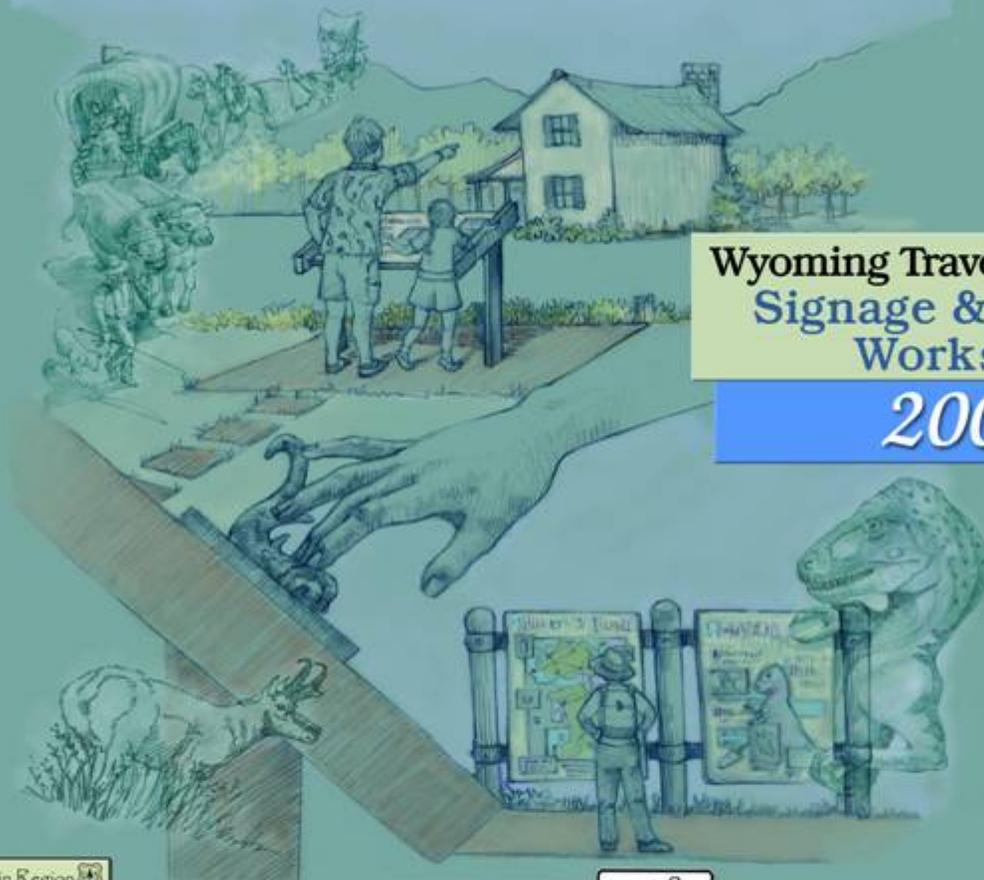


# Sparking Imaginations & *Making Connections*



Wyoming Travel & Tourism  
Signage & Turnout  
Workshop

2008



# Presented By



The USDA Forest Service  
Center for Design & Interpretation

*In partnership with*



Wyoming Travel and Tourism



Wyoming Dept. of State Parks & Cultural Resources



Wyoming Dept. of Transportation





**The Rocky Mountain Region's Center for Design and Interpretation (CDI) is a service team bringing together the design disciplines of:**

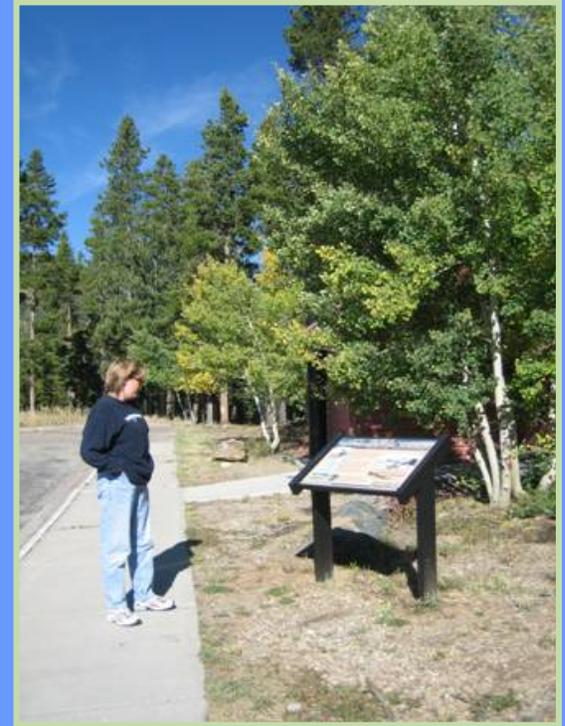
- Architecture
- Landscape Architecture
- Interpretive Planning
- Graphic Design
- Engineering

[www.fs.fed.us/r2/cdi](http://www.fs.fed.us/r2/cdi)



# Workshop Objectives

- Understand quality sign design guidelines.
- Learn how to develop a theme and learning objective for the sign.
- Learn how to complete a quality sign (grant) proposal that includes theme, addresses design guidelines, appropriate sign material, and includes accurate design and fabrication cost estimate with plan for development.



# More Workshop Objectives

- Understand the Engineering Guidelines MUTCD standards for signs in highway Right of Ways.
- Understand the value of site planning and placement.
- Recognize good design and quality interpretive text.
- Learn about grant opportunities to fund signs.
- Receive resources, materials, and contacts to accomplish work.



# Before We Begin.....



# What is Interpretation?



*Interpretation is a communication process that forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource.*

(National Association for Interpretation)



# What Does That Mean?

## Interpretation Exercise

*Stewardship*



*Care for*

*Care about*

Intangible concept

*Understanding*

*Awareness*

*Trophy Hunting*

Tangible object

➤ We create “PORTALS”  
to learning, exploring,  
understanding, caring!

*Good interpretation makes connections between tangibles and intangibles.*



# The Interpretive Approach to Communication

- Enjoyable
- Relevant
- Organized
- Thematic

**ANIMALS ADAPTING TO ALTITUDE**

Animals living here, like all animals, need food, water, and shelter to survive. Alpine Tundra dwelling animals have adapted special techniques which enable them to conserve energy and survive in this harsh environment.

**Rosy Finch**

**Moving to Lower Ground**

Elk graze in the mountain meadows, eating grasses and forbes after the snow melts. They migrate to lower elevations in the fall. American pipits and snow finches are two birds that frequent the area. Like the elk, they take advantage of the summer bounty and migrate as the days begin to shorten.

**Sleeping Through Lean Times**

Marmots, the woodchucks of the rocks, live here year round. During a summer visit you might see them sunbathing on large rocks. In the fall they eat large quantities of grass, building up fat reserves so they can sleep, or hibernate from late September through March.

**Storing Food for Later**

Pikas also live in the high country year round. They have short ears, and fur covered feet, similar to their relative, the rabbit. Both adaptations help prevent heat loss. They are active throughout the long winter, living on grasses they stored during the summer. Pikas are sometimes called little haymakers.

**Medicine Bow National Forest**

Caring for the Land and Serving People

SNOWY RANGE SCENIC BYWAY



*Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.*

*(Freeman Tilden)*

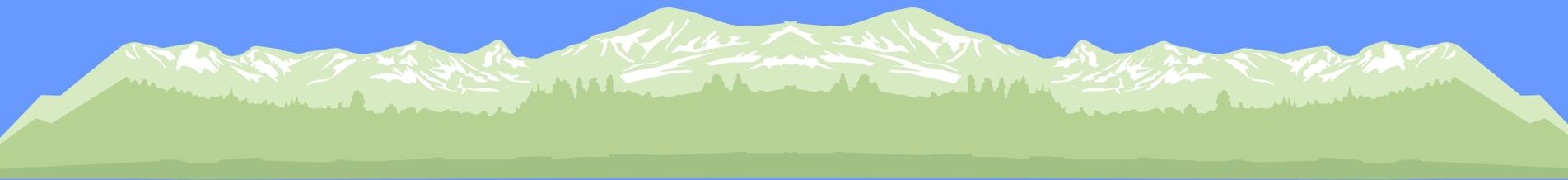


# Themes

- Are messages
- Express one idea
- Answer the “So What?” question



*People remember themes, they forget facts.  
(Sam Ham)*



- What are the most significant messages?
- What are visitors most interested in?
- What is management most interested in relating to visitors?
- Interpretive value
- Central theme statement
- Subthemes
- Storylines

(From Brochu and Hanna 2000)



# Effective Interpretation Adds Value

- Creates a strong sense of place—uniqueness.
- Makes both intellectual and emotional connections.
- Encourages longer stays, return visits, word-of-mouth advertising.
- Encourages stewardship of the resource.
- Accomplishes management objectives.



# When We Interpret Well

- We connect people intellectually and emotionally with the inherent meanings in the resource.
- People will care more about the resource and care for it - stewardship.
- We make the most cost effective use of our resources in the development of media and services to deliver messages.
- We develop sustainable values among users.

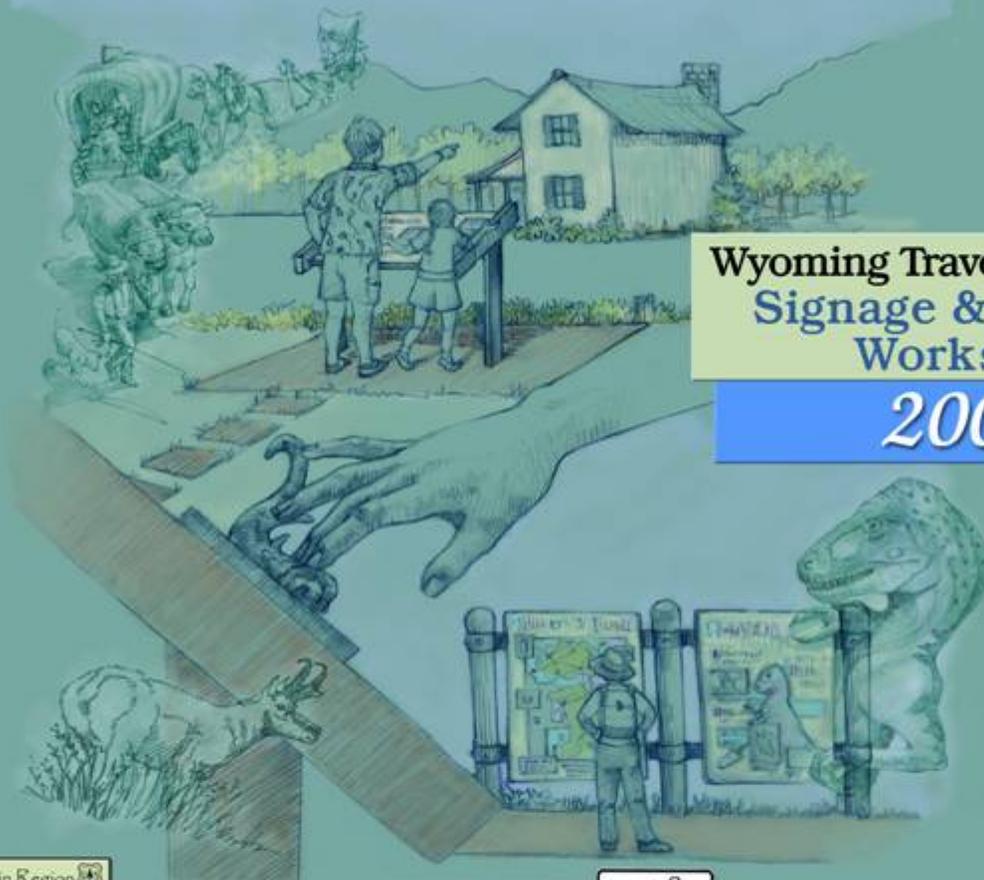


# The Latest Research

- Visitors view exhibits for short periods of time.
- Exhibits and brochures at one center were used less by less than 1/3 of the visitors.
- Visitors made greatest use of interactive or visually intriguing exhibits.
- Exhibits must be well designed to convey information quickly.
- Visitors enjoy exhibits on plants, animals, or history.
- The VIS staff are still the No. 1 attraction!



# Sparking Imaginations & *Making Connections*



Wyoming Travel & Tourism  
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Workshop

2008



# 12 Design Guidelines that Help Spark Imaginations

1. Site Compatibility
2. Corporate Image
3. Color and Contrast
4. Layout and Design
5. Margins
6. Typeface
7. Titles
8. Text
9. Captions
10. Simplicity
11. Accessibility
12. Mounting Height



# 1. Site Compatibility

Make sure the sign is compatible with the site (color palette, size, frame, etc. It should enhance the site, not detract from it.







## 2. Corporate Image

Before  
Planning



# After Planning



# MORE THAN A SCENIC VISTA



## Snowy Range Scenic Byway



Take a drive on the Snowy Range Scenic Byway and learn about the plants, animals, and history as you travel through the adventurous life zones.



This highway was the second scenic byway recognized in the nation and was designated in 1988 by the U.S. Forest Service and in 1995 by the State of Wyoming.



