

# Selected Portions of the United States Army Corp of Engineers Sign Standards Manual

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This document is available as publication EP 310-1-6A and EP 310-1-6B (two volumes) and is available at no cost. Contact the USACE via its web site (see section VI.B) to request these documents. Make sure to request all updates when ordering this document, as there have been several updates to the manual.

(Note: Numbers/letters in parentheses indicate the original section in the USACE manual)

The function of an "interpretive sign" is to communicate specific educational and/or management learning, behavioral and emotional messages to visitors. Interpretive signs are most commonly used for self-guiding trails, or for wayside exhibits at points of interest such as viewing areas, resource management areas, or visitor information kiosks.

As interpretive signs will vary greatly in content and design, this section will focus on interpretive planning and writing guidelines and format suggestions.

It is not the intent of this section to control the visual look of the finished signs; rather, the intent is to provide guidance in developing interpretive signs. Interpretive signs need to reflect creativity and flexibility, as they relate to specific sites, goals, and objectives.

Interpretive signs are to be used for interpretive purposes only. Interpretive signs will not be used to circumvent requirements for approval of, or as a replacement for, caution, danger and warning signs. Interpretive signs may be used to supplement information about hazardous areas.

It is important at the beginning to have an idea of what interpretive signs are, and what "interpretation" is. Interpretation is defined by Interpretation Canada as:

"A communication process designed to reveal meanings and relationships of our cultural and natural heritage, to the public, through first-hand involvement with objects, artifacts, landscapes, and sites."

The U.S. Army Corps of Engineers had used this definition, in modified form, to focus on the mission of the Corps. The Corps definition of interpretation, as stated in the Corps Interpretive Services Manual, is:

"Interpretive services are those communication services provided to the project visitors and others, which support management objectives and goals, tell the Corps story, and/or reveal meanings of and relationships between man-made, natural, cultural and other project features."

To be "interpretive," the communication process should be based on Tilden's Interpretive Principles. These principles state that interpretation must:

1. *Provoke* the attention or curiosity of your audience.
2. *Relate* your message to the everyday life of your audience.
3. *Reveal* the essence of your subject through a unique viewpoint.
4. *Address the whole*. Show the logical significance of an object to a higher level concept or storyline.
5. *Strive for message unity*. Use a sufficient but varied repetition of cues to create and accentuate a particular mood, theme, aura, or atmosphere.

In planning for interpretive signs, it is recommended that the following planning model be followed.

1. *Resource Analysis*. Determine what resource, object, or concept you will be interpreting to visitors. Conduct research to find all the facts, interesting viewpoints, provocation information, etc. you can about the subject or site.

2. *Developing Objectives for Interpretive Signs*. For each interpretive sign or panel, determine the objectives for interpretive message(s). These should include at least one each of the following:

– *Learning Objective*. Facts of information you feel are important for the reader to remember. An example of a learning objective is "the majority of the visitors will be able to distinguish a salmon from a rainbow trout."

– *Behavioral Objective*. Behavioral objectives are the physical behaviors or actions that you want the visitor to do either while reading the interpretive sign (look for, see if you can find, listen for, etc.) or an action desired after the visitor has read the sign (attend more interpretive programs, be a safer swimmer, wear their PFD when in the boat, etc.).

– *Emotional Objective*. The emotional objective is perhaps the most important objective. Unless the visitor is motivated to "remember" learned information, or "do" the desired behavior, those objectives cannot be accomplished. An example of an emotional objective is that "after reading the interpretive panel, the majority of the visitors will feel that it is important to wear a PFD while in their boats."

3. *Analyze Your Visitor*. This section involves considering who the audience is that will be using the interpretive signs. Are they boaters, anglers, hikers, campers, etc. Likewise, the demographics of the user, (urban, rural, age groups, income, sex, etc.) all play a role in determining what the content of the sign should be, and how to best relate the message to the target group.

4. *Determining How/When/Where to Use Interpretive Signs*. This planning consideration concerns itself with how, when, and where to use interpretive signs. Considerations include site location, how many signs to use, what size they should be, should they be permanent or seasonal, and if a sign should be used rather than some other interpretive service or media.

