

# Wilderness Investigations

## APPENDIX



**Essential Question:** *Do I have everything I need?*

Arthur Carhart National Wilderness Training Center's  
***Wilderness Investigations***  
A Subject-Integrated Curriculum for Grades 5 - 8

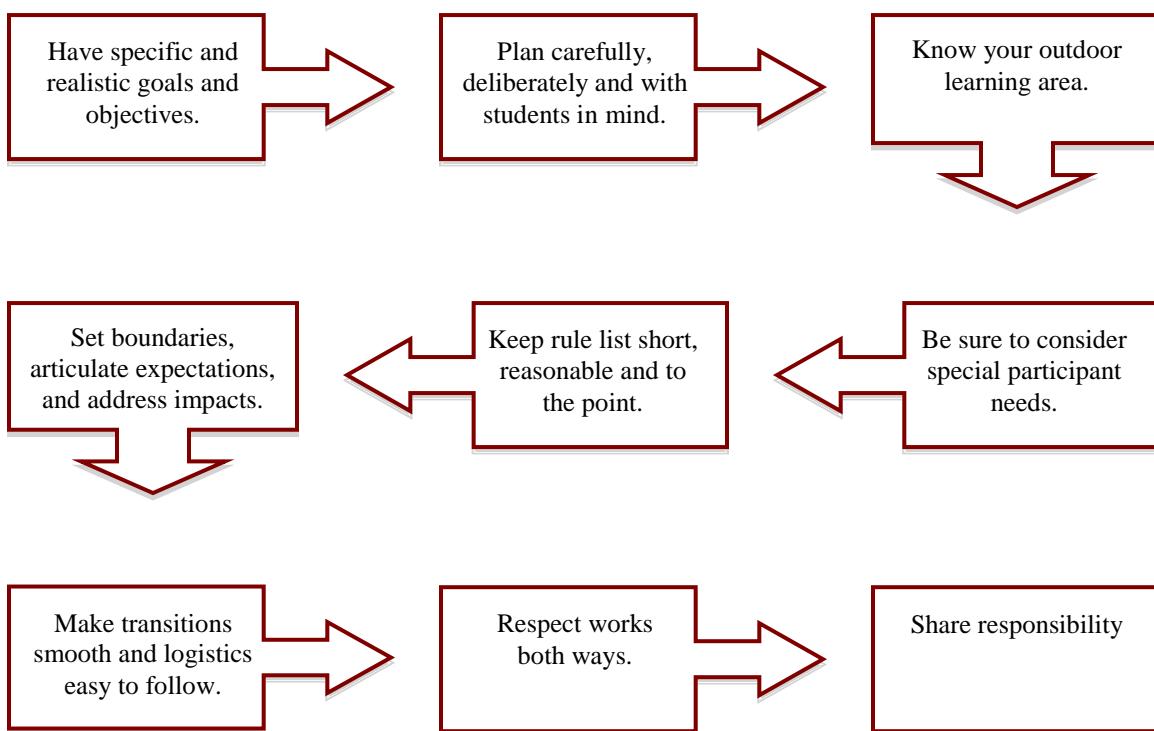
***Tips to Help Facilitate Successful  
Outdoor Experiences for Students***

**Introduction**

Participant leadership, organizational strategies, and safety concerns are somewhat different when teachers expand classrooms to include outdoor settings. There are, however, several considerations that, if used, may insure a more productive, safe, and enjoyable experience for students and teachers.

The following guidelines will help teachers meet their educational, leadership and safety objectives. Not every guideline is applicable to every outdoor teaching situation. Use the following *Guidelines* as a checklist to help you prepare for and facilitate your next *Wilderness Investigation* experience.

**Guideline Flow Chart**



## **Guideline Details**

### **Guideline #1: Have specific and realistic goals and objectives**

Outdoor learning experiences should have well thought out goals (both physical and educational) so that student time is well spent and use of the outdoor setting can be seen as the best possible use of time and energy. If you know your students you will be able to set specific goals suited to the needs of everyone.

### **Guideline #2: Plan carefully, deliberately and always with students in mind**

Teachers who *wing it* often fail to meet their goals and are less able to take full advantage of unexpected teaching/leadership opportunities that may arise in outdoor settings. Be deliberate about your planning and then let go when something better comes up. If you have planned well you will return more easily when the time is right. Good planning includes consideration of the needs of students and how to involve adult volunteers. If planning as a team, be respectful of one another's ideas, strengths, and insights and incorporate as many as possible.

### **Guideline #3: Know your outdoor learning area**

Teachers who lead activities in outdoor settings need to visit the outdoor location well in advance of the activity so that they understand special circumstances and opportunities presented by the place (safety, noise, travel time, etc.) and are able to address and utilize them. In designated wilderness this includes knowing rules and regulations that address maximum group size, area closures for restoration or safety, special wildlife considerations and so forth.

### **Guideline #4: Be sure to consider special student needs**

All students (and even adult volunteers) have special needs. Some are obvious and some less so. Consider these special needs (physical, behavioral, learning, etc.) as you consider where to go and what to do. These needs change from group-to-group, year-to-year and place-to-place. Don't base current outdoor activity plans on previous experiences only.

### **Guideline #5: Keep the outdoor rule list short, reasonable and to the point**

You may feel uncomfortable even thinking about rules since these outdoor activities are meant to be fun. Call them rules, guidelines, or recommendations but have some ideas in mind at the very least. You won't need a lot of them in the outdoor setting and they will only be meaningful if they really matter and are reasonable. Always be clear and respectful in rule presentations. Allow adult assistants to help you with reminders or, sometimes, consequences. You will need fewer rules if you keep participants busy with meaningful tasks/activities and if you have planned carefully.

## **Guideline #6: Set boundaries, articulate expectations and address impacts**

The following areas deserve special attention and communication with and to students:

- It will sometimes be important for teachers to set physical and behavioral boundaries for students. By stating boundaries up front and explaining why (when appropriate) students *can* be successful because they won't always have to second-guess where to go and how to act.
- The teacher who articulates what they expect as behavioral and educational outcomes is much more likely to get what they need. The outdoor activity setting is, for some, a new learning atmosphere and one that requires a direct approach by teaches so that students can adapt their own learning paradigms.
- Be sure to address potential harmful impacts on the outdoor setting in your planning and then, based on your knowledge of the place, articulate appropriate behaviors so that negative impacts can be minimized.

## **Guideline #7: Make transitions smooth and logistical instructions easy to follow**

Teachers sometimes get in trouble when transition times are not well thought out and

logistical instructions are not explained in simple and easy-to-understand language.

Visualize these important periods and be prepared to communicate directly and clearly with participants BEFORE the transition happens.

## **Guideline #8: Respect works both ways**

Teachers who want their young (and older) participants to respect them, the outdoor experience, and the places where outdoor activity takes place must always realize that if they show respect their charges are much more likely to do the same. Respect the students by being well prepared, open to learning from them, and do the positive little things (picking up a dropped paper, avoiding negative behaviors) that they will notice and emulate.

## **Guideline #9: Share responsibility**

Allow students and adult helpers to share as much responsibility as possible. This may be as little as helping to carry equipment, motivating others during difficult times, or as big as teaching a concept. Take advantage of the skills others have. More often than not, the young person who sometimes challenges you can become an ally if they are allowed to contribute to the group's success. However, if you expect a participant (young or old) to teach, lead, use special equipment or skills, etc. be sure to train them so that they can be successful and have a positive experience.



