

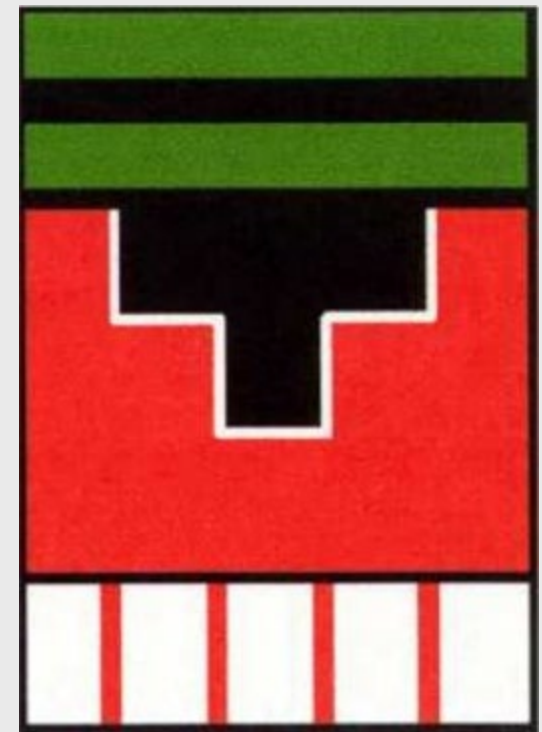
Hopi Long-term Monitoring Trip 2023



Kristin Huisinga

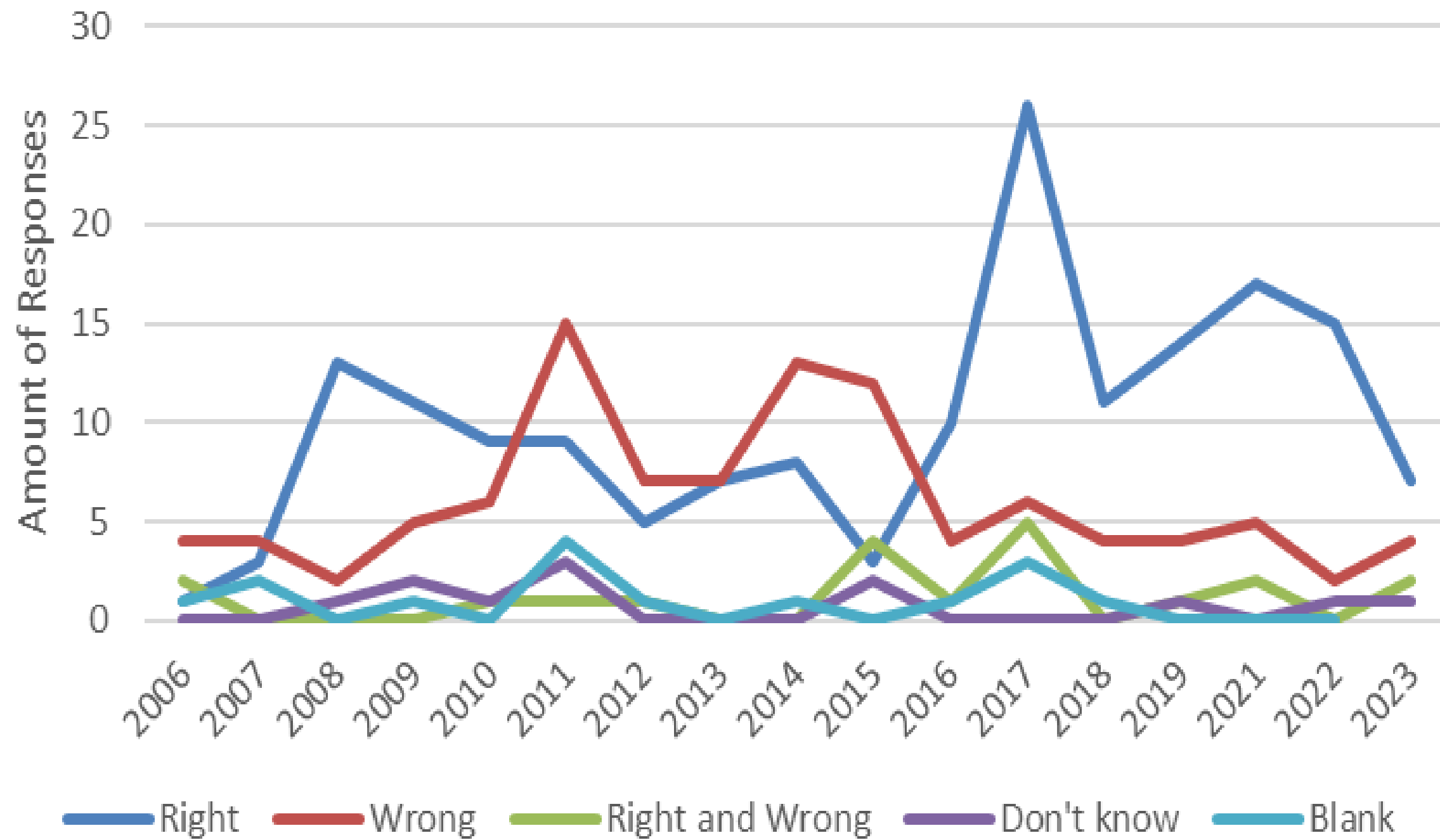
Paayu or Little Colorado River

A program conducted by the Hopi Cultural Preservation Office under the guidance of the Cultural Resources Advisory Task Team



