




Kuururjuaq
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PARC NATIONAL KUURURJUAQ
Application to amend certificate of authorization
Installation of various permanent facilities

- Entente Entre L'administration Régionale Kativik Et Le Gouvernement Du Québec Relativement Aux Parcs Nationaux Situés Au Nunavik 2020-2027

July 21, 2023

Kativik Regional Government
Department of Renewable Resources, Environment, Lands and Parks



GENERAL BACKGROUND

This application from the Kativik Regional Government (KRG) concerns amendments to the certificate of authorization issued on April 9, 2008, for the creation of Parc national de Kuururjuaq (PNK) and the facilities and infrastructure required for its operations. **A map summarizing the entire application for additional infrastructure is provided in Appendix I.**

CONSTRUCTION OF A SHELTER AND DRY TOILET IN THE QURLUTUARJUQ SERVICES ZONE	
<p>Location</p>	<p>Qurlutuarjuq services zone (Projected siting area: 58.611675°, -64.537777°; see Appendix II)</p> <p>The new building will be located around 500 metres west of the existing buildings. Its proximity to existing facilities means it can be maintained using the existing landing strip, garage, tools, and equipment. Its distance from the Qurlutuarjuq shelter will create a certain degree of privacy between the two shelters.</p> <p>Receiving environment: The site is on sandy, well-drained ground, far from watercourses and covered with a few dwarf birches.</p>
<p>Background</p>	<p>This new facility is designed primarily to enhance the park's tourism offering, as well as to facilitate the logistics of certain operations. In fact, during peak season, this additional shelter would make it possible to accommodate a greater number of visitors or staff, thus increasing the service capacity of this site. This provides a significant advantage given the short operating season and growing demand for stays in Qurlutuarjuq. In addition, this extra shelter would provide a more adequate resting place for employees during certain development and maintenance operations in the area.</p> <p>In addition, during short visits to this area in winter, it takes many hours to warm up the main shelter to a comfortable temperature. A smaller shelter would save the time and fuel currently needed to heat the entire main shelter for short stays. An additional shelter would also make it possible to accommodate smaller groups for whom the current shelter is larger than required.</p> <p>Finally, this application reflects the joint will of the community of Kangiqsualujuaq and the PNK. The Korluktok Falls and Qurlutuarjuq shelter area is sometimes used simultaneously by Kangiqsualujjuammiut and visitors, and the presence of these groups practising different activities here has sometimes led to conflicts. As the continuation of traditional activities within the park is guaranteed for JBNQA</p>

CONSTRUCTION OF A SHELTER AND DRY TOILET IN THE QURLUTUARJUQ SERVICES ZONE	
	<p>beneficiaries, it is essential to ensure harmonious coexistence between park users. As stated in the park’s management plan, managers must adjust the range of activities and services offered to visitors to accommodate the practice of traditional activities. It was therefore proposed to build an additional shelter for use by beneficiaries while visitors are occupying the Qurlutuarjuq shelter. This concerted proposal came from Kangiqsualujjuaq community stakeholders and park managers, and was shared at the Harmonization Committee in the fall of 2020.</p>
Project description	<p>The dimensions of the proposed shelter are 16 feet by 20 feet. It is a simple construction with no interior partitions, a kitchen area, a dining table, and two bunk beds. A propane hotplate is provided for preparing meals. The planned heating system is a wood-burning stove. Wood will be made available to users to avoid wood cutting in the vicinity of the shelters. Lighting will be provided by a solar-powered system.</p> <p>The building’s appearance will be the same as that of the Qurlutuarjuq shelter. Architectural aspects such as proportions, materials, colours, and roof slopes will be the same.</p> <p>A toilet would be installed outside the shelter. According to the residual materials management plan recently developed by Nunavik Parks, a dry toilet is to be installed.</p> <p>The work and structures will comply with the standards set out in the Regulation respecting waste water disposal systems for isolated dwellings (Q-2, r. 22).</p>
Operations	<p>Work team</p> <p>The construction team will be made up of an infrastructure maintenance technician from KRG Parks Management and an employee with the required CCQ certifications. They will work in collaboration with local employees in charge of PNK operations. A pilot will also be on hand to help transport and position the equipment required for this project.</p> <p>Accommodations</p> <p>The local PNK operations team, accompanied by the infrastructure maintenance technician from KRG Parks Management, will stay in the existing main shelter at Qurlutuarjuq for the duration of the work.</p> <p>Additional details</p> <p>No grading work, borrow pits, or use of heavy machinery is planned for this project. Only one helicopter or Twin Otter aircraft will be used to transport the materials required for the project.</p>