**WILDERNESS ACT**  
**Public Law 88-577 (16 U.S. C. 1131-1136)**  
**88<sup>th</sup> Congress, Second Session**  
**September 3, 1964**

**AN ACT**

**To establish a National Wilderness Preservation System for the permanent good of  
the whole people, and for other purposes.**

Be it enacted by the Senate and House of Representatives of the United States of America in  
Congress assembled.

**Short Title**

**Section 1.** This Act may be cited as the "Wilderness Act."

**WILDERNESS SYSTEM ESTABLISHED STATEMENT OF POLICY**

**Section 2.(a)** In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as "wilderness areas", and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness; and no Federal lands shall be designated as "wilderness areas" except as provided for in this Act or by a subsequent Act.

**(b)** The inclusion of an area in the National Wilderness Preservation System notwithstanding, the area shall continue to be managed by the Department and agency having jurisdiction thereover immediately before its inclusion in the National Wilderness Preservation System unless otherwise provided by Act of Congress. No appropriation shall be available for the payment of expenses or salaries for the administration of the National Wilderness Preservation System as a separate unit nor shall any appropriations be available for additional personnel stated as being required solely for the purpose of managing or administering areas solely because they are included within the National Wilderness Preservation System.

**DEFINITION OF WILDERNESS**

**(c)** A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

**NATIONAL WILDERNESS PRESERVATION SYSTEM - EXTENT OF SYSTEM**

**Section 3.(a)** All areas within the national forests classified at least 30 days before September 3, 1964 by the Secretary of Agriculture or the Chief of the Forest Service as "wilderness", "wild", or "canoe" are hereby designated as wilderness areas. The Secretary of Agriculture shall -

**(1)** Within one year after September 3, 1964, file a map and legal description of each wilderness area with the Interior and Insular Affairs Committees of the United States Senate and the House of Representatives, and such descriptions shall have the same force and effect as if included in this Act: Provided, however, That correction of clerical and typographical errors in such legal descriptions and maps may be made.

**(2)** Maintain, available to the public, records pertaining to said wilderness areas, including maps and legal descriptions, copies of regulations governing them, copies of public notices of, and reports submitted to Congress regarding pending additions, eliminations, or modifications. Maps, legal descriptions, and regulations pertaining to wilderness areas within their respective jurisdictions also shall be available to the public in the offices of regional foresters, national forest supervisors, and forest rangers.

**Classification. (b)** The Secretary of Agriculture shall, within ten years after September 3, 1964, review, as to its suitability or nonsuitability for preservation as wilderness, each area in the national forests classified on September 3, 1964 by the Secretary of Agriculture or the Chief of the Forest Service as "primitive" and report his findings to the President.

**Presidential recommendation to Congress.** The President shall advise the United States Senate and House of Representatives of his recommendations with respect to the designation as "wilderness" or other reclassification of each area on which review has been completed, together with maps and a definition of boundaries. Such advice shall be given with respect to not less than one-third of all the areas now classified as "primitive" within three years after September 3, 1964, not less than two-thirds within seven years after September 3, 1964, and the remaining areas within ten years after September 3, 1964.

**Congressional approval.** Each recommendation of the President for designation as "wilderness" shall become effective only if so provided by an Act of Congress. Areas classified as "primitive" on September 3, 1964 shall continue to be administered under the rules and regulations affecting such areas on September 3, 1964 until Congress has determined otherwise. Any such area may be increased in size by the President at the time he submits his recommendations to the Congress by not more than five thousand acres with no more than one thousand two hundred and eighty acres of such increase in any one compact unit; if it is proposed to increase the size of any such area by more than five thousand acres or by more than one thousand two hundred and eighty acres in any one compact unit the increase in size shall not become effective until acted upon by Congress. Nothing herein contained shall limit the President in proposing, as part of his recommendations to Congress, the alteration of existing boundaries of primitive areas or recommending the addition of any contiguous area of national forest lands predominantly of wilderness value. Notwithstanding any other provisions of this Act, the Secretary of Agriculture may complete his review and delete such area as may be necessary, but not to exceed seven thousand acres, from the southern tip of the Gore Range-Eagles Nest Primitive Area, Colorado, if the Secretary determines that such action is in the public interest.

**Report to President. (c)** Within ten years after September 3, 1964 the Secretary of the Interior shall review every roadless area of five thousand contiguous acres or more in the national parks, monuments and other units of the national park system and every such area of, and every roadless island within the national wildlife refuges and game ranges, under his jurisdiction on September 3, 1964 and shall report to the President his recommendation as to the suitability or nonsuitability of each such area or island for preservation as wilderness.

**Presidential recommendation to Congress.** The President shall advise the President of the Senate and the Speaker of the House of Representatives of his recommendation with respect to the designation as wilderness of each such area or island on which review has been completed, together with a map thereof and a definition of its boundaries. Such advice shall be given with respect to not less than one-third of the areas and islands to be reviewed under this subsection within three years after September 3, 1964, not less than two-thirds within seven years of September 3, 1964 and the remainder within ten years of September 3, 1964.

**Congressional approval.** A recommendation of the President for designation as wilderness shall become effective only if so provided by an Act of Congress. Nothing contained herein shall, by implication or otherwise, be construed to lessen the present statutory authority of the

Secretary of the Interior with respect to the maintenance of roadless areas within units of the national park system.

**Suitability.** (d)(1) The Secretary of Agriculture and the Secretary of the Interior shall, prior to submitting any recommendations to the President with respect to the suitability of any area for preservation as wilderness –

**Publication in Federal Register.** (A) give such public notice of the proposed action as they deem appropriate, including publication in the Federal Register and in a newspaper having general circulation in the area or areas in the vicinity of the affected land;

**Hearings.** (B) hold a public hearing or hearings at a location or locations convenient to the area affected. The hearings shall be announced through such means as the respective Secretaries involved deem appropriate, including notices in the Federal Register and in newspapers of general circulation in the area: Provided, That if the lands involved are located in more than one State, at least one hearing shall be held in each State in which a portion of the land lies;

(C) at least thirty days before the date of a hearing advise the Governor of each State and the governing board of each county, or in Alaska the borough, in which the lands are located, and Federal departments and agencies concerned, and invite such officials and Federal agencies to submit their views on the proposed action at the hearing or by no later than thirty days following the date of the hearing.

Any views submitted to the appropriate Secretary under the provisions of (1) of this subsection with respect to any area shall be included with any recommendations to the President and to Congress with respect to such area.

**Proposed modification.** (e) Any modification or adjustment of boundaries of any wilderness area shall be recommended by the appropriate Secretary after public notice of such proposal and public hearing or hearings as provided in subsection (d) of this section. The proposed modification or adjustment shall then be recommended with map and description thereof to the President. The President shall advise the United States Senate and the House of Representatives of his recommendations with respect to such modification or adjustment and such recommendations shall become effective only in the same manner as provided for in subsections (b) and (c) of this section.

#### **USE OF WILDERNESS AREAS**

**Section 4.(a)** The purposes of this Act are hereby declared to be within and supplemental to the purposes for which national forests and units of the national park and national wildlife refuge systems are established and administered and -

(1) Nothing in this Act shall be deemed to be in interference with the purpose for which national forests are established as set forth in the Act of June 4, 1897 (30 Stat. 11), and the Multiple-Use Sustained-Yield Act of June 12, 1960 (74 Stat. 215) (16 U.S.C. 528-531).