Management Actions: Fish Removal

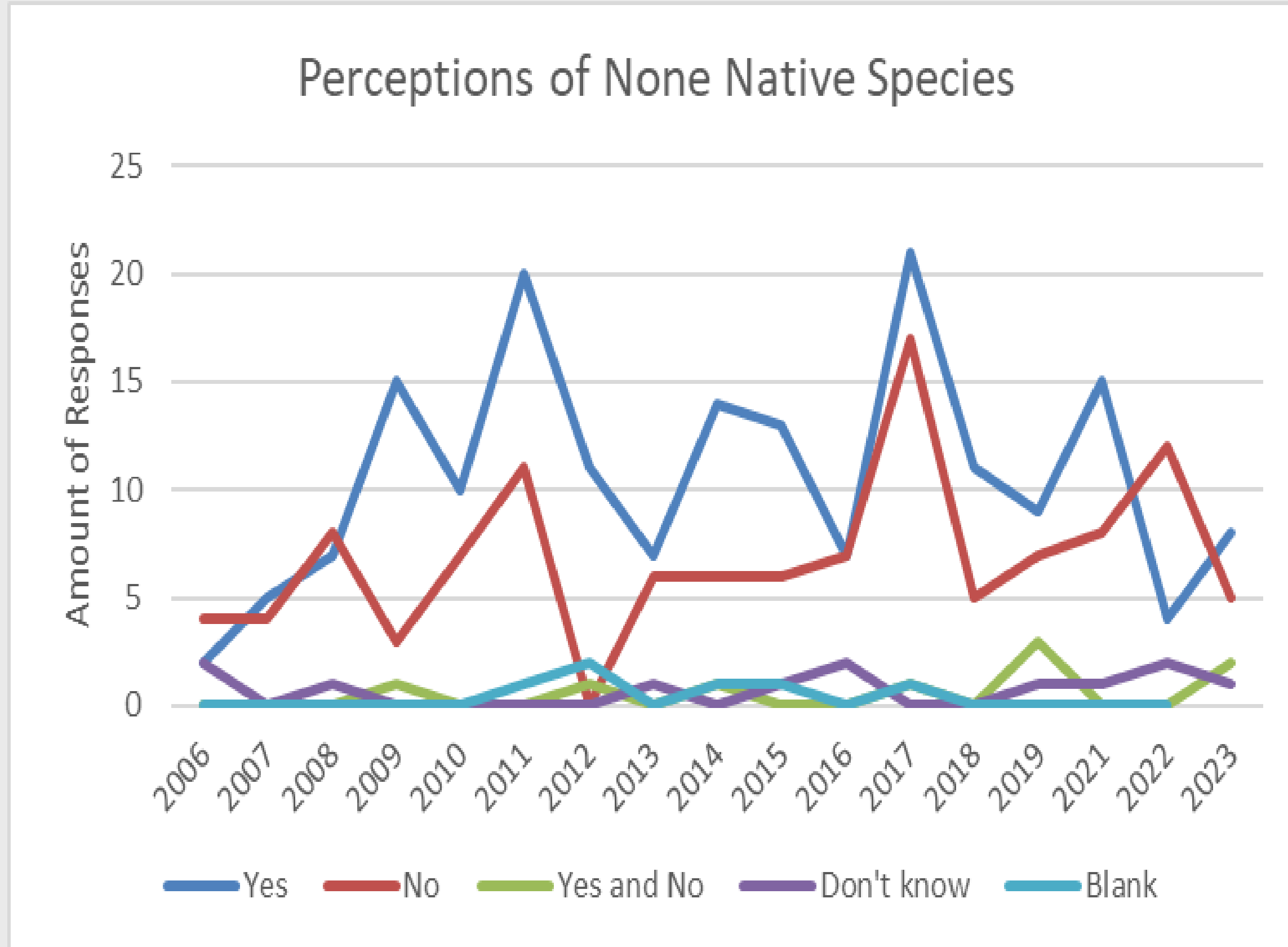
Perceptions of Mechanical Fish Removal



A Change in Perspective: What else can we be doing. Does Mechanical Fish Removal Work?

Rainbow Trout Observed at Vasey's Paradise.

Management Actions: Tamarisk and Non-natives

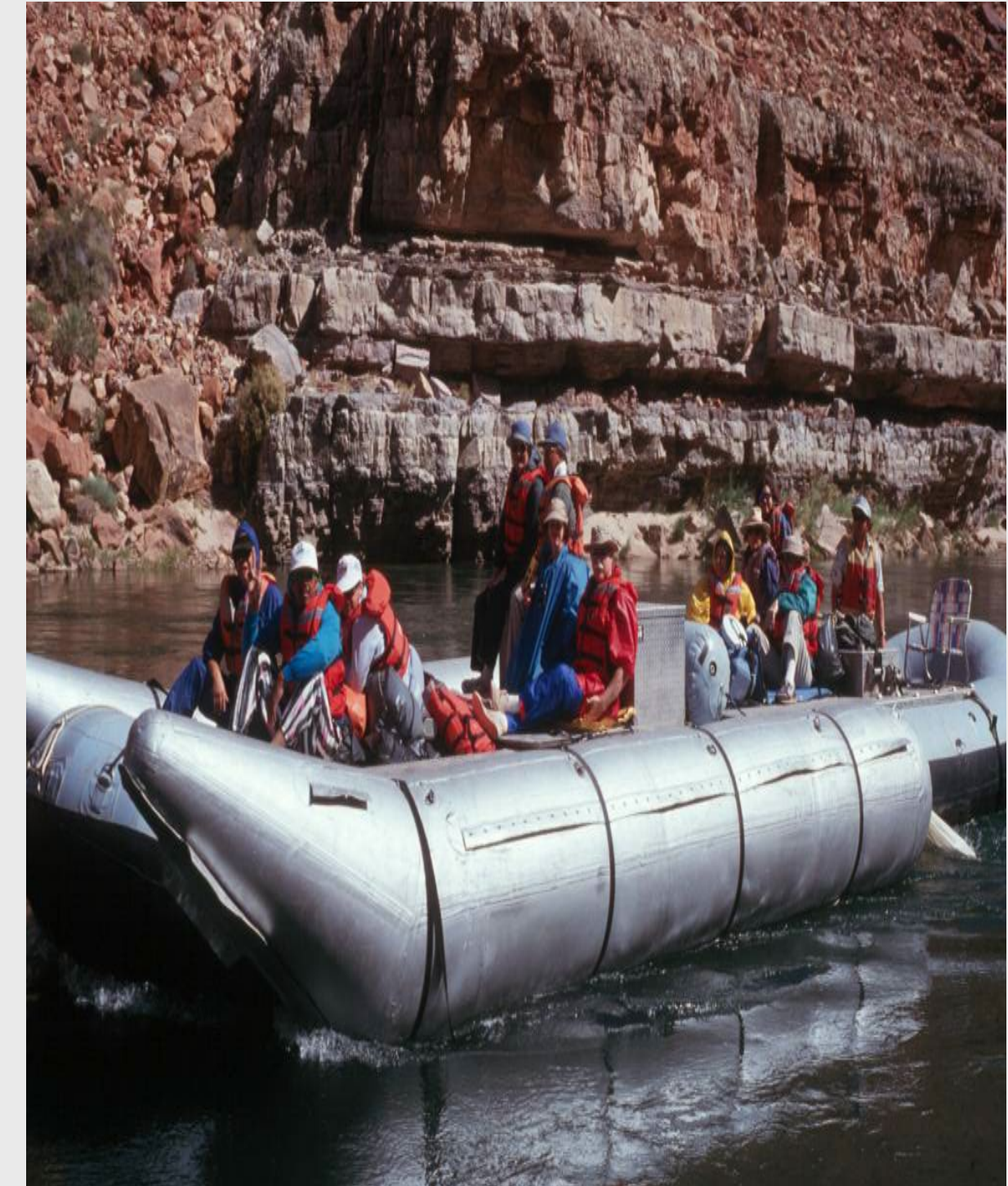
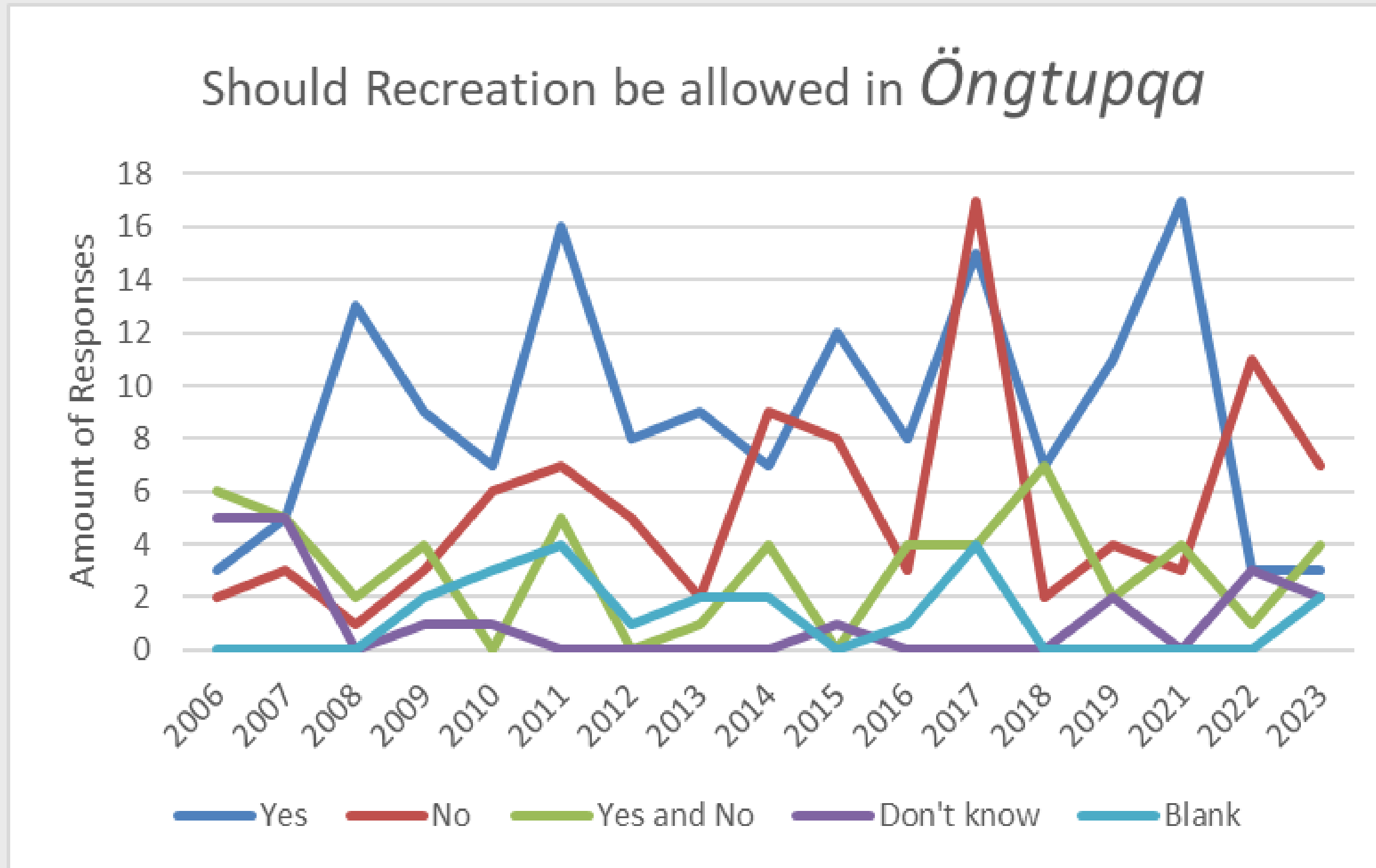