5. *Evaluating Effectiveness*. This planning step is the evaluation of the effectiveness of the interpretive sign (test, graphics, and total communication presentation). Are the objectives being met? To evaluate interpretive signs, some techniques include:

- In-house review
- Review by a panel of visitors
- Review by experts (teachers, resource specialists, etc.).

The communication effectiveness of proposed interpretive signs must be evaluated prior to fabrication, so that necessary changes can be made without incurring major costs.

6. *Implementation and Operations*. This section of the planning process can be used as a checklist for all the items needed to go from plan to reality. This includes such concerns as:

- Funds available;
- Actual versus desired production time;
- Selection of sign materials (wood, fiberglass, metal)
- Who will write text and do design?;
- Review of graphics and text (by who?);
- Approval steps;
- Who will fabricate the sign?;
- Who will install completed signs?;
- Material selection (use materials that are practical, vandal-resistant, and best fit your needs).

Self-guiding interpretive trails use two different types of signs: one large trail orientation sign and several smaller trail station signs located at various sites along the trail.

1) Trail Orientation Sign: The role of the trail orientation sign is to give the visitor a general overview of what the trail is about and what kind of recreational experience to expect.

Based on this information, the visitors can decide whether or not to walk the trail. Every trail orientation sign should include:

- The name of the trail;
- A brief introduction to the trail length and walking time;
- A map of the trail, so visitors can see where the trail may take them, and where the trail ends;

- Any necessary safety information (i.e., sturdy hiking shoes recommended, steep hills, etc.), or overview of the storyline the trail will be interpreting (i.e., provide a first hand look at some of the ways we are managing forest resources).

Size: 24" x 36"



Relate

**Provoke** — [ ]

**Relate** — [ ]

**Provoke** — [ ]

### White Oak Interpretive Trail

**Provoke** — [ ]

**Relate** — [ ]

### A Door that's never locked!

**Beaver Facts**  
 • Beavers are the only mammal that can live in water.  
 • They are the only mammal that can live in water.  
 • They are the only mammal that can live in water.  
 • They are the only mammal that can live in water.

**Relate** — [ ]

2) Self-Guiding Trail Station Signs: In planning and developing signs for self-guiding trails it is important to remember that the interpretive story for the entire trail should be developed first. Then each trail stop/sign interprets a part of that whole story. A self-guiding trail (SGT) should not have more than 7-10 stops. For more information on planning SGT's refer to the Corps of Engineers Interpretive Services course training manual.

In general, interpretive trail signs should follow the guidelines presented below.

1) Size: 20" x 30"

2) Content: Content format will generally be left to the creativity of the planner/designer/writer. Planning for the sign should follow the planning steps presented earlier. Sign content should employ Tilden's Interpretive Principles (see examples).

3) Text Length: Text length should not exceed 50-60 words. If more text is required, it should be broken up into several paragraphs of 50 words or less each.

4) Graphic Selection: Choose graphics that best "illustrate" the concept being communicated, rather than duplicate what the visitor has already seen.

5) Non-verbal Communication: Remember that the colors, label type style, and label size all affect the visitor and communicate part of the message. For example, a sign text about poisonous plants should not be done with green (red means danger).



Provoke —

Relate —

Provoke —

Relate —

Reveal —

Reveal —

### Sweet and Sour Tree?

It is well known that the sweet sap from this tree, a *sugar maple*, is used to make maple syrup. It may take up to 40 gallons of sap to make just one gallon of syrup!

But the pioneers had another use for this tree. The wood ashes are high in *pot ash*, and were used by the earlier settlers to **MAKE SOAP!**





**Gathering the Sap**  
In the first warm spring days the sap begins to rise and slowly flow dripping into buckets.

**Boiling the Sap**  
The sap is boiled in the evaporator pans. It turns into syrup at 216 degrees Fahrenheit.



Provoke —

Relate —

Reveal —

Relate & Reveal —

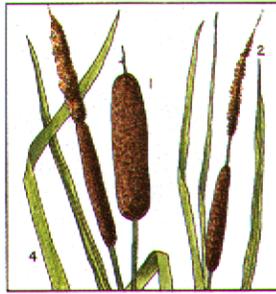
Reveal —

### The Plant that's a Lifesaver!

In a survival situation, cattails can provide you with food, shelter, and even fuel - three of the five basic survival needs!

