

## **Owen Carroll Lesson Plan:** Greater Yellowstone's Connected Public Lands

**Duration, Class, Grade Level, Number of Students:** This is designed primarily for grades 6-12, in a field setting, but may be adapted for other audiences including adult learners.

*\*This lesson is designed to be a part of a day that focuses on "the National Park Idea," and how Yellowstone's history has influenced that idea through time. Prior to this lesson, learners will already have explored a timeline of key events in Yellowstone's history from 1871-present, and will have discussed preservation vs conservation, and explored the idea of the dual mandate. They will also already be familiar the boundaries and entities within the GYE.*

**Location:** Choose a teaching location where learners can sit comfortably and have space to spread out in work groups for about an hour. Possible locations could include Rescue Creek Trail, the first Slough Creek Meadow, Garnet Hill Loop, various locations along the Beaver Ponds Loop, or along the Wapiti Lake trail near Clear Lake.

*If outside of YNP, considering playing a slideshow or short film to students to provide a context for the Yellowstone landscape.*

### **Key Vocabulary Terms:**

- **Dual mandate**
- **Multiple use**
- **GYE**

### **Instructional Material:**

1. Current and past maps of Yellowstone showing National Park and National Forest Boundaries
  - a. 1891 YNP map  
<https://www.wyohistory.org/sites/default/files/yellowstonereserve3.jpg>
  - b. Present YNP map  
<http://www.yellowstone.co/images/maps/yellowstone2a.jpg>
2. 1891 Proclamation 303—Withdrawal of Yellowstone Park Lands for Forest Reserve, Wyoming  
<http://www.presidency.ucsb.edu/ws/index.php?pid=71005>
3. A. A. Anderson  
<https://foresthistor.org/research-explore/us-forest-service-history/u-s-forest-service-publications/region-2-rocky-mountain/yellowstone-forest-reserve/>
4. Multiple-Use Sustained Yield Act of 1960  
<https://www.fs.fed.us/emc/nfma/includes/musya60.pdf>
5. History Top 16 Events (in History Box, or google drive link here) \*\*I have not had a chance to put this on google yet, but I can send it separately until then-just email me at [ocarroll@yellowstone.org](mailto:ocarroll@yellowstone.org) \*\*
6. Whiteboard and markers
7. Journals or paper and pencils for learners

**Enduring Understanding (Big Idea):** Yellowstone National Park is just a piece of a greater whole; protecting the GYE is dependent on other public lands, especially forest service lands. Although the

NPS and USFS has different management philosophies, they accomplish the same goal of protecting the GYE.

**Essential Question:** How do the differences and similarities of the National Park Service and the US Forest Service shape the management of the GYE?

**Learning Objectives:** Clearly stated and measurable.

1. Learners will identify how the NPS and the USFS are fundamentally different, and what is also similar to their purposes (knowledge)
2. Learners will hypothesize how these two agencies have collaborated or conflicted in specific historical events in the GYE; they will also describe how these instances have affected the protection of lands within the GYE (skills, critical thinking)
3. Learners will consider how the management of these two agencies has positively impacted their experience in Yellowstone (affective)

**Standards:** National Standards or Common Core Standards that the lesson meets.

**Background:**

Instructors will have need to know enough about the NPS and USFS to clarify details for learners relating to discussion around these agencies purposes. This lesson will build on lessons covered earlier relating to preservation vs conservation, to key events in Yellowstone's history, and on identifying the dual mandate.

**Suggested Procedure:** *This lesson follows a "5 E" format, as do most YF Lesson Plans*

**Engage:** Gather learners together in a space conducive to sitting for approx. 1.5 hours. Allow learners to take care of needs before splitting into 5 separate units (pairs or groups, depending on numbers). Next, have each group of learners look at a map of the GYE and direct them to identify which areas of land are public land, and which agencies manage those pieces of land. Ask learners to consider why different agencies manage land that is essentially connected, and to discuss their answers within their groups.