## THE SNOWY RANGE

The mountains you see on the horizon are part of the Snowy Range. At 12,013 feet, Medicine Bow Peak is the highest point in the range. The Snowy Range includes several permanent snowfields. They are important in providing water to streams through snowmelt. This water supports trees, plants, wildlife, wetlands, and people.



Charles Bellamy, one of the surveyors for the Helena Peak, Laramie, and Pacific Railroad, explored the Snowy Range for water supplies in the early 1900s. Bellamy at 56, became the nation's first licensed professional engineer and land surveyor in 1907.

Lake Marie, along the Snowy Range Scenic Byway, was named after Bellamy's wife Marie, the first woman to be licensed in Wyoming in 1902. She was the first woman's effort to pass the nation's 1910 amendment, giving women the right to vote.



Trucking on the Snowy Range Road, 1925.

The first paved road over the range was completed in 1926 and is now the Snowy Range Scenic Byway.



The road was often divided by hard ice for "ice-out" in the spring.

**MEDICINE BOW National Forest**  
Center for the Land and Scenic People



# FOREST TO THE CITY



## WATER FROM THE FOREST

Water is important in the high altitude forests of the West where annual rainfall is only 10-15 inches. Water collected during spring melt from mountains is critical. Lake Chase, in front of you, holds this water for use downstream.

The systems must be large enough to collect a year's worth of water in a few short weeks during spring when the snow is melting.



## GRAVITY MOVING WATER

The people of Cheyenne are dependent on water from the forest. The water systems were gravity to transport water across two mountain ranges and over 90 miles through a series of pipes, creeks, dams, and reservoirs.



The water system in the Snowy Range Mountains, east of the Continental Divide.



Water flows over the water at Hay Park Reservoir to north for water in the Snowy Range. Water from the flow is piped 20 miles through Lake Chase to Cheyenne and 10 miles to the city of Cheyenne.

Transportation of water and water treatment is paid for by the City of Cheyenne Board of Public Utilities.

Collection of water from the forest through 12 miles of pipes in the Continental Divide allows it to be transported under the divide to a tunnel to Hay Park.



Water flows over the water at Hay Park Reservoir to north for water in the Snowy Range. Water from the flow is piped 20 miles through Lake Chase to Cheyenne and 10 miles to the city of Cheyenne.

**MEDICINE BOW National Forest**  
Center for the Land and Scenic People

# UNDERWATER ALIENS

## WHAT'S BITING?

For trout that travel upstream every spring here today are usually alien to these waters. These brook trout, rainbow trout, and brown trout are native to the eastern U.S., Pacific Northwest, and Europe, respectively. The Platte River drainage, including Lake Chase, originally had very few native game fish.

A few biologists carefully studied the lake in the 1980s. They began stocking trout with 30,000 rainbow trout brook trout. Regular stocking of all three species continues today. The Wyoming Game and Fish Department raises the fish at one of its hatcheries in the area.

## FAVORITE FOOD

Mayflies are a favorite food of trout. When mayflies emerge as adults from the lake bottom and dry their wings before taking flight, trout eagerly gobble them up on or near the surface.

**MEDICINE BOW National Forest**  
Center for the Land and Scenic People



# Before



# After



# 3. Color and Contrast

- Contrasts that are easy for a person with normal vision are difficult for partial sighted people.
- Dark on light or light on dark are good choices.
- See [www.lighthouse.org](http://www.lighthouse.org) for good examples!

**GRIZZLY BEAR**  
*Country*

When visiting in Bear Country, remember:

**Bears do not like surprises!**

- When accessing river areas please stay on marked trails.
- Keep off-trail exploring to a minimum and make noise as you travel.
- Be on the lookout for bear presence. (torn up logs, bear scat, large animal carcasses)
- Always travel in pairs or in a group.

*If bears can hear you, see you, or smell you, generally they will avoid you.*

**Senses**

*Grizzly*

Sharp Hearing

Average Eyesight

Keen Smell

**Hungry bears would like your food!**

- Store all food in your enclosed vehicle or in bear boxes provided at each site. This includes any item that has an odor such as toothpaste, deodorant, soaps, pet foods and beverages.
- Dispose of garbage properly in the bear resistant dumpsters available throughout the campground area.
- Do not cook and sleep in the same clothes.

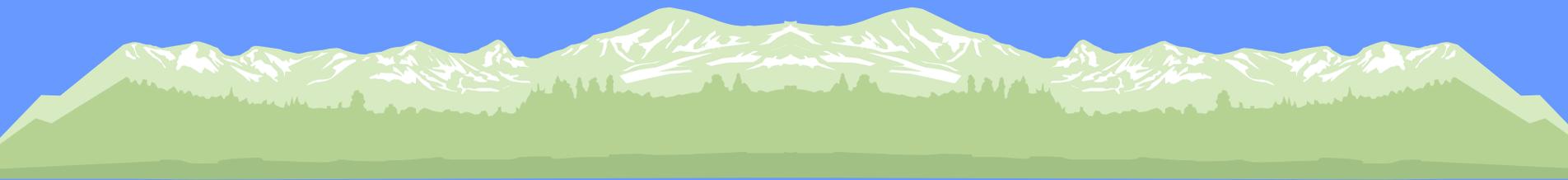
*Grizzlies have a keen sense of smell and are attracted by any odorous item.*

*Grizzlies have average eyesight but depend on their sharp hearing. River noise can deaden this sense, making it more likely that you could surprise one.*

**Bears like their space!**

- Maintain at least 100 yards distance from a bear. This is especially important when photographing them.

Shoshone National Forest



# Avoid busy backgrounds



# Mountains of Color

## A Wildflower Paradise

Meadows cloaked in color greet visitors during the spring and summer in the high country. Take time to get close and discover the intricate, delicate, and amazing array of wildflowers as you travel through the Bighorns.

### Spring

**Swallow Tail** (*Delphinium bicolor*)  
Blooms in late April through July and is seen in open fields, often interspersed with forget-me-nots.

**Trillium** (*Trillium*)  
Usually seen in the lower zone above 8000 feet and late May through late June.

**Yellow Trillium** (*Trillium*)  
Blooms in valley's mid March, and in higher mountains during May and June. It is usually found amid sagebrush and on dry hillside.

**CAUTION**

### Summer

**Rocky Mountain Goldenrod** (*Solidago canadensis*)  
Commonly confused with true goldenrod, this golden yellow flower first blooms in late April and is often found in fields of lupine.

**Rocky Mountain Goldenrod** (*Solidago canadensis*)  
It may be pretty, but the more delicate is a common weed. It will take over prairie (the grasses) and low forest (the shrubs, trees and herbs). The forest is working to eradicate these invasive species.

**Indian Paintbrush** (*Castilleja leucostachya*)  
Look for the Wyoming State Flower blooming from June to August on hillside and roadside. Colors range from scarlet red, pink, and orange to white.

**Blue Lupine** (*Lupinus albus*)  
This tall blue flower blooms in June and early July on sagebrush covered hillside.

**Harvest Moon** (*Chrysothamnus viscidiflorus*)  
Found from low elevations to 10,000 feet in both dry and moist areas. It is often found among and between sagebrush and juniper.

Bighorns National Forest

Avoid photos behind text unless you are very careful!

## Seedlings Today, Trees Tomorrow

**Produce and plant native species**

**Some wood after planting native tree seedlings for more than 100 years**

Native tree seedlings are produced after the 100th year of the Bighorns National Forest.

**As the oldest federal tree nursery in the United States, Bessey has a long history of growing seedlings and developing seedling production technology. It provides tree seedlings for state, federal and tribal agencies, and national forests in the Rocky Mountains and Great Plains.**

**Processing pine seeds**

The nursery staff grow conifer and hardwood tree and shrub seedlings. Work includes seed collection, processing, sowing, seedling nurturing, harvesting, grading, marketing, and distribution.

**Planting native trees**

Seedlings are used to establish wildlife habitat, windbreaks and living snow fences, restore fire- and insect-damaged forests, and supplement natural regeneration after timber harvest activities.

Rocky Mountain Region  
CENTER for DESIGN & INTERPRETATION

# 4. Layout and Design

Signs should contain:

- 1/3 graphics
- 1/3 text
- 1/3 blank space

## MOUNTAIN SCULPTORS

*"Every block of stone has a statue inside and it's the task of the sculptor to discover it." Michelangelo*

### ICE IN MOTION

The Wallowa Mountains stand, a distinguished masterpiece, as though uncovered by the hand of a divine artist. The tool of the artist? **GLACIERS.**

Over many years, the energy of something as simple as ice and gravity carved away at the underlying bedrock like a massive piece of sandpaper, revealing the splendid peaks, ridges, and lakes that are awaiting discovery. River corridors radiating in every direction were ground out by debris frozen into the bottom of the ice, and meltwater washed out colossal deposits of silt and rock into the valley below.

### THE GREAT ICE CHISELS

Just as a sculptor uses a chisel to create a myriad of forms, glacial ice carved an array of breathtaking landscapes.

**Cirques:** Look for steep-sided **cirques**, formed by the head of a glacier that carved a three-sided bowl.

**Arêtes:** If you find yourself on a knife edge ridge, you have discovered an **arête**, where cirques were cut, back to back into the stone.

### KNOW BEFORE YOU GO

Even an area as big and bold as the Eagle Cap Wilderness can still be very susceptible to the impacts of its visitors. Please, Leave No Trace:

- Plan ahead and prepare
- Camp and travel on durable surfaces
- Minimize campfire impacts
- Leave what you find
- Dispose of waste properly
- Respect wildlife
- Be considerate of others

**Wallowa-Whitman National Forest**  
Caring for the Land and Serving People



# 5. Margins

Flush on the left side and ragged on the right.

## NATIVE RESIDENTS

### Hang in a Fragile Balance

The forest lands surrounding Guanella Pass are home to wildlife that rely on specific habitats to survive.

**Budding Monkeyflower**  
Dazzling, oval-shaped flowers prefer grassy areas, wet slopes and alders within upper montane and subalpine forests at elevations of 8,000 to 11,000 feet. It is found in the world only along Colorado's Front Range. It has a unique reproductive system of dropping small clones from its leaf axils.

**Boreal Owl**  
A resident of higher elevation forests in Colorado, the boreal owl uses "cat and mouse" tactics for hunting small mammals like voles and mice.

**Spicebush**  
(*Dicentra spicata*)  
Mammaries are small, produce fern-like plants that produce flowers. In Colorado they prefer sub-alpine and nearby prairie habitats. A rare variety (plant) was first discovered on Guanella Pass in the summer of 2005. It is known only from the Pass and a few other locations in the world.

**Boreal Toad**  
Boreal toads breed in quiet shallow water in lakes, ponds, meadows, bogs, wet meadows, along streams, and even roadside ditches in elevations ranging from 8,000 to 12,000 feet.

**American Marten**  
The martens resides in older forests with complex physical structures like downed trees and rock piles that provide denning sites and access to small mammal prey species.

**Simple Kobresia**  
(*Kobresia simpliciflora*)  
The hardy, simple inflorescence prefers moist grassy meadows near the Continental Divide of the Front Range area of Colorado.

**Canada Lynx**  
Colorado now supports a small population of this feline big-cat species and they have expanded to this area thanks to reproduction.

**White-tailed Ptarmigan**  
White-tailed ptarmigan are one of few birds that live in the alpine zone year-round. In the winter they survive by feeding on small willow buds.

**USFS**

## You're Standing on the 45th Parallel

### Hipp-a Who?

The system of latitude and longitude actually dates back to 200 B.C. and a Greek astronomer, Hipparchus.

Revised over two millennia, the 45th Parallel has actually shifted slightly north about ten miles due to the bulge at the equator caused by the earth's rotation.

### What's So Special About This Spot?

Your feet are placed on a line that has played a key role in navigating the earth for over two thousand years! The 45th Parallel is not a visible line, but a mapping tool that represents a contour halfway between the Equator and the North Pole. It was originally used by seafarers navigating the ocean wilderness, with only the sun and stars to guide them.

### What Goes Around Comes Around

Today, even though a myriad of global technologies can pinpoint our location on earth to within 12 inches, the 45th Parallel is still a valuable way of connecting ourselves to other places on the planet. Imagine a line that starts at your feet and then joins the prairies of South Dakota, the north woods of Maine, the wine country of France, the deserts of Mongolia, and then back again at your feet.

What started out as a mapping tool now connects a diversity of landscapes and cultures around the globe.

**USFS**

Shoshone National Forest  
Caring for the Land and Serving People



# 6. Typeface

Use a sans, slab, or simple serif typeface, upper and lower case, with a minimum 24-point type size on signs.

**A Hot Job**  
On the train a fireman was responsible for shoveling coal from the tender into the firebox and transferring water from the tender to the boiler. His most critical job was to check the water gauge to prevent the boiler from running dry and causing a huge explosion.

## TAKING ON WATER

### STEAM POWER

You are standing at the site of Lake Station which provided water, critical for steam power, to passing trains. Up to nine thousand gallons of water from this tank were pumped into the "tender," located behind the engine, which powered the train. The water was heated by coal in the boiler to create steam which ran the engine. The release of steam is what gave the train the characteristic "Choo Choo" sounds.

