

**State of Conservation Report of Shiretoko
(Japan) (N1193)**

In Response to the World Heritage Committee Decision 41 COM7B.30

GOVERNMENT OF JAPAN

November 2018

1. Executive summary of the report

In response to the issues raised in World Heritage Committee Decision 41 COM 7B.30, based on scientific reviews at the Shiretoko Natural World Heritage Site Scientific Council, in collaboration with the Ministry of the Environment, Forestry Agency, Agency for Cultural Affairs, Hokkaido Prefectural Government, and other related organizations, the Government of Japan reports as follows.

- Regarding paragraph 3 of the Decision, in order to satisfy both the conservation of the marine ecosystem and sustainable use of marine living resources, which complies with the objective of the marine management of the property, we conduct monitoring and culling of groups of the Steller sea lion that migrate to the property, based on the following three points.
- As the number of migrating individuals of Steller sea lions to the sea areas of the property has not decreased and Kuril substock to which they belong has been on an increasing trend since 2007 despite the culling of 15 individuals every year in the last three years, impacts that the current level of culling may have on the population dynamics are negligible.
- The damage cost in the fishery industry caused by pinnipeds in the Steller sea lion's migrating sea area of the property is significantly high, reaching a level that is threatening the continuation of fishery.
- Various attempts of non-lethal measures to mitigate fishery damages, other than catching, have been undertaken; however, no results of decreasing damages have been achieved yet.
- Regarding paragraph 4 of the Decision, joint surveys with Russia are conducted every year to establish a scheme for the Steller sea lion management based on the population dynamics model. Also, information regarding conditions of resources and biology of the fish have been exchanged with Russia, taking opportunities of "Japan-Russia Bilateral Exchanges among Fisheries Experts".
- Regarding paragraph 5 of the Decision, we decided to remove the central 40-meters-width-part of three dams crossing the Rusha River, gradually conducted from the upper stream, and have just launched a demonstration experiment to verify whether riverbed paths are able to function as an alternative to the bridge over the river.
- Regarding paragraph 6 of the Decision, we are currently considering in a direction toward invitation of the IUCN advisory mission in 2019.
- Regarding paragraph 7 of the Decision, we report the updated information and submit an electronic copy of the most recent Management Plans.
- With regard to Particularly Sensitive Sea Areas (PSSA), we understand that sea areas in the property are not subject to strong impacts by international marine businesses at present. In the coming period, we will consider the necessity and possibility of introducing PSSA, if necessary.

There are no other conservation issues identified nor development projects which may impact on the OUV.

Public access to the conservation report is accepted.

2. Responses to the Decision of the World Heritage Committee

Regarding the issues raised in the paragraphs of the 41st World Heritage Committee Decision 41 COM 7B. 30, the Government of Japan sincerely reports as below.

3. Notes with appreciation that the State Party is committed to an adaptive and precautionary approach to the culling of the endangered subspecies of Steller's Sea Lion occurring seasonally in the property, and urges the State Party to reconsider the culling of this species in light of significant data and methodological challenges in establishing reliable Annual Catch Limits;

a) Steller sea lions (*Eumetopias jubatus*) that migrate to Japan

- Steller sea lions (*Eumetopias jubatus*) that winter in Japan belong to the Western subspecies. This subspecies is further categorized into two stocks: the Asian stock and Western stock¹. This subspecies has been designated as an endangered species², since the breeding group of the Kamchatka Peninsula, among the Asian and Western stocks, has been decreasing over the last 20 years.
- According to a recent mitochondrial DNA analysis, the Asian stock has been further separated into three breeding groups, i.e. the Kamchatka, Okhotsk, and Kuril substocks³. Steller sea lions that migrate to Hokkaido are originally from breeding groups in the Sea of Okhotsk and the Kuril Islands^{4,5}, and their number of individuals has been in a sound recovering tendency and increased by 87% during the period from 1990 to 2013/20152.
- Recently, it was discovered that 37 out of 39 branded Steller sea lions that made wintering migration to Nemuro Strait, a part of which is included in the property, were the ones marked in natal rookeries of the Kuril Islands, i.e. Kuril substock⁶. Meanwhile, groups of Steller sea lions that make wintering migration to the Sea of Japan side of Hokkaido were confirmed to be a mixture of Okhotsk and Kuril substocks⁴ by resighting of branding (Appendix 1).

¹ Phillips, C.D., Bickham, J.W., Patton, J.C. and Gelatt, T.S. 2009. Systematics of Steller sea lions (*Eumetopias jubatus*): subspecies recognition based on concordance of genetics and morphometrics. *Occasional Papers, Museum of Texas Tech University* 283: 1-15

² Gelatt, T. & Sweeney, K. 2016. *Eumetopias jubatus ssp. jubatus*. The IUCN Red List of Threatened Species 2016: e.T17367725A66991984. . Downloaded on 12 September 2018.

³ Baker et al., 2005. Variation of mitochondrial control regions sequences of Steller sea lions: the three-stock hypothesis. *Journal of Mammalogy* 86:1075-1084.

⁴ Isono et al. (2009); doi:10.1111/j.1748-7692.2009.00367.x

⁵ Ishinazaka et al.(2009); http://shiretoko-museum.myns.jp/_media/shuppan/kempo/3006s_ishinazaka-et-al.pdf

⁶ Ishinazaka, unpublished

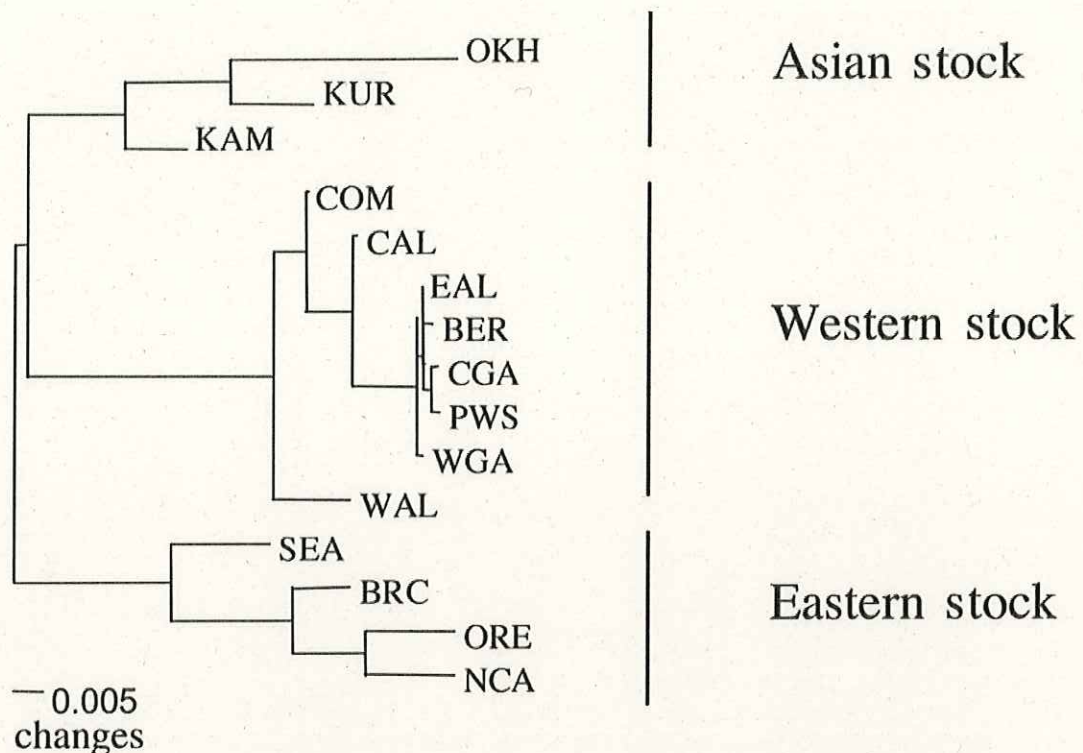


Fig. 1. Neighbour-joining trees representing genetic distance among SSL rookeries based on the mitochondrial control region (Baker et al., 2005).

