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|---------------------------------|---|
| Type de demande : | New |
| Type de projet: | Scientific Research |
| Date de la demande : | 11/19/2019 3:58:55 PM |
| Period of operation: | from 0001-01-01 to 0001-01-01 |
| Autorisations proposées: | from 0001-01-01 to 0001-01-01 |
| Promoteur du projet: | Michelle Tseng University of British Columbia 3156 - 6270 University Boulevard Vancouver British Columbia V6T 1Z4 Canada Téléphone :: 778-232-7404, Télécopieur :: |

DÉTAILS

Description non technique de la proposition de projet

- Anglais: Who: Michelle Tseng, Aquatic and Insect Ecologist, University of British Columbia What: Researchers are currently studying the health of lakes, ponds, streams, and rivers in the Kitikmeot Region. This ongoing project is a collaboration between several universities, the Ministry of Environment (Government of Canada), and POLAR Knowledge Canada. I am joining this group of researchers to study in particular, whether increased water temperature in lakes and ponds is changing the health of small aquatic animals called zooplankton. In summer 2020, I propose to take 100 live zooplankton from each of 10 lakes. This amount is less than 0.01% of a typical lake zooplankton population. I will employ one local guide through the Ekaluktutiak Hunters and Trappers Association, and one local high school student. We will travel to these lakes by truck or ATV. At the Canadian High Arctic Research Station (CHARS), I (and the guide or student if they are interested), will measure the respiration rate (breathing rate) of live individual zooplankton held at different temperatures. I am testing the idea that zooplankton collected from warmer lakes will be able to maintain normal breathing rates at warmer temperatures, compared to zooplankton collected from cooler lakes. Why: Zooplankton are important components of healthy aquatic environments. They filter water and they are food for larger insects and for fish such as lake trout and Arctic char. Without zooplankton, lakes would become cloudy with algae, and fish would become malnourished or unable to survive at all. This study will give us information about how tolerant zooplankton are to warmer water temperatures, and also how quickly they may be able to adapt to changing temperatures. This study is part of a three-year study that will also investigate (a) whether zooplankton collected at different times of the year show different responses to warmer temperatures, and (b) whether differences in the ability of zooplankton to withstand warmer temperatures are due their environment, or to specific genes. Together this information will allow us to make more accurate predictions for whether important fish like trout and char will still have enough high-quality food to grow and thrive as climate change continues. Where: I propose to sample zooplankton from a subset of the lakes being currently being studied by the lake research group. All sites will be within a three-hour ATV or truck ride from CHARS. We will depart from CHARS in the morning and return by late afternoon each day. When: I plan to consult with the community from June 07 to June 13, 2020. Pending positive feedback from the community, we will sample lakes in July 2020. If the community would like me to change my proposed research, I will postpone lake sampling until the suggested changes have been integrated.
- Français: In our instruction letter we were asked to provide the Non-technical Project Summary in English and Inuinnaqtun
- Inuktitut: In our instruction letter we were asked to provide the Non-technical Project Summary in English and Inuinnaqtun
- Inuinnaqtun: Nunavut Avatiligiyyit Katimayit – titikani nakataa 19YN044, NPC-kot titikani: 149242 Ayongnakpalaanggituk havaagoyoghakot titigakhimayuk Kablonaatut Inuinnaqtutlo, < 5000 titikat Kina: Michelle Tseng, Tahikmiotiligiyyit kiktogianiklo elittoghaiyyit, University of British Columbia-mit Hona: Elittoghaiyyit tatja naonaiyaiyot tattit kanoginmagaagita omayovalokanigitigot, komakoniklo naonaiyaiyot tahitkani, kogaayovaloitlo, kookatlo Kitikmeot eloani. Hamna havaagohimmaktuk ahini nunani aviktokhimayonit havakatikhhotik elihakvikyoagoyoni, Kavamatokatkollo Avatiligiyyinik (Kaanatap Kavamaini), okoninggalo POLAR Knowledge Canada. Havakatigilogot elaonialiktongga elittoghaiyyinik naonaiyainahoaktilligot kanogittoniklikaa havaagiyaaitigot, kanoginniakmagaagita tattit hihaikpalialingmagaagita tahikkallo kinggoknakhitivalialikmagaagitalo tahikani komagovaloit honalikaa tahikmiotavaloit atikaktot zooplankton-gonigaktaoyot. Aoyakat 2020mi, pinahoakniaktongga omayonik tahikmiotanik tahikamiotaniklo hapkoningga kolinik tattinit. Haffoma amiktilaaga mikiyonnoak naamavyanggitok 0.01%-posanganik tahikmiotavaloknginnik. Atahikmik Ekaluktutiakmiotamik havaktikakniaktongga egoaktigiyaghamnik Ekaluktutiami HTO-kogitigotl atahikmilo anggayoghiit sikookvianit. Aolaakatakniaktogot aghalootikot foahoilakotloniit. Okonani Kaanatap Okioktaktonggani Nalvaaghioktoligiyyini (CHARS-gonigaktaoyok), ovanggalo (kaitiktiginahoaktagalo atahiklo sikooktok elaoyomakpanik), naonaigahoakniaktavot anighaaktoknanggitigot tahikmiotavaloit nalianni tattit okkooknaginni. Oktogahoktatka katighoktavot omayovaloit tahikanit tattinit hihaitkiyanit kanoktot aningnikaohiit kinggoknakniakmagaagita alanggatkiyaoniakmagaagitaloniit tattinit niklamatkiyanit. Hook: tahikmiotat omayovaloit pimmagiokmata kanoginniakmagaagitalo emangmiotavaloit. Imak halommakhimakmajot

