



HEADWATERS INSTITUTE

2006 Curriculum

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I. INTRODUCTION

Headwaters Institute staff, coordinators, steering committees, and trained guides are all in the service of watershed education. This service comes from a love of place, from knowing a particular river or stretch of coast. In this spirit, Headwaters Institute provides leadership in watershed education.

Headwaters Institute (HWI) is inspired to educate people about **watersheds**. This enormous assignment matches the breadth of the very word. We all live in a watershed, which encapsulates the entire landscape between mountain ridgelines and the coastlines that surround our continents. Watersheds contain multiple layers of life which are all fundamentally connected by the water that courses through their creeks, rivers, estuaries, and wetlands. Those waters are pulled by gravity to a common destination, carrying along the particulates of what they touched along the way. A watershed is not defined by one source, rather it best understood in the context of multiple sources.

The term **education** carries similar properties. Coursing through the many interactions between people, education connects people to a common body of knowledge. It cannot be defined by a single source, for there are infinite sources. HWI persists as a perennial spring which resonates an educational message about water and watersheds through guides to the individuals in our society. Through this ripple, HWI attempts to convey a deep, pure truth about water, illuminating its essential qualities and importance as a public resource. HWI provides both a process and focal point to cultivate public appreciation for water in all of its forms and all the life that is ultimately dependent upon it.

II. AUDIENCE

Thank you for taking the time to read and learn about HWI's *Watershed Education Seminars for Professional Guides Program*. HWI's **curriculum** ensures that each seminar attains a superior standard for outdoor and environmental education through an **itinerary** that accurately reflects the natural features and character of a local region, its peoples and their histories, current natural resource issues and land management practices, and other topics that cumulatively inform attendees to a degree of detail that can include the chemical, physical, and biological components of the watershed. Interpretation illuminates each place with a specialized local knowledge that broadens perspectives and opens the landscape like a key.

This curriculum is primarily designed for **seminar coordinators** and their **steering committees** to create a local seminar itinerary. This curriculum is subject to interpretation to allow for the most successful expression of educational needs as designed from a grassroots level. It is meant to be a communication tool and starting point for educational inquiry.

The **Education Director** and **Board of Educators** use this curriculum as the defining parameter that details what seminar itineraries could, should, or should NOT include. The curriculum is used to provide educational consistency and boundaries among seminars across a wide geography. It reflects both HWT's and the Board's collective knowledge as outdoor educators for how to best teach guides to appreciate the places they love and work, and how to pass that appreciation on to others.

Presenters are asked to utilize the curriculum as a guide to sharpen their understanding of their audience and improve the quality of their presentations.

Outfitters, resource managers, community businesses, sponsors, foundations, and other **members of the public** are encouraged to review HWT's curriculum to answer any questions about our "program agenda," which is transparent and open for regular comment and review.

A specialized curriculum is posted for **guides** to give them ideas and to help them sharpen their interpretation for clients in the segment "For Guides."

Suggestions on how to improve this curriculum are welcomed to better advance HWT's mission and will be incorporated through ongoing program evaluation and assessment. In this way, HWT is part of a much larger educational process much like the water cycle.

III. PROGRAM BACKGROUND

HWT launched its *Watershed Education Seminars for Professional Guides Program* on the Rio Grande in New Mexico in 1996. Since then, other seminars have been initiated by individuals who approached HWT or HWT has recruited individuals to initiate seminars in select recreation communities based on the potential public outreach that can be generated through local commercial tourism. Through 2005, 71 seminars have trained over 5,000 rafting, fly-fishing, sea kayaking and other professional guides who have had approximately 1.8 million contact days with the recreating public.

A well-designed **Watershed Education Seminar** can be a powerful event to maintain and improve the quality of guides' natural and human history information pertaining to rivers and coasts. Guides trained at HWT seminars gain essential communication and education skills that make them more effective in conveying that information to their clients. As guides connect with hundreds of people per year, innumerable **teachable moments** arise, and with each interaction an opportunity arises for a guide to share information learned while attending a seminar.

A client's appreciation of **place** is often a direct reflection of their guide. HWT was created to maximize the potential of this exchange and its rippling affect after a trip. HWT believes that guides who are trained to interpret the natural world can inspire their guests to return home and treat the earth with more awareness and care.

IV. STANDARD

HWI was created to stabilize and enhance annual educational seminars for guides and educators to teach, learn, and share their common passion for rivers, coasts, lakes, and other watershed resources. Instilling an appreciation for water amongst clients and other visitors to the watershed is one of the most **profound public services** any professional can incorporate into their daily repertoire.

Participation in HWI seminars is **voluntary standard** set by professional guides (and other members of their community) in the pursuit of outstanding customer service and commitment to the watersheds they care for and enjoy.