b) The Sea of Japan side of Hokkaido

- The Fisheries Agency of Japan used to put all Steller sea lions that migrated to Hokkaido, both Okhotsk and Kuril substocks, together under their management by Potential Biological Removal (PBR)⁷ before 2013/2014, with highest priority placed on their conservation. Following the Red List 2012 of the Ministry of the Environment that down-listed the Steller sea lion from Endangered (EN) to Near Threatened (NT) category, the Fisheries Agency shifted its objective from conservation to population management starting from the 2014/2015 Management Season. In the Sea of Japan, wide-range aerial surveys were conducted every year to estimate the number of individuals. However, since Nemuro Strait includes disputed sea areas with Russia, comprehensive aerial surveys cannot to be conducted, resulting in the exclusion of wintering Steller sea lions in Nemuro Strait from the target of population management.
- The population of migrating sea lions to the Sea of Japan, consisting of Okhotsk and Kuril substocks, have recovered to more than 15,000 individuals in non-pup count, exceeding the levels before the 1970s⁸. This is one of the factors causing increasing damage to fishery⁹. Therefore, annual catch limits for the management period from 2014 to 2025 were targeting to reduce their population to 60% of the population level in 2010. Even if this reduction goal is achieved, the extinction probability of Steller sea lions is near-zero during this management period according to the estimation by the population dynamics model¹⁰.

⁷ Wade 1998

⁸ Burkanov & Loughlin, 2005; Burkanov et al., 2015, 2016

⁹ Matsuda H et al. (2015). "Beyond dichotomy in the protection and management of marine mammals in Japan." *Therya* 6(2): 283-296.

¹⁰ Kitakado K & Yamamura O (2014) "Assessments of Steller sea lion stock status and management plan" A document for a public

- In the meantime, taking uncertainties of models and parameters into consideration, surveys on natal rookeries of migrating sea lions to Japan have been conducted since the 1990s in collaboration with Russia (Table 1), to monitor abundance trends of pups and non-pups, in addition to the annual wide-range aerial surveys in the Sea of Japan.

Table 1. Survey on natal rookeries of Hokkaido migrating population in Russian waters

	(Number of individuals)						
	1960s	1970s	1980s	1990s	2005	2007	2012-2013
Kuril Islands	18,000	10,800	7,800	6,000	5,700	7,600	9,300
Northern Sea of Okhotsk	2,300	2,300	2,400	2,500	4,500	2,700	5,978
Sakhalin	50	50	100	200	1,200	2,100	3,390

(Burkanov & Loughlin (2005), Burkanov et al. (in prep.))

c) Catch quota in Nemuro Strait

- As for the population of Kuril substock migrating to Nemuro Strait, annual quota of 12 Steller sea lions was allocated from that for Hokkaido as a whole (Table 2) up to 2011/2012, according to catch achievements and actual conditions of fishery damages. In 2012/2013, the catch quota became 15 to mitigate fishery damages that had become more serious. The annual quota of 15 was kept after 2014/2015 when the management unit was separated into the Sea of Japan and Nemuro Strait (Table 3). The culling of Steller sea lions is conducted outside the designated sea area of the property.
- The collection of biological data from captured Steller sea lions, such as body size, sexual maturity, age and diets, have been continuing since 1990s¹¹.
- In the management of sea areas within the property, the aim is to satisfy both the conservation of the marine ecosystem and sustainable use of marine living resources, in accordance with the Multiple Use Integrated Marine Management Plan for Shiretoko Natural World Heritage Site.
- In Rausu Town, part of which is included in the property, fishery is the most important industry and a vital element of the community, since around 40% of the total work force in the town is engaged in fishery.
- In order to pursue sustainability of the fishery, fishers have autonomously managed their activities through the reduction of fishing boats, the arrangement of off-fishing periods and off-days during operational periods, regulations of mesh size of gill nets, etc. Meanwhile, the damage cost in the fishery industry caused by pinnipeds in Nemuro Strait including Rausu Town in the last 5 years has exceeded 100 million yen every year. This damage cost is significantly high compared to the one at the time of inscription on the World Heritage List, reaching a level that is threatening the continuation of fishery *per se*. For this reason, various non-lethal mitigation measures for the damages on fishery, other than catching, have been undertaken, such as changing locations of fishing nets and strengthening fishing nets according to migration conditions of Steller sea lions. However, the damages have not decreased yet.

hearing on the new Steller sea lion management plan. (in Japanese) http://www.jfa.maff.go.jp/j/sigen/pdf/3_shigenhyoka.pdf

¹¹ Goto Y et al. (2017). Diets of Steller sea lions off the coast of Hokkaido, Japan: An inter-decadal and geographic comparison. *Marine Ecology* 38:e12477.

- Land-based counting surveys (surveys on migration trends) have been conducted in the last 10 years, for the purpose of understanding changes and tendencies of the migrating populations in Nemuro Strait over the years. This survey is conducted by visually counting the number of Steller sea lions through binoculars and telescopes at specific onshore sites in the east coast of Shiretoko Peninsula where groups of Steller sea lions gather and rest during the period from October to March every year. It has been continued with almost the same amount of effort. As a result, though the actual number of migrating individuals remains unknown, it was confirmed that annual maximum counts, i.e. an index of migrating population, varied between 60 and 179 (Table 5). An average figure for the first five years was 118, compared to 107 for the last five years. Recent counts tend to be stable, and no change is estimated in the number of migrating individuals. As shown in Table 1, although the number of Kuril substock, which accounted for almost all migrating population to Nemuro Strait, decreased until the 1970s, the number has become stable at 5,700 to 7,800 since then. Accordingly, we reached the conclusion that the culling of 15 individuals every year has not caused the reduction of Kuril substock.