nikikaotaoplotiklo anggiyaatkiyanot komakonot ekaloknollo immakaat ehooknot ekalokpiknnollo. Tattit omayovalokanggitpata, tattit ehoghiniaktot halomailgovaloknit, ekaloit piominaigotiginiaktaat annaomalimaitotiklo. Hamna naonaiyaotiginahoaktakot elittogijotiginiaktakot honalikaa tahikmiotavaloit kanok annaomaniakmagaagita tattini hihaitkiyani, talvalo hongiotiyagikniakmagaagita Alani tattiniiligomik immat alanggokpalianinggitigot. Hamna naonaiyaotiginahoaktavot havaagihimmakniaktakot okionot pinggahonot talvalo elittoghaifaakniakmiyot tahikmiotavaloknik annaomanighaitigot tattini hihaitkiyani avatiginiaktamikni naliatigolloniit. Hapkoa katighoknahoaktavot alatkiikniga okiop atoklogo, ovaloniit, naonaiyaotigiyavot ehoaghivaaliotiniaktot hivonighami kanoginniakmagaagita annamajohighaitigollo ehoot ekalukpiitlo nikighakatiagaiginni piyominaknighaitigollo pivaliatillogo hilap alanggokpalianinga kinggoknakhivaliaginnakmat. Homi: naonaiyagomayatki tattit ekalokaknigit omayovalokaknigillo naotiktaoktaohimmaaktnik tattinik okonanga tattinik naonaiyaiyonik. Tamaita elittoghaknahoaktavot aolaaknakniaktot ekaaknini pinggahonit CHARS-konnit oblaami aolakpaklota otikpaklotalo onnoligaikpat oblotoagaikpat. Kakogo: Nunaliit okakatigiyaktokniaktatka tohakvigilogillo June 07-mit June 13-mot, 2020-mi. Naonaijagikhiniakkook kanok tohakviginiagoptigik nunaliit, tattit naonaiyalikniaktavot July 2020-mi. nunalknit okaojaogoma naonaiyakvigiyomayatka alanggokokpatigik, nutkaktillakniaktaga naonaiyakvighatkat nunalingnit kakogo pitloikpata.

Personnel

Personnel on site: 3

Days on site: 7

Total Person days: 21

Operations Phase: from 2020-06-03 to 2022-10-24

Activités

| Emplacement | Type d'activité | Statut des terres | Historique du site | Site à valeur archéologique ou paléontologique | Proximité des collectivités les plus proches et de toute zone protégée |
|---|-----------------|-------------------|---|--|--|
| Tseng-UBC-Invertebrate-Health-Kitikmeot | Sampling sites | Municipal | These lakes and ponds are part of a larger set of water bodies being studied by Polar Knowledge Canada, Canadian University Partners, and community partners. | n/a | These lakes and ponds are all within a 3 hr. ATV ride from Cambridge Bay |

Engagement de la collectivité et avantages pour la région

| Collectivité | Nom | Organisme | Date de la prise de contact |
|---------------|-------------------|---|-----------------------------|
| Cambridge Bay | Beverly Makasagak | Ekaluktutiak Hunters and Trappers Association | 2019-08-20 |