(2) Nothing in this Act shall modify the restrictions and provisions of the Shipstead-Nolan Act (Public Law 539, Seventy-first Congress, July 10, 1930; 46 Stat. 1020), the Thye-Blatnik Act (Public Law 733, Eightieth Congress, June 22, 1948; 62 Stat. 568), and the Humphrey-Thye-Blatnik-Andresen Act (Public Law 607, Eighty-Fourth Congress, June 22, 1956; 70 Stat. 326), as applying to the Superior National Forest or the regulations of the Secretary of Agriculture.

(3) Nothing in this Act shall modify the statutory authority under which units of the national park system are created. Further, the designation of any area of any park, monument, or other unit of the national park system as a wilderness area pursuant to this Act shall in no manner lower the standards evolved for the use and preservation of such park, monument, or other unit of the national park system in accordance with sections 1, 2, 3, and 4 of this title, the statutory authority under which the area was created, or any other Act of Congress which might pertain to or affect such area, including, but not limited to, the Act of June 8, 1906 (34 Stat. 225; 16 U.S.C. 432 et seq.); section 3(2) of the Federal Power Act (16 U.S.C. 796(2)); and the Act of August 21, 1935 (49 Stat. 666; 16 U.S.C. 461 et seq.).

(b) Except as otherwise provided in this Act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character. Except as otherwise provided in this

Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use.

#### **PROHIBITION OF CERTAIN USES**

**(c)** Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area.

#### **SPECIAL PROVISIONS**

**(d)** The following special provisions are hereby made:

**(1)** Within wilderness areas designated by this Act the use of aircraft or motorboats, where these uses have already become established, may be permitted to continue subject to such restrictions as the Secretary of Agriculture deems desirable. In addition, such measures may be taken as may be necessary in the control of fire, insects, and diseases, subject to such conditions as the Secretary deems desirable.

**(2)** Nothing in this Act shall prevent within national forest wilderness areas any activity, including prospecting, for the purpose of gathering information about mineral or other resources, if such activity is carried on in a manner compatible with the preservation of the wilderness environment. Furthermore, in accordance with such program as the Secretary of the Interior shall develop and conduct in consultation with the Secretary of Agriculture, such areas shall be surveyed on a planned, recurring basis consistent with the concept of wilderness preservation by the United States Geological Survey and the United States Bureau of Mines to determine the mineral values, if any, that may be present; and the results of such surveys shall be made available to the public and submitted to the President and Congress.

**Mineral leases, claims, etc. (3)** Notwithstanding any other provisions of this Act, until midnight December 31, 1983, the United States mining laws and all laws pertaining to mineral leasing shall, to the extent as applicable prior to September 3, 1964, extend to those national forest lands designated by this Act as "wilderness areas"; subject, however, to such reasonable regulations governing ingress and egress as may be prescribed by the Secretary of Agriculture consistent with the use of the land for mineral location and development and exploration, drilling, and production, and use of land for transmission lines, waterlines, telephone lines, or facilities necessary in exploring, drilling, producing, mining, and processing operations, including where essential the use of mechanized ground or air equipment and restoration as near as practicable of the surface of the land disturbed in performing prospecting, location, and , in oil and gas leasing, discovery work, exploration, drilling, and production, as soon as they have served their purpose. Mining locations lying within the boundaries of said wilderness areas shall be held and used solely for mining or processing operations and uses reasonably incident thereto; and hereafter, subject to valid existing rights, all patents issued under the mining laws of the United States affecting national forest lands designated by this Act as wilderness areas shall convey title to the mineral deposits within the claim, together with the right to cut and use so much of the mature timber therefrom as may be needed in the extraction, removal, and beneficiation of the mineral deposits, if needed timber is not otherwise reasonably available, and if the timber is cut under sound principles of forest management as defined by the national forest rules and regulations, but each such patent shall reserve to the United States all title in or to the surface of the lands and products thereof, and no use of the surface of the claim or the resources therefrom not reasonably required for carrying on mining or prospecting shall be allowed except as otherwise expressly provided in this Act: Provided, That, unless hereafter specifically authorized, no patent within wilderness areas designated by this Act shall issue after December 31, 1983, except for the valid claims existing on or before December 31, 1983. Mining claims located after September 3, 1964, within the boundaries of wilderness areas designated by this Act shall create no rights in excess of those rights which may be patented under the provisions of this subsection. Mineral leases, permits, and licenses covering lands within national forest wilderness areas designated by this Act shall contain such reasonable stipulations as may

be prescribed by the Secretary of Agriculture for the protection of the wilderness character of the land consistent with the use of the land for the purposes for which they are leased, permitted, or licensed. Subject to valid rights then existing, effective January 1, 1984, the minerals in lands designated by this Act as wilderness areas are withdrawn from all forms of appropriation under the mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto.

**Water resources and grazing.** (4) Within wilderness areas in the national forests designated by this Act, (1) the President may, within a specific area and in accordance with such regulations as he may deem desirable, authorize prospecting for water resources, the establishment and maintenance of reservoirs, water-conservation works, power projects, transmission lines, and other facilities needed in the public interest, including the road construction and maintenance essential to development and use thereof, upon his determination that such use or uses in the specific area will better serve the interests of the United States and the people thereof than will its denial; and (2) the grazing of livestock, where established prior to September 3, 1964, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture.

(5) Other provisions of this Act to the contrary notwithstanding, the management of the Boundary Waters Canoe Area, formerly designated as the Superior, Little Indian Sioux, and Caribou Roadless Areas, in the Superior National Forest, Minnesota, shall be in accordance with regulations established by the Secretary of Agriculture in accordance with the general purpose of maintaining, without unnecessary restrictions on other uses, including that of timber, the primitive character of the area, particularly in the vicinity of lakes, streams, and portages: Provided, That nothing in this Act shall preclude the continuance within the area of any already established use of motorboats.

(6) Commercial services may be performed within the wilderness areas designated by this Act to the extent necessary for activities which are proper for realizing the recreational or other wilderness purposes of the areas.

(7) Nothing in this Act shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws.

(8) Nothing in this Act shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the national forests.

#### **STATE AND PRIVATE LANDS WITHIN WILDERNESS AREAS**

**Section 5.(a)** In any case where State -owned or privately owned land is completely surrounded by national forest lands within areas designated by this Act as wilderness, such State or private owner shall be given such rights as may be necessary to assure adequate access to such State -owned or privately owned land by such State or private owner and their successors in interest, or the State -owned land or privately owned land shall be exchanged for federally owned land in the same State of approximately equal value under authorities available to the Secretary of Agriculture:

**Transfers, restriction.** Provided, however, That the United States shall not transfer to a State or private owner any mineral interests unless the State or private owner relinquishes or causes to be relinquished to the United States the mineral interest in the surrounded land.

(b) In any case where valid mining claims or other valid occupancies are wholly within a designated national forest wilderness area, the Secretary of Agriculture shall, by reasonable regulations consistent with the preservation of the area as wilderness, permit ingress and egress to such surrounded areas by means which have been or are being customarily enjoyed with respect to other such areas similarly situated.