Continued Mix Perspective

Tamarisk provides habitat for other animals, especially sacred birds.

Tamarisk and other invasive plants pushes out native plant species and can impact wetland and springs.

Management Actions: Is Recreation in The Grand Canyon Appropriate

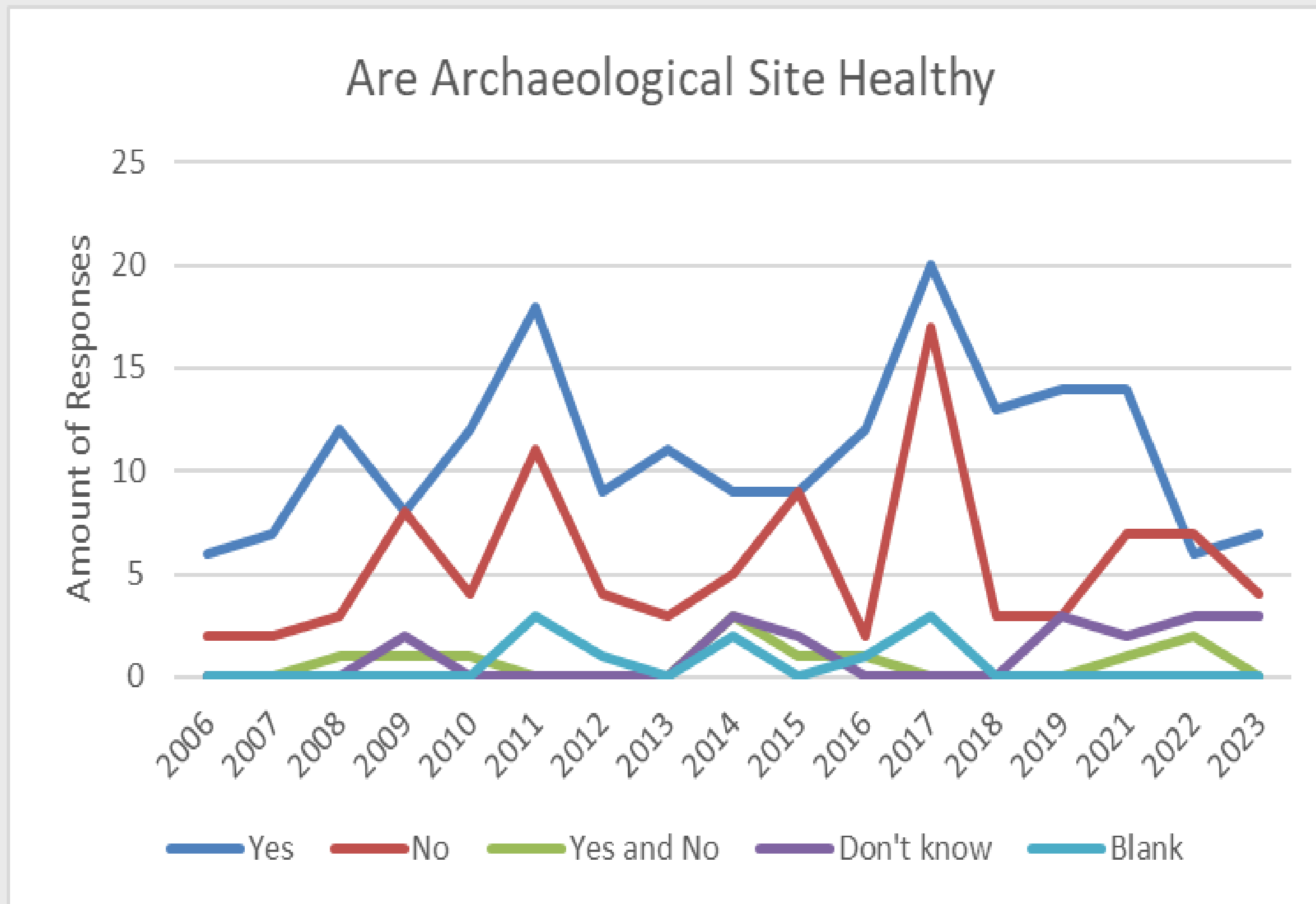


Visitation is seen in a negative light.

Sites need to have a recreation off time.

Visitors need guidance. Hopi Wishes to review the new River Contracts with the Park Service.

Culturally Important Resource Health: Archeological Sites



Slightly Healthier than last Year. Biggest Worry is Visitor Impacts.

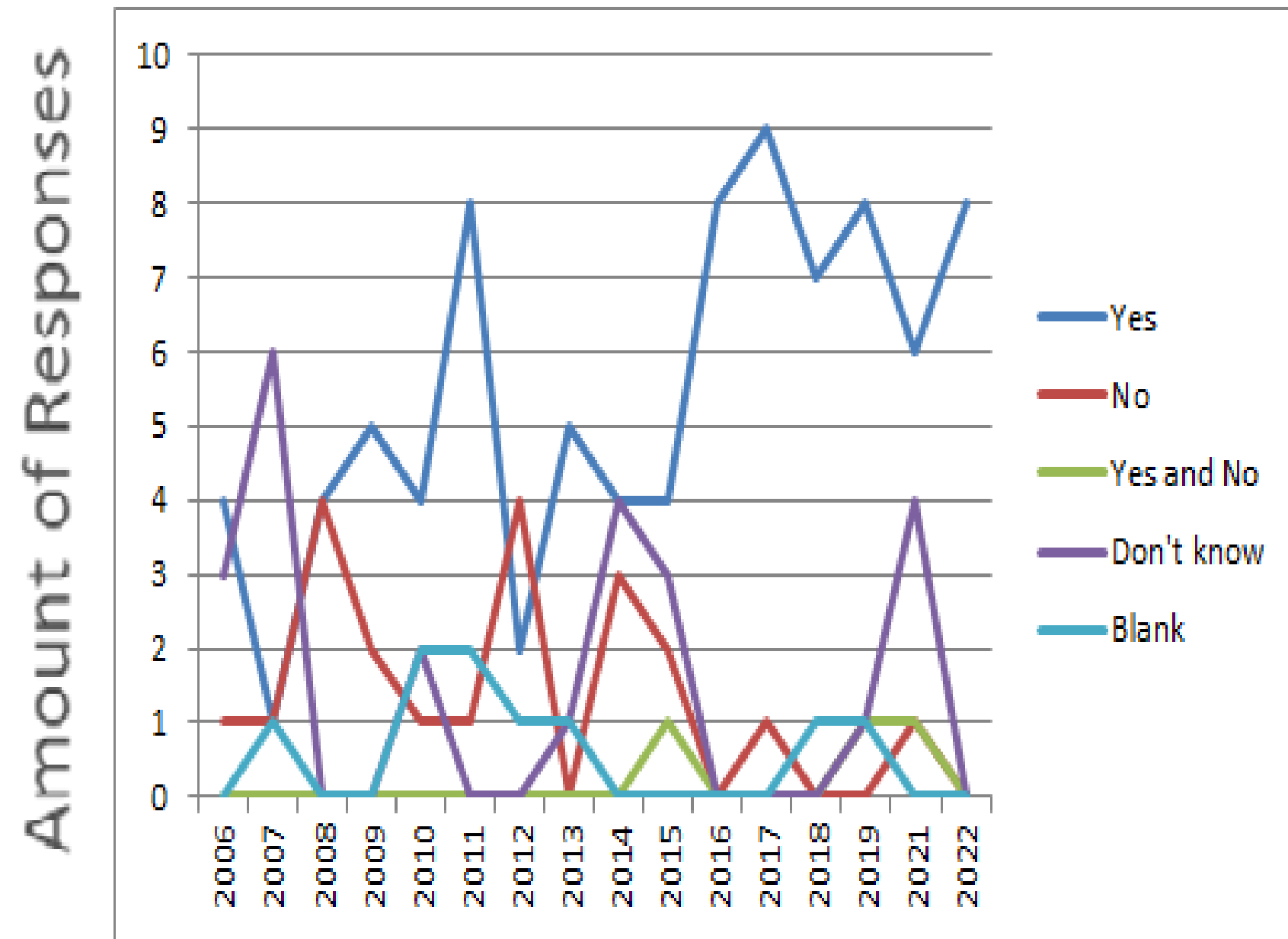
South Canyon Picked Clean of Resources.

