conditions upstream from the facilities are favorable for inhabitation by fishes.

#### Priority on the environment

**Favorable river environment: i.e., habitation by Japanese huchen, etc.**  
(60 sites: increasing river continuity by 179 km)



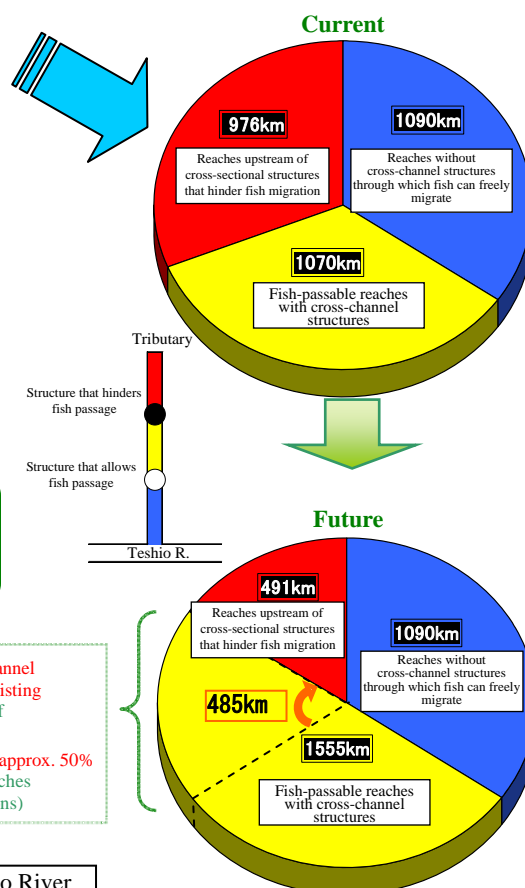
Reaches where other construction projects are scheduled

#### Check dam improvements are scheduled in three rivers

(15 sites: increasing river continuity by 12 km)

Improvements at 91 cross-channel structures (approx. 20% of existing structures) will add 485 km of fish-passable reaches. That will result in improving approx. 50% of the migration-hindered reaches (excluding overlapping sections)

River length: 3,136 km  
Cross-channel structures: 1,123



Additions and modifications to Plan for Effective Improvement of Fish Passage (draft) will be made in coordination with related organizations.

Expert Meeting on the Conservation of Fish Habitats in the Teshio River  
Secretariat: Asahikawa and Rumoi Development & Construction Depts., Hokkaido Regional Development Bureau, MLIT

[http://www.as.hkd.mlit.go.jp/teshio\\_kai/gyorui/index.html](http://www.as.hkd.mlit.go.jp/teshio_kai/gyorui/index.html)