- 1 The water from the fire in the boiler goes through a line in the boiler and out the tank, heating the surrounding water.
- 2 The water turns to steam, which rises and collects in the steam drum.
- 3 The steam rises into the tank above the water level and out the stack, creating the "Choo Choo" sound.

Locomotive #1 with tender near Lake Owen, 1909.

Water tank at Lake Station: A worker used to the steel cables as he could maintain the pump and keep the tank full of water. Look carefully for remnants of the cables and pipe that carried water from Lake Owen to the tank.

Union Pacific Consolidation 2-8-0 No. 533, taken on May 7, 1905 near Fortzick. After World War I, the first diesel engines appeared on the line. By 1950, diesel engines replaced steam engines, and the water tanks were abandoned.

**MEDICINE BOW National Forest**  
Caring for the Land and Serving People

# The Future of the Forest



The Arapaho and Roosevelt National Forests and Pawnee National Grassland are a landscape of opportunity unique to the nation. Communities, businesses, and individuals depend on the forest for goods, services, and outdoor fun. The benefits are great – and so are the challenges:

## Is There Room for Everyone?

This forest ranks among the most visited in the nation because of its exceptional recreational opportunities and proximity to 8 million residents. Responsible partners and users like you help the Forest by helping to conserve the resources and reduce impacts.



## Cooling the Fires

While some fire can be healthy for forests, large catastrophic fires pose a major threat to public and private lands. Through fuel reduction projects, the Arapaho and Roosevelt National Forests are working to make the land more fire-resistant and resilient.



The Forest Service has already installed stands around communities to make homes more "defensible."



Fuel reduction projects benefit wildlife as well as people by creating more openness and diversity in the landscapes and habitats.



Unrestricted protection is vital. Search and studies, logging watersheds and streamlining water supplies.



## Invasive Species: A Growing Concern

Nationwide, invasive plants cover an area larger than the State of California. Invasive species (both plant and animal) displace desirable natives and degrade wildlife habitat. Annually, they cost Americans more than \$137 billion a year in economic damages and control costs. Prevention and control requires cooperation across all landscapes and jurisdictions.

Most of the invasive species found in the U.S. today were originally introduced for food, fiber, ornamentals, or soil stabilizers.

## People Like You Make a Difference



Land & Wheel Drive groups are showing examples of public land stewardship. They remove damaged limbs, educate users, and sponsor trash clean up days.

We could not do it without volunteers! Our partners do everything from answer phones and picking up trash to maintaining trails and securing grants. How can YOU help?

Arapaho and Roosevelt National Forests



Cooperating with the National Park Service

## Typeface Examples:

- sans serif
- simple serif



# Spacing Between Lines of text – or “Leading”

Too much space or too little space make it difficult for people with partial sight to track. Don't try to cram too much text into the space!

**Historic - Larimer**

## From RUIN to RESTORATION - Roberts Cabin

**Gold Rush on Tarryall Creek**

Tarryall Creek was the site of the first gold strike in North Park. In 1870, Fred Harbison and John Peterson found rich veins of gold just two miles upstream, quickly the local population had their sights set on the establishment of their own - Harbison and Peterson - located at opposite ends of the creek east of town. Harbison was in charge of collecting ore. Peterson had the camp area between known as "Harbison". The road and gravel pits suggest a rich vein of gold was found between 1880 and 1885.

In 1870 the deposits were played out and most of the 1880s residents had moved on. Some of the Tarryall buildings were retained in the area - including a sawmill at the site, and the remaining cabin was left intact. The last area was abandoned in the 1890s for unprofitable dredging operations.

**Early Day Dredging**

Large piles of rocks you see along the road to Caber are remnants of dredging that took place in the 1880s. The design floated on temporary ponds and removed material from the creek bed. The waste rock was spread out along the bank. This operation was the third largest producer of gold in the area.

**Roberts Cabin**

The cabin is known as Fred Roberts, one time owner of the cabin and an associated placer claim on Tarryall Creek. Roberts appeared to have arrived in North Park around the late 1870s and overhauled the wood and gravel deposits on the claim. He was originally from England and shared his home with another miner, George M. Barrett, his wife and their three children. Their combined savings were probably enough because most of the gold had been removed during the Tarryall mining boom 13 years earlier.

After Roberts' death in 1890 the property passed into the hands of Frank Townsend, Roberts' nephew who did not frequent the cabin or the claim. In the 1930s, Charlie Barrett - son of George - lived in the cabin and operated a blacksmith shop. The date when Mr. Barrett last used the cabin is unknown, there apparently was no permanent resident after he left.

A close inspection of the cabin's architecture suggests a complex history. The cabin originally was one story and then an upper bedroom was added (notice the chimney in high-reaching technique). Remnants of a lead-in staircase on the rear wall and a wider doorway (now blocked in position to the left of the handle) suggest original use as a stable or barn. Perhaps the stable was converted to a residence when Roberts and Barrett began their planning on Tarryall Creek. There was also an addition on the east side. Such evidence provides clues for reconstructing the history of the cabin and its users.

**WANTED**

Please view the cabin from a distance and respect the privacy of those using the cabin. For more information please contact the Forest Service office in Parkville.

**Pike National Forest**  
Caring for the Land and Serving People

# WALK IN THEIR FOOTSTEPS

## *Flat Tops Trail Scenic Byway*

"Even as the last moccasin prints were being blown away by the wind, the tracks of the settlers' horses, cattle and sheep were wearing the trail more deeply into the ground."

Come, walk in the footsteps of those who helped shape the history of northwest Colorado. This scenic and historic tour depicts how people and nature work together in harmony along the entire length of this "working byway."

The route spans over the Flat Top Mountains and the White River and Rout National Forests, between the towns of Yampa and Meeker. This is the homeland that the Utes call "Shining Mountains."

**Length: 82 miles**  
*Driving time: Road closed at first trailhead in winter*

The Flat Tops Trail Scenic Byway cuts through the heart of the original White River Pattern Timberland Reserve. The area's long-standing history of multiple-use land management makes for pristine scenery and wonderful wildlife viewing. Yet this remains very much a "working byway," dotted with ranches, grazing sheep and cattle, some places to recreate, and timber-producing forests. You will travel over some Riggins Creek Pass and can take a side trip to beautiful Trapper's Lake.

*For a travel map, additional information, or to enjoy one of our audio recordings, please visit the office.*

Character height, as opposed to font size: All font sizes are not created equal!

The following are all the same font size, but look different!

- Test
- *Test*
- *Test*
- Test
- Test
- **TEST**

# Suggested typeface size for interpretive exhibits at a viewing distance of 1-4 feet.

- Titles: 72 - 60 point (3/4")
- Subtitles: 48 - 40 point (1/2")
- Body Text : 36 - 30 point (3/8")
- Captions: 24 - 18 point (1/4")

These are National Park Service suggested sizes for people with visual impairments.

# 7. Titles

The titles should be a statement of the theme. For example: “Salvaging Blowdown – A **Tremendous Renewable Resource**” sets the stage for talking about how trees are a renewable resource.

## MOCCASIN PRINTS TO RAILROAD TRACKS

### EARLY TRAILS

Long before these tracks were laid, herds of Northern Cheyenne, Northern Arapaho, Eastern Shoshone, White River Chey, and Ojibwa Sioux traversed the forests around you. The Medicine Bow Mountains were likely named after the place where the tribes gathered to collect herbs for teas.

During the late 1800s, railroad construction gangs, miners, and settlers traveled to western Wyoming with the building of the Transcontinental Railroad.

### CREATION OF THE FOREST SERVICE

As the construction of the Transcontinental Railroad continued, hundreds of loggers cut railroad ties in this area. This work burned down the streams and rivers resulting in streambank erosion. The 1880s also brought a big boom to the cattle and sheep industry, with many ranchers grazing on open lands.

This unregulated use of the land and potential damage to the reservation led to the creation of Forest Reserves later called National Forests. In 1902, the Medicine Bow Forest Reserve was established.

### A NEW RAILROAD

By 1901, dreams for a rail line to the Gold Hill Mines west of Colorado were dashed with the incorporation of the Van Horn-Miller Syndicate. When it was realized that the mines weren't producing enough gold to support rail service, the line was built to the coalfields near Walden, Colorado. Initially planned as a narrow gauge railroad due to the steep elevation gain, standard gauge was selected with the route change.

Though it would take until 1911, the Laraine, Haines Park, and Pacific finally made the 111 miles to Coalbrook, Colorado and was one of the highest standard gauge railroads in the U.S. reaching 9,055 feet in elevation at Fougere Station.

This rail was developed in partnership with:

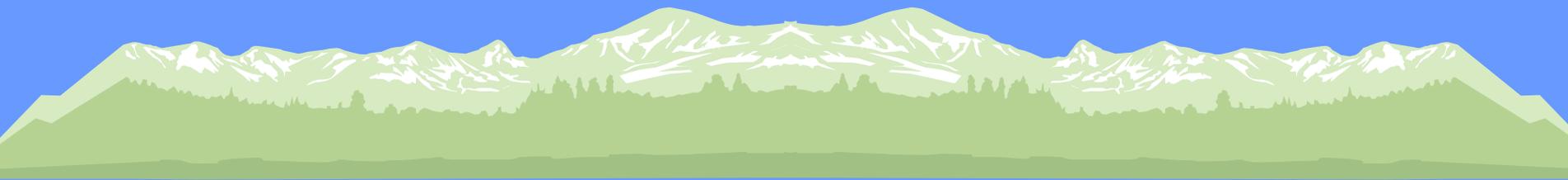
- Laraine, Haines Park, and Pacific
- U.S. Army
- Colorado State
- Colorado Fuel and Iron
- Colorado and Pacific

Look ahead at Fougere Station.

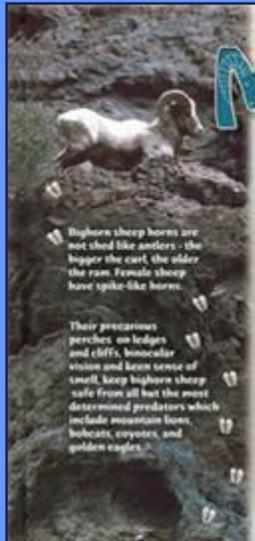
The first passenger of the Laraine-Haines-Park line, built in 1901, is now preserved and used for the display in 1901.

TRAINS ON THE LOGGING, GRADE ROAD AND TRAILS

Locomotive 11000 from the Laraine, Haines Park, and Pacific Railroad. Look at how it fits on tracks in the yard. Take a walk along the tracks from the Fougere Station to see the Medicine Bow Mountains.



# Managing Habitat Takes Action



Bighorn sheep horns are not shed like antlers - the bigger the curl, the older the ram. Female sheep have spike-like horns.

Their precarious perches on ledges and cliffs, binocular vision and keen sense of smell keep bighorn sheep safe from all but the most determined predators which include mountain lions, bobcats, coyotes, and golden eagles.

## Once the Largest Herd in Colorado

As you hike this trail, keep your eyes peeled for bighorn sheep. The Tarryall herd found here has over 250 sheep. It is the source of 50% of all other herds in the state. Look for them in openings, feeding on grasses and grass-like plants or on steep slopes where they are safe from predators.



This area was part of a timber sale in 1999 (2002) developed by wildlife biologists to create healthy openings in sheep habitat, while also allowing the trees to produce the seed for next years.



The bighorn sheep are reported, collected and monitored against poaching in the spring by the Colorado Division of Wildlife and volunteers.

## Habitat Dwindling

In the past, naturally occurring fires created openings, promoted growth of grasses and other vegetation used for food, and allowed the sheep to see on-coming predators in time to escape. During the last century, fire suppression caused trees and shrubs to grow into these open meadows.

## Taking Action to Increase Openings

To improve habitat, the U.S. Forest Service and Colorado Division of Wildlife (CDOW) are taking action to increase openings by cutting timber and burning under carefully controlled situations. This forest opening was created in an effort to improve habitat for the Tarryall herd and encourage healthy populations of bighorn sheep in the future.



Pike National Forest  
Caring for the Land and Serving People



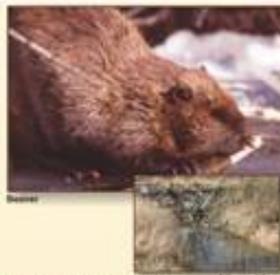
# BORN TO BUILD

## The Beaver



Beavers have been active around Eisenhower Lake in the past. Look for beaver at dusk in areas with signs of beaver activity.

The Black Hills National Forest considers the beaver a "Management Indicator Species" (MIS), which means they are used as an indicator of riparian habitat health and proper function.



Beaver

A beaver dam

The beaver (*Castor canadensis*) is America's largest rodent. Adults can weigh up to 60 pounds and measure 25-30 inches in total body length. It is more at home in water than on land, with its webbed hind feet and lips that seal behind the incisor teeth. The flat tail is about 9-10 inches long and is used like a rudder. In addition, the eyes, ears and nostrils of the beaver also have special adaptations for its largely aquatic lifestyle.

They prefer sites with a constant water level, hence their trait for damming streams. Beavers will construct a "lodge" in either the stream bank or in the middle of the pond they have helped to create. They live in social colonies of four to eight related animals, typically a pair of adults, yearlings and the young kits.

