Teacher Answer Key

Case Study

1. Water withdrawals during drought risk and higher energy/emissions from expanded snowmaking; both show shared resource pressures.

2. Timing affects ecosystems and community supply; denser snow can shift melt patterns and runoff even if total water returns later.

Multiple Choice

1. A

2. B

3. C

Matching

1-D, 2-C, 3-B, 4-E, 5-A

Fill-in-the-Blank

1) energy, 2) offset, 3) fragmentation

Short Answer (Sample Responses)

Q1: Snowmaking can draw from the same reservoirs or rivers communities depend on, especially during low-water periods, creating competition and ecological stress.

Q2: Prioritize existing venues, reduce new construction, power operations with verified renewables, and limit snowmaking by selecting colder sites.

Q3: Using water or energy during fragile periods (low flow, peak demand) can cause larger impacts than the same amount used at a different time.