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Kitikmeot

Autorisations

| Organisme de régulation | Description des autorisations | État actuel | Date de l'émission/de la demande | Date d'échéance |
|----------------------------------|--|-----------------|----------------------------------|-----------------|
| Institut de recherche du Nunavut | We will apply for a research license from the Nunavut Research Institute | Not Yet Applied | | |

Project transportation types

| Transportation Type | Utilisation proposée | Length of Use |
|---------------------|---|---------------|
| Water | We will sample lakes and ponds using either a) an inflatable zodiac powered by a 2.5 h.p. outboard motor, or b) a manually-powered inflatable kayak | |
| Land | We will travel by truck or ATV | |

Project accomodation types

Collectivité

Utilisation de matériel

Équipement à utiliser (y compris les perceuses, les pompes, les aéronefs, les véhicules, etc.)

| Type d'équipement | Quantité | Taille – Dimensions | Utilisation proposée |
|----------------------------|----------|---------------------|---|
| ATV or Truck | 2 | regular | To travel to lakes within a 3 hour drive of Cambridge Bay |
| Zodiac or inflatable kayak | 1 | 6 ft | To sample zooplankton from lakes |
| Plankton tow net | 1 | 30cm x 100xm | To collect zooplankton from lakes |

Décrivez l'utilisation du carburant et des marchandises dangereuses

| Décrivez l'utilisation de carburant : | Type de carburant | Nombre de conteneurs | Capacité du conteneur | Quantité totale | Unités | Utilisation proposée |
|---------------------------------------|-------------------|----------------------|-----------------------|-----------------|--------|--|
| Gasoline | fuel | 2 | 20 | 40 | Liters | For the ATV and 2.5 hp outboard motor (if not provided by CHARS) |

Consommation d'eau

| Quantité quotidienne (m3) | Méthodes de récupération de l'eau proposées | Emplacement de récupération de l'eau proposé |
|---------------------------|---|--|
| 70 | Water will be obtained from CHARS taps | Water will be obtained from CHARS taps |

Déchets

Gestion des déchets

| Activités du projet | Type des déchets | Quantité prévue | Méthode d'élimination | Procédures de traitement supplémentaires |
|---------------------|----------------------------------|-----------------------------------|---|--|
| Researching | Déchets combustibles | 1 grocery bag of waste per person | We anticipate very little or no waste associated with sampling zooplankton. Our materials and containers are all re-useable. The waste we generate from grocery shopping or from personal hygiene will be deposited at CHARS. | n/a |
| Researching | Eaux grises | 25L/day | Canadian High Arctic Research Station showers | n/a |
| Researching | Eaux usées (matières de vidange) | 1L/day | Canadian High Arctic Research Station toilets | n/a |

Répercussions environnementales :

We anticipate that the collection of 100 zooplankton per lake will not result in any damage (temporary or permanent) to any of the sites. We will attempt to collect zooplankton from the shore. When that is not possible, our first option will be to use our inflatable kayak. If it is too windy for the inflatable kayak we will use the zodiac and 2.5 hp outboard motor. We will rinse any water device we use with clean water.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description de l'environnement existant : Environnement physique