**Acquisition.** (c) Subject to the appropriation of funds by Congress, the Secretary of Agriculture is authorized to acquire privately owned land within the perimeter of any area designated by this Act as wilderness if (1) the owner concurs in such acquisition or (2) the acquisition is specifically authorized by Congress.

#### **GIFTS, BEQUESTS, AND CONTRIBUTIONS**

**Section 6.(a)** The Secretary of Agriculture may accept gifts or bequests of land within wilderness areas designated by this Act for preservation as wilderness. The Secretary of Agriculture may also accept gifts or bequests of land adjacent to wilderness areas designated by this Act for preservation as wilderness if he has given sixty days advance notice thereof to the President of the Senate and the Speaker of the House of Representatives. Land

accepted by the Secretary of Agriculture under this section shall be come part of the wilderness area involved. Regulations with regard to any such land may be in accordance with such agreements, consistent with the policy of this Act, as are made at the time of such gift, or such conditions, consistent with such policy, as may be included in, and accepted with, such bequest.

**(b)** Authorization to accept private contributions and gifts The Secretary of Agriculture or the Secretary of the Interior is authorized to accept private contributions and gifts to be used to further the purposes of this Act.

#### **ANNUAL REPORTS**

**Section 7.** At the opening of each session of Congress, the Secretaries of Agriculture and Interior shall jointly report to the President for transmission to Congress on the status of the wilderness system, including a list and descriptions of the areas in the system, regulations in effect, and other pertinent information, together with any recommendations they may care to make.

**APPROVED SEPTEMBER 3, 1964.**

#### **Legislative History:**

**House Reports:** No 1538 accompanying H.R. 9070 (Committee on Interior & Insular Affairs) and No. 1829 (Committee of Conference).

**Senate report:** No. 109 (Committee on Interior & Insular Affairs). Congressional Record: Vol. 109 (1963):

- April 4, 8, considered in Senate.
- April 9, considered and passed Senate.
- Vol. 110 (1964): July 28, considered in House.
- July 30, considered and passed House, amended, in lieu of H.R. 9070
- August 20, House and Senate agreed to conference report.

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**APPENDIX ITEM**  
**Writing a Wilderness Hero Biography (Prompt Page)**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**How to use this sheet:**

1. Do your research. Use the *Wilderness Hero Information Sheet* to get you started and choose other reliable sources to help you find even more interesting details.
  - Fill in the *Research Prompts* sections below to help you focus your information search.
2. Take the basic information you placed in the *Research Prompts* sections and organize it into an interesting and informative narrative.
3. Insert details you discover during your research that clearly illustrate interesting, unique or outstanding attributes or experiences.

**Research Prompts**

A. Basic Biographical Details

- Where and when born
  - Early life information
  - Personal interests
  - Family background
  - Etc.
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B. Interesting Story or Stories

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C. Wilderness Connection(s)

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D. *Other* Important Information I Found

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E. Source(s) of Information

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**APPENDIX**  
**More Wilderness Heroes Section**  
**- Description -**

**Instructions for the teacher:**

During each of the five Wilderness Investigations, students are introduced to a *wilderness hero*. These heroes are people who have or do work selflessly in support of wilderness. These five are listed below:

<u>Investigation</u>	<u>Hero</u>
Investigation #1	Arthur Carhart
Investigation #2	Margaret Murie
Investigation #3	John F. Kennedy
Investigation #4	John Muir
Investigation #5	Kari Gunderson

There are so many more wilderness heroes that could have been chosen! If you would like to continue your students' study of wilderness heroes there are two options presented here:

1. On the following pages you will find several more heroes profiled. These profiles are set-up just like those that have come before. The heroes focused on represent a diverse yet dedicated group.
2. A blank *Wilderness Hero Research Sheet* is found on the pages following the additional Wilderness Hero Profiles found in this appendix. Use this sheet (or develop your own) to help students research wilderness heroes you identify for them or those they identify on their own (like local wilderness heroes).

Students need to know that there are real heroes that go way beyond comic books, video games, and movies. Our nation is rich in heroes and some of them are *wilderness heroes*!



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**APPENDIX**  
**Wilderness Hero**  
***Terry Tempest-Williams***



Terry in Arches National Park (Utah)  
(from PBS; 2003)

*"What do we wish? To be whole. To be complete. Wildness reminds us what it means to be human, what we are connected to rather than what we are separate from."*  
(Terry Tempest-Williams; Testimony in front of Senate Subcommittee; July 1995)

**Instructions for the teacher:**

There are voices for wilderness that one *listens to* when they speak and there are other voices, these less common, who one *hears* as soon as they begin their wilderness message. Terry Tempest-Williams (writer, naturalist, activist, public speaker) is one of the latter. Terry has been one of the most respected voices for wilderness in modern times. Just 9 years old when the Wilderness Act became law, Terry has impacted and been impacted by wilderness all her life. Her writings have given voice to women and men around the world as she voices our human need for wildness, the connection of humans to landscapes, and the importance of using ones talents to speak out in support of the land. When Terry speaks, people listen. Her voice pulls audiences along into her mystical,

deeply rooted, poetic, and positive view of the world. Terry believes in the power of words and the power of individual and group action. Terry is above all else passionate—about family, friends, art... and wilderness.

To help students get to know this wilderness hero, choose one or more of the following:

- Photocopy and hand out the *Wilderness Hero Sheet* to each student.
  - Based on the information found there, have students create art pieces (written, poetic, visual, etc.) that communicate the woman they discover.
- Using the *Wilderness Hero Student Research Sheet* (located in the Appendix), have students research and write a short biographical piece about Terry.
- Use the handout as the basis of a short mini-lesson about Terry Tempest-Williams and her connection to wilderness.
- Challenge students to visit their community library and bookstores to find books by Terry. These books can be difficult reads unless the readers are able to understand complex themes and some high-level vocabulary.
  - One option for teachers who want to share Terry's writings but think it might be too difficult for young students is to share selected passages. Read and then discuss.
  - Encourage students to *step* their own writing up to a higher level after they experience something Terry wrote.
  - *An Unspoken Hunger* (essay collection) may be a good place for teachers to start when looking for accessible wilderness writing by Terry.
- Clearly, Terry writes with passion! Have students choose a topic they feel passionate about and then write about it.
  - If the topic chosen is not grounded in wilderness have them follow-up their first piece with another that does address a wilderness theme.
- Terry loves visual art. In fact, she wrote an entire book (*Leap*) based on her personal interactions and observations with a medieval art piece. Have students study art set in a wilderness place or that communicate, to them, a wilderness message or element. Have them describe the art piece and explain their reaction, feelings, emotions, etc.

- Encourage students to create their own wilderness art. Remind them to draw on their own passion for wild things as they create.
- Create a Terry Tempest Williams--Wilderness Hero bulletin board or add it to an already evolving display.
  - Feature biographical information and wilderness statements.
- Have students study and then place their copy of this *Wilderness Hero* sheet in their Wilderness Investigations Folder.



**Terry's Beloved Teton Wilderness**  
(Photo by Steve Boutcher; Wilderness.net; Image #3223)

# Wilderness Hero

## **Terry Tempest-Williams**



Terry in Arches National Park (Utah)  
(from PBS; 2003)

### **Introduction to a Hero**

As a young girl Terry Tempest was always drawn to the natural world. She grew to have a special affinity for birds. Tutored by one of her grandmothers, Terry learned how to distinguish one species from another by paying attention to subtle details. Much to her delight, these bird watching forays took her to wild landscapes where she felt both in awe of and enveloped by the blustery wind, the scorching sun, the driving waves, and the cascading echoes of sound.