### What's for Lunch?

Beavers feed on vegetation such as willow, aspen, sedges and grasses. The stomach enzymes that allow them to digest coarse vegetable matter into proteins develop in their first year of life. Until then they are completely dependant on their mother for survival.

Beavers are mainly nocturnal and are active year-round. They will also store food, submerged, for the winter when the pond freezes.



A beaver lodge has several entrance and exit tunnels. Inside the lodge is an earth floor where the beaver sleep and rear their young.

BLACK HILLS National Forest  
Caring for the Land and Serving People



Rocky Mountain Region



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DESIGN &  
INTERPRETATION

# 8. Text

The text should be written with the “3-30-3” rule in mind. You have 3 seconds to hook the visitor, 30 seconds if they are hooked, and 3 minutes if they are very interested.



A sign should be designed and written so that it contains three levels of text with each level conveying a feeling of the theme, thus providing all visitors with an interpretive opportunity regardless of how long they stay.

 **Hells Canyon** National Recreation Area  
*Canyon country . . . not for the faint of heart*

**Hells Canyon has power written all over it.**  
From the craggy Seven Devils to the violent river below, there is nothing gentle about this place. It's a region that demands respect, testing the hardest of living creatures. *But hardy souls have indeed scratched out a living here.*

Artifacts provide evidence of prehistoric settlements in the canyon along the Snake River.

For thousands of years, Native Americans found shelter from the winter snow deep in the canyon, hunting game on the canyon rims.

American homesteaders found a way of life, grazing sheep and cattle on the mountain slopes, raising crops on the benches and river bars.

**What brought you here?**  
Today, thousands of people are drawn to Hells Canyon, perhaps for the thrill of facing the river's rapids, or to study the rugged beauty of the canyon. Maybe you're looking for a bit of solitude, or an opportunity to seek adventure in this vast, rugged landscape.  
*More than likely, what you'll find is not what you were expecting ... but much more.*

Wallowa-Whitman National Forest U.S. Department of the Interior  
Caring for the Land and Serving People

# When Writing Text

- Begin with what the visitor can see, feel, do, smell, or experience when looking at the exhibit.
- Simplify the message and eliminate confusing terms and jargon. Don't overwhelm the visitor.
- Use informative paragraph titles and subtitles – making sure they advance the narrative. They need to have meaning on their own and add up to a complete idea when read with each other. They must also stand alone if read out of order.

# More Text Tips

- Limit paragraphs to 50 words and introductions to 25 words. Limit total text per exhibit to 150 words!
- Vary the text length. Avoid overusing catchy phrases and question titles.
- Have a snappy ending to make the reader feel good about reading the whole thing.
- Don't follow the newspaper style by adding details for the few at the end.

# Common Mistakes

- Too much text, too small letters, and continuous blocks of text. People don't want to read an encyclopedia.



# 9. Captions

Captions for graphics can be used to meet learning objectives and capture the theme. Some visitors look only at graphics - so the graphic and its caption should tell a story.

**ROCKDALE MINE**

**The Rockdale Mystery**  
Rockdale was one of the numerous small mining camps that mushroomed in Clear Creek Canyon during the Silver Boom of the 1870s and 1890s. The tiny settlement supposedly lay buried in the ground in the 1900s, yet sturdy cabins are here now.

The answer is that the Crescent Mining Camp was built on the former Rockdale site. Research and excavation with Mr. O.E. Kuebler confirms that no buildings existed here when construction began in 1930.

Remnants of the original Rockdale Stage Station were found 200 yards east of the Crescent cabins.

**WARNING**  
This area is a historical site. No smoking, drinking, or other activities are allowed. Please respect the site and its history.

**HARD AS STEEL**  
- The Crescent Mine

**1** Labeled on maps as Rockdale, these cabins are actually the 1930s crew camp for the Crescent #100 Molybdenum Mine. The Crescent Mining Company reflected local efforts to profitably mine molybdenum ore (molybdenite) during the World War II era. Molybdenum, with its high melting point, is used to harden steel.

**2** Ten to twelve hardy miners lived and worked here earning three to four dollars a day. The minimum wage in 1940 was thirty-five cents an hour; if one of the crew supplemented the camp larder by killing a deer, he would be paid two or three days extra wages.

**3** The mine shaft was eighty feet straight down and then a horizontal tunnel was bored under Clear Creek to access the main ore bodies. The mine tunnel was constantly pumped so that groundwater would not flood the workings. The ore was shipped to Colorado Fuel and Iron in Pueblo. Steam engines were the power sources for the mine and mill.

**4** The mine was probably shut down by 1942. The huge Clinax Molybdenum Company had a corner on the molybdenum market and Crescent could not break in.

**5** These powered air compressors and ore cars used at the Crescent #100 Mine can be seen at the Vicksburg Museum down the road.

**San Isabel National Forest**  
Caring for the Land and Serving People





**GIFFORD PINCHOT**  
First Chief of the Forest Service

### COMMEMORATIVE SURVEY MARKER

In celebration of the National Forest Centennial in 2005, this survey marker was installed in 17 national forests across the country in partnership with the National Oceanic and Atmospheric Administration and National Geodetic Survey.

The survey marker is now included in the NGS National Spatial Reference System of high-accuracy reference points for transportation and communication systems. The location is accurate to within 1 centimeter.



# NATIONAL FORESTS A CENTURY OF SERVICE



Unloading railroad ties, Foxpark Station



Loading railroad ties, near Foxpark Station

The Medicine Bow Forest Supervisor from 1908-1911 saw P.S. Loring, the owner timber sales to the Carlton Timber Company, which included a sale along the right-of-way of the Larsson, Adams Peak and Pacific Railroad.

During this period construction began on the Snowy Range Road, a new station at Foxpark, and many roads and trails.

## RAILROADS BRING CHANGE

The arrival of the railroads profoundly impacted the region. It brought settlers and a heavy demand for timber and railroad ties, it increased cattle production by providing opportunities to haul cattle to market, and it increased mining activity by transporting coal and minerals from local mines.

## RESERVING THE RESOURCES

In 1899, many area citizens petitioned President McKinley to protect the resources in the Medicine Bow area citing the "wholesale stealing of timber by the companies." The action was delayed until 1902 when the Medicine Bow Forest Reserve was established to "improve and protect the forest within the boundaries..."



Foxpark Ranger Station

## AN AMERICAN LEGACY

Today, legislation continues to reinforce the Forest Service's responsibility to manage outdoor recreation, range, timber, water, wildlife and fish for future generations.



**MEDICINE BOW National Forest**  
Caring for the Land and Serving People



Rocky Mountain Region

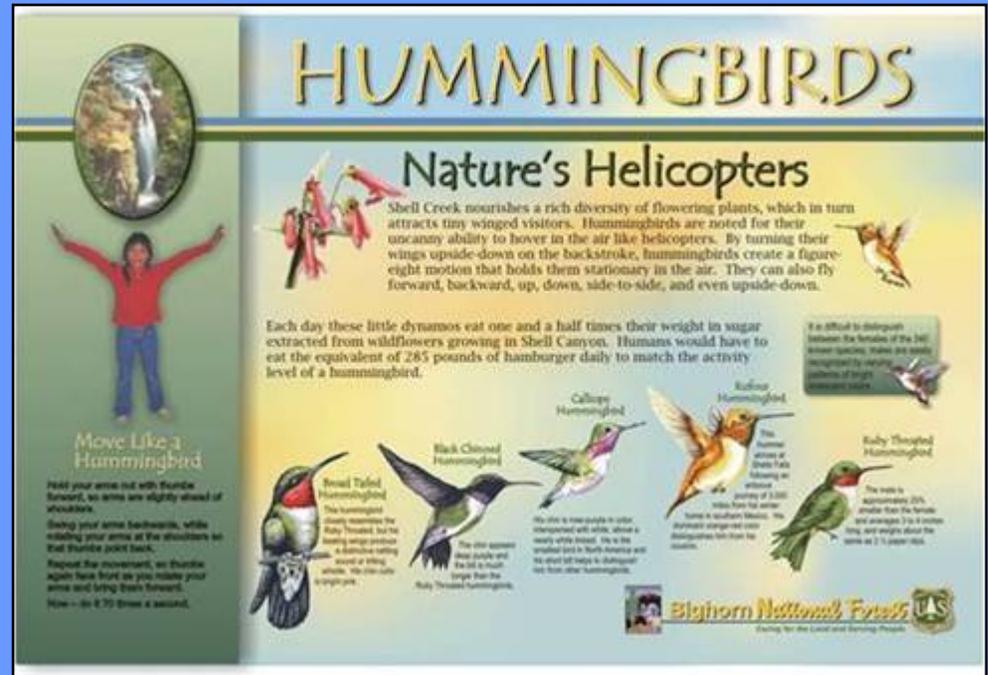


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INTERPRETATION

# 10. Simplicity

The main body of text should be no more than two paragraphs of three or four short sentences.

Keep text to no more than 75 words (up to 150 words maximum if using captions and smaller fonts for secondary text or captions).



# Designs should be uncluttered.

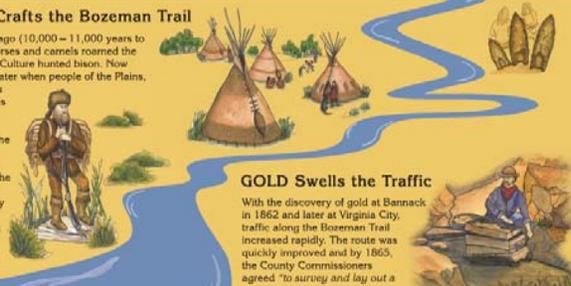
## A Pathway for the Ages

### The Lower Madison River Corridor

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#### A Cultural Mosaic Crafts the Bozeman Trail

Imagine this place a long time ago (10,000–11,000 years to be exact), when now-extinct horses and camels roamed the area and people of the Folsom Culture hunted bison. Now imagine a few thousand years later when people of the Plains, Great Basin and Interior Plateau gathered food and tool materials here in the spring and summer. Much later, Blackfeet Indians claim this territory, displacing the Shoshone and Salish groups around 1800. Soon after, Lewis and Clark's explorations pave the way for fur trappers seeking to exploit new-found resources. By 1810, the cultures of the ages had shaped a thoroughfare that became the Bozeman Trail.



#### GOLD Swells the Traffic

With the discovery of gold at Bannack in 1862 and later at Virginia City, traffic along the Bozeman Trail increased rapidly. The route was quickly improved and by 1865, the County Commissioners agreed "to survey and lay out a public road as per petition of citizens of the east side of Madison Valley."



#### What Drew You Here Today?

This natural travel corridor profoundly influenced the prehistory and early history of this area. Over time, it has provided tools for the hunter, food for the hungry, and gold to quench the thirst of the prospector. Today it attracts campers, anglers, and river floaters.

*This pathway will continue on into the ages. How will you shape it's future? Please help protect your public lands.*

Bureau of Land Management 

## The Bridge Business

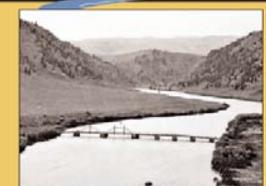
### Madison River Toll Bridge

---

#### Building Commerce

In the latter half of the 19th century, the Bozeman Trail was indispensable to the region's commerce, connecting the mining camps of Madison Valley to the agricultural goods of the Gallatin Valley.

In those days, route construction was often done by entrepreneurs who cleared a path, built a bridge, or constructed a ferry – and then charged anyone who passed. In 1867, Milton and Robert M. Canaday were given the authority by the territorial government to build a bridge across the Madison River, where you are standing today. The Canadays were also granted the right-of-way to a four-mile corridor along each side of the river, ensuring them a virtual monopoly of the canyon and river crossing.



William H. Jackson photograph of the Madison Toll Bridge, 1871 (courtesy of the USGS)

#### From Toll Bridge . . .

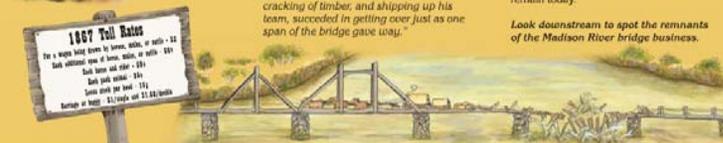
Milt and Bob invested \$400 in the bridge and sold it 8 years later to Paul D. Hayward for the same amount. Over time, the bridge deteriorated, and on May 18, 1882, the local paper reported, "On Thursday of last week as a freighter was crossing the Madison bridge, he heard an ominous cracking of timber, and shipping up his team, succeeded in getting over just as one span of the bridge gave way."



#### . . . to Free Bridge (to Go)

The bridge was repaired and two years later, Madison County bought it, making it a free thoroughfare after nearly 20 years. The bridge washed away in the 1880s and only the pilings and approach ramps remain today.

*Look downstream to spot the remnants of the Madison River bridge business.*



**1867 Toll Rates**

For a wagon being driven by horse, mule, or oxen - \$12

Each additional man or horse, mule, or oxen - \$24

Each horse and rider - \$14

Each pack animal - \$14

Each pack and rider - \$14

Carriage or horse - \$1, people and \$1.00 each

Bureau of Land Management 



# 11. Accessibility

Everyone is disabled at some time their lives.