Table 2. Catch quota in Hokkaido (inclusive of Nemuro Strait)

(Number of individuals)

2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
144	156	197	253	253	516	591	587

(Hokkaido Prefectural Government)

Table 3. Catch quota in Nemuro Strait

(Number of individuals)

2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
12	10	12	15	15	15	15	15

(Hokkaido Prefectural Government)

Table 4. Number of captured Steller sea lion

(Number of individuals)

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Waters off Hokkaido	122	115	195	249	253	415	520	540
Nemuro Strait	8	6	10	14	13	15	15	15

(Hokkaido Prefectural Government)

Table 5. Number of Steller sea lion in Nemuro Strait by visual count from land (annual maximum number)

(Number of individuals)

2007/8	2008/9	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
98	60	126	179	128	131	110	103	88	105

(Shiretoko Nature Foundation)

d) Conclusion

- In the last three years, we have culled 15 individuals of Steller sea lion every year, but the number of migrating individuals to the sea areas of the property in Nemuro Strait has not decreased and Kuril substock to which they belong has been on an increasing trend since 2007. Therefore, impacts that the current level of culling may have on the population dynamics of Kuril substock are negligible.
- Meanwhile, the damage cost in the fishery industry caused by pinnipeds in Nemuro Strait including Rausu Town in the last five years has exceeded 100 million yen every year. This damage cost is significantly high, compared to the one at the time of inscription on the World Heritage List, reaching a level that is threatening the continuation of fishery *per se*.
- As non-lethal measures to mitigate fishery damages, other than catching, various attempts such as changes in the time and locations of fishing operations and strengthening fishing nets have been undertaken, according to migrating conditions of Steller sea lions, with no results of decreasing damages yet.
- Based on the abovementioned three points, we will continue to conduct both the monitoring and culling of migrating groups to Nemuro Strait among endangered subspecies of the Steller sea lion, in order to satisfy both the conservation of the marine ecosystem and sustainable use of marine living resources, which complies with the objective of the marine management of the property. In addition, relevant knowledge regarding origins of migrating and habitat extents based on satellite-tracking will be accumulated in a continuous manner.

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| 4. <u>Encourages</u> the State Party to coordinate with neighbouring States Parties on the management of fisheries to ensure the protection of the Steller's Sea Lion population; |
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e) Joint surveys

- Management of Steller sea lions in Japan has been designed to adaptively reflect changes in their population status that are obtained from joint surveys with Russia in respective rookeries and haulouts in northern Sea of Okhotsk, the Kuril Islands, Sakhalin, and so on. Joint surveys with Russia have continued up to present, to collect demographical parameters of Steller sea lions at respective rookeries in Russia every year. We are in the course of establishing a scheme for the Steller sea lion management based on the population dynamics model, by utilizing relevant knowledge regarding structures and dynamics of the populations that have been accumulated.
- Walleye pollock (*Gadus chalcogrammus*) in Nemuro Strait is a straddling stock existing also in the exclusive fishing zone claimed by Russia, and have been individually used and managed by fisheries of both countries. Information regarding conditions of resources and biology of the fish have been exchanged with Russia, taking opportunities of "Japan-Russia Bilateral Exchanges among Fisheries Experts" that is held every year.

5. Notes that further discussion and analysis of options to remove persistent obstacles to salmon migration and spawning is ongoing and, recalling that the benefits of the three check dams on the Rusha River for disaster risk reduction are outweighed by their impacts on the Outstanding Universal Value (OUV) of the property, strongly urges the State Party to continue and strengthen its efforts to restore the property to the most natural state possible;

We acknowledge that it is very important to improve migration and spawning habitats of salmonids that convey substances originating from the sea to the land ecosystem, since the property has been highly evaluated for its interaction between marine and terrestrial ecosystems. Therefore, we will make every effort to restore the natural environments as much as possible, which will lead to the improvement of migration of salmonids as well as their spawning habitats in Rusha River located in the core of the property.

Meanwhile, coastal fishery has been conducted as a major industry at the mouth of the river (Appendix 2), so it is necessary to take measures to prevent impacts by sediment runoff and woody debris flows on fishing facilities such as stationary trap nets, and to secure the safety of local fishery stakeholders at the time of disaster as well as land routes for access and material transportation to fishery facilities in normal times.

Based on these points as well as on the benefits that the improvement of spawning habitats of salmonids could bring about to the maintenance of fishing resources, we intend to realize a balance between the improvement of salmonids migration and their spawning habitats, and the securing of the safety of fishing activities and fishery stakeholders.

Under this basic point of view, we have considered concrete measures to be taken, for the continuation and strengthening of efforts to restore the property to the most natural state as possible, as strongly urged in paragraph 5 of the Decision 41 COM 7B.30, with technical advice from the River Construction Advisory Panel established under the Shiretoko Natural World Heritage Site Scientific Council. The following is the report on progress that has been made.

Incidentally, in the State of Conservation Report submitted in November 2016, we explained that the directions for improving three check dams and the treatment of the bridge over the Rusha River would be reported in 2019. However, we report here these matters prior to the appointed timing, since we have been requested to submit an updated report by the 1st of December, 2018, by paragraph 8 of the Decision 41 COM 7B.30.

1. Three check dams

We conducted hydraulic experiments on a reduced scale of 1/50 to reproduce the field conditions of 350 meters length along the river including dam sections and numerical simulations on the scope covering the area from the river mouth to 800 meters upstream, in order to predict changes in phenomena like flow channels and sediment runoff volumes, in the case of complete removal of all the dams, and in the case of removal of central part of each of three dams by 40 meters width including underground parts, respectively. Based on assessments by the River Construction Advisory Panel of these results and field surveys, we conducted a comparative examination, with

respect to the restoration of natural conditions of the river and the maintenance of disaster prevention function.

Here are the conclusions we obtained.

- In the case of complete removal of the dams, it was found that the river would return to more natural conditions through braiding of flow channels within the whole river-width. However, there are concerns that sediment runoff and woody debris flows and changes in flow channels may increase damage to coastal fishery utilizing stationary trap nets at the river mouth, and to the route for access and material transportation by fishery stakeholders.
- In the case of removal of central part of each dam, including underground parts, by 40 meters width, while leaving both sides of each dam, it was confirmed that flow channels will braid within the range of the removed width, and that the function to control sediment runoff caused by heavy rains or other conditions could be exerted to a similar extent to the current condition.

Based on these results, as for the three check dams, we decided to remove the central part of each dam, including their underground part, by 40 meters (Appendix 3). By this method, it is expected that the removal of dam concrete including underground parts will restore subsurface waters, in addition to the braiding of surface waters. These will lead to an increase in suitable sites for spawning, and will make it easier for salmonids to migrate upstream through removed parts.

Nevertheless, if the removals of the three dams are conducted at the same time, it is concerned that resulting too rapid sediment movements may cause severe impacts on downstream area. Therefore, the removal of the dams will be gradually conducted from the upper stream, with monitoring of their effects. Concrete directions on the improvement of the dams will be uploaded on the website in 2019.

Meanwhile, we have explained this direction to the fishery stakeholders and have gained their consent in 2018. Currently, concrete methods and periods of the removal work are being discussed with the fishery stakeholders.

2. Bridge crossing the Rusha River

As for the removal of the bridge over Rusha River, we are considering a construction method to create riverbed paths by laying down stones at the bottom of the river, which will enable vehicles to cross the river without preventing salmonids from going upstream (Appendix 4).

In 2018, after having gained the consent of the fishery stakeholders, we have just launched a demonstration experiment to verify whether or not the riverbed paths are able to function as an alternative to the bridge. After the demonstration experiment, the treatment of the bridge will be determined with technical advice from the River Construction Advisory Panel, while gaining the fishery stakeholders' understanding and building a consensus with the local community.