CONSTRUCTION OF A SHELTER AND DRY TOILET IN THE QURLUTUARJUQ SERVICES ZONE

Environmental impact assessment

Wastewater management

The wastewater (grey water) produced in the proposed new shelter will be treated in the same way as for the other camps, i.e., by means of a soaking pit quite similar to the one shown in the following illustration:

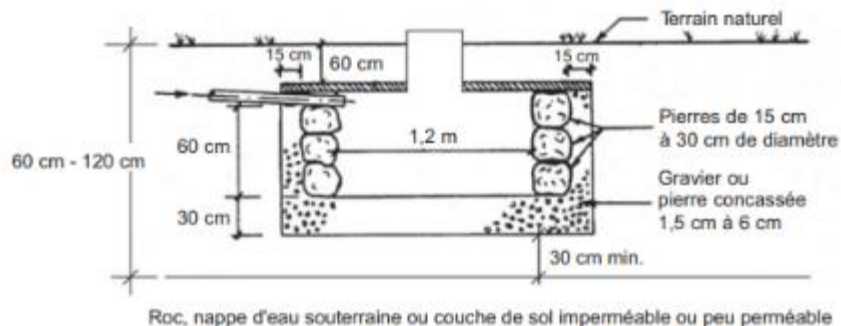


Figure 1. Sketch from *Résumé des normes de construction pour les chalets de villégiature sur les terres du domaine de l'État – MRC de Sept-Rivières, TNO Lac-Walker et Rivière-Nipissis* [Summary of construction standards for cottages on Crown land – Sept-Rivières RCM, Lac-Walker and Rivière-Nipissis unorganized territories].

Residual materials management

The possible slight increase in use of the area identified in this application due to the construction of this new shelter will require the same approach to residual materials management as that implemented at the current Qurlutuarjuq shelter. That being said, the recent Nunavik Parks residual materials management plan, which will be implemented in 2022, is a new tool that will provide better guidance for actions to be taken in the shelters to limit the impacts associated with this unavoidable issue.

Clearing and wood cutting

The deforestation required to install the shelter will be kept to a minimum by careful site selection. Site selection will also ensure harmonious integration into the landscape, as well as a favourable ambience for the visitor experience and harmonious coexistence of the various users. To avoid cutting firewood, it is planned to educate users (tourists and beneficiaries) about the importance of not cutting trees, and to make use of the firewood already available on site.

Trampling and erosion

The slight increase in visitor numbers expected in this area will have some impact on the vegetation and soil. To limit the extent of this environmental issue, natural features (e.g., stone markers) will be used to mark out a trail for use. In addition to these trail markers for users, general

CONSTRUCTION OF A SHELTER AND DRY TOILET IN THE QURLUTUARJUQ SERVICES ZONE	
	<p>information will be provided to raise awareness of the importance of staying on the trails in the park.</p> <p>Wetlands and water environments Wetlands will be avoided in the construction of the shelter, and a minimum distance of 60 m will be maintained between the shelter and any permanent watercourse. This will help protect the integrity of the wetland and water environments, as well as the lifespan of the facilities given the anticipated impacts of climate change.</p> <p>Disturbance of wildlife and wildlife habitats The proposed shelter would be located near a known breeding site for the eastern population of Harlequin Duck, a species designated as vulnerable in Quebec; under the federal Species at Risk Act, the species' status is deemed to be of special concern.</p> <p>That said, as the shelter will be built in close proximity to existing shelters, and deforestation will be very limited, this new facility will have no substantial impact on the quality of available wildlife habitats for this species, nor on the disturbance of wildlife using the area. Furthermore, since our clientele is aware of the importance of not feeding wildlife in the parks and of ensuring sound waste management, the slight increase in visitor numbers that could result from this new facility is unlikely to have a serious impact on wildlife behaviour.</p>
Social impact assessment	<p>Social acceptability This project, approved by the park's Harmonization Committee in the fall of 2020, is the result of consultations between the KRG's Nunavik Parks, the Northern Village of Kangiqsualujjuaq, and the Landholding Corporation of Kangiqsualujjuaq. The project's social acceptability is therefore guaranteed.</p> <p>Accommodating different uses As mentioned in the background section, one of the project's objectives is to help accommodate the needs of tourists and beneficiaries who visit the park. As a result, the new shelter is expected to improve harmonious coexistence between users.</p>
Alternatives considered	Not applicable