The cattail marsh supplies food and shelter for its residents. Muskrats feed on cattail rootstalks. Songbirds use reeds, grasses and cattails as nesting material.

Among the dense cattails and other marsh plants animals find excellent shelter.

**Cattails**

- 1 Flower heads edible in spring; pollen in early summer; seeds in late summer.
- 2 Dried heads can be used for starter fuel.
- 3 Dried leaves can be burned.
- 4 Leaves can be woven into mats.
- 5 Rootstalk edible throughout the year.



Wayside exhibits are located at points of interest (powerhouse, forest management area, locks and dams, roadside pulloffs, or vistas/viewing platforms).

Developing interpretive exhibit panels follows the same interpretive planning steps, and use of interpretive techniques, as does interpretive trail signs. In general, interpretive exhibit panels should follow the same guidelines.

1) Size: 20" x 30"

2) Content: Content format will generally be left to the creativity of the planner/designer/writer. Planning for panels should follow the planning steps presented earlier. Exhibit content should employ Tilden's Interpretive Principles (see example).

3) Text Length: Text should be kept short, and text blocks not exceed 50-60 words.

4) Graphic Selection: As with interpretive signs, the selection of the graphic(s) is key to successfully communicating the concept or topic to the visitor. The graphics should illustrate the concepts, or serve to achieve one or more of the stated objectives of the exhibit panel.



Provoke

Provoke

Relate

Reveal

Reveal

Relate

Relate & Reveal

Relate & Reveal

### A Door that's never locked!

Look for the large mound of sticks in the water in front of you. An underwater doorway leads to the inside of this beaver lodge. During the day, the beaver parents and kits snooze on a bed of shredded wood inside their lodge. With their beds high and dry, and the tunnel entrance underwater, the beaver never have to worry about locking their door.

**Beaver Facts**

- Beaver kits can swim 24 hours after they're born!
- A fully grown beaver can weigh up to 70 pounds.
- It's the sound of running water that makes beavers start building a dam!

Provoke

Provoke

Relate & Reveal

Graphics

Relate & Reveal

Reveal

### A Door that's always locked?

Most natural rivers could not be navigated by boats without using a lock system. Locks help by removing potential river hazards (such as snags and shoals) by raising water levels. Boats can then travel on the river, in any direction, safely above any dangerous sites. This system of locks and dams allows commercial and pleasure boats to use the entire length of many rivers, using special doorways that are always locked!

**The Key to Locking**

Graphics Relate & Reveal

*Interpreting Cultural Resources*

Care must be taken when interpreting any cultural resources or sites due to the potential for theft and vandalism problems.

Corps resource management staff should seek the advice of their district archaeologist in determining how best to interpret sensitive cultural resource sites (or not interpret them at all).

*Remember the Visitor*

In planning and designing interpretive signs, it is important to remember how people learn. Consider the following:

- People learn better when they're actively involved in the learning process;
- People learn better when using as many senses as possible;
- People retain about:
  - 10% of what they hear
  - 30% of what they read
  - 50% of what they see
  - 90% of what they do

Remember this when planning the graphics and writing the text for interpretive signs/exhibit panels.

*Hints for Writing Text for Interpretive Signs*

1. Keep your sentences short.
2. Avoid using technical or unfamiliar terms.
3. Write about what visitors can see or experience.
4. Use active verbs.
5. Add touches of humanity. Use first person quotations, make references to people's common experiences, and write with warmth and emotion.
6. Encourage visitor involvement.
7. Use colorful language (metaphors, puns, quotations, etc.)
8. Use Tildens's Interpretive Principles.
9. Don't try to influence the visitor. Present the facts, benefits, and rationale of the activity (such as prescribed burning) and let the visitor decide.