6. Reiterates its recommendation to the State Party to consider inviting an IUCN Advisory mission, possibly in conjunction with the IUCN Species Survival Commission's Salmonid Specialist Group, to provide further advice on this matter;

As for an advisory mission, we are currently considering among related administrative organizations, in a direction toward invitation in 2019, during autumn which is the season of upstream migration of salmonids.

7. Requests the State Party to provide updated information on the revised management plans (including the Multiple Use Marine Management Plan), the management of Sika Deer, tourism, consideration of climate change and the analysis of the usefulness and feasibility of the establishment of a Particularly Sensitive Sea Area (PSSA) in its future report to the Committee, and to submit an electronic copy of the most recent Management Plans to the World Heritage Centre, for review by IUCN;

The Ministry of the Environment, Forestry Agency, Agency for Cultural Affairs, and Hokkaido Prefectural Government (hereinafter, referred to as "Property Administrators") have conducted integrated management of land areas and sea areas, in coordination and collaboration with local residents and related bodies through the discussion of the "Shiretoko Natural World Heritage Site Regional Liaison Committee", while receiving scientific advice from the "Shiretoko Natural World Heritage Site Scientific Council" comprising academic experts, on the basis of the "Management Plan for Shiretoko Natural World Heritage Site" that was formulated in December 2009.

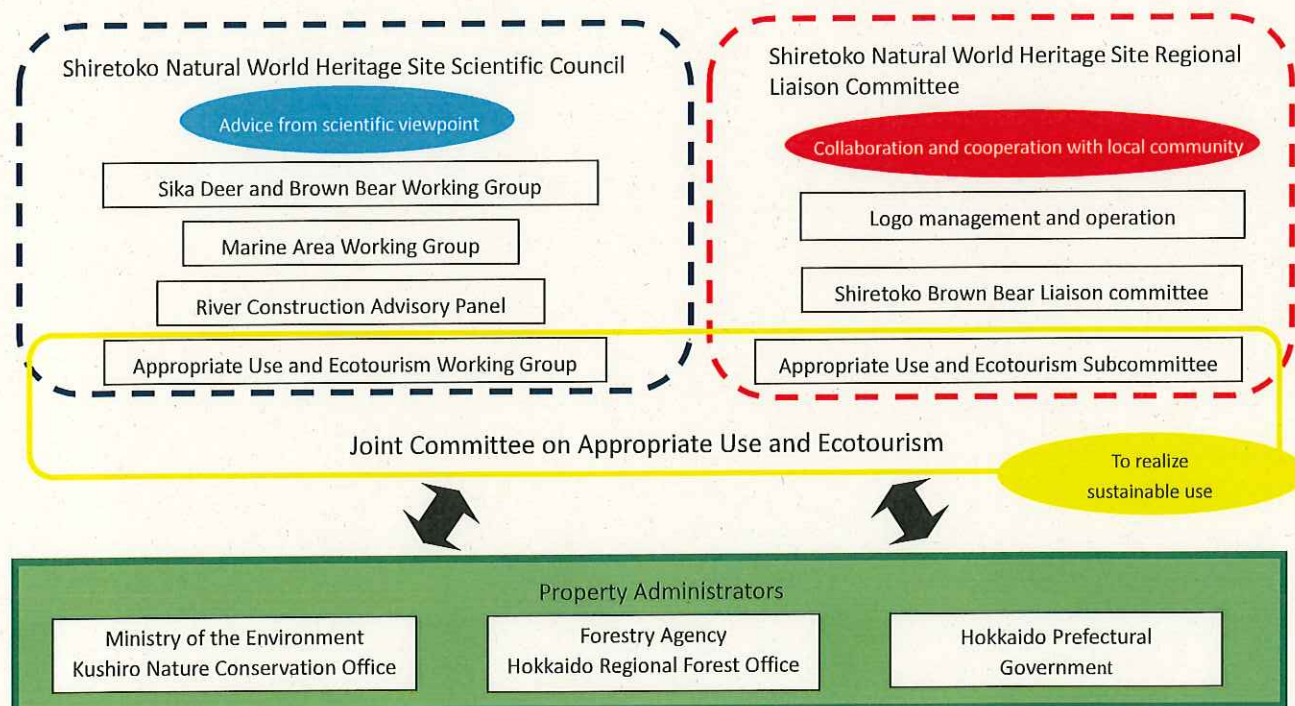


Fig. 2. Management system of the property

In order to steadily and smoothly promote relevant measures based on the Plan, individual plans dealing with respective issues such as the management of sea areas and the control of sika deer (*Cervus nippon yessoensis*) have been formulated, and accordingly, adaptive management is being conducted with necessary revisions based on the conditions of respective issues.

(1) Management of marine areas

On the basis of the Multiple Use Integrated Marine Management Plan in Shiretoko Natural World Heritage Site that was formulated in December 2007, the Property Administrators have conducted management to realize a balance between the conservation of marine ecosystems and their appropriate use by human activities, such as fishery operations utilizing marine resources sustainably and marine recreations. In March 2018, the 3rd Marine Areas Management Plan (April 2018 - March 2023) was formulated with a review of the 2nd Marine Areas Management Plan of March 2013 and necessary changes including an addition of Japanese flying squid (*Todarodes pacificus*) as indicator species, in terms of proper resource management, their sustainable use, grasping signs of climate change, and so on.

In addition, with regard to Particularly Sensitive Sea Areas (PSSA), we understand that sea areas in the property are not subject to strong impacts by international marine businesses at present. In the coming period, we will consider the necessity and possibility of introducing PSSA, if necessary, in coordination with related organizations.

(2) Management of sika deer

In Shiretoko, the “Sika Deer Management Plan in the Shiretoko Peninsula” was formulated in 2006, for the purpose of mitigating excessive influences on ecosystems due to high density of sika deer in the property. Since then, the Plan has been revised about every five years, and population control has been conducted according to the Plan. As a result, the number of sika deer as a whole has been declining in the Shiretoko Peninsula.

In April 2017, the 2nd Plan that was formulated in March 2012 was reviewed to formulate the 3rd Plan. The plan period is from April 2017 to the end of March 2022. In the 3rd Plan, numerical objectives regarding the density of sika deer were introduced as control objectives based on the conditions of respective districts. For example, the objective of the density of observing sika deer by aerial surveys in the Specified Management Zone (Shiretoko Cape) is 5 to 10 deer/km². In addition, after a restoration target of vegetation was set as “vegetation state in the early 1980s”, restoration stages of vegetation and indicator items were coordinated, and indicator species representing the restoration stages of vegetation were defined.

For example, in Shiretoko Cape that is a Specified Management Zone, the observation density of sika deer by an aerial counting survey in JFY2015 was 17.6 deer/km², indicating the continuation of high density of sika deer. However, compared to the period before the implementation of population control, the number of wintering sika deer decreased by 20%. As for vegetation, a recovering tendency was confirmed in biomass of Poaceae, and other indicators.

We will continue to implement population control based on the Plan, the vegetation monitoring including indicator species, and the further consideration of assessment methods on progress of vegetation restoration.

(3) Tourism management in Shiretoko

In Shiretoko, the number of tourists temporarily surged following its inscription on the World Heritage list, and then decreased to become stable.