CONSTRUCTION OF A FUEL SHED IN THE QURLUTUARJUQ SERVICES ZONE	
Location	<p>Qurlutuarjuq services zone (Projected siting area: 58.611987°, -64.532194°)</p> <p>The shelter will be built next to the existing shed on the site, where the fuel is currently stored, at a safe distance (over 8 m) from the shelter occupied by visitors.</p> <p>Receiving environment: The site is on sandy, well-drained ground, far from watercourses and covered with a few dwarf birches.</p>
Background	<p>The main aim of this new installation is to improve the safety of the site, both for visitors and for the environment. The new infrastructure will also serve to improve the aesthetics of this tourist site, as the fuel drums will no longer be visible from the outside.</p> <p>This project was presented to the park's Harmonization Committee in June 2022, with no comments received.</p>
Project description	<p>The shelter will be built of wood and will measure approximately 12 feet by 12 feet. A catch basin will be placed on the floor of the shelter to collect fuel from possible spills.</p>
Operations	<p>Work team The construction team will be made up of an infrastructure maintenance technician from KRG Parks Management and local employees in charge of PNK operations.</p> <p>Accommodations The local PNK operations team, accompanied by the infrastructure maintenance technician from KRG Parks Management, will stay in the shelters of the Qurlutuarjuq area for the duration of the work.</p> <p>Additional details No grading work, borrow pits, or use of heavy machinery is planned for this project. Only one helicopter or Twin Otter aircraft will be used to transport the materials required for the project.</p>
Environmental impact assessment	<p>Management of residual materials and contaminants This facility will help ensure safe fuel management on site, and can limit the impact of a potential spill by containing spilled fuel in the catch basin.</p> <p>Clearing and wood cutting The site in question has no trees to cut.</p>

CONSTRUCTION OF A FUEL SHED IN THE QURLUTUARJUQ SERVICES ZONE	
	<p>Trampling and erosion This new infrastructure will be located on a site already used for fuel management, and therefore already subject to trampling. This impact should therefore not be altered by this installation.</p> <p>Disturbance of wildlife and wildlife habitats This new infrastructure, which is very small and in an already developed and well-used services zone, is unlikely to add any discernible impact in terms of habitat destruction or impact on wildlife behaviour.</p>
Social impact assessment	<p>Social acceptability This project can contribute to the social acceptability of Nunavik Parks operations, representing a definite improvement in fuel management in this remote area.</p>
Alternatives considered	Not applicable

INSTALLATION OF TWO WEATHER STATIONS AND RADIO REPEATER TOWERS	
Location	<p>1) Weather station in the natural environment zone near Qurlutuarjuq: 58.61254°, -64.51866°</p> <p>2) Weather station in the natural environment zone near the Mont Kauviik (Iberville) landing strip: 58.77744°, -63.58763°</p> <p>Receiving environments: The site is on sandy, well-drained ground, far from watercourses and covered with a few dwarf birches.</p> <p>3) Radio repeater station (potential), site to be determined, but would be located in the western section of the park between longitudes -65.2208° and -65.6933°, within the park's northern and southern boundaries.</p> <p>Receiving environments: Potential sites would be at higher elevations, on well-drained soils, away from watercourses.</p>
Background	<p>The weather events observed in PNK are sometimes extreme. The installation of weather stations to monitor various weather parameters in real time meets an important need. The information associated with such equipment will improve the safety of park users during their stay. As this information is crucial to the decision-making of pilots flying in the park area, the installation of such stations will also improve air safety.</p> <p>What's more, given that a data-sharing agreement will be established with the Ministère de l'Environnement et de la Lutte contre les Changements climatiques (MELCC), this new station will help improve our meteorological knowledge of this area. This will not only enable weather models to be refined for real-time use, but also improve climate models to better understand the dynamics of current changes and their future impacts on northern habitats, wildlife, and communities.</p> <p>The weather station project was presented to the park's Harmonization Committee in June 2021, as well as in June 2022 and November 2022, specifying that the data collected will be publicly available in real time, which answered a question raised in June 2022.</p> <p>The repeater project is the result of a request from the Northern Village of Kangiqsualujuaq and the Qiniqtiq Landholding Corporation (LHC) to increase radio coverage between the community and Killiniq, thereby improving user safety on the territory. The project would also enable radio communications</p>

INSTALLATION OF TWO WEATHER STATIONS AND RADIO REPEATER TOWERS

between the Qamanialuk site (mainly used by the park in winter) and the reception lodge in Kangiqsualujjuaq.