Description de l'environnement existant : Environnement biologique

Description de l'environnement existant : Environnement socio-économique

Miscellaneous Project Information

Identification des répercussions et mesures d'atténuation proposées

Répercussions cumulatives

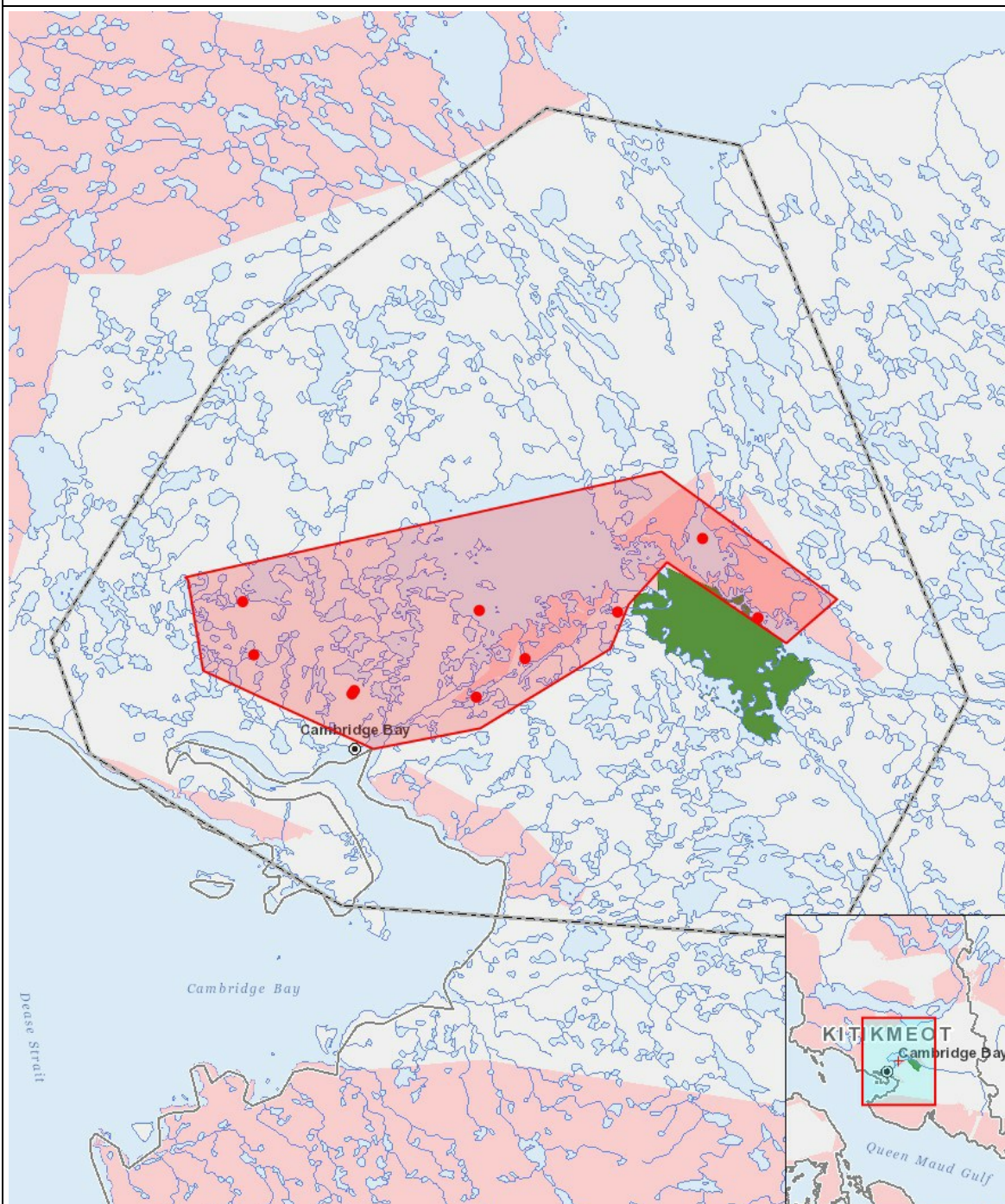
Impacts

Identification des répercussions environnementales

| | PHYSICAL | Designated environmental areas | Ground stability | Permafrost | Hydrology / Limnology | Water quality | Climate conditions | Eskers and other unique or fragile landscapes | Surface and bedrock geology | Sediment and soil quality | Tidal processes and bathymetry | Air quality | Noise levels | BIOLOGICAL | Vegetation | Wildlife, including habitat and migration patterns | Birds, including habitat and migration patterns | Aquatic species, incl. habitat and migration/spawning | Wildlife protected areas | SOCIO - ECONOMIC | Archaeological and cultural historic sites | Employment | Community wellness | Community infrastructure | Human health |
|----------------|----------|--------------------------------|------------------|------------|-----------------------|---------------|--------------------|---|-----------------------------|---------------------------|--------------------------------|-------------|--------------|------------|------------|--|---|---|--------------------------|------------------|--|------------|--------------------|--------------------------|--------------|
| Construction | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Exploitation | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Désaffectation | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

(P = Positive, N = Négative et non gérable, M = Négative et gérable, U = Inconnue)

Site du projet



Liste des géométries de projet

| | | |
|----|---------|---|
| 1 | polygon | Tseng-UBC-Invertebrate-Health-Kitikmeot |
| 2 | point | Greiner Lake |
| 3 | point | First Lake |
| 4 | point | Second Lake |
| 5 | point | Pelly-Road1 |
| 6 | point | Pelly-Road2 |
| 7 | point | Pelly-Road3 |
| 8 | point | WaterLake-Road1 |
| 9 | point | WaterLake-Road2 |
| 10 | point | West-Road1 |
| 11 | point | West-Road2 |