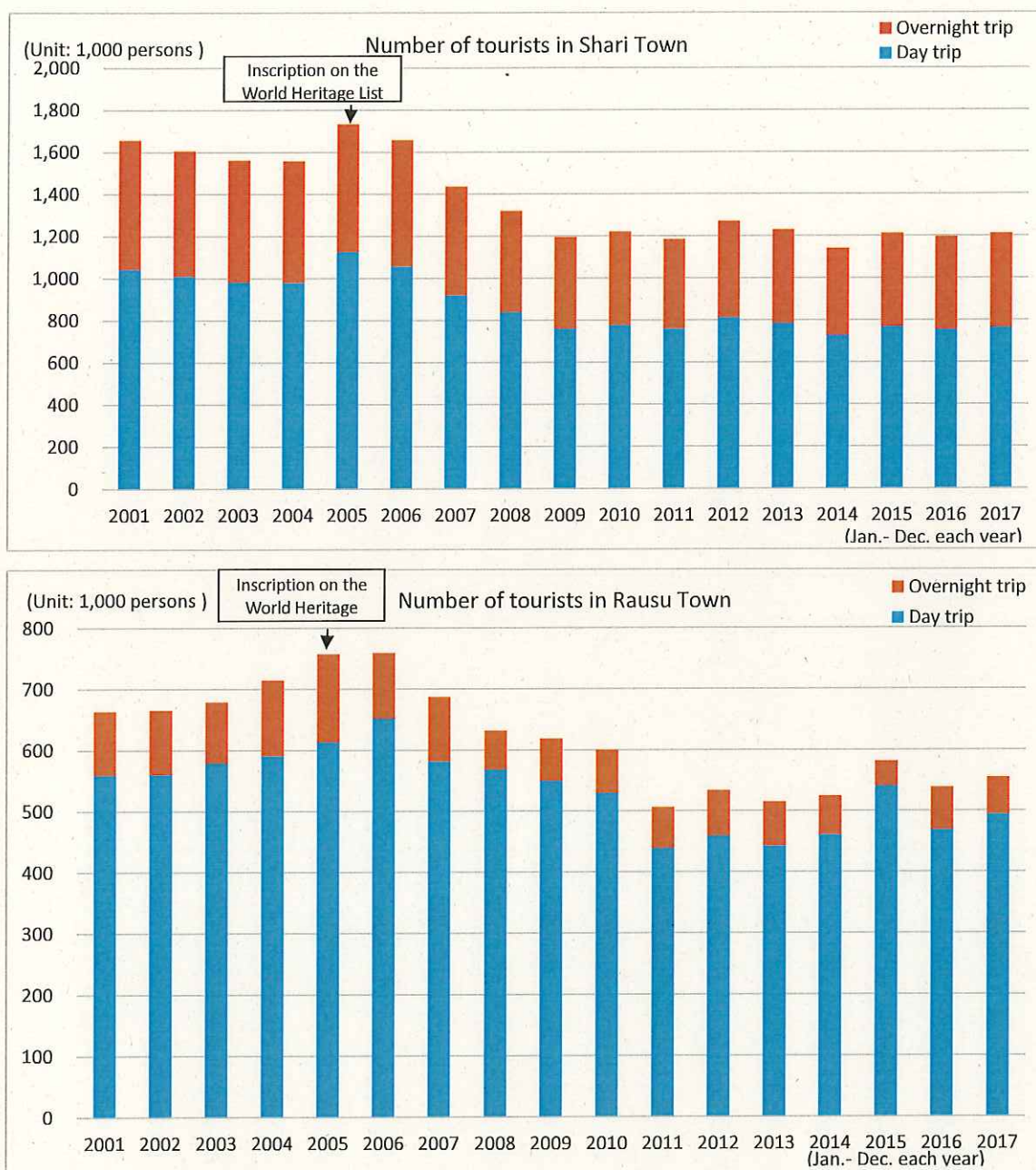


Fig. 3. Number of tourist in Shiretoko

In terms of tourism management in Shiretoko, the “Joint Committee on Appropriate Use and Ecotourism” was established with the participation of various representatives, such as experts, local stakeholders from tourism and conservation sectors, and Property Administrators, in response to the decision of the 32nd World Heritage Committee meeting in 2008. In this Joint Committee, based on relevant data regarding use and results of visitor surveys, the management of the use of natural resources and utilization of them both by conventional tourism and ecotourism activities have been discussed.

In March 2013, the “Shiretoko Ecotourism Strategy”, which is an integration of conventional and ecotourism strategy, was formulated in the above Joint Committee based on the agreement of stakeholders. The Strategy defines, in coordination, collaboration and consensus building with stakeholders, due processes and systems to sustain conventional tourism use including ecotourism in Shiretoko for the conservation of natural values of the property, the promotion of high quality nature-based experiences for tourists, and local economic development.

Stakeholders are able to autonomously propose agenda of the new utilization and rules for high quality and sustainable tourism use, based on the due process of the Strategy. These proposals are expected to be examined based on consideration and decision-making with bicameral process in the Joint Committee with diverse experts, stakeholders and administrators. This can sustain and realize the conservation of the natural environment of Shiretoko and the enhancement of its values, the provision of high-quality nature experiences that are unique to Shiretoko, and the establishment of a sustainable local community and economy in an integrated manner.

(4) Monitoring including climate change

In order to manage the property in an adaptive manner on the basis of scientific knowledge, the “Long-Term Monitoring Plan for Shiretoko Natural World Heritage Site” was formulated in February 2012. The plan period is from April 2012 to the end of March 2022.

In the Plan, from the perspectives of maintaining the value representing relevant criteria for the inscription of World Heritage and others, eight evaluation items were selected, including “early detection of the impacts or signs of impacts of climate change”. Based on this, multiple monitoring items corresponding to each evaluation items were defined, resulting in 37 monitoring items in total. Among these, nine items were related to the detection of the impacts of climate change.

Currently, as more than five years have passed since the formulation of the Plan, we are organizing results of monitoring surveys that have been conducted so far as well as reviewing the Plan, including monitoring items. As for evaluation items to understand the impacts of climate change, monitoring methods will be revised, if necessary, and a system will be established to detect the impacts of climate change at earlier stages.

In the coming period, monitoring will be implemented on the basis of the revised Plan, together with promoting information collection and research on adaptation measures against climate change.

3. Other current conservation issues identified by the State Party which may have an impact on the property's Outstanding Universal Value

There are no other conservation issues identified by the State Party which may impact on the Outstanding Universal Value of the property.