Project description

A collaboration agreement has been signed with the Centre d'Études Nordiques (CEN), which has the expertise required to build the facilities and connect the stations to the satellite network.

A typical weather station consists of sensors that are shielded from the weather and measure various meteorological parameters related to climate variations. Variables measured include temperature, atmospheric pressure, wind speed and direction, humidity, dew point, rainfall, cloud height and type, precipitation type and intensity, and visibility. Satellite data transmission by the national monitoring network will allow rapid consideration of the conditions monitored. This is illustrated in the following sketch and photo.

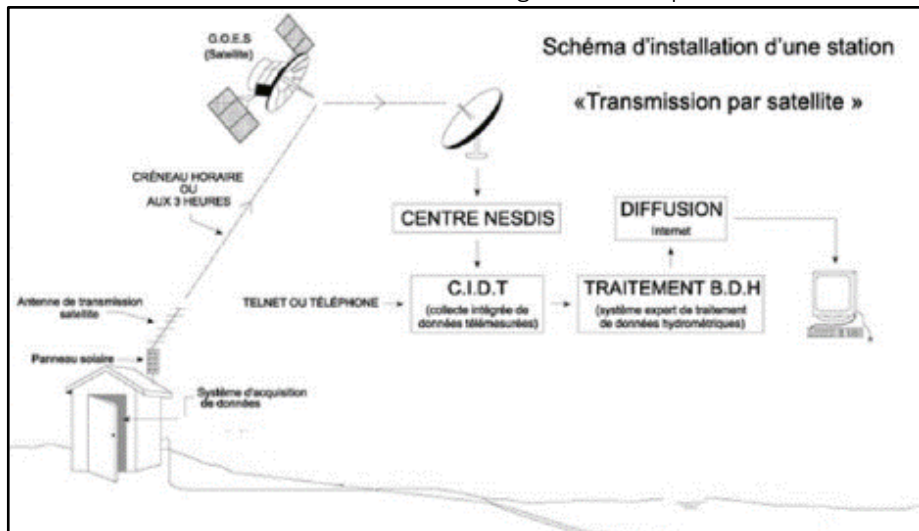


Figure 2. Sketch taken from the CEN service offer, Université Laval.

INSTALLATION OF TWO WEATHER STATIONS AND RADIO REPEATER TOWERS



Figure 3. Photo of a typical weather station; photographer unknown.

A radio repeater tower increases radio coverage in an area by relaying the HF signal. Installation is carried out by an expert firm and is very similar to that of a weather station, at least visually. The development of this project will depend on the agreement to be reached with the Northern Village of Kangiqsualujjuaq and the Qiniqtiq Landholding Corporation (LHC). Much remains to be discussed, including where the funds will come from to complete the project, and how the infrastructure will be maintained. However, the project will remain feasible for the next few years. The type of repeater to be installed will have to be reviewed to ensure that the assembly will withstand the wind conditions of the chosen site, which has been a problem in past years. Another limiting factor will be ensuring that the repeater installed in the park will be compatible with the repeaters on the network established by the Qiniqtiq Landholding Corporation (LHC); a concern that is often raised by community members.

INSTALLATION OF TWO WEATHER STATIONS AND RADIO REPEATER TOWERS



Figure 4. Photo of the repeater installed in 2013. The solar panels did not withstand the winter winds, so another model will have to be considered; photo: KRG.