Collection Piles at Unkar.

Minor Erosion Damage.

To the Hopi archeological sites are living, the ancestors still live there and impacting these sites has rippling effects throughout the whole canyon and out.

Culturally Important Resource Health: Health of Native Fish

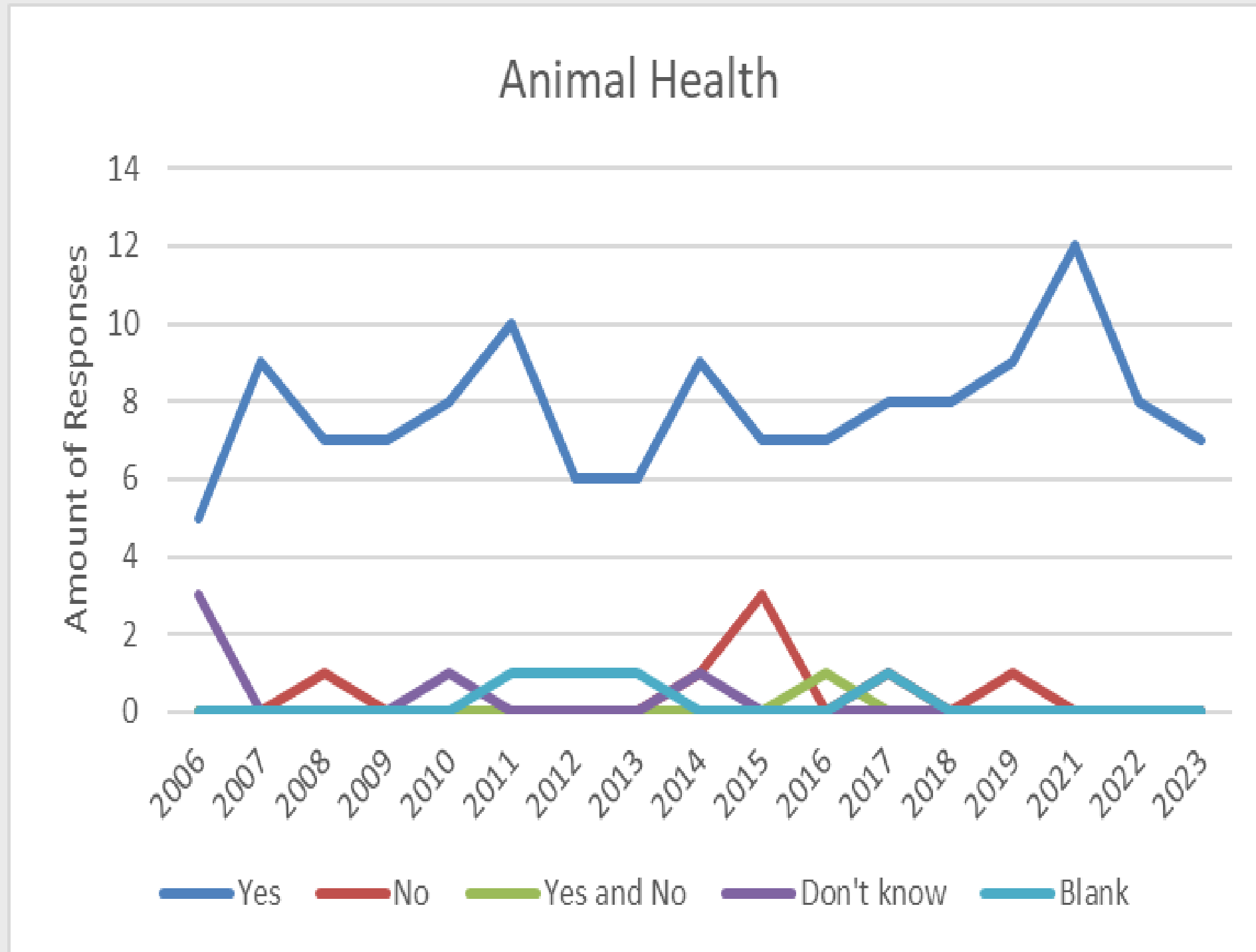


Continued Healthy Native Fish

Plenty of Razor Back Suckers and Humpback Chub below the LCR

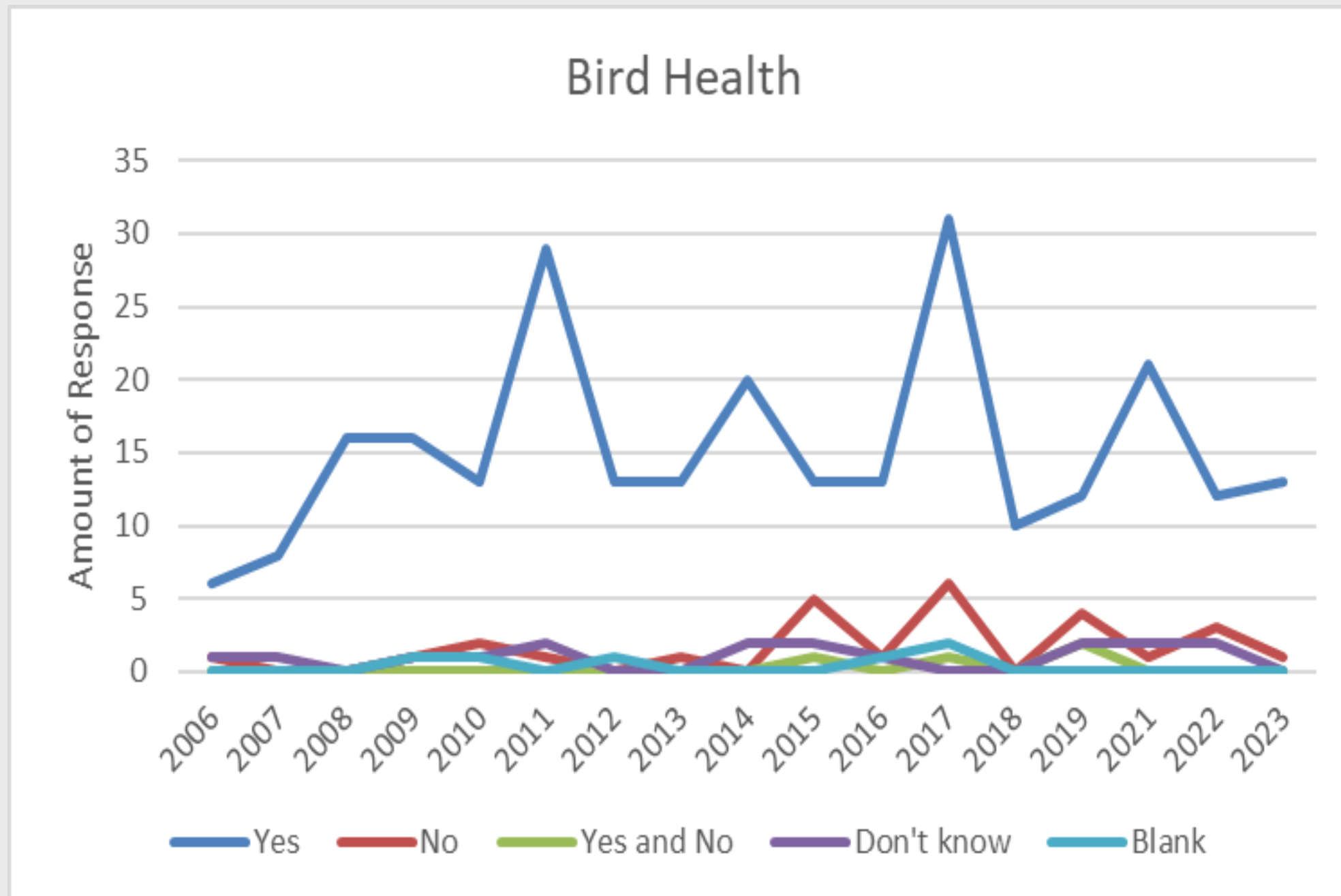
Plenty of threats.