- 4. In conformity with Paragraph 172 of the *Operational Guidelines*, describe any potential major restorations, alterations and/or new construction(s) intended within the property, the buffer zone(s) and/or corridors or other areas, where such developments may affect the Outstanding Universal Value of the property, including authenticity and integrity.**

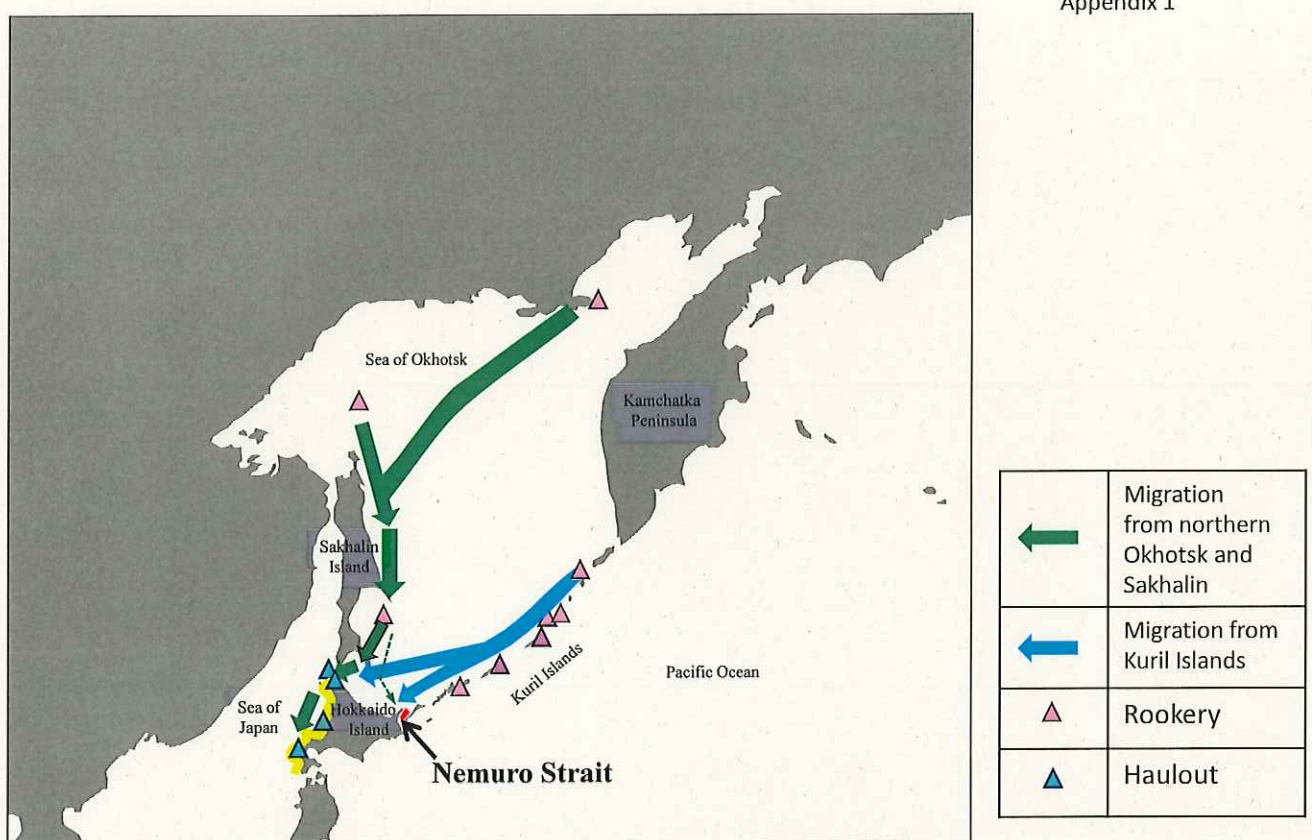
There are no development projects in and around the property which may affects the Outstanding Universal Value of the property.

5. Public access to the state of conservation

Acceptable.

The State Party is content for the full report to be uploaded to the World Heritage Centre's State of Conservation Information System.

Appendix 1

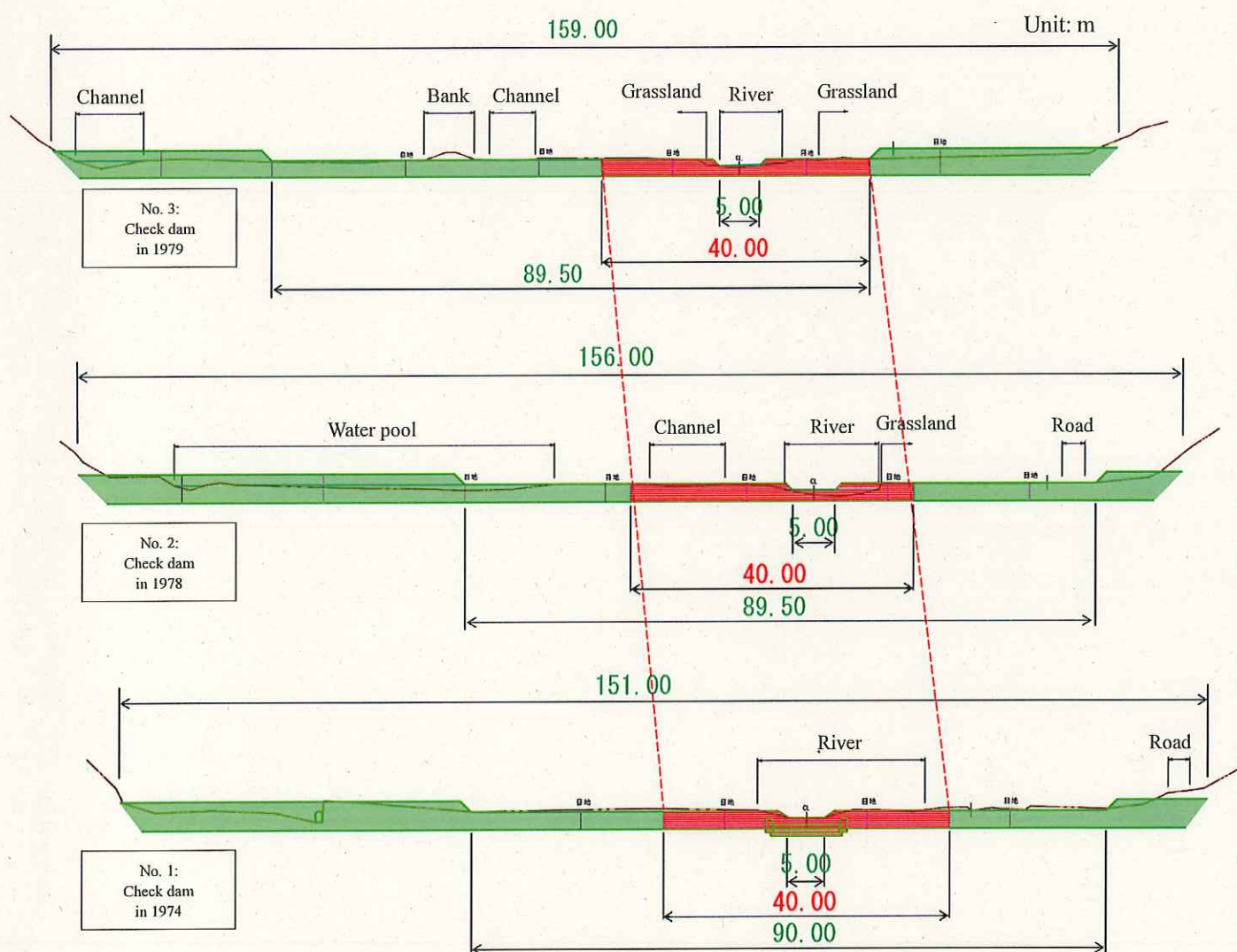
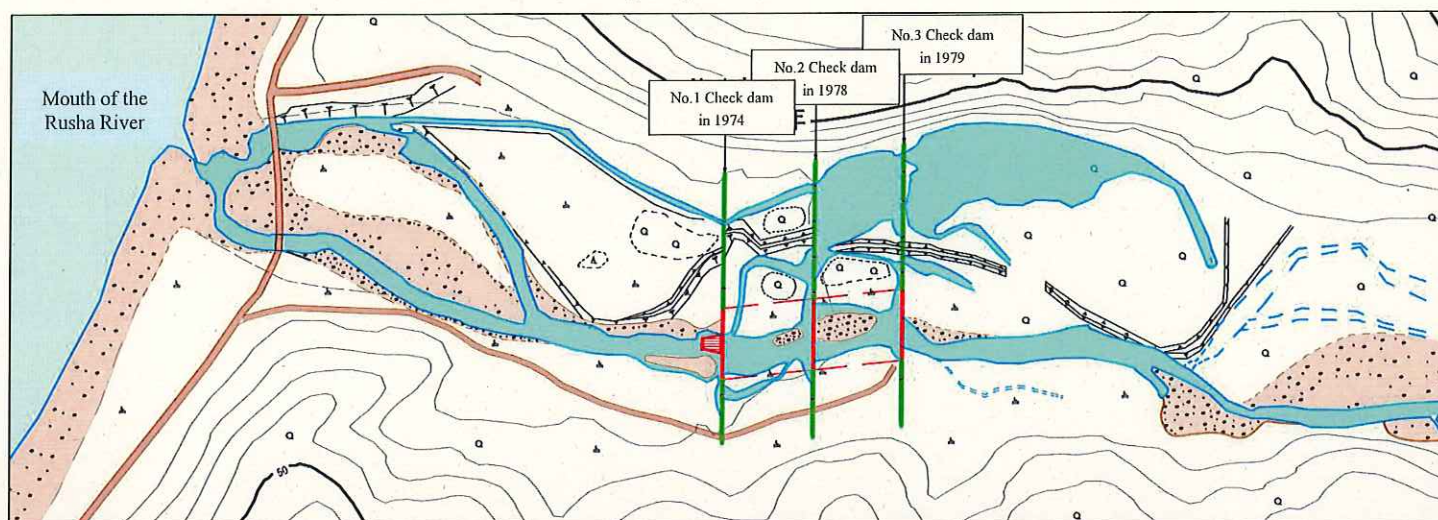