V. CORE VALUES

A. Overview

The growing need for quality outdoor and environmental education requires HWI to identify its **core values**. The ripple of educational outreach must be approached with clear intention and accountability. The “**skipping stone**” of intention and outcome from core staff to coordinators to steering committees to guides at seminars to clients demands clear communication. These core values are articulated to ensure unity of program at each level of program interaction:

1. Knowing Place
2. Interpretation
3. Experiential & Outdoor Education
4. Non-biased Seminar Content
5. Sustainable Practices

Objective: Guides will experience the five core values at all HWI seminars.

Resources: Workshop, curriculum.

Procedure: Coordinators design their seminar itinerary with consideration for HWI core values. Education Director uses the core values to evaluate and comment upon the preliminary itinerary *three weeks* before the seminars.

B. Core Values

1. Knowing Place

Make sure that the seminar topics and content actively connect the audience to the uniqueness of their watershed. If a potential topic will not enhance understanding or connection to place reconsider the topic. Guides are often already connected to their place in a deep way, since they live and work outdoors. Being able to connect their guests to place will provide guides with a richer personal experience **out there** with guests. It can enhance and nurture a life-long commitment to know and conserve the special places left on the planet.

Objective: Guides will connect to their watershed(s) during the seminar. They will gain a deeper appreciation for the unique physical and ecological qualities of that place, its history, and natural resources context.

Resources: Workshop, curriculum, steering committee.

Procedure: Research your watershed to discover and better understand it. Introduce **knowing place** as an organizing principle to the steering committee to shape itinerary.

2. Interpretation

Interpretation is a skill that can be enhanced throughout life. It improves the way people connect to each other in any circumstance and especially when a guide answers a client's questions during a trip. It can create an **emotional link to place**, especially in the form of story telling. Good interpretation can inspire a client to go beyond the guided experience to learn more about a topic/issue or make an effort to change their lifestyle. A guide is better situated to catalyze meaningful active interpretation when they fully utilize the **watershed classroom**.

Objective: Guides will learn skills to interpret the information they learn at seminars and through further study for guests on their trips.

Materials: Workshop, curriculum, local interpretation specialists (check with resource managing agencies or local natural history associations/centers for interpretation specialists). Create a handout for guides with local interpretation resources to develop these skills.

Procedure: Be sure to include an interpretation session during your seminar. This can be through specially designed experiential education sessions where guides are facilitated by: (1) an **interactivity mentor** in small groups, (2) particular local trip areas are reviewed in detail, (3) concurrent sessions of presenters for guide choice linked to interest, or (4) a large group presentation by a specialist.

3. Experiential Education & Interactivity Mentors

"I hear and I forget, I see and I understand, I do and I remember" is a Chinese proverb that forms the basis for how HWI designs its seminars. Most people learn and retain information better and longer when they are active participants. The expert knowledge of guest speakers combined with hands-on learning and experiential learning facilitated by interactivity mentors results in better understanding, retention, and emulation on future trips.

Objectives: Guides actively participate in learning during parts of the seminar. They are kept on their feet, involved, interested, and engaged to better retain information.

Resources: Education Director, workshop, curriculum, local interactivity mentors, The Silver Bullet by Karl Rhonke

Procedure: Seek out veteran guides and experienced outdoor educators to serve as interactivity mentors! Ask potential interactivity mentors for ideas to experientially engage guides. Make suggestions as appropriate to match your objectives. Concurrent sub-sessions at a ratio of 10:1 keep people moving and work well when they engage different kinds of learning other than the traditional didactic approach with mostly passive listening. An activity where people read, write, dance, sing, act out scenarios, mock forums or debates and the like are good options. Suggestions abound in the Silver Bullet.

4. Non-Biased Seminar Content

HWI understands that issues surrounding natural resources use and management are socially, economically and politically **complex**. HWI is an educational organization, not an advocacy group, and therefore HWI strives to present a balanced program with a variety of viewpoints in each seminar. It is essential to present a complete picture of each topic/issue so guides can form their own opinion and subsequently pass along a balanced perspective to their clients, if they ever do at

all. The customer service confines of a guided experience demand as much. Guiding is not a bully pulpit.

It is powerful for guides to know about these sensitive issues if there is a chance a client might ask an educated question, especially if the client is curious to know an issue from two sides. It is doubly important to research all sides and present as many views as the session can accommodate time wise. Be sensitive to the conflicts a debate may bring to the surface and use good **judgment**. If you feel that using active players from each side might create unnecessary tension, use knowledgeable teachers or third parties who can lend **objective** perspective from the outside. If you choose to run a debate, consider a neutral facilitator who can maintain productive and informative communication among panelists, especially if you do not trust your own inherent biases on the issue, i.e. dam removal or salmon restoration.

Objectives: Seminars contain a balance of information including potentially **hot topics**. The objective is to sift for reality and truth within complex multi-position issues and to allow participants to form their own educated and informed opinions. Participants are offered as many sides to a situation as possible without antagonizing or straining local relationships. Facilitation is utilized to side-step and soften potentially conflicting edges.