Culturally Important Resource Health: Animal Health



Hopi continued to see animal health as very good. Big Horn sheep and Deer were plentiful.

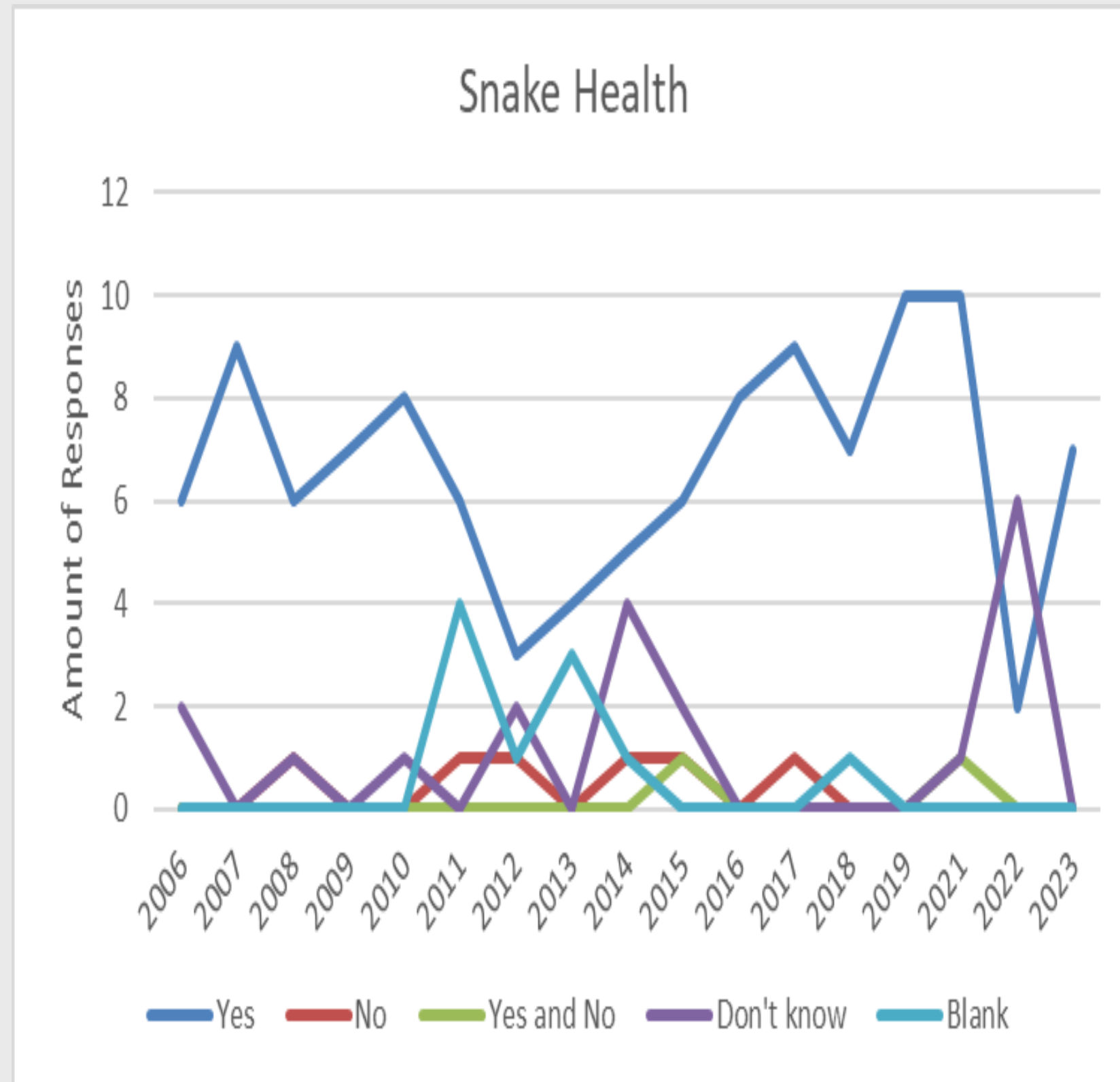
Culturally Important Resource Health: Bird Health



Hopi this year continued to find bird populations healthy. Three eagle nests were observed before Mile Marker 13 and one was observed at Nankoweep.