Wintering migration of *E.j.jubatus* to Hokkaido waters from the Okhosk Sea

Location map



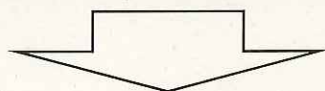
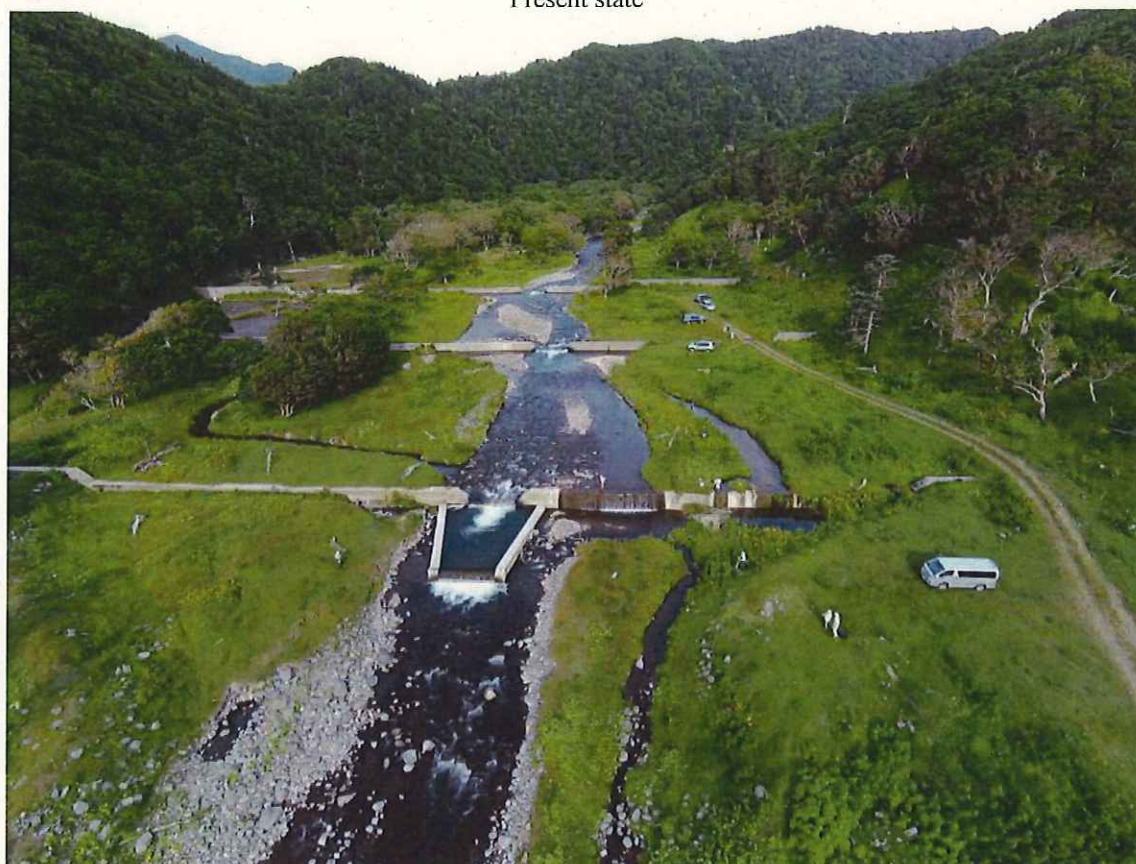
Location of overflow sections of check dams to be partly cut down