Terry was born September 8, 1955. She spent most of her childhood and adult years in Utah. Ties to the land were only equaled by her ties to family. In fact, she came to see land and culture as a closely tied relationship. As a teenager Terry found herself at the newly created Teton Science School in Grand Teton National Park. Here she and her husband, Brooke, married and worked as naturalists.

Terry graduated from the University of Utah, was a naturalist at Utah Museum of History and published her first books (*The Secret Language of Snow*—with Ted Major and *Pieces of White Shell: A Journey to Navajoland*) in 1984. Her writing—books, articles, essays—though focused on a range of topics always tied in some way to wild places; wilderness. She is considered by many to be one of the premiere spokespersons for wilderness. She continues to write, speak and teach and continues to

stand in awe of and enveloped by wild and natural landscapes. Her words and actions have inspired neighbors, friends, politicians and even adversaries to look with new eyes at our wilderness lands.

### **Learn more about *Wilderness Hero* Terry Tempest-Williams**

- Has testified before Congress several times on behalf of wilderness preservation;
- Published ten books of non-fiction (some collections of essays) and innumerable articles for magazines. Many touch on some part of the relationship between humans and wilderness;
- Became a good friend and protégée of another wilderness hero Mardy Murie (see *Wilderness Hero #2*);
- Received many awards in recognition of her support for wilderness:
  - 1993: Conservation Award for Special Achievement (National Wildlife Federation)
  - 2006: Robert Marshall Award (The Wilderness Society)
  - 2008: Spirit of the Arctic Award (Alaska Wilderness League)
- Served on the governing boards of several wilderness organizations:
  - Governing Council of The Wilderness Society (1989 – 1993)
  - National Parks and Conservation Association (Advisory Board Member)
  - Round River Conservation Studies (Board Member)
  - Southern Utah Wilderness Alliance (Board Member; 1985– present)
- Tirelessly tours presenting lectures, readings, and inspiration on wilderness, politics, relationships, women's health issues, etc.
- She and her husband live in the Castle Valley in Southern Utah where she continues to write about and partake of wilderness.

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**APPENDIX**  
**Wilderness Hero**  
***Howard Zahniser***



Howard Zahniser  
(from Wilderness.net; Image #559)

**Instructions for the teacher:**

The reality of federally designated and protected wilderness came about because of the efforts of many fine people. A smaller, yet still significant group, worked to develop and then write legislation that would protect wilderness and satisfy politicians. Yet only one person actually authored what was to become the Wilderness Act. Between 1956 and 1964 Mr. Zahniser wrote 66 drafts of the bill. He testified on behalf of the bill 18 times in Congressional hearings. He died just 4 months before it was signed into law by President Lyndon Johnson.

Howard Zahniser joined forces with the likes of Bob Marshall, Olaus Murie, Aldo Leopold, Mardy Murie and others to nurture the Wilderness Society. He was their Executive Director for almost two decades until his death. Mr. Zahniser was a true wilderness hero. His wordsmithing, encouragement, and inspiration were key to the passage of the Wilderness Act whose benefits we enjoy today.

To help students get to know this wilderness hero, choose one or more of the following:

- Photocopy and hand out *Howard Zahniser Wilderness Hero Sheet* to each student.
  - Based on the information found there, have students write an obituary that in a small space attempts to communicate his life and work to an audience unfamiliar with him.
- Mr. Zahniser purposefully used the word *untrammeled* in the Wilderness Act. Have students research the word's meaning and come up with a visual lesson that clearly illustrates what the word means and why he chose it to communicate his ideas about wilderness.
- A word used to describe Mr. Zahniser is PERSISTENT. Have students come up with as many synonyms as they can for this adjective.
- Write a thank you letter to Mr. Zahniser expressing gratitude for his work to support wilderness.
- Use the handout as the basis of a short mini-lesson.
- Have students do some research on some of Mr. Zahniser's co-workers on the wilderness protection cause: Olaus Murie, Bob Marshall, and Aldo Leopold. Make lists that address--
  - What did they have in common?
  - How were they involved with The Wilderness Society?
  - Why were they all so passionate about wilderness?
- Howard Zahniser loved books and reading.
  - Make a list of books where the story takes place in natural settings (fiction or non-fiction) or is focused on nature topics (non-fiction). Write a sentence or two next to each title that tells why Mr. Zahniser might have enjoyed reading the particular selection.
- Create a MWA-Wilderness Hero bulletin board.
  - Feature biographical information and wilderness statements.
- Have students study and then place their copy of this *Wilderness Hero* sheet in their Wilderness Investigations Folder.

**Wilderness Hero**  
***Howard Zahniser***  
**1906 - 1964**



Howard Zahniser (left) with Mardy and Olaus Murie  
(from Wilderness.net; Image #57)

**Introduction to a Hero**

If you've ever tackled a big project (like remodeling your bedroom OR cataloging and organizing all of the music on your IPod according to mood/occasion/event OR making travel plans and arrangements for you and some friends for a special weekend out-of-town) or set lofty goals (learning to play a new instrument OR speaking a new language OR riding your bicycle across the country) then you're really going to appreciate the story of Howard Zahniser. He was the author of what was to become the Wilderness Act. Have you ever complained about having to rewrite a paper you've produced? Well, listen to this—Howard Zahniser wrote 66 drafts of the bill between 1956 and 1964! That's persistence.

Howard was born on February 25, 1906 in Pennsylvania. Growing up near what is now the Allegheny National Forest. In this special place he came to love nature and reading. After graduating from college he taught school and worked as a newspaper reporter. Next, he worked for the federal government and during this period honed his nature skills as he spent time with Aldo Leopold, Bob Marshall, and Olaus Murie. Firm friendships and a growing wilderness appreciation brought Howard to a place where he became involved in the leadership of The Wilderness

Society. It was during this time that he worked tirelessly for development and passage of the Wilderness Bill.

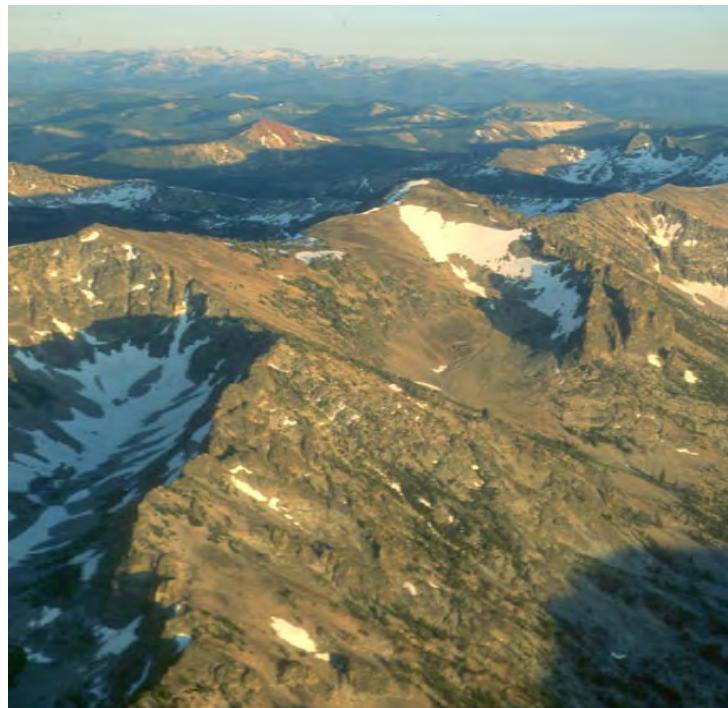
As you may remember, that bill was signed into law in September 1964. Unfortunately, Howard Zahniser died in May of that year. At the signing ceremony his widow Alice stood alongside President Johnson as he officially brought Howard's goal of designated wilderness into reality. Howard Zahniser knew how to be persistent, set goals, and work hard. We all—humans and the land itself—benefit today because of these *wilderness hero* qualities.