<p>Operations</p>	<p>Work team</p> <p>For the weather station: The development team will be made up of a research professional from Université Laval’s Centre d’études nordiques (CEN), and an infrastructure maintenance technician from KRG Parks Management. Local employees in charge of PNK operations may also be involved in the project.</p> <p>For the repeater: The team will be made up of park staff, community workers, and representatives of the company supplying the equipment. No on-site accommodation will be required; equipment and personnel will be brought to the site by helicopter on daily trips.</p> <p>Accommodations</p> <p>CEN and KRG Parks Management employees will be staying in the park’s shelters during the work. If the cooperation of PNK employees is required during development, they will be housed in the same location.</p>
<p>Environmental impact assessment</p>	<p>Residual materials management</p> <p>All residual materials will be managed in accordance with the Nunavik Parks new residual materials management plan. Paper and cardboard will be burned on site, and other materials will be brought back to the community of Kangiqsualujjuaq and/or Kuujjuaq for disposal at an authorized site.</p>

INSTALLATION OF TWO WEATHER STATIONS AND RADIO REPEATER TOWERS	
	<p>Efforts will be made to plan field installation sites so as to minimize the use of concrete to anchor weather stations. Anchoring in bedrock, or in sufficiently large erratic boulders, will be preferred wherever possible. This measure will not only limit the use of concrete, but also reduce the use of this synthetic product that always has some environmental impact on a site.</p> <p>Clearing and wood cutting Given the need to position weather stations on open sites, deforestation will not be required in principle.</p> <p>Disturbance of wildlife and wildlife habitats The station will be set up near the landing strip, an area already largely occupied by park facilities and quite busy with users. Therefore, the level of disturbance to wildlife and wildlife habitat at this site is not expected to increase substantially.</p>
Social impact assessment	<p>Social acceptability The weather station project is taking place in already developed services zones. The radio repeater project will be undertaken in the natural environment zone. In both cases, since these structures will increase the safety of all park users, including beneficiaries, the social acceptability of this project is assured and is not an issue.</p>
Alternatives considered	Not applicable.

INSTALLATION OF A TOILET/STORAGE DOME IN THE SERVICES ZONE OF THE MONT KAUVIIK (IBERVILLE) LANDING STRIP	
Location	<p>Close to the XKOR landing strip at the head of the Korok River, and near the grouping of dome-type shelters on the site. (Approximate coordinates: 58.768477°, -63.581646°)</p> <p>Receiving environment: The site, which consists of gravel mixed with very deep sand, is very well drained. It is located at a good distance from watercourses and has no vegetation cover.</p>
Background	<p>This project is intended to improve the range of services available in this area, for all park users. In addition to facilitating operations in this area through the creation of storage space, the section used for the installation of a toilet will enable progress to be made in the implementation of the Nunavik Parks new residual materials management plan. The installation of a dry toilet on the site will ensure sound management of human excrement.</p> <p>The installation of a dome to house a dry toilet is in response to visitors' comments, since visitors and guides, as well as park staff, sometimes stay at the XKOR landing strip for a number of days, and no sanitary facilities are available. This project was presented to members of the park's Harmonization Committee in June 2022.</p>
Project description	<p>A dome, such as those shown in the photograph below, will be built in the services zone. A partition will be built inside the dome to make it a dual-purpose infrastructure: a storage area and a space for a toilet.</p> <p>It will be built in only three days. The entire structure (platform and dome) will be assembled on site.</p> <p>To protect it from extreme winds, the dome will have to be embedded in gravel (approx. 20 cm deep). At this stage, four days of work will be needed to dig under the dome, build the toilet's soaking pit, secure the dome to the ground, build an interior wall and the toilet, and then restore the surrounding natural environment.</p>

INSTALLATION OF A TOILET/STORAGE DOME IN THE SERVICES ZONE OF THE MONT KAUVIIK (IBERVILLE) LANDING STRIP



Figure 4. Dome; Christian Bettez, KRG

<p>Operations</p>	<p>Work team The construction team will be made up of an infrastructure maintenance technician from KRG Parks Management, who will work in collaboration with local staff in charge of PNK operations. A helicopter pilot will also be on hand to help transport and position the equipment required for this project.</p> <p>Accommodations The work team will stay in the XKOR landing strip’s services zone shelters for the duration of the work.</p>
<p>Environmental impact assessment</p>	<p>Residual materials management This project will definitely improve residual materials management on the site by ensuring that human excrement is gathered and contained in a suitable containment facility rather than being spread throughout the environment surrounding the shelters.</p>
<p>Social impact assessment</p>	<p>Not applicable.</p>
<p>Alternatives considered</p>	<p>Other types of eco-friendly toilets were considered, but the dry toilet was selected as the most promising option for this site. Due to this toilet model’s operational simplicity for construction and maintenance, as well as the low volume of excrement that the sanitary facility will receive, it was felt that the dry toilet was the preferred option.</p>