Everyone benefits from increased accessibility!



And disability often comes with aging.



Is your site or sign accessible?

We all may experience vision problems at some point!

## Low Vision

"Low vision" includes blurred vision, loss of central vision (for example: macular degeneration), tunnel vision, sensitivity to glare, and reduced ability to detect contrasting tones.

People with low vision can see but require high contrast, more readable fonts or larger fonts.



# Color Blindness

- Check electronically to determine if the colors selected will be readable by those with the primary forms of color blindness.
- Load the color checking software at: [www.vischeck.com](http://www.vischeck.com)

# Original Image

# Protanope Simulation (Red)

**WALK IN THEIR FOOTSTEPS**

*Flat Tops Trail Scenic Byway*

"Even as the last moccasin prints were being blown away by the wind, the tracks of the settlers' horses, cattle and sheep were wearing the trail more deeply into the ground."

Come, walk in the footsteps of those who helped shape the history of northwest Colorado. This scenic and historic tour depicts how people and nature work together in harmony along the entire length of this "working byway."

The route spans over the Flat Top Mountains and the White River and Rout National Forests, between the towns of Yampa and Meeker. This is the homeland that the Utes call "Shining Mountains."

**Length: 82 miles**  
**Driving time: Road closed at first trailhead in winter**

The Flat Tops Trail Scenic Byway runs through the heart of the original White River Plains Timberland Ecoregion. The area's long-standing history of multiple-use land management makes for pristine scenery and wonderful wildlife viewing. Yet this remains very much a "working byway," dotted with ranches, grazing sheep and cattle, scenic places to picnic, and timber-producing forests. You will travel over scenic Ripple Creek Pass and can take a side trip to beautiful Trapper's Lake.

For a travel map, additional information, or to enjoy one of our audio recordings, please visit the office.

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# Deuteranope Simulation (Green)

# Tritanope Simulation (Blue)

## WALK IN THEIR FOOTSTEPS

### Flat Tops Trail Scenic Byway

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The Flat Tops Trail Scenic Byway runs through the heart of the original White River Plateau Timberland Reserve. The area's long-standing history of multiple-use land management makes for pristine scenery and wonderful wildlife viewing. Yet this remains very much a "working byway," dotted with ranches, grazing sheep and cattle, scenic places to picnic, and timber-producing forests. You will travel over scenic Ripple Creek Pass and can take a side trip to beautiful Trapper's Lake.

Arthur Carhart, the first Forest Service Landscape Architect, was inspired by the grand beauty of the Trapper Lake area, and worked to preserve it as a wilderness area for future generations.

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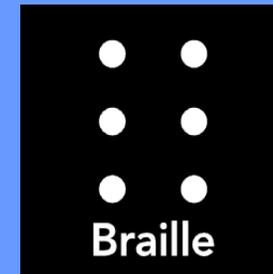
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# Braille

- 11 to 13 million people are legally blind or have low vision.
- Only about 5 % of that number (550,000 people) are blind.
- And only about 5 % of people who are blind read Braille.
- Braille is legally required only on signs that designate permanent rooms.
- The majority of people with low vision can utilize large print materials.
- All people with diminished vision are served well by audio description.



Review exhibit for accessibility at every stage of development



# To increase accessibility:

- Involve people with disabilities in your planning
- High contrast colors, matte finish, low gloss
- Emphasis on use of graphics
- Text in upper and lower case
- Maximum height of center line = 48"
- Approachable within 2"
- 3/30/3 format
- Tactile when possible
- Smithsonian Accessibility Checklist →

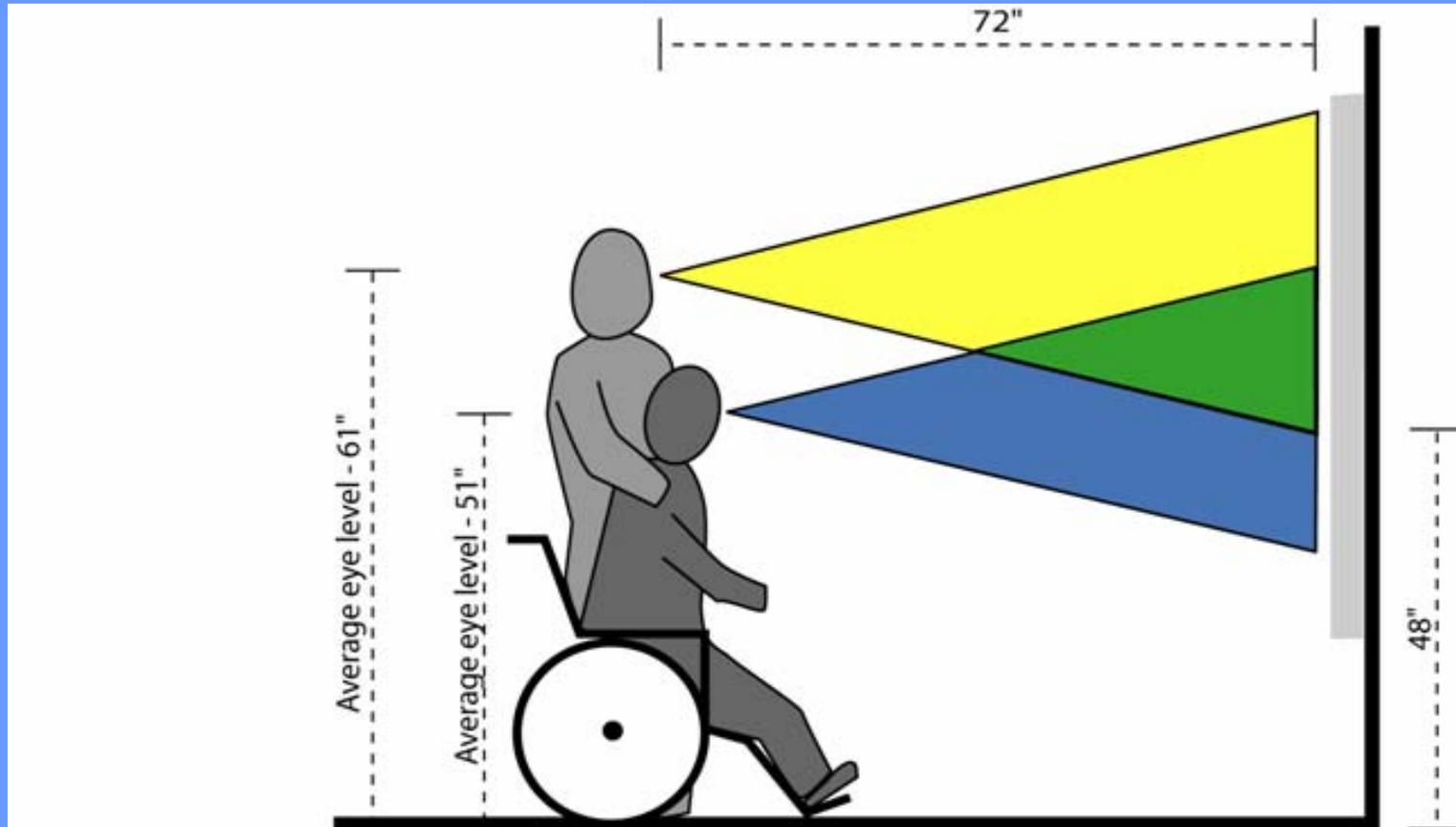
[www.fs.fed.us/recreation/programs/accessibility](http://www.fs.fed.us/recreation/programs/accessibility)

# 12. Mounting Height

A mounting height of 24 to 30" with a 30 to 45 degree angle toward the viewers will be accessible to most visitors. The front edge height of low profile exhibits should be 32".



# Sightlines for Viewing Graphics



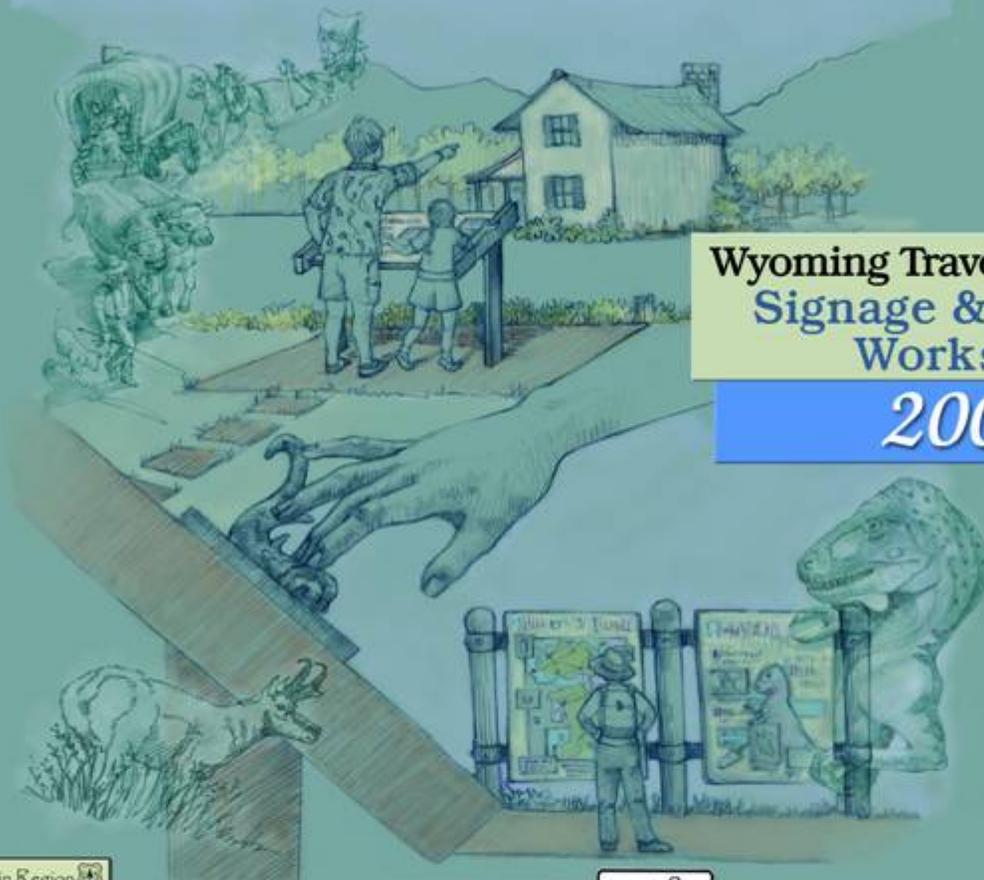
# Does this height look right?



# Sign Sample Exercise



# Sparking Imaginations & *Making Connections*



Wyoming Travel & Tourism  
Signage & Turnout  
Workshop

2008

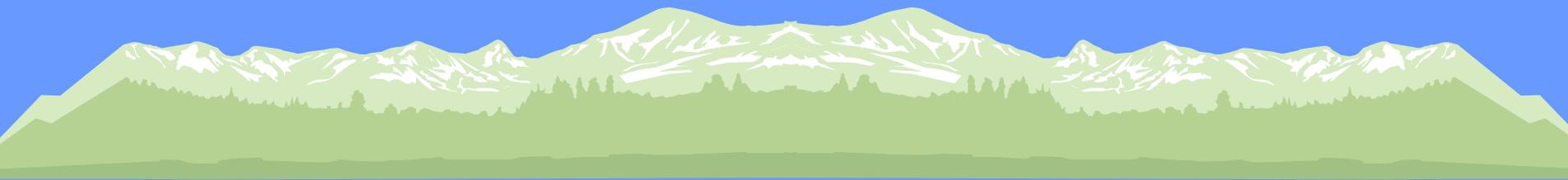


# Writing Themes that Make Connections

## Theme:

- Narrows the focus of a topic.
- Is written in a complete sentence.
- Uses nouns and, action verbs, and answers the question “So What?”
- Articulates the most important thing you want your visitor to know.

*Ask yourself: Why would they want to know this?  
Provoke their interest and relate it to everyday life.*



## **Topics:**

These are broad, general categories, such as fire ecology, mining, or water quality. They are bullet statement descriptions of what your story is about.

## **Storylines:**

Storylines provide more information and context for a theme. There may be several storylines that tier from a single theme.

# Example

**Theme:** High elevation, intense radiation, and harsh elements make the alpine tundra a fragile and unique environment.

**Topics:** Alpine flowers, animals, adaptation, safety and succession.

**Storyline:** Plants in this harsh environment spend most of their life trying to gather oxygen and water for their roots, so they don't spend a lot of energy into developing their size above ground.

# Themes: Yes or No?

- **Watershed systems**
- **The competition between grizzly bears and wolves**
- **Bison once roamed the entire United States numbering in the millions.**
- **Aspen trees are clones.**
- **Dolphins are social creatures, who can become aggressive.**
- **Buffalo Bill's showmanship was well known in the West.**

# Themes: Yes or No?

- Basque shepherders came to Wyoming in the 1800s, bringing a tradition that continues into today.
- The Mountain Man Rendezvous occurred from 1750 – 1812.
- The Nez Perce fled from the military to maintain their freedom.
- The wildflowers at Clay Butte

# Learning Objectives

- Should identify what is desired for visitors to do, see, experience, recognize, identify, or participate in.
- The more specific, the better.
- Be measurable in some way. For example: participate in XX; identify 3 types; stop tree graffiti.