### **Learn more about *Wilderness Hero* Howard Zahniser**

- Mr. Zahniser wrote many articles on topics of conservation and the environmental movement for scholarly and scientific publications.
- Howard was the Executive Secretary for The Wilderness Society at the same time Olaus Murie (remember Mardy Murie? Olaus was her husband.) was the Executive Director. The two made a powerful team!
- Howard had a tailor in the Washington D.C. area make a special coat. It had four extra-large inside pockets sewn in. He would walk around with those pockets full of books (remember—he loved to read), Wilderness Bill information, Wilderness Society membership applications and other useful items. He was a walking office!
- He successfully fought against a move to build a dam within Dinosaur National Monument. Many saw this 1949 battle as the beginning of a committed public support for preservation and conservation.
- Howard and Alice had four children. One of them, Ed, became an important conservationist and author in support of wilderness protection.
- He played important roles for many conservation and environmental groups during his life.
- Howard was called “Zahnie” by his friends and was known as the “Father of the Wilderness Act”.

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APPENDIX  
Wilderness Hero  
***Frank Church***  
**1924 - 1984**



*Frank Church-River of No Return Wilderness High Country*  
(from Wilderness.net; Image #516)

**Instructions for the teacher:**

Federally designated wilderness is protected in the United States because the Wilderness Act was passed by Congress and signed into law by the President (September 1964). Many inside and outside of government worked tirelessly to help make this dream a reality. No member of Congress worked harder than Idaho Senator Frank Church. In 1964 Senator Church acted as the floor sponsor of the National Wilderness Act. Four years later, in 1968, he sponsored the Wild and Scenic Rivers Act. He also played key roles in the establishment of the Hells Canyon National

Recreation Area (bordering Oregon, Washington and Idaho) and the Sawtooth Wilderness and National Recreation Area (central Idaho).

In a day when some look askew at politicians, a look-back at Frank Church is a refreshing exercise in seeing the goodness of many who participate in the political process. Frank Church quietly assisted citizens of the United States in their quest to protect wilderness. For that he surely is a wilderness hero.

To help students get to know this wilderness hero, choose one or more of the following:

- Photocopy and hand out *Wilderness Hero Sheet* to each student.
  - After studying the information found there, encourage students to find out more about Frank Church. What else did he stand for as a Senator? What is his public service legacy?
- Provide blackline maps of Idaho and the surrounding states. Have students locate key locations in Senator Church's wilderness legacy: Sawtooth Wilderness and National Recreation Area, Hells Canyon National Recreation Area, Frank Church-River of No Return Wilderness, Salmon River.
- Use the handout as the basis of a short mini-lesson about Frank Church and his connection to wilderness preservation.
- Have students pay careful attention to the Frank Church wilderness quote found on the *Wilderness Hero Sheet*. Have them dissect his words and outline what message they think he was trying to get across.
- Encourage students to study the process by which a bill moves through Congress and, if passed and signed (or vetoed) by the President, becomes law. Have them create a graphic that illustrates the process. After this research, have students place Frank Church's role as the Wilderness Act *floor sponsor* within the graphic.
- Create a MWA-Wilderness Hero bulletin board.
  - Feature biographical information and wilderness statements.
- Have students study and then place their copy of this *Wilderness Hero* sheet in their Wilderness Investigations Folder.

# Wilderness Hero

## **Frank Church**

### 1924 - 1984



Rafting in the Frank Church-River of No Return Wilderness  
(from Wilderness.net; Image #715)

#### **Introduction to a Hero**

Frank Church was born and raised in the western state of Idaho. By the time Frank came along he was the third generation of the Church family to be born there. Though his family was not wealthy they were well-respected and active citizens of their state and community.

Young Frank decided early in life that he wanted to pursue a career in politics. When Frank was a junior in high school he won a speech contest by speaking on the topic, "The American Way of Life." He was able to pay for four years of college with the money he won! He was his high school senior class president and after graduation attended Stanford University (1942). A year later Frank enrolled in the U.S. Army where serving as an intelligence officer. He returned to college in 1946. 1947 was a big year for Frank Church—He graduated with his Bachelor's Degree and married Bethine Clark the daughter of Idaho's former governor. Frank and Bethine's family eventually consisted of the two of them and two sons.

Frank next went to graduate school and graduated with his law degrees in 1950 (Stanford Law School). He and his family returned to Boise where Frank practiced law. He started running for political office in 1952 but didn't win his first election until 1956. At 32 years old he became the fifth youngest member in history in the U.S. Senate. Senator Church went on to serve in his beloved Senate for 24 years. He passed away, at 59 years of age, in 1984.

Frank Church was a behind-the-scenes supporter of wilderness. He did much of the leg work that brought Federal wilderness protection to reality. In honor of his work in support of wilderness preservation, President Ronald Reagan designated the former River of No Return Wilderness as the *Frank Church-River of No Return Wilderness*.

### **Learn more about *Wilderness Hero Frank Church***

- Senator Church communicated the following about wilderness:

“The great purpose is to set aside a reasonable part of the vanishing wilderness, to make certain that generations of Americans yet unborn will know what it is to experience life on undeveloped, unoccupied land in the same form and character as the Creator fashioned it... It is a great spiritual experience. I never knew a man who took a bedroll onto an Idaho mountainside and slept there under a star-studded summer sky who felt self-important that next morning.

Unless we preserve some opportunity for future generations to have the same experience, we shall have dishonored our trust.”

- Conservation/Wilderness/Preservation milestones in his political career:
  - 1964: U.S. Senate floor sponsor of the National Wilderness Act
  - 1965: Senate Chairman of the Subcommittee on Public Lands
  - 1965: Idaho Wildlife Federation’s *Conservationist of the Year*
  - 1966: *National Conservation Legislative Award*
  - 1968: Sponsored the Wild and Scenic Rivers Act
  - 1972: Supported creation of the Sawtooth National Recreation Area
  - 1972: Supported redesignation of Sawtooth Primitive Area to Sawtooth Wilderness
  - 1975: Helped establish the Hells Canyon National Recreation Area (bordering Oregon, Washington and Idaho)
  - 1980: Played a large role in the formation of the River of No Return Wilderness

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## Wilderness Hero Student Research Sheet

**Student:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Instructions: Your responsibility is to find out as much as you can about the wilderness hero you have been assigned or have chosen. Use the *prompts* below to help you decide what kinds of information to look for. Don't worry if you can't find everything but remember to be as accurate as possible.

