Name

CSI Report

Problem

A major threat to the grizzly bear population in the Tumbler Ridge UNESCO Global Geopark (TRUGG) is habitat fragmentation. If grizzly bears continue to become more isolated, they will not have the opportunity to share and diversify their genetic code through mating.

Over time, isolated population groups will start to inbreed, eventually leading to the decrease in genetic diversity (i.e., variety of different traits) and possible extinction of the population. This could result in a negative trophic cascade whereby increasing populations of ungulates, (e.g., deer, caribou, elk) could overgraze flora, leading to habitat loss for many other animals.

Therefore, the grizzly bear is known as a keystone species and a critical component of a healthy local environment. As citizens, we have the responsibility to protect this and other species so it can continue to provide balance to our local ecosystems.

Your Task:

Review the *Habitat Fragmentators* list on the next page. Select one of the 'Habitat Fragmentators' and research how it affects Grizzly Bears in the Tumbler Ridge / Peace River Region. Once you have completed your research, complete the CSI Report on pages 3 - 4 of this handout.

Habitat Fragmenters

1. **Public transportation** - railway lines, roads, highways

2. **Communities** - landfills, irresponsible disposal of waste by homes, businesses and restaurants

3. **Oil and gas** – excessive road networks and pipeline projects

4. **Hydroelectric dams** - flooding terrain, dam construction, powerlines

5. **Forestry** - excessive road networks, deforestation, changing of the landscape

6. **Mining** – destruction of habitat, roads leading to mines

CSI Report: Habitat Fragmentation

Detective:	Victim:
Type of Incident:	Location of Incident:
Description of crime scene (be as specific and detailed as possible):	

Suggested resolutions (describe a variety of ways to resolve the habitat fragmentation issue; be specific):
Case Status (for teacher to fill out): CASE OPEN CASE CLOSED