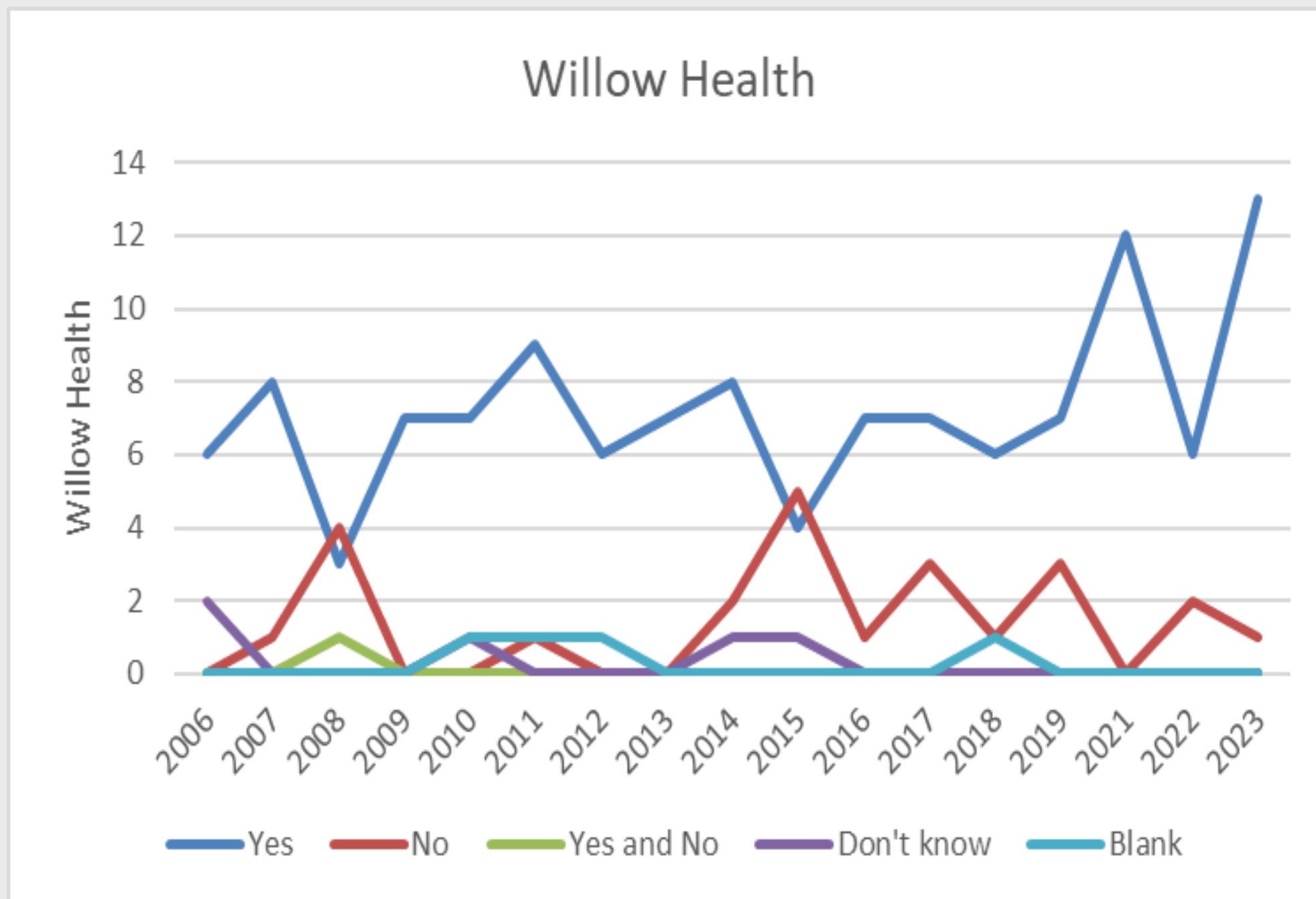
Birds are very sacred to the Hopi, especially golden eagles as they help deliver prayers and are collected to foster ceremonies.

Culturally Important Resource Health: Snake Health



The perception that snakes are healthy has remained high, participants saw a good handful on the trip.

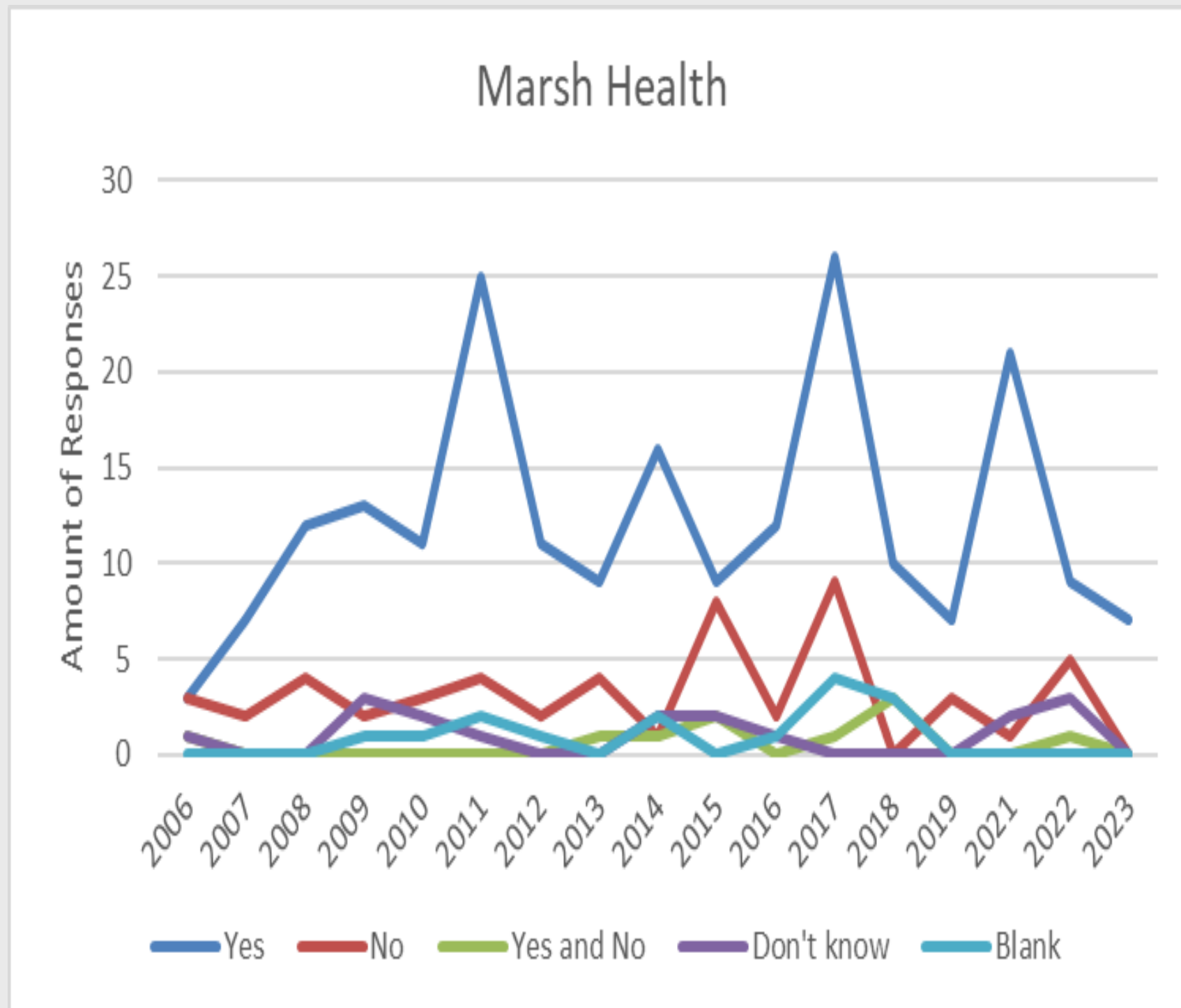
Culturally Important Resource Health: Willow Health



Willow was seen to be healthy this year. Hopi encourages projects like the Hualapai willow project.

The few willows seen are healthy. The Hopi were saddened about the willow deaths near Diamond Creek.