INSTALLATION OF A FUEL SHED DOME IN THE SERVICES ZONE OF THE MOUNT KAUVIIK (IBERVILLE) LANDING STRIP	
Location	<p>At a safe distance from the XKOR landing strip at the head of the Korok River, as well as from the grouping of shelters located there. (Approximate coordinates: 58.768477°, -63.581646°)</p> <p>Receiving environment: The site rests on gravel mixed with very deep, well-drained sand. It is located at a good distance from watercourses and has no vegetation cover.</p>
Background	<p>The aim of this project is to build an infrastructure that will facilitate park operations while limiting the environmental risks of managing the fuel needed for air transport to the site. The facility, which will include a hydrocarbon catch basin, will also limit the impact of a potential spill on the site.</p> <p>This project was presented to the park's Harmonization Committee in June 2022, with no comments received.</p>
Project description	<p>A dome, like those shown in the photograph attached above in the previous section (Figure 4) dealing with the installation of a toilet/storage dome, will also be installed in the services zone. For safety reasons, a distance of 8 metres or more must be maintained between this dome that holds fuel and domes that house users, in accordance with the building code.</p> <p>The dome will be picked up from the Quarliik services zone, then slung to the landing strip site in the Mount Kauviik services zone.</p> <p>To protect it from extreme winds, the storage dome must be embedded in gravel (approx. 20 cm). Two days will be required to dig under the dome, secure it to the ground, and restore the surrounding environment.</p>
Operations	<p>Work team The work team will be made up of an infrastructure maintenance technician from KRG Parks Management, who will work in collaboration with local staff in charge of PNK operations. A helicopter pilot will also be on hand to help transport and position the dome.</p> <p>Accommodations For the duration of the work, the work team will be based in the shelters of the Qurlutuarjuq area, as well as in those of the Mount Kauviik services zone.</p>

INSTALLATION OF A FUEL SHED DOME IN THE SERVICES ZONE OF THE MOUNT KAUVIK (IBERVILLE) LANDING STRIP

<p>Environmental impact assessment</p>	<p>Hydrocarbon spill This new installation will limit the level of risk associated with a potential oil spill on the site. For the time being, the gasoline barrels are simply kept outside on the ground, ready for use. In the fuel shed, a hydrocarbon catch basin will be installed in advance and will be located under the barrels at all times to contain a large volume of fuel in the event of an accidental spill. A spill kit will also always be available in this dome. These precautionary measures would be difficult to implement outdoors, given the extreme weather conditions associated with the area's climate.</p>
<p>Social impact assessment</p>	<p>Not applicable.</p>
<p>Alternatives considered</p>	<p>The current situation entails an increased risk of a spill incident, as well as a greater magnitude of such an incident. Other forms of shelter could have been considered to safeguard the fuel reserve, but the dome structure proved its worth in the extreme climatic conditions that prevail on the site.</p>