**Wilderness Hero:**

**Birth date & location:**

**Basic biographical information:**

Youth:

Adult:

**Wilderness connection(s):** WHY are they a wilderness hero? What have they done to support wilderness?

**Special story or information that has to do with wilderness:**

**Next, use the information you've collected to report on this wilderness hero as directed by your teacher.**

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**APPENDIX**  
**More Wilderness Profiles Section**  
**- Description -**

**Instructions for the teacher:**

During each of the five Wilderness Investigations, students are introduced to a *designated wilderness*. These areas represent a cross-section of the wilderness designated by Congress. These five are listed below:

<u>Investigation</u>	<u>Hero</u>
Investigation #1	Bob Marshall
Investigation #2	Okefenokee Wilderness
Investigation #3	Gila Wilderness
Investigation #4	Maurille Islands Wilderness
Investigation #5	Mission Mountains Tribal Wilderness

There are so many more wilderness areas that could have been chosen! If you would like to continue your students' study of wilderness areas there are two options presented here:

1. On the following pages you will find several more wilderness profiles. These profiles are set-up just like those that have come before. These wilderness profiles continue to represent diverse landscapes.
2. A blank *Wilderness Profile Sheet* is found on the pages following the additional Wilderness Profiles found in this appendix. Use this sheet (or develop your own) to help students research wilderness areas you identify for them or those they identify on their own.

Use this additional *Wilderness Profile* focus to help your students grasp the breadth and depth of our wilderness heritage.



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**APPENDIX**  
**Wilderness Profile**  
***Shenandoah Wilderness***

**Teacher background:**

When one reflects on wilderness they likely imagine untouched landscapes—remnants of a once much larger wilderness place. Although the Shenandoah Wilderness certainly shouts, “WILDERNESS” to anyone fortunate enough to visit, its past suggests a landscape once worn out. Worn out? Yes, this recovering wilderness was cleared, inhabited, farmed, logged, and burned since the early 1700’s.

A study of this wild place allows students a window into the healing powers of nature in the eastern deciduous Appalachian forest. Wildlife abounds, remnants of human history are there for those interested in looking, and wildflowers bloom in a show of diversity and abundance. Located within Shenandoah National Park (42% of the park is wilderness) and entirely inside the state of Virginia, this special place provides refuge for the wilderness and those solitude-seekers who visit.

**Instructions for the teacher:**

To help students become familiar with the Shenandoah Wilderness choose one or more of the following:

- Use information from *Teacher Background* and the *Student Information Sheet* to prepare and present a mini-lesson about this wilderness.
- If students have already started their *U.S. Wilderness Area Field Guide* (started in Wilderness Profile #1) have them add entries by choosing items from the list below:
  - Photocopy the *Student Information Sheet*, have students go through it and then create a *compare and contrast* list by choosing another wilderness and seeing how they *stack up* side-by-side.
  - Using the *Student Information Sheet*, have students choose one of the following creative projects:

- Write a fictional story that tells about a group of Native People 9,000 years ago living in or moving through what is now the Shenandoah Wilderness.
  - Paint a picture showing farmers in 1750 clearing land and creating farms in what is now wilderness.
  - Compose a poem that features the first meeting of Native People and European settlers in this place.
  - Create a day-to-day diary of a young man or woman who have come to the area with their family to log in the early 1800's.
- Use the wilderness map, included in the WI set, to locate Shenandoah Wilderness and its geographic relationship to places near and far.
- Have students choose one of the animals found in the wilderness.
  - Conduct research to learn about the animals natural history.
  - Write reports, illustrate habitats, and create posters with the items you create.
- If you've already started your *U.S Wilderness Area* bulletin board (see *Wilderness Profile #1*) then add information about this wilderness. If not, start your bulletin board now.
  - Good bulletin board items include maps, photos, written information, recreation ideas, and so forth.
- For more information about the Shenandoah Wilderness go to [www.wilderness.net](http://www.wilderness.net).

# Wilderness Profile

## *Wilderness*

### Student Information Sheet



**Remnants of Human History—Shenandoah Wilderness**  
(from Wilderness.net; Image #1818)

#### What's the story?

- Designated as Federally protected wilderness within Shenandoah National Park in 1976 by Congress.
- 42% of the Park is wilderness.
- Managed by the National Park Service, the wilderness has a total of 79,579 acres.
- Located entirely with the state of Virginia.
- The story of people is the story of the Shenandoah Wilderness:
  - Evidence of use of the wilderness area by Native People goes back 8,000 – 9,000 years ago.
  - Between 1750 and 1850 many hundreds of families built homesteads, mills and stores and planted orchards and crops. The mountains were logged and minerals were mined. Vacation resorts were established.
  - Over 340 structures in Shenandoah National Park are listed in the National Register of Historic Places.

- Fire historically played an important role in the natural renewal of forest ecosystems. Fire suppression created an imbalance that is just now being adjusted as fire once again plays its role on the wilderness landscape.
- Wildlife is a major feature of this place:
  - Some of the MAMMALS found here: Chipmunks, groundhogs, deer, bear, bobcats, squirrels, skunks, raccoons, and opossums.
  - Over 200 species of birds have been identified in the area: (including) ruffed grouse, ravens, juncos, barred owls, and wild turkeys.
  - Reptiles: Timber rattlesnakes and copperheads are found here.
- 175 miles of trails traverse the wilderness.
  - 101 miles of the famous Appalachian Trail are with Shenandoah National Park.
- Some water flowing out of the wilderness flow all the way to Chesapeake Bay.



**Autumn in the Shenandoah Wilderness**  
(from [Wilderness.net](#); Image #2996)

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**APPENDIX**  
**Wilderness Profile**  
***Boundary Waters Canoe Area Wilderness***

**Teacher background:**

Two hundred years ago French Voyageurs traversed the place now known as Boundary Waters Canoe Area Wilderness. For these adventurers travel by water was, as it had been for Native People over thousands of years, the most efficient way to get around. Because the area today is designated wilderness water travel continues to be the best travel option! Ice Age glaciers carved the rock and left a place where 20% of the land is... water.

This spectacular wilderness was part of the first set of designations in 1964. It is located entirely within the state of Minnesota and is managed by the U.S. Forest Service. Boundary Waters has a total of 810,087 acres but when combined with its neighboring Canadian wilderness (Quetico Provincial Park) the wilderness areas cover approximately two million acres.

Lest anyone think canoeing is the only activity for wilderness visitors, be aware that the area also offers cross-country skiing, dogsledding, camping and ice-fishing. Each of these activities takes the participant back in time and allows them to experience life with solitude being ones companion of choice. The area is rich in natural history, cultural history, and wilderness recreational values.

**Instructions for the teacher:**

To help students become familiar with the Boundary Waters Canoe Area Wilderness (BWCAW) choose one or more of the following:

- Use information from *Teacher Background* and the *Student Information Sheet* to prepare and present a mini-lesson about this wilderness.
- If students have already started their *U.S. Wilderness Area Field Guide* (started in Wilderness Profile #1) have them add entries by choosing items from the list below:

- Photocopy the *Student Information Sheet*, have students go through it and then have them create a concept web that features the main details about BWCAW.
  - Using the *Student Information Sheet*, have students choose one of the following creative projects:
    - In teams of two or more students, create a BWCAW board game. Make the game's key elements relate to the park (connected lakes and streams, trails, wooded land) as well as the playing pieces themselves (i.e. a different color or shape of canoe for each player). Players move forward by answering questions about the wilderness correctly. Have teams create an answer sheet for each question they create.
  - Use the large wilderness map and have students make a list of every lake. If they can, have them list them from largest to smallest water surface area.
  - Have students create BWCAW collages that feature some of the main human activities there.
- Think about and list everything you would need to bring in order to accomplish a two-week wilderness canoe trip.
  - Make a plan and estimate costs (travel to and from, food, gear, equipment, etc.).
- If you've already started your *U.S Wilderness Area* bulletin board (see *Wilderness Profile #1*) then add information about this wilderness. If not, start your bulletin board now.
  - Good bulletin board items include maps, photos, written information, recreation ideas, and so forth.
- For more information about the Boundary Waters Canoe Area Wilderness go to [www.wilderness.net](http://www.wilderness.net).