# Examples of Learning Objectives for Topics

- **Topic:** Fire Ecology
- **Specifically:** plant adaptations to fire ecology
- **After viewing this sign,** this visitor will understand: ponderosa pine, lodgepole pine and Engleman spruce trees have adapted to periodic fire on the landscape in several different ways.
  
- **Topic:** Geology of this Region
- **Specifically:** the formation of the Beartooth Mountains and the Absarokas
- **After viewing this sign,** the visitor will know: the Beartooths are shale and clay, and from ancient seabeds, the Absarokas are igneous rock from more recent volcanoes.

# Practice

- Generally, my topic is about \_\_\_\_\_
- 2) Specifically, however, I want to tell my audience about \_\_\_\_\_
- 3) After viewing the exhibit, I want my audience to understand that \_\_\_\_\_

# Thematic sign titles from themes

Bison once roamed the entire United States numbering in the millions.

*Title: Where Millions Roamed*

Aspen trees are clones.

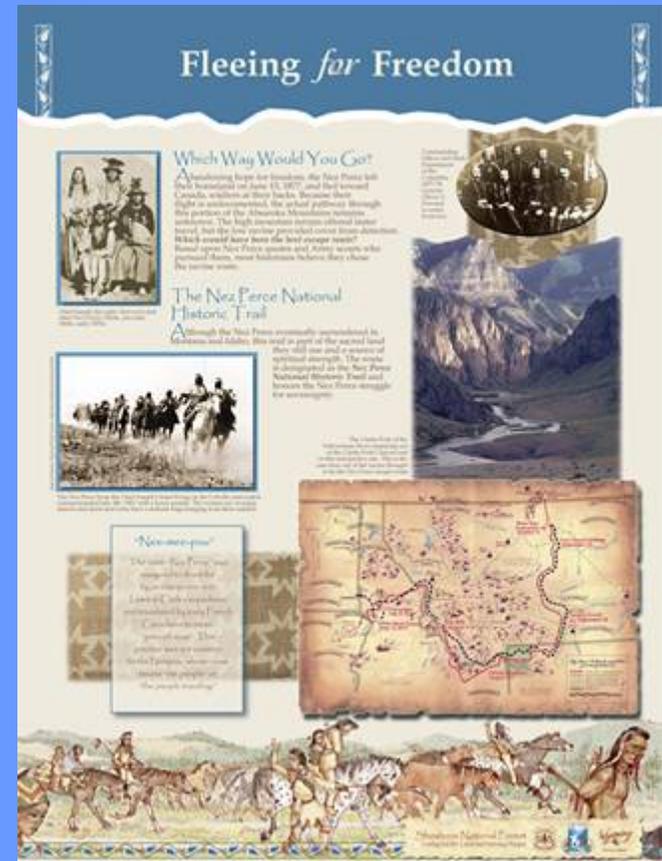
*Title: Nature's Own Clones*

Basque sheepherders came to Wyoming in the 1800s, bringing a tradition that continues into today.

*Title: Basque Sheepherders, Traditions from Yesteryear*

The Nez Perce fled from the military to maintain their freedom.

*Title: Fleeing for Freedom*



# Examples of Thematic Titles

## What Do You Know About Boreal Toads?

Do you know...

**...what they look like?**  
The boreal toad (*Bufo boreas*) is a species of toad found mostly in the mountains of the Pacific Northwest. They are found in the west of the United States. They have a dark back with light spots and a lighter belly. They are found in the mountains of the Pacific Northwest. They are found in the west of the United States.

**...what they eat?**  
Adult toads eat a variety of insects, including flies, beetles, and grasshoppers. They also eat small mammals and birds. They are found in the mountains of the Pacific Northwest.

**...where they live?**  
A number of the boreal toad species, the boreal toad, are found in the mountains of the Pacific Northwest. They are found in the west of the United States. They are found in the mountains of the Pacific Northwest.

**...how they reproduce?**  
Boreal toads lay their eggs in streams and rivers. The eggs are laid in the water and hatch into tadpoles. The tadpoles live in the water and eventually metamorphose into toads. They are found in the mountains of the Pacific Northwest.

**...how long they live?**  
Boreal toads live for 10 to 20 years and begin breeding between 1 to 3 years of age. They are found in the mountains of the Pacific Northwest.

**...what they sleep during the winter?**  
During the winter, boreal toads hibernate in shallow water below the forest line or where there is snow cover. They are found in the mountains of the Pacific Northwest.

**...how they live?**  
Boreal toads live in the mountains of the Pacific Northwest. They are found in the west of the United States. They are found in the mountains of the Pacific Northwest.

White River National Forest

## WHEN FIRE IS GOOD

**Nobody Wants Another Westberry Trails Fire.**  
But sometimes land managers light prescribed fires under controlled conditions, to:

- Reduce fuel loads so that future wildfires are not as damaging
- Increase soil productivity by releasing and recycling nutrients
- Generate new growth and greater diversity of plant and animal habitats
- Increase browse for wildlife

**Fire** restarts the clock in the forest. Vegetation is recycled from advanced stages (a mature forest) to early stages such as grass and shrubs. These early successional plant communities are valuable for many Black Hills wildlife species.

**Would You Like Your Fire Hot or Cool?**

**COOL** fires are used to clean up the forest floor and stimulate grass and forb growth. Flames do not usually get into the canopy or kill large trees.

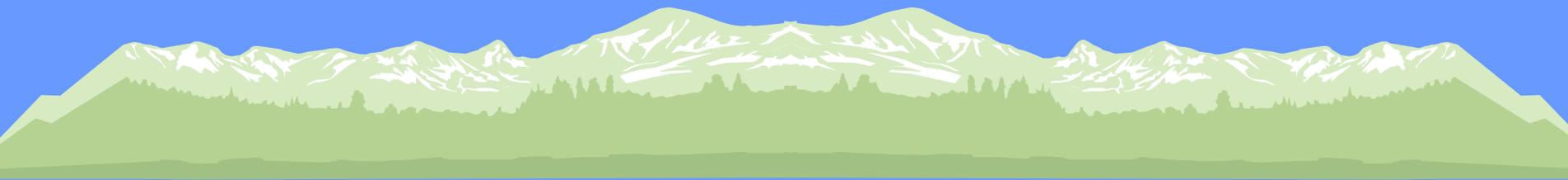
**HOT** fires are often used to remove pine, stimulate aspen or oak regeneration, and/or create holes in the tree canopy for increased sunlight.

**Our Goal - Protecting people and managing the impacts of fires on communities and the environment.**

**Black Hills National Forest**   
Caring for the Land and Serving People

# Interpretive Writing for Signs

- Link a tangible object or concept to a larger intangible and universal concept.
- In friendly, easy-to-understand language.
- Should be accurate and factual.
- Work to show the reader, not “tell” them.



# Writing Copy:

## The deadline makes it final!

- Refer to theme statement repeatedly
- Create short catchy title
- A paragraph = a single idea (3 – 5 concepts for total sign)
- Keep sentences short; vary sentence length (22 words max); 5 syllables maximum
- Write as a conversation
- Avoid gender bias

Document3 - Microsoft Word

File Edit View Insert Format Tools Table Window Help

Final Showing Markup Show

Normal Times New Roman 12

100%

Insert Word Field

1 2 3 4 5

appear in up to 30-40 in from the parent tree. Each tree only lives for 40-150 years above ground, but the root system of the colony is long-lived, in some cases for many thousands of years, sending up new trunks as the older trunks die off above ground. For this reason it is considered to be an indicator of ancient woodlands. One such colony in Utah, given the nickname of "Pando", is claimed to be 80,000 years old, making it possibly the oldest living colony. Some aspen colonies become very large with time, spreading about a metre per year, eventually covering large areas. In some cases, intense forest fires can kill the trees above ground, but the roots survive and regrow after the fire is out.

Readability Statistics

Counts	
Words	161
Characters	735
Paragraphs	1
Sentences	6

Averages	
Sentences per Paragraph	6.0
Words per Sentence	26.8
Characters per Word	4.4

Readability	
Passive Sentences	33%
Flesch Reading Ease	53.1
Flesch-Kincaid Grade Level	11.5

OK

readability level

Links

Start

Cheryl Hazlett - Inb... USDA FS Present... 4258658.doc - M... Writing\_Thematic... Cheryl Documents... Flesch-Kincaid Re... Document3 - ...

5:18 PM

- Look for new metaphors & analogies
- Strive for images that are familiar to reader
- Eliminate jargon, cliches, “agency-speak”
- Say as much as possible visually
- Test the copy on family, friends, colleagues, let it rest and revise again (3x)

# Writing Practice

Revise this paragraph:

All the aspens (including White Poplar) typically grow in large colonies derived from a single seedling, and spreading by means of root suckers; new stems in the colony may appear at up to 30–40 m from the parent tree. Each tree only lives for 40–150 years above ground, but the root system of the colony is long-lived, in some cases for many thousands of years, sending up new trunks as the older trunks die off above ground. For this reason it is considered to be an indicator of ancient woodlands. One such colony in Utah, given the nickname of "Pando", is claimed to be 80,000 years old, making it possibly the oldest living colony. Some aspen colonies become very large with time, spreading about a metre per year, eventually covering many hectares. They are able to survive intense forest fires as the roots are below the heat of the fire, with new sprouts growing after the fire is out.

# Ancient Aspen

## Ancient Woodlands and Underground Roots

## Aspen Adaptations to Fire

This large colony of aspen began from just a single seedling. The single tree spreads by root suckers, with new growth expanding about a metre per year, eventually covering many hectares. Above ground, aspen generally live between 40–150 years. Its root systems can survive much longer and will send up new trunks as the older trunks die off above ground. With these root systems, aspen can survive intense forest fires, sprouting quickly above ground after the fire is out.

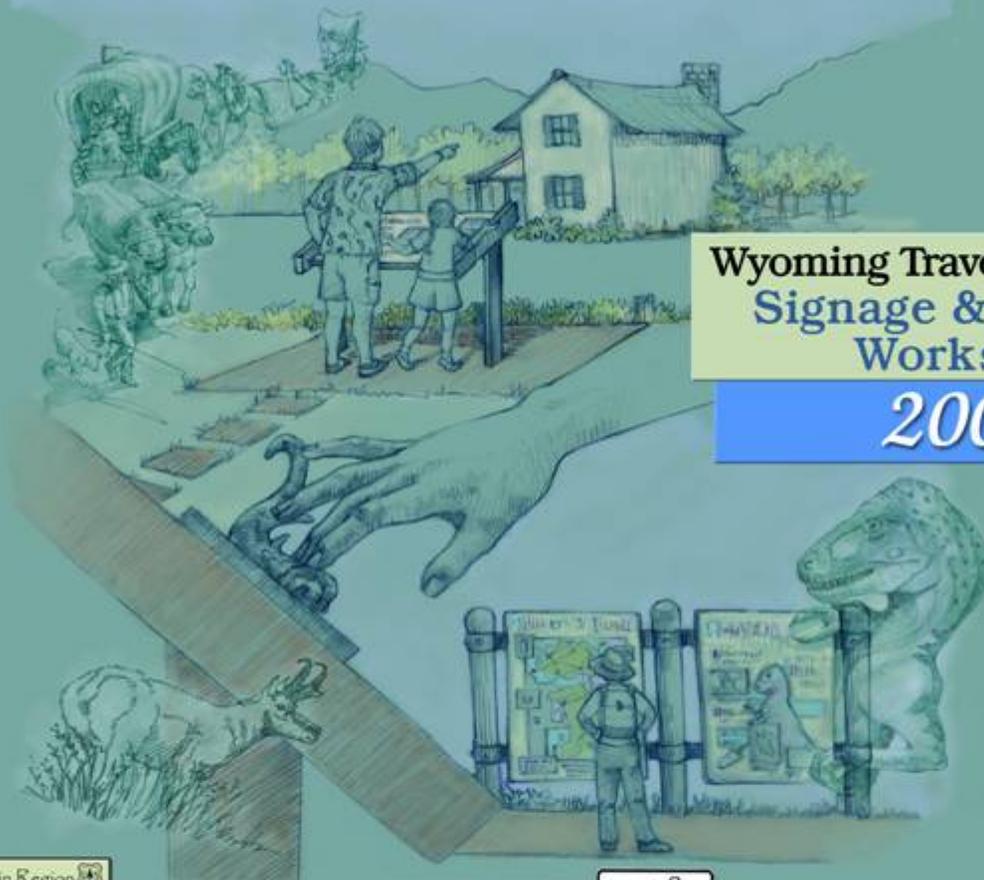
**Captions:** Possibly the oldest living aspen colony in the world, located in Utah is thought to be 80,000 years old.

Because the roots can survive for thousands of years, aspen are considered an indicator of ancient woodlands.

# Examples – good or bad?

- “Hells Canyon has power written all over it. From the craggy Seven Devils to the violent river below, there is nothing gentle about this place. It is a region demanding respect, testing the hardest of living souls. But hardy souls have indeed scratched out a living here.”
- “Shortly after 6000 B.C. the climate became more arid, prairie areas became desiccated and several animal species became extinct. In response, prehistoric peoples adopted a smaller projectile point, until technical adaptations were made (about 2000 years ago); now different cultures are being distinguished on the basis of changes in point styles.”