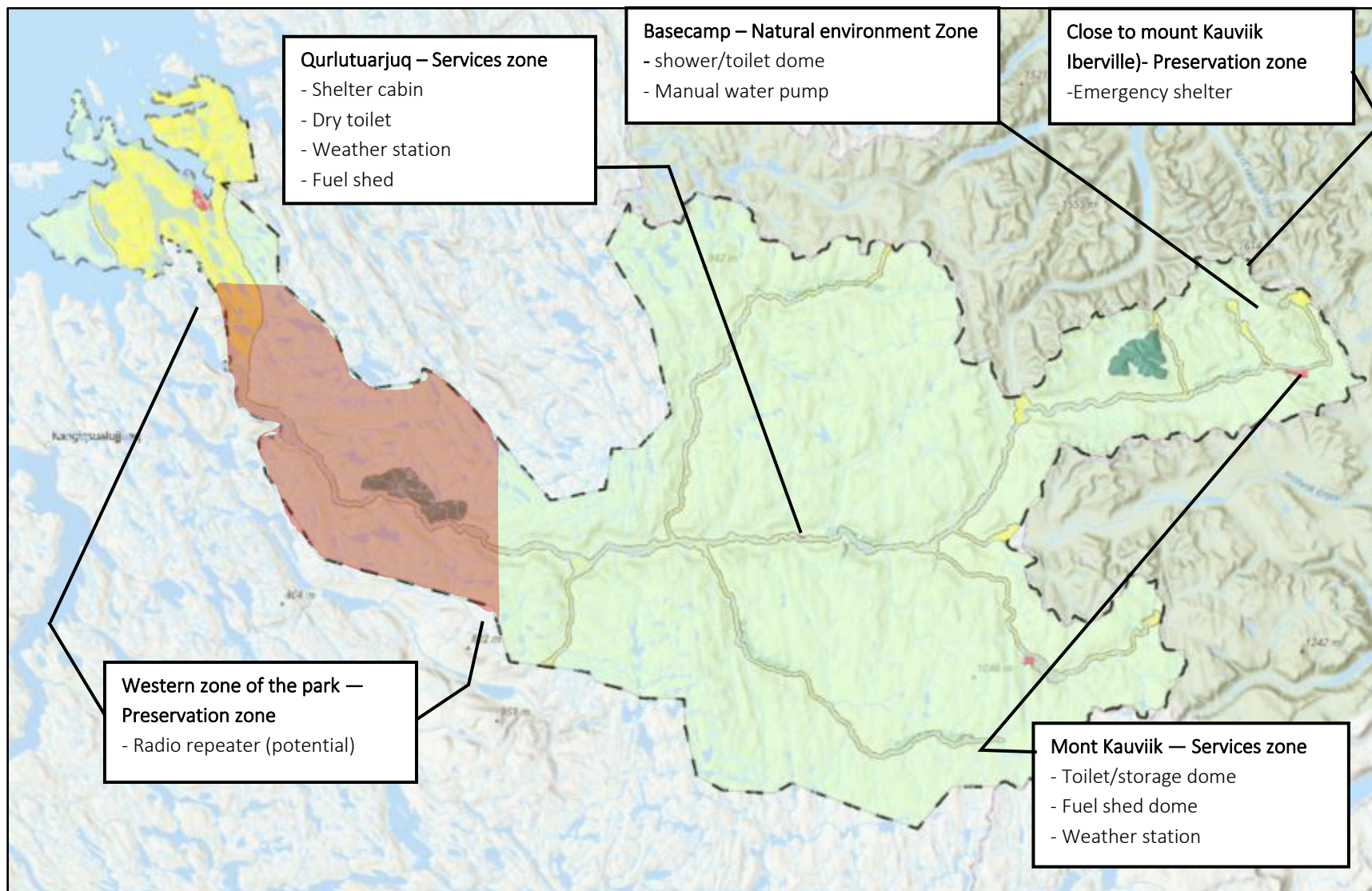
INSTALLATION OF A SHOWER/TOILET DOME IN THE NATURAL ENVIRONMENT ZONE AT MONT KAUVIIK (IBERVILLE) BASE CAMP	
Location	<p>Mount Kauviik (Iberville) base camp natural environment zone (58.839715°, -63.715079°)</p> <p>Receiving environment: The terrain at the planned site is rocky and dry on the surface, but wet at depth. The soil surface has good drainage and is covered with mosses and lichens. The final location may be changed according to prevailing site conditions.</p>
Background	This project is intended to improve the range of services available in this zone for all park users.
Project description	<p>A dome, like the ones shown in the photograph above in the previous section (Figure 4), will also be installed in the natural environment zone of the Mount Kauviik base camp to provide space for a shower and toilet.</p> <p>The dome will be slung from Qarliik, where this infrastructure is currently located.</p> <p>To protect it from extreme winds, the dome will have to be embedded in gravel (approx. 20 cm deep).</p>
Operations	<p>Work team The work team will be made up of an infrastructure maintenance technician from KRG Parks Management, who will work in collaboration with local staff in charge of PNK operations. A helicopter pilot will also be on hand to help transport and position the equipment required for this project.</p> <p>Accommodations The work team will be staying in the natural environment zone shelter at Mount Kauviik base camp.</p>
Environmental impact assessment	This project will have a very limited impact due to the format of this type of infrastructure, which does not include any permanent elements, and to the limited surface area that this shelter covers.
Social impact assessment	Not applicable.
Alternatives considered	This type of shelter is really well suited to the extreme climatic conditions that prevail in this area. What's more, this type of structure complements the aesthetics of the other domes already installed in the area.