Resources: Education Director, curriculum, steering committee.

Procedure: Don't be timid about hot topics with divided community loyalties. This can be the essence of a good print, radio, or TV story, i.e. dams, logging rights, carrying capacity, permitting, right to float, etc. Be smart and objective about your educational intent.

5. Sustainable Practices

Objectives: Seminars model sustainability in food service, educational materials, and advertising.

Resources: Local printing shops, recycling and compost bins, healthy food, sustainable coffee, organic cotton t-shirts.

Procedure: HWI seminars inspire people to connect with and care for their watershed. Therefore, HWI needs to walk its talk and model sustainable practices to limit the waste associated with seminars. Identify where products come from and the waste they generate in order to seek alternative ways to deliver a low-resource high-impact seminar. Quietly modeling behavior is often the best way to educate and convey values, i.e. solicit seminar participant volunteers to form a dish line to avoid disposable plates and silverware.

VI. DESIGN CONSIDERATIONS

A. Guided by the Core Values

Objectives: Coordinators will create an itinerary for their seminar that incorporates HWI core values.

Resources: Education Director, workshop, planning guidelines, curriculum, steering committee.

Procedure: Coordinators attend the **workshop** to collaborate with other coordinators and brainstorm topics, methods, and solutions for creating successful seminars. They later use their **Planning Guidelines** and **Curriculum** to focus their intentions. Coordinators work directly with steering committee to design the itinerary and the Education Director reviews three weeks in advance of seminar.

B. Outcomes Model

As a coordinator, it is important to ask yourself early in the planning process; "With what skills and information do I want the participants to leave the seminar or particular session?" From this **Outcome Model** of planning, you can enlist a diversity of opinions and ideas to strengthen both the support for and content of the seminar. It is imperative to include as many opinions as the planning process will allow and it is essential to start the planning with a clearly outlined seminar concept which can generate broad consensus among guides, outfitters, agencies, educators, and others on the steering committee. The simplicity of the concept of a guide interpretive seminar should not be weighted down with non-educational objectives that blur the outcome of the seminar.

Sample Outcome Model - Mission Statement: "Participants in Headwaters Institute supported watershed education seminars have the opportunity to increase environmental awareness, guide professionalism, and build community upon completion of the seminar."

C. ITINERARY DESIGN CONSIDERATIONS

1. Consistency

The fundamental objective of HWI seminars is to infuse professional guides with current information, methods of interpretation, and **inspiration** to teach while guiding. There can be significant inconsistency in the availability and application of interpretive information and methods used by guides. Some professional guide associations manage their own trainings while other communities have no local seminar creation infrastructure.

HWI combines the efforts of local guides, outfitters, agencies, and interested parties with curriculum, planning guidelines, and other support services to produce **superior quality** annual seminars. In some years, HWI will not conduct a successive seminar rather than force a seminar creation process that results in a poor quality seminar. HWI also facilitates annual feedback to ensure seminars have access to information to improve performance from year to year.

The cumulative lessons learned from conducting 71 seminars over ten years provide a rich starting point for all seminar coordinators and their respective steering committees. At the same time, each seminar enjoys broad local discretion to design the final itinerary. Curriculum considerations are explored, evaluated, and reconsidered at an annual **Watershed Educators Workshop**.

2. The Watershed Community & Guide Diversity

A seminar's community can potentially be as broad and diverse as the number of individuals who live within or are connected to a particular watershed. It is ever-important to think beyond a narrow point of view to reach out and expand the perimeter of inclusion to others outside the immediacy of the recreation community, since recreation is but one aspect of a diverse range of water resource users. Especially when considering steering committee invitations consider who, i.e. resource managers, tourism boards, or chambers of commerce, local land owners, and resource users, who can help fuse a seminar to a broader cross-section of the general public and/or other user groups. Seminar audience can span multiple segments of a watershed community and sometimes seminars can be marketed as an educational component of a larger river festival.

Still, seminars are predominately centered on the professional guide community and scheduled immediately after new guide and medical skills trainings at the beginning of the tourist

season. HWI seminars bring together different guides from all over the watershed for a unique event that is centered on learning. The guides attending these seminars will have a wide range of experience, as well as different educational goals. They may have different cultures or subcultures – rafting, kayaking, sea kayaking, fly-fishing, motorized recreation - and attitudes with regard to education and have strong opinions about the premise that YOU can teach THEM anything new. That is every seminar’s challenge, namely to fuel the curiosity of the guide community with outstanding content.

The varied guides are both an asset and a challenge when juggling itinerary considerations such as niche specialization, i.e. steelhead fishing, and degree of information sophistication for generally applicable topics, i.e. geology 1, 101, 201. A coordinator or steering committee member needs to simultaneously convey a degree of humility and provide educational leadership to attract diverse participants to the same seminar and hold their attention throughout the day. **Concurrent presentations** help avoid redundancy with repeat presenters from year to year