**Living** on the **Edge**:

City Planning in the Shadow of a Volcano!

YOU are in charge of building and maintaining a city that is on the slopes of an active volcano in the Pacific Northwest! You have an initial budget of $5 million. Here is your task:

STEP 1: Find the hazards! On the game board, estimate and outline where you think the lahar hazards are using a dry erase marker. *Remember:* Lahars are mudflows/debris flows composed mostly of volcanic materials on the sides of a volcano that rush down valleys and stream channels at speeds of 120 mph in steep places, traveling up to 50 miles! Although there are many other hazards associated with Cascade Volcanos, lahars are considered the deadliest.

STEP 2: Build a town! Use Table 1 on the worksheet to calculate expenses.

*Your town must fit within the following constraints (note scale on map):*

1. At least 1,000 residents (1 house represents 200 residents)
2. The town must be within 1.5 km of a body of water
3. On the map, you will see the present roads in white. If you’re city is not within 0.75 km of a road, you must build one ($25,000 per 0.75 km distance)
4. The town needs to have the following facilities (each represented by a building, costing $1 million each):
   1. Town hall
   2. Water treatment facility
   3. Garbage & recycling facility
5. Your town cannot be spread out – each structure within 1.5 km or so of another

STEP 3: Name your town!

STEP 4: Remaining budget! Here are your options for what to do with leftover funds:

* Research credits ($500,000 each) 🡪 these have an influence on how you respond to different challenges during the game. Putting more money towards research is the best way to prepare for hazards in advance.
* Build more houses! For every house you build, that is 200 more residents and $50,000/year in taxes you will receive
* Save your money! You will need money to overcome emergencies that will affect your community throughout the game.

STEP 5: Now, the game can begin! Each year equals one turn (and column on Table 2)

1. The town receives an influx of tax revenue ($250 per citizen)
2. Decide to build more houses or invest in research, or save your income
3. Draw a card. Building a town near an active volcano is risky business so this is a game of chance.
4. Fill out Table 2 on worksheet for each year of play.