INSTALLATION OF A MANUAL WATER PUMP IN THE NATURAL ENVIRONMENT ZONE AT MONT KAUVIİK (IBERVILLE) BASE CAMP	
Location	<p>Mount Kauviik (Iberville) base camp natural environment zone (58.839715°, -63.715079°)</p> <p>Receiving environment: The terrain at the planned site is rocky and dry on the surface, but wet at depth. The soil surface has good drainage and is covered with mosses and lichens. The final location may be changed slightly according to prevailing site conditions.</p>
Background	<p>Due to the frequent visits to the area by various users, an efficient and safe water supply is required, both for users and for the environment. The installation of a hand pump was judged to be the most practical way of achieving the varied objectives anticipated by this project.</p>
Project description	<p>The hand pump will be installed by drilling a hole in the granular soil near the camp shelters. The pump and pipe to be installed will be metal, and the gasket will be leather.</p> <p>The work and structure will comply with the standards set out in the Water Withdrawal and Protection Regulation (Q-2, r. 35.2).</p>
Operations	<p>This small-scale task will be carried out by an infrastructure maintenance technician from KRG Parks Management, working where necessary with local staff in charge of PNK operations.</p>
Environmental impact assessment	<p>Wastewater management Any water that falls to the ground next to the pump is quickly absorbed by the porous soil and returned to the natural reservoir from which it was drawn. Wastewater is managed by a soaking pit, as illustrated above in the section on the new camp to be built at Qurlutuarjuq.</p> <p>Trampling and erosion Users will need to make frequent return trips to this new permanent water supply point. That said, the facility will be in an area with relatively little vegetation, and the risk of erosion will also be very low given the site's flat surface. The creation of a permanent water supply point in this optimal location will limit the number of trips required to fetch water from the river, thereby limiting erosion in the riparian zone of this watercourse. With regard to these issues, this installation represents an overall environmental gain.</p> <p>Wetlands and water environments The creation of a permanent water supply point can contribute to the protection of neighbouring wetlands and water bodies by limiting user movements in these natural environments, notably by reducing erosion, as mentioned above. In addition, compared with the mechanical pump approach, the hand-pump option avoids the risk of hydrocarbon spills near</p>

INSTALLATION OF A MANUAL WATER PUMP IN THE NATURAL ENVIRONMENT ZONE AT MONT KAUVIUK (IBERVILLE) BASE CAMP	
	the river, and greatly simplifies installation logistics. It also reduces the need for other infrastructure to safeguard the installation (protecting equipment from weather conditions and capturing potential hydrocarbon leaks).
Social impact assessment	Not applicable
Alternatives considered	The alternative is the current situation. However, this limits the quality of services offered to users and also has an environmental impact.

INSTALLATION OF AN EMERGENCY SHELTER IN THE PRESERVATION ZONE CLOSE TO MONT KAUVIIK (IBERVILLE)	
Location	<p>Close to mount Kauviik (Iberville) preservation zone (58.839715°, -63.715079°)</p> <p>Receiving environment: The terrain at the planned site is rocky and dry on the surface, but wet at depth. The soil surface has good drainage. The final location may be changed according to prevailing site conditions.</p>
Background	This project is intended to improve the safety of park users in this zone.
Project description	<p>A simple shelter will be built also to provide accommodation in case of an emergency. The structure will be slung from Kangiqsualujjuaq, where this infrastructure is currently located.</p> <p>To protect it from extreme winds, the structure will have to be embedded in gravel (approx. 20 cm deep).</p>
Operations	<p>Work team The work team will be made up of local staff in charge of PNK operations. A helicopter pilot will also be on hand to help transport and position the equipment required for this project.</p> <p>Accommodations The work team will be staying in the natural environment zone shelter at Mount Kauviik base camp.</p>
Environmental impact assessment	This project will have a very limited impact due to the format of this type of infrastructure, which does not include any permanent elements, and to the limited surface area that this shelter covers.
Social impact assessment	Not applicable.
Alternatives considered	This type of shelter is well suited to the extreme climatic conditions that prevail in this area.

Appendix I — Overall map of proposed infrastructure submitted for authorization



Appendix II - Map of proposed new camp site at Qurlutuarjuq