**Explore:** Have learners identify areas of USFS managed land that lie adjacent to YNP on a present day map. Next, have learners compare this map to the map from 1891, and identify how these boundaries have changed. Ask learners to create a set of questions they have regarding the similarities or differences in history, resources, or management practices between NPS and USFS. Provide clarification and vetting as needed. Finally, have students read A. A. Anderson's "The Yellowstone Forest Reserve: Its Foundation and Development" (excluding the following sections: 'Organizing the Reserve', 'The Hostility of the Sheepmen Continues', and 'Disciplinary Emergencies'), and have students use this text to try and begin to answer their questions. *It may help to create a task list on the whiteboard.*

**Explain:** Call learners together and give them background on how the USFS evolved to its present day form (refer to the WSHS article "Yellowstone Forest Reserve," subsection "Problems and Promise"). Next, introduce the concept of multiple-use and how it informs present-day management of USFS land.

Have a learner read the Multiple-Use Sustained Yield Act of 1960 and then have learners consider how this relates to the dual mandate. Use a discussion strategy such as think-pair-share, etc.

Once discussion has ceased, direct learners return to their groups and identify how the history of the Yellowstone Timberland Reserve, Yellowstone Forest Reserve, and USFS history (using specific examples) relates to the idea of multiple use, or the dual mandate, or both. Ask learners to consider further why the USFS has such a different mission (as stated) if the purpose is essentially the same as the NPS (to manage and protect the resources of the GYE, in this case specifically around YNP). Direct learners to create a six-word story that captures the essence of their discussion, if not all the details. Allow each group to share and respond to each other's story (use BEETLES 2-cents discussion routine).

**Elaborate:** Ask learners to revisit the History Top 16 from earlier in the day. Remove all events that predate the creation of the Yellowstone Forest Reserve, and direct learners to choose events they think relate directly to the USFS. Coach students to use the resources they have been exposed to (past and current maps, history from earlier in the day, etc) as they select each event. Next, have learners divide into pairs drawn from other groups, and then discuss (using BEETLES Turn and talk discussion routine) how and why each event relates to the US Forest Service based on what they know. Direct learners to again focus on the similarities and differences between the USFS and NPS, and the multiple-use and dual mandate ideas, and to revisit how they discussed these earlier. Direct learners to use four words that describes the connections they have made, either for one specific event or all the events they identified. Allow each group to share and respond to each other's story (use BEETLES 2 cents routine).

**Evaluate:** Write the following on your whiteboard: "Which method of management best protects the Greater Yellowstone Area, multiple-use, or the dual mandate, or both, and how?" Ask learners to consider this question based on what they know from this and previous lessons, and to also consider what has been most impactful about their time in the park. Have learners describe up to three "aha" moments they experienced, and also create up five hashtags that describe the things (places or entities) that were significant. Share these popcorn style, then ask learners to state any further questions they have, and answer if possible or direct them to further resources for learning on their own time.

**Assessment:**

If evaluating, use the following rubric. Each outcome relates to objectives stated, and should be ranked 0-2 as follows: '0' did not complete, '1' completed with minimal adherence to objective, '2' fully met objective

1. Learner identifies and describes how the NPS and USFS relate and differ using specific examples from primary sources
2. Learner analyzes how the NPS dual mandate and the USFS multiple-use policy are fundamentally different, and how these ideas have affected historical events discussed during lessons
3. Learner appraises how one or both agency protects the GYE through its management citing their own experience

**Extensions:**

- Relate to “Wilderness Ethics by Foot” lessons, if part of schedule or itinerary. Ask how wilderness relates to this discussion, since USFS land in the GYE is designated wilderness but YNP land is not (though it is largely managed as wilderness).
- Relate to bison management and conflict by having students focus just on the IBMP event. Add maps of bison management, etc to reinforce. Creating a set of open questions related to bison and multiple-use vs dual mandate, provide stakeholder resources as well.

**Resources:**

1. WyoHistory Article “Yellowstone Park, Arnold Hague and the Birth of National Forests”  
<https://www.wyohistory.org/encyclopedia/yellowstone-park-arnold-hague-and-birth-national-forests>
2. *The Yellowstone Story, Vols 1 & 2* by Aubrey L. Haines for more background on what is covered here.
3. BEETLES discussion routines, useful in a field context  
<http://beetlesproject.org/cms/wp-content/uploads/2015/12/Discussion-Routines.pdf>