# Wilderness Profile

## *Wilderness*

### Student Information Sheet



#### **Canoeing in the Boundary Waters Canoe Area Wilderness**

(Photo by Gregg Bruff; from Wilderness.net; Image #1556)

#### **What's the story?**

- Designated as Federally protected wilderness in 1964 by Congress and part of the first group of designated wilderness.
- Managed by the U.S. Forest Service the area has a total of 810,087 acres.
- Located entirely within the state of Minnesota and bordering Canada's Quetico Provincial Park.
  - The two wilderness areas cover nearly two million acres when combined.
  - The wilderness extends nearly 199 miles along the international border.
- Glaciers, during various Ice Age periods, scraped and gauged the rock leaving behind basins for lakes and channels for streams.

- The landscape is dominated by rugged cliffs and crags, gentle hills, canyon walls, rocky shores, and sandy beaches.
- Plant species are representative of those found in a boreal forest biome.
  - Tree species include red pine, eastern white pine, jack pine, birch, balsam fir, white spruce, black spruce, blue spruce, and white cedar.
  - Wild berries (blueberries, raspberries, and wild strawberries) are common in certain areas and popular with wilderness visitors and wildlife.
- The area has an abundant animal population:
  - Mammal examples: Moose, beaver, black bear, white-tail deer, gray wolf, red fox, lynx, fisher, pine martin, mink, otter, weasel, snowshoe hare, red squirrel, and bobcats.
  - Bird examples: Common loon, black-capped chickadees, white-throated sparrows, goldfinch, grosbeaks, bald eagle, mallard ducks, and osprey.
  - Fish examples: Northern pike, walleye, smallmouth bass, perch, sturgeon, and whitefish.
- Evidence of a rich human history date back as far as 10,000 – 12,000 years ago (Paleo-Indian culture). Woodland Period sites (500 BC – 1650 AD) include camping sites, villages, wild ricing sites, burial areas, pictographs, and places of special spiritual and traditional importance.
- More recent historical evidence of European explorers and trappers and early American use of the land for trapping, logging, and settlement are found here.
  - In the 18<sup>th</sup> and 19<sup>th</sup> centuries French Voyageurs were hired by fur trapping companies (Mainly the North West Company which later became the Hudson Bay Company) to trade for furs with Native People. They transported huge loads of furs long distances by canoe and are known to have done so in this wilderness area.
- There are 1200 miles of canoe routes and 18 hiking trails with access to campsites and expansive wilderness.
- In winter, cross-country skiing, dog-sledding, camping, and ice-fishing are popular visitor activities.

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**APPENDIX**  
**Wilderness Profile**  
***South Fork Eel River Wilderness***

**Teacher background:**

Combine 12,867 acres of wilderness with elevations between 1,100 and 4,083 feet, generally steep terrain, a few gentle slopes, reddish soil in its central section, unique vegetation plus rare and endangered species and you have the South Fork Eel River Wilderness (SFERW).

Located entirely in the state of California and managed by the Bureau of Land Management, this unique wilderness landscape was designated by Congress in 2006. A portion of the wilderness (Cahto Peak unit) is so pristine that it has been designated as a Biosphere Reserve, a National Natural Landmark, and a Hydrologic Benchmark. Though smaller than many, certainly less well-known, and visited by far fewer people, the South Fork Eel River Wilderness certainly represents many of the wilderness values set forth in the Wilderness Act of 1964.

**Instructions for the teacher:**

To help students become familiar with the South Fork Eel River Wilderness choose one or more of the following:

- Use information from *Teacher Background* and the *Student Information Sheet* to prepare and present a mini-lesson about this wilderness.
- If students have already started their *U.S. Wilderness Area Field Guide* (started in Wilderness Profile #1) have them add entries by choosing items from the list below:
  - Photocopy the *Student Information Sheet*, have students go through it and then create an informational essay that describes it.
  - Using the *Student Information Sheet*, have students choose one of the following creative projects:

- Research one of the fish or trees found in the wilderness. Create an original depiction of the item using watercolors, pencil, charcoal, or other visual art medium.
  - Make a *Field Guide to the Trees of SFERW*.
- Use the wilderness map, included with this *WI Toolkit*, and have students list cities, landmarks, bodies of water, highways, etc. found in close proximity.
- Have students choose one of the popular human activities and create a persuasive paragraph that attempts to convince the reader to try out the activity in this wilderness.
- Research the Bureau of Land Management (the agency that manages this wilderness). Find out who they are, what they do, their history, etc.
- If you've already started your *U.S Wilderness Area* bulletin board (see *Wilderness Profile #1*) then add information about this wilderness. If not, start your bulletin board now.
  - Good bulletin board items include maps, photos, written information, recreation ideas, and so forth.
- For more information about the South Fork Eel River Wilderness go to [www.wilderness.net](http://www.wilderness.net).



**South Fork Eel River Wilderness**  
(Photo by Bob Wick [BLM]; Used by permission)

# Wilderness Profile

## ***South Fork Eel River Wilderness (SFERW)***

### **Student Information Sheet**



**South Fork of the Eel River**

(Photo by Bob Wick [BLM]; Used by permission)

#### **What's the story?**

- Designated as Federally protected wilderness in 2006 by Congress.
- Managed by the Bureau of Land Management (BLM) the area has a total of 12,867 acres.
- Located in northern California near the Pacific Ocean.
- The landscape is varied with elevations between 1,100 and 4,083 feet, generally steep terrain, a few gentle slopes, reddish soil in its central section, unique vegetation plus rare and endangered species.
- Recreational activities include camping, hiking, backpacking, wildlife viewing, photography, and picnicking.

- Interesting and sometimes unique plant species include coastal redwood, Douglas fir, ponderosa pine, chaparral, and sergeant cypress.
- Wilderness waters are home to chinook salmon, coho salmon, steelhead trout, and coastal cutthroat trout.
- In the Cahto Peak unit of the wilderness one of the Douglas fir watersheds is so pristine (in a pure or untouched state) that it has been designated a Biosphere Reserve and National Natural Landmark.

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Tom Costrba	Sacajawea Middle School
Diann Ericson	Swan Ecosystem Center

Kari Gunderson, veteran wilderness ranger, offered experiences and information and, more than that, inspiration though a life that has been in service to wilderness and wilderness education.

Tony Incashola, Director of the Salish-Kootenai Culture Committee, sat through countless hours of sharing and brainstorming to help make any ideas or references related to tribal/cultural beliefs, activities, terminology, etc. respectful, thoughtful and as accurate as possible.

Finally, to all of the wilderness heroes our country has benefited from in the past, enjoy in this present time period, and who will lead us in the future—thank you.