# Sparking Imaginations & *Making Connections*



Wyoming Travel & Tourism  
Signage & Turnout  
Workshop

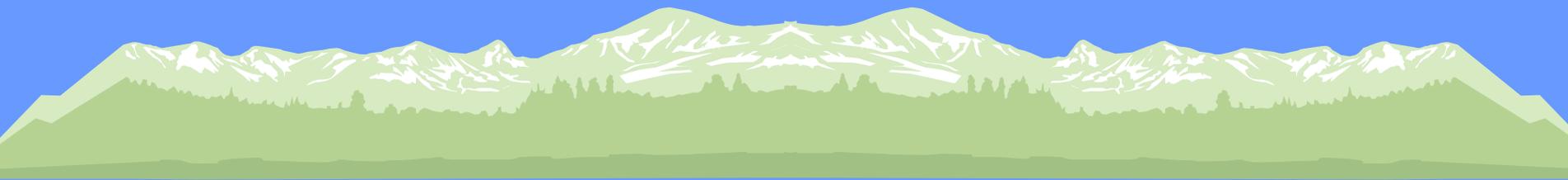
2008



# Estimating Project Costs

Before you begin:

- Identify scope
- Address site issues
- Familiarize yourself with typical costs
- Have written interpretive themes and objectives
- Identify number of signs appropriate to the site



# Basic Exhibit Planning

## 1. Information/Orientation Kiosk

Shell Falls

**Interpretive Media:** Two Panel Kiosk

**Topic:** Orientation and Information and Welcome

**Theme:**

1. Shell Falls – dynamic forces of water against rock – influencing nature and man with its beauty and power through time.
2. Provide recreation information and orientation to the site, the forest, and the corridor.

**Objectives:** As a result of viewing this exhibit, visitors will:

1. understand this is one stop along the “Passage to Adventure Corridor” and the Big Horn Scenic Byway and learn about recreation opportunities throughout the forest and corridor
2. learn and remember that the Forest Service manages the site and the overall theme is “caring for the land and serving people.”
3. .visit the sales outlet.
4. be introduced to the theme – dynamic forces of water against rock.
5. treat the site with respect and stewardship and leave with a personal sense of renewal.

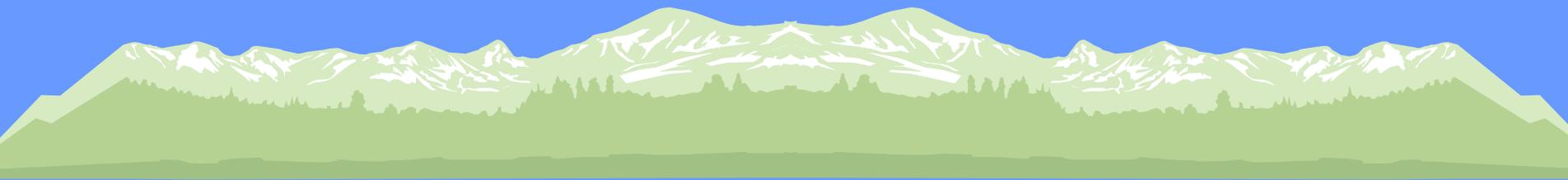
# Exhibit Design Decisions

- **Budget** - Figure approximately \$2,000-\$3,000 for design & text development per sign, plus \$1,000 for sign/base. Don't forget 7-10% for contract administration
- Available fabrication technology
- Blending with other pre-existing signage
- Location and angle of signage
- Logo requirements and placements
- Colors for layouts that fit the theme and site

# Text Development & Conceptuals

## 30% Phase

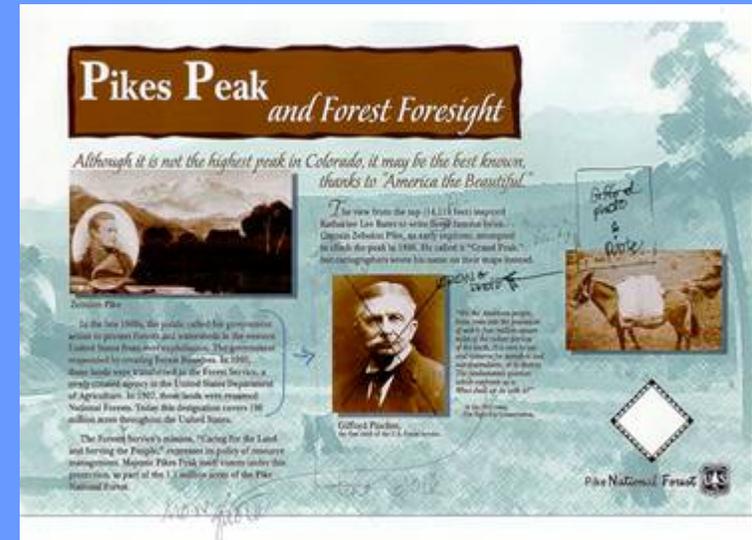
- First draft of text (of three drafts)
- Work to develop a standard look for layout
- Identify needed photos, illustrations, logos
- Conceptual for placement, type, style, font





# 60% Phase

- Second text draft with revisions, edits, grammar and sentence readability.
- Standard look for layout
- Majority of final photos, illustrations and graphics in place
- Begin artwork/photo negotiations



# 60% Phase

## BRUCE'S Camp

Welcome to the Washakie Ranger District and the Shoshone National Forest. Our forest offers a diversity of outdoor opportunities. These lands are yours - to visit, to care for, but most of all, to enjoy. Pack up your family and friends and head for adventure in Wyoming's great outdoors!

**Who's Bruce?**  
Bruce's Ridge and Bruce's Camp are both named for Forest Service Ranger John G. Bruce, 1911-1920. Ranger Bruce was well known for his keen eye, sense of integrity as well as his efficient and hard work ethic. He was described as "a kind of man who was always an asset to his community." Bruce's Camp was his idea and he provided this area for picnics, fishing and wildlife observation.

**Bruce photo**  
Bruce is believed to have discovered the timber and mineral resources of the Shoshone National Forest in 1911 and began developing the area. He was well known for his keen eye, sense of integrity as well as his efficient and hard work ethic. He was described as "a kind of man who was always an asset to his community." Bruce's Camp was his idea and he provided this area for picnics, fishing and wildlife observation.

**Historic Middle Park Guard Station photo!**

**What Can I See?**  
**Tyler Canyon**, a four season destination, is about 30 miles southwest of Laramie and is full of things to see and do. The lower portion of the canyon sits within Snake Canyon State Park. Higher portions are national forest land in the Washakie National Forest. In this canyon the entire flow of the Poudre River vanishes into a large limestone cavern at a point called the "hole". It reappears downstream in the form of a large trout filled pond called the "hole".

**High-altitude ecologists** are found on the north and south sides of local peaks that have such wonderful views you can't believe them. It will be very interesting once you get actual information here, and maybe a photo taken with a portion of each side block. Learning a lot about mountain flora with the highest steep terrain.

**Dignified sheep** are sometimes seen in the canyon. Look for the rounded neck in the rear, and smaller goat like spikes on females. The best times to see them are midday.

**Rock Climbing**  
On any given day, you can watch climbers maneuvering their way across a series of several rock chutes on the limestone cliffs of Snake Canyon. To try your own hand, contact a local climbing guide or have some knowledge and experience of climbing.

**Mining**  
Poudre Agate Falls is a popular destination along the canyon from the Middle Park Trailhead. The trail is about 1.5 miles each way and is an easy hike.

**Gateway to Poudre Agate Wilderness**  
Numerous trails lead to the High Lake of the Wind River Mountain Range and the Poudre Agate Wilderness Area. Hiking, horseback riding, lake and stream fishing, camping, and rock climbing are just some of the great activities to enjoy in wilderness.

**north photo**

**south photo**








## WELCOME TO BOREAS PASS STATION

**N**amed after the god of the north wind, Boreas Pass was crossed by the Denver and South Park Pacific Railroad and is now listed on the National Register of Historic Places. The USDA Forest Service and its partners began restoration projects along the South Park Highline route and related historic sites along the way.

**11,482**, Boreas Pass was first traveled by a foot trail for Indian parties, trappers and early prospectors. In 1860, a wagon road was built over the pass to carry supplies to the mining towns.

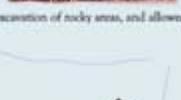
**R**ailroad investors saw the financial opportunities in accessing Leadville and constructed a narrow gauge rail route over the divide from 1881 through 1884. The narrow rail system with it's 3-foot width required less excavation of rocky areas, and allowed for tighter turns and steeper grades.

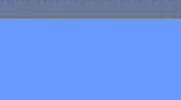
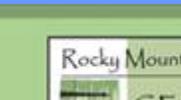
**I**n 1889 the DSR&P became the Denver Leadville and Gunnison Railroad and ten years later changed to the Colorado and Southern Railroad. Profitable in early years, the line began to lose money due to poor management, high costs, and the decline of mining. Rail operations ceased in 1937 and lay abandoned until 1956 when the Army Corp of Engineers converted the railroad bed to a road.

**South Park National Forest**

**PIKE National Forest**

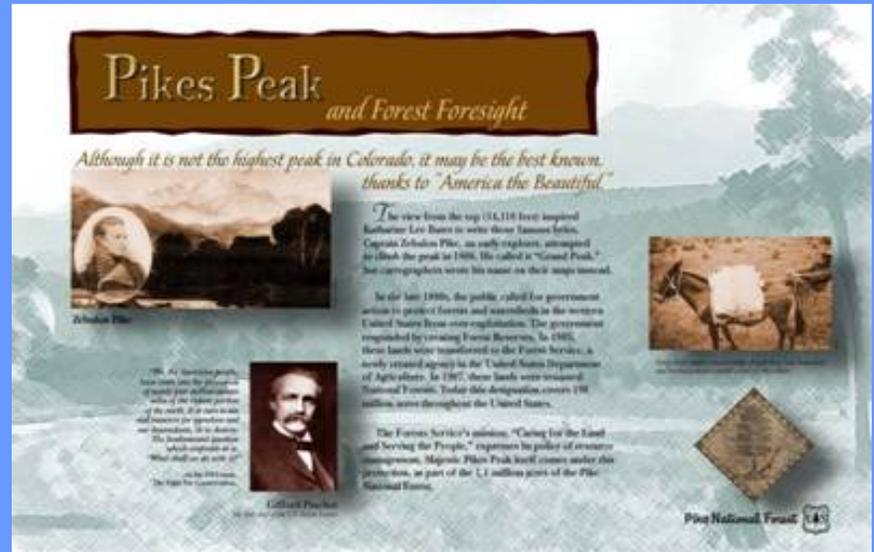



# 90% - Final Phase

- Final text with revisions, edits, grammar and sentence readability, punctuation, consistent style.
- Completed layout with final images
- Payment for graphic images
- Photo credits, captions and final logos in place
- Proof read 3x plus



# 90% Phase

## Where Art Thou, O Boreal Toad?

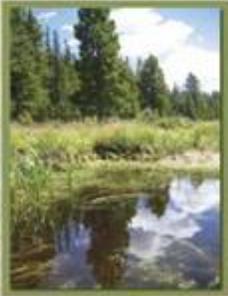
### Declining Populations

The health of amphibian populations has long been considered by scientists as an indicator of the health of the environment they inhabit. Amphibians are some of the most susceptible species to adverse changes in the environment.

In recent years scientists have discovered an amphibian disease called chytridiomycosis (*Batrachochytrium dendrobatidis*). They suspect it might be the cause of the dramatic decline in boreal toad and other amphibian populations since 1970. The boreal toad is presently listed as an endangered species by both Colorado and New Mexico and is a protected species in Wyoming.

### Recovery Team to the Rescue

As a response to the decline and the endangered species listing, the Colorado Division of Wildlife created a multi-agency recovery team which includes the following agencies: U.S. Forest Service, U.S. Fish and Wildlife Service, National Park Service, Environmental Protection Agency, New Mexico Department of Game and Fish, Wyoming Department of Game and Fish, Bureau of Land Management, and U.S. Geological Survey. This team has provided vital leadership and direction in the management of the species in Colorado, New Mexico, and Wyoming.