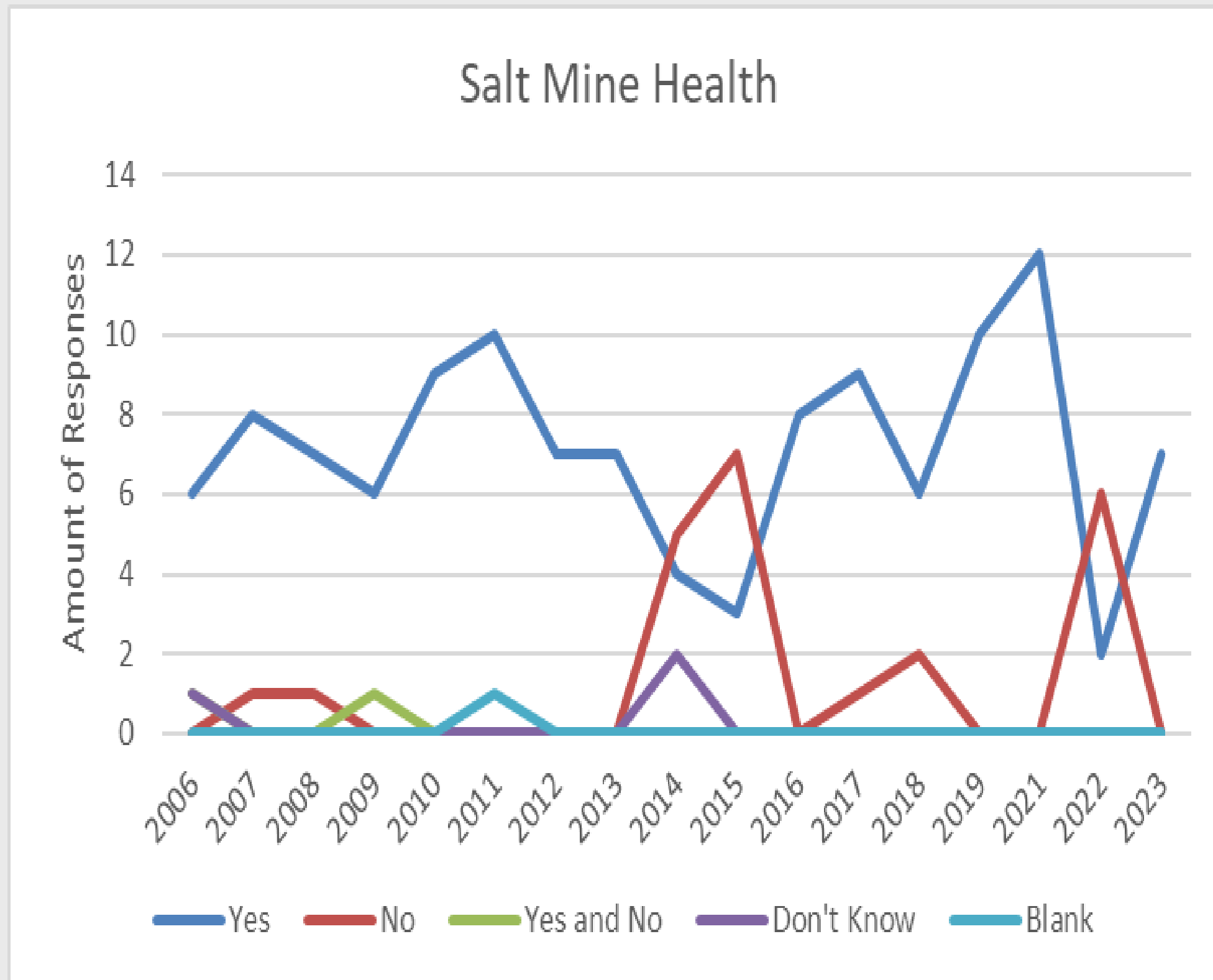
Culturally Important Resource Health: Marsh Health



This year marshes were seen as healthier, very green with healthy reeds. The increase of tamarisk around springs and around the LCR are concerns to Hopi too.

Phragmites health was a good sign of the river health, a healthy monsoon season, and good snowmelt. Though, the nonnative reeds are now a concern to this observation.

Culturally Important Resource Health: Salt Mine (Öönga) health

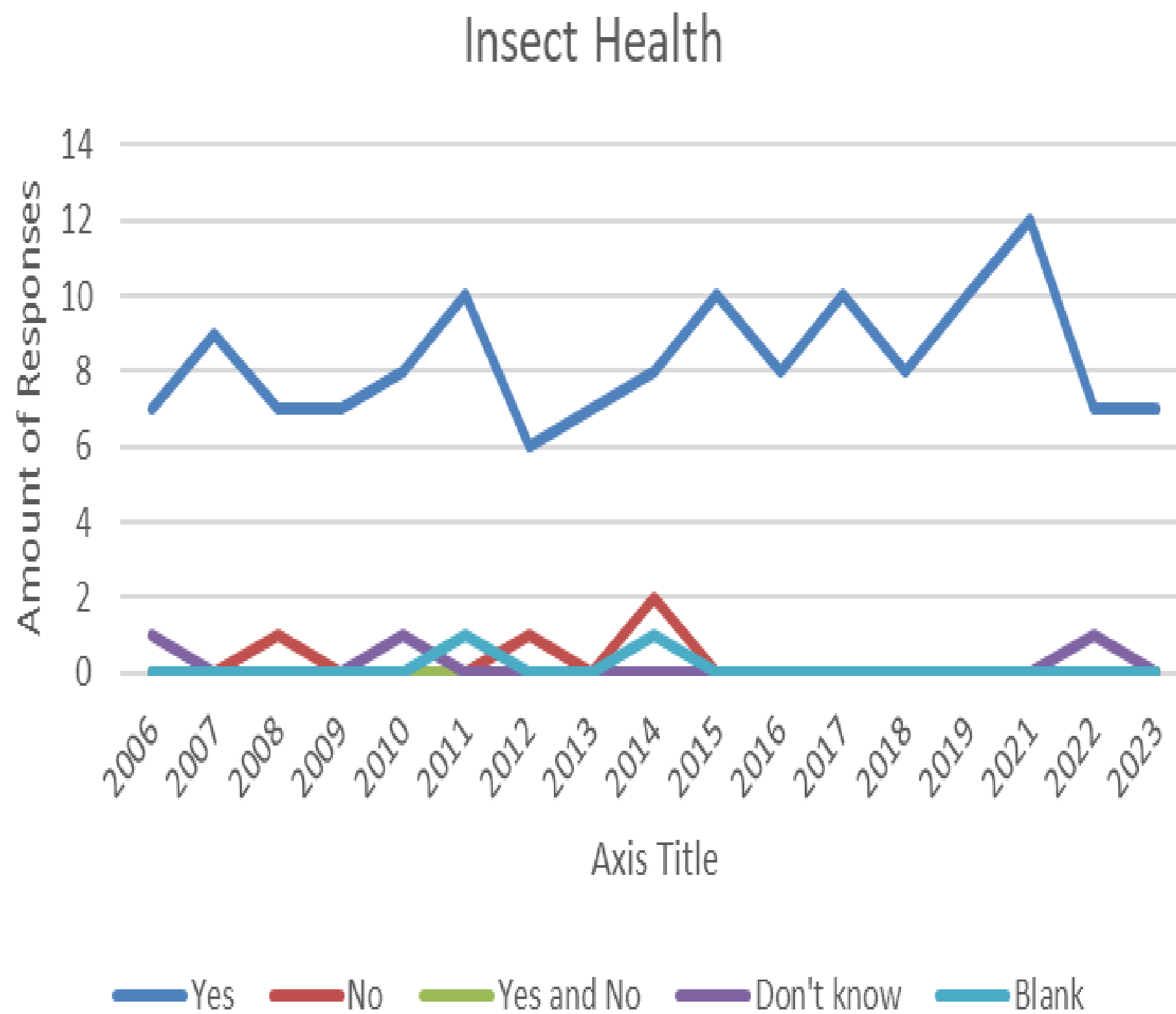


The Hopi felt the salt mine recovered this year. They felt the increase monsoon rain and snow melt helped it.

A site of immense sacredness to the Hopi and other tribes for ceremony use and shared stewardship.

The Shrines and petroglyphs were undamaged.