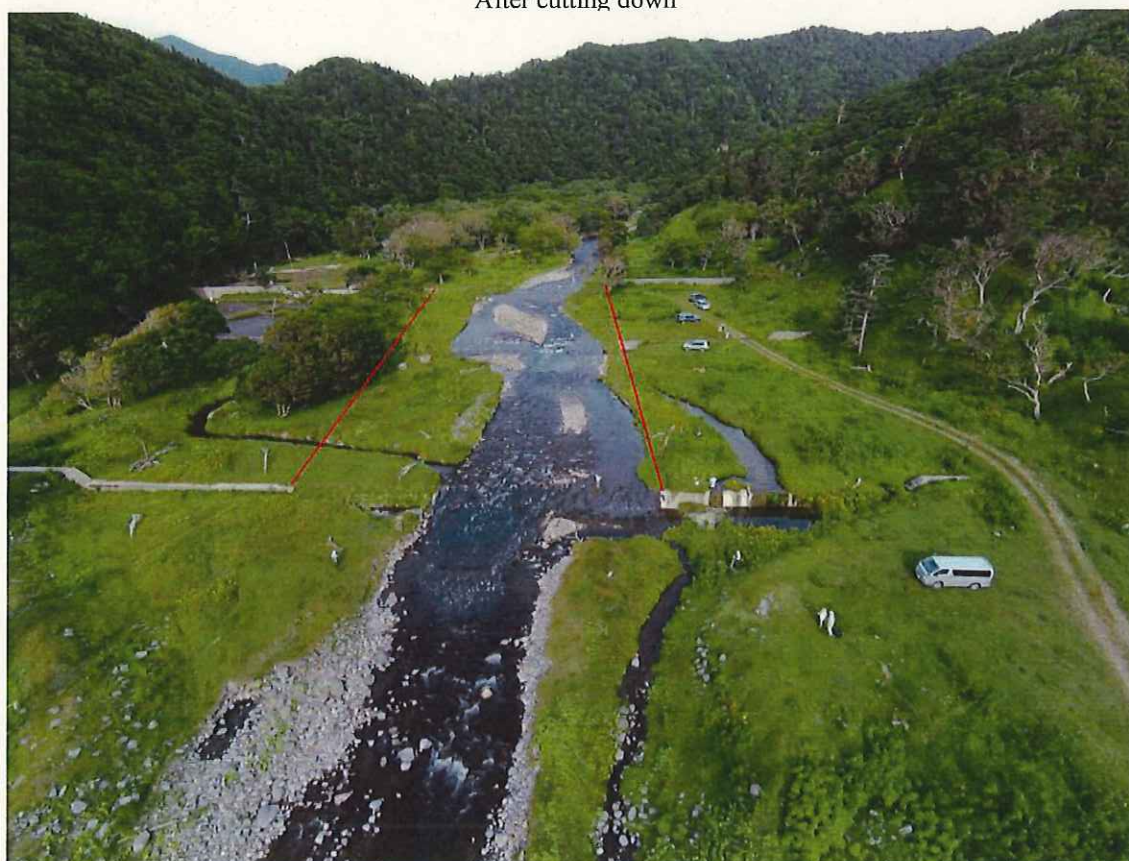
Parts in red show the sections to be cut down, while parts in green show the sections to be remained.

An image of overflow sections of check dams after partly cutting down

Present state

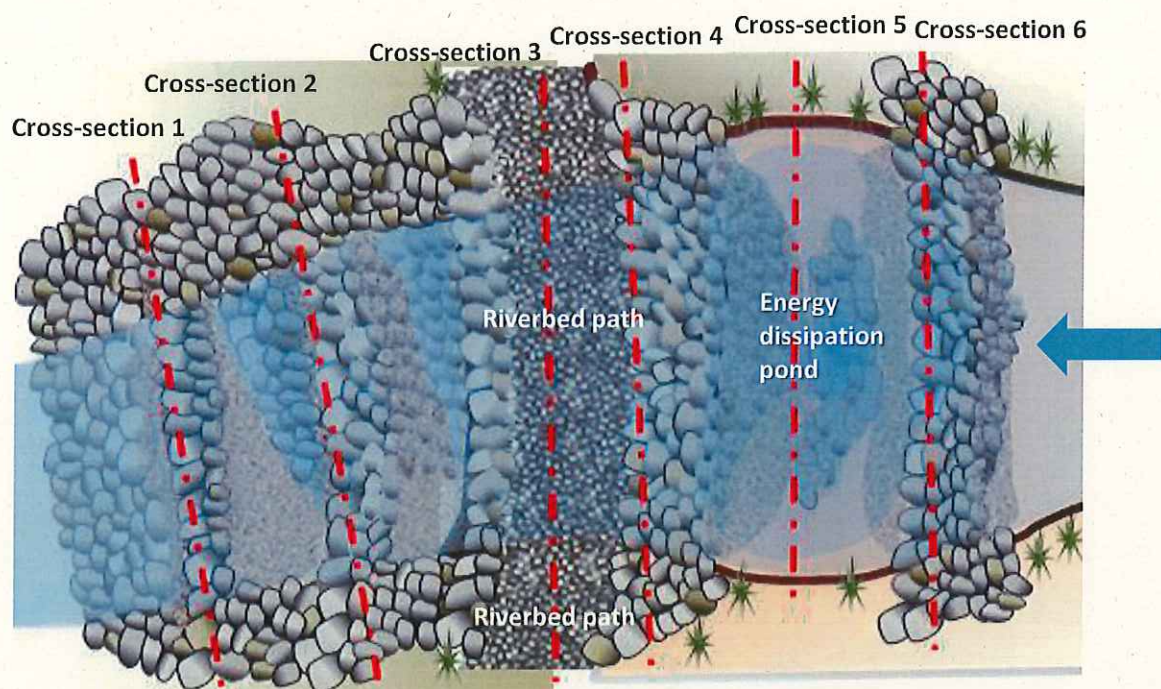


After cutting down

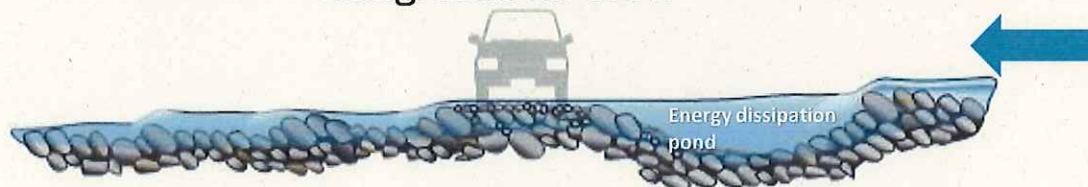


Riverbed path by stacking stones at the bottom of the river, enabling vehicles to cross the river without affecting fish migration

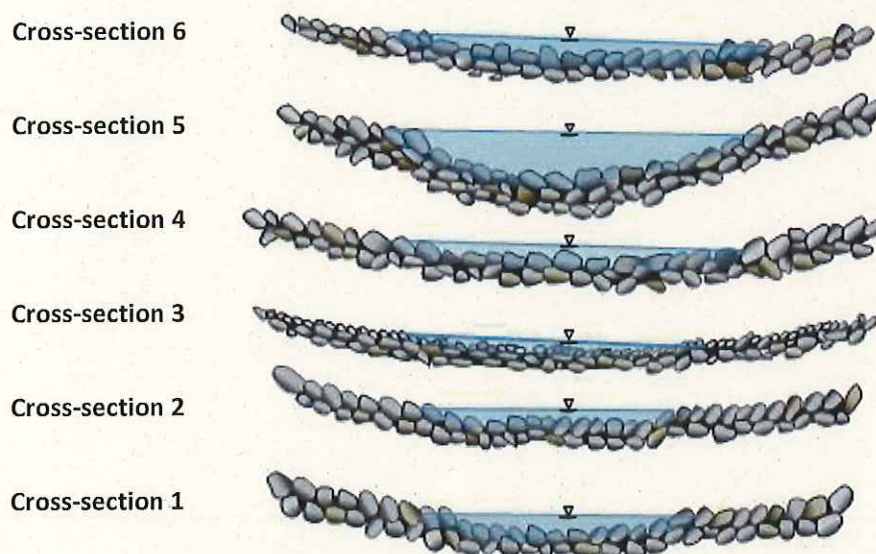
Plan view



Longitudinal view



Cross-sectional view



The upper and lower sides of the raised riverbed will be protected by a 50 cm wide stone riverbed sill (The cross-section will be arch-shaped to avoid an abrupt change in shape).