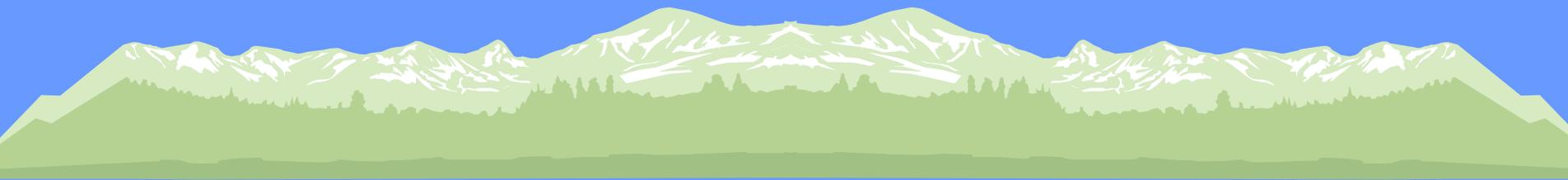
White River National Forest  
Caring for the Land and Serving People

© University and Jepson Herbaria

# Fabrication Phase

**Standard materials for  
exterior sign fabrication - 24" x 36"**

- **High Pressure Laminate** - \$350 per sign
- **Fiberglass Embedment** - \$300 for the first,  
\$175 per duplicate
- **Porcelain Enamel** - \$2000 per sign

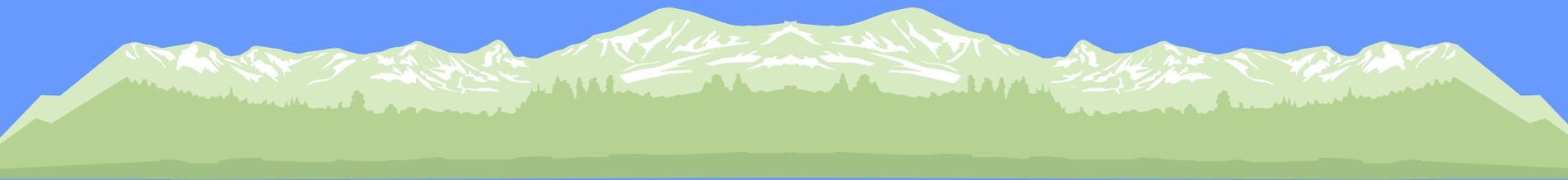


# Sign Bases

- You can purchase ready made bases or build your own.
- A typical low profile base to Park Service standards runs around \$500 (24" x 36").

# Contract Administration and Installation

- Don't forget to figure 7-10% for contract administration
- Add appropriate installation costs (5%)



# Fabrication Vendors and Sources

- Check out:
- Green pages on [interpnet.com](http://interpnet.com)
- Local small businesses that specialize in low cost fabrication
- Word of mouth from other designers and interpretive professionals
  
- Beware of:
- Companies who have no references or track records
- Print companies using plotter and heat press technology
- Fabricators who cannot explain the fabrication process to you
- Fabricators who work out of their garage

# Contracting for fabrication

- Get 3 quotes
- Be as specific as if you were contracting a home project
- Know what you expect in deliverables and timeframes
- Call them on their mistakes - its good business

http://interpnet.com/resources\_interp/greenpages

**National Association for Interpretation - Microsoft Internet Explorer provided by USDA Forest Service**

File Edit View Favorites Tools Help

Address: http://interpnet.com/resources\_interp/greenpages/

Font Size: + Larger | - Smaller Jump to:

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**INTERPRETER'S GREEN PAGES**

NAI's Interpreter's Green Pages are your Internet connection to companies and organizations that provide a wide range of interpretive products and services.

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- Education & Training**
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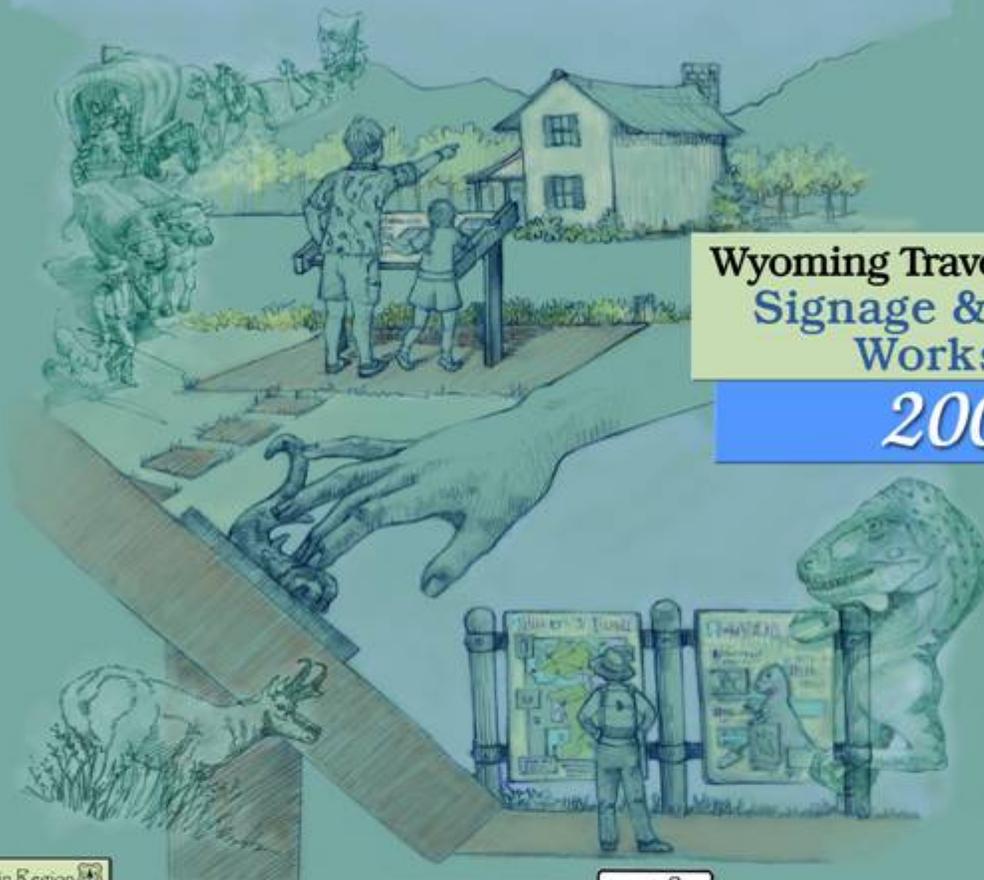
Resources for Interpreters  
Quick Links

- Green Pages**
- Jobs in Interpretation**
- Colleges and Universities**
- Scholarship Program**

start | Adobe InDesign CS3 ... | WYT&T\_workshop | Microsoft PowerPoint ... | National Association f... | 10:59 AM



# Sparking Imaginations & *Making Connections*



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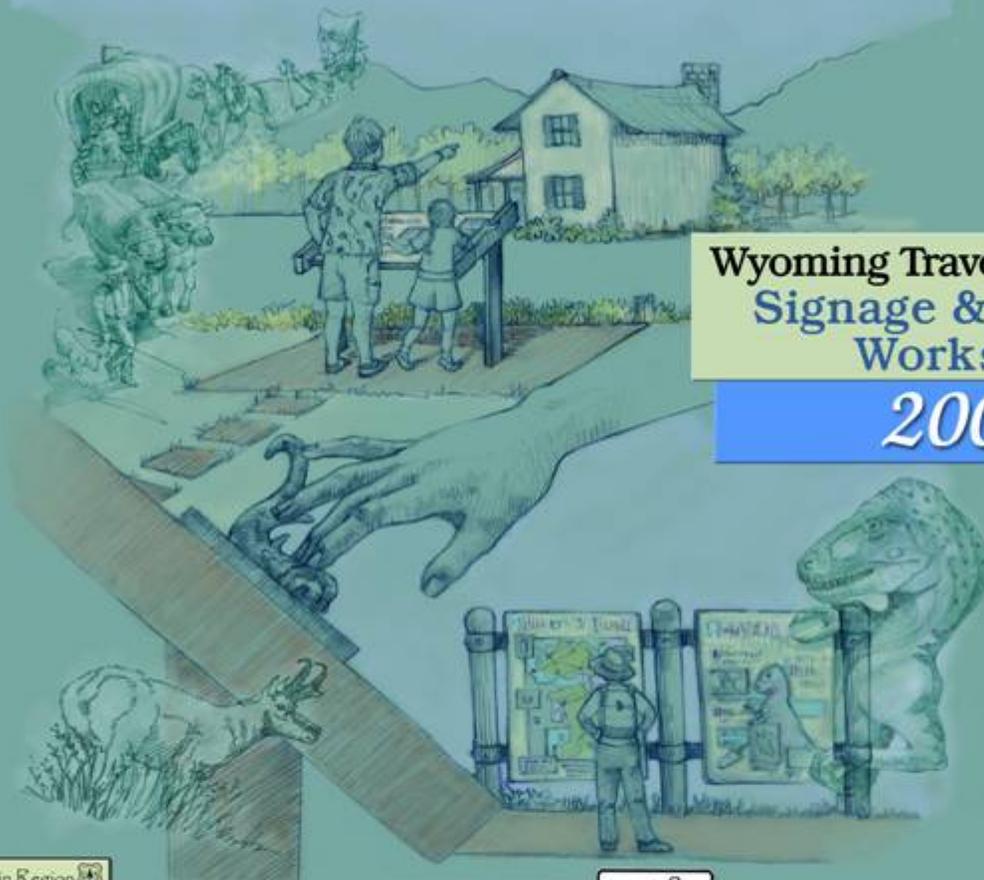
# The Value of Site Planning and Placement



# Site Compatibility and WYDOT Guidelines - Mike Gostovich

# Applying for Sign and Turnout Grants – Leslie Kedelty

# Sparking Imaginations & *Making Connections*



Wyoming Travel & Tourism  
Signage & Turnout  
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# Putting the Pieces Together



How Do I Get the Visitor's Attention?  
Follow these 6 steps:



1. Find out who your visitors are and what they want to know.



## 2. Find a Main Theme

- What are the three most important things you want your visitor to know?
  - Ask yourself: Why would they want to know this? Provoke their interest and relate it to everyday life.
- What is the main theme you want your visitor to go home with?
  - If there isn't an obvious reason for the visitor to learn this, you must create a reason for them.
  - Write it down as a complete sentence.

# 3. Don't Overwhelm Them

- Focus on your theme and your key points.
- Keep the exhibits simple.
- Just because you have a big story or lots of space, doesn't mean you have to use it.
- A visitor should approach the signs – easily see the key points and messages and have clear access to read them.

# 4. Remember the 3-30-3 Rule

- You have 3 seconds to get their attention.
- 30 seconds to hook them.
- If they're hooked, 3 minutes to read.



## 5. Use a Catchy Title

Titles and subtitles reinforce and compliment the main theme. Good titles sell the exhibit.

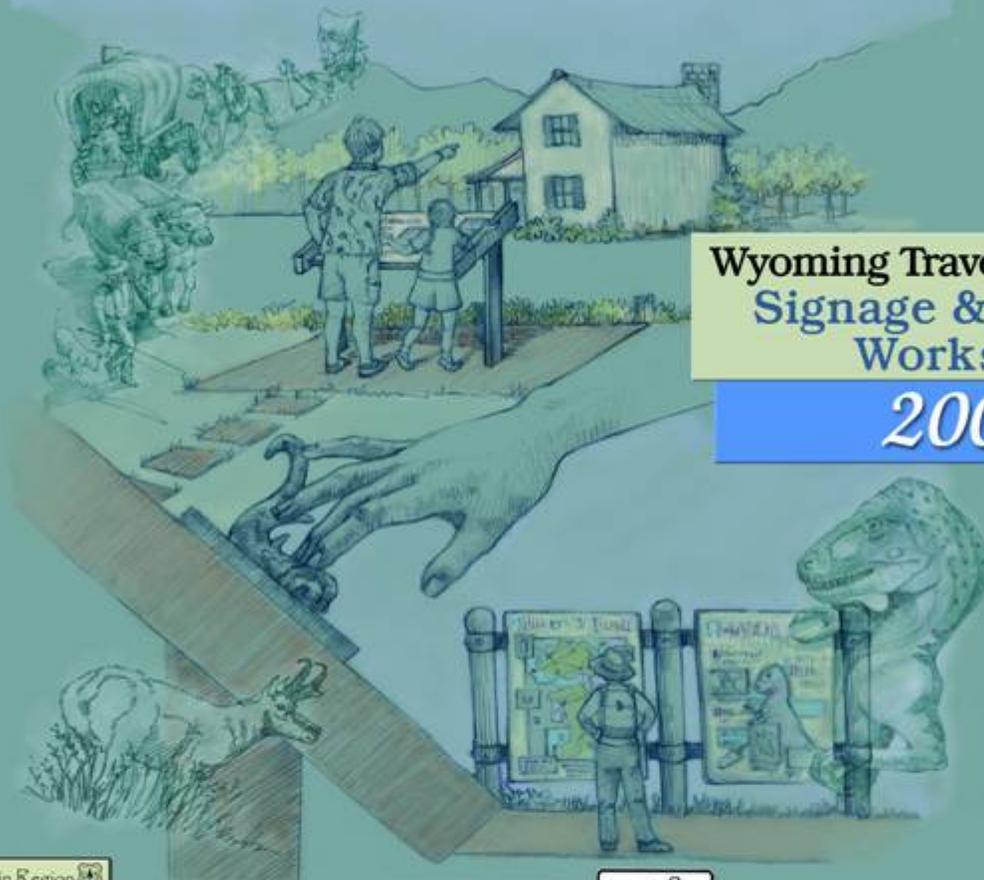
## 6. Write Good Text

Make the text clear, concise, and write with enthusiasm for the subject and respect for the visitor.

For more information, visit our website:  
[www.fs.fed.us/r2/cdi](http://www.fs.fed.us/r2/cdi)



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