Culturally Important Resource Health: Insect Health

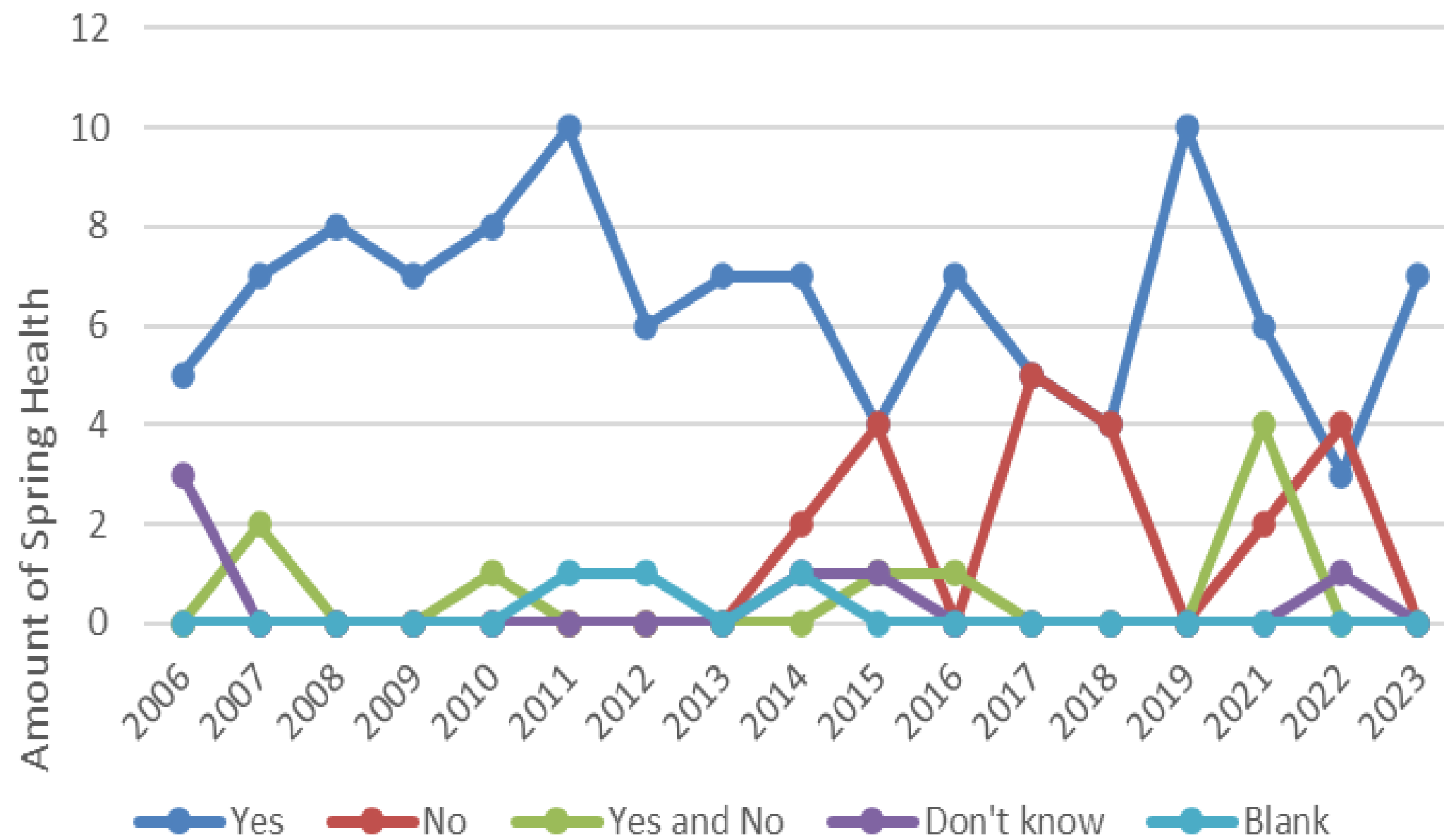


Like always Hopi have continued to view insects as being healthy.

Most observed at Lee's Ferry and then between the Little Colorado and Havasu.

Culturally Important Resource Health: Spring Health

Spring Health



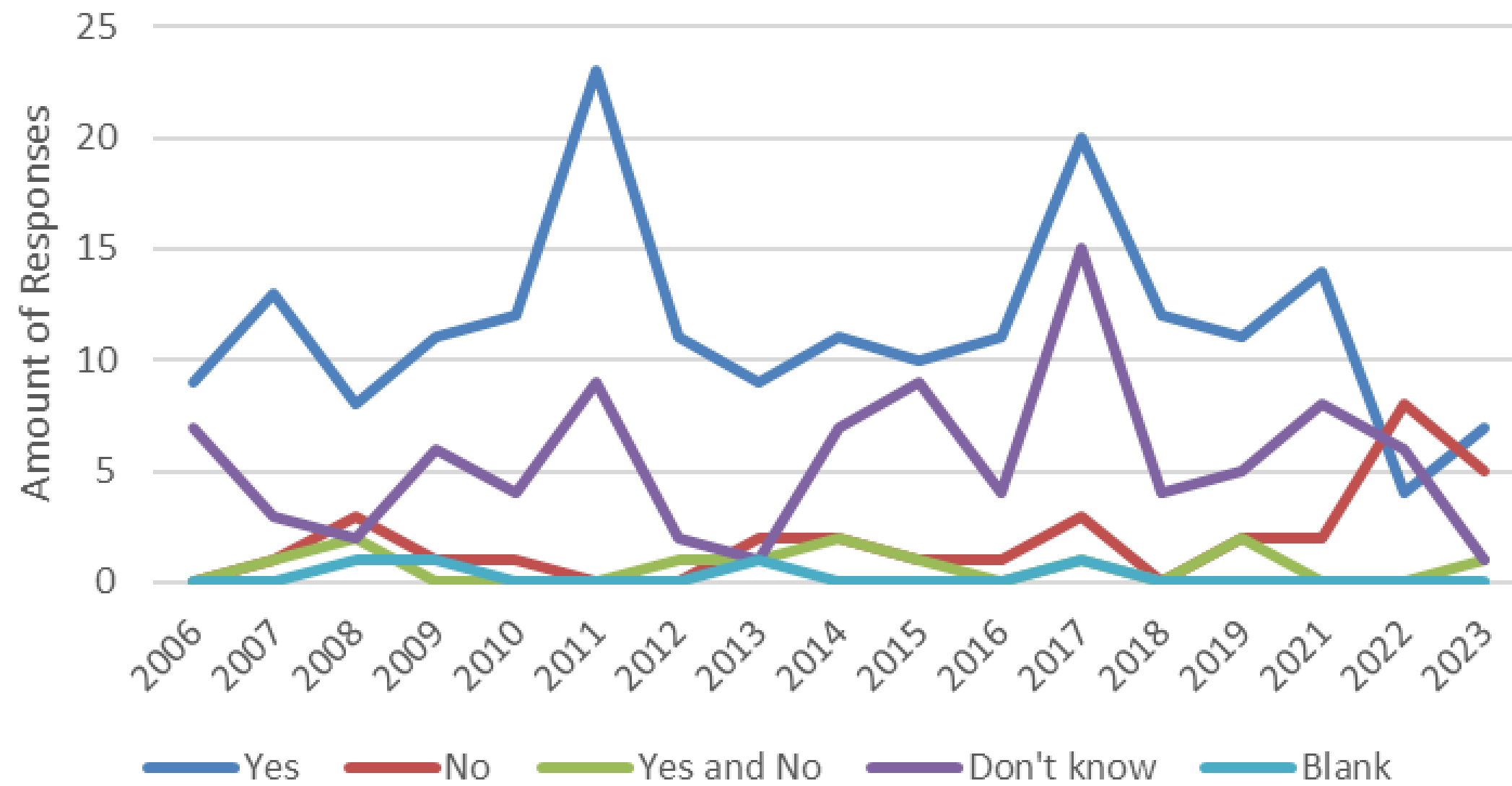
Springs were the healthiest since 2019.

Vasey's spring was flowing the most since 2003.

The Spring at Ernie's Armpit was chocked with sand. Just windblow or was it the HFE?

Culturally Important Resource Health: Overall health of the Grand Canyon

Hopi Perception of Overall Health Overtime



Over all the health was seen healthier compared to previous years.

33% found the overall health negative half of that compared to the previous year.

What is Next

1. We have been granted funding from this program for two separate projects.
 - A. Hire a archivist to digitize old Canyon research from the 90s.
 - B. Compose a ethnographic project recording Hopi's relationship to the Grand Canyon especially from the missed female perspective. These are in the hiring process at last.
2. The next river trip is end of April 2024.
3. The Dam Management team needs to continue to update their climate change and water management goals and projects as those are the greater long term issues we all will be facing.
4. Review fish SEIS. The net and bypass are both very acceptable responses for fish.
5. Hopi is in Review on TCP documentation for the Grand Canyon.
6. Hopi is in the process of a new herpetology project.

A Healthy Landscape

“As a cultural landscape, *Hopitutskwa* [Hopi land] is defined by landforms associated with deities and historical events, rivers, springs, trails, shrines, and what the Hopi people call *itaakukoven* or “our footprints.”

--from *Ang Kuktota: Hopi ancestral sites and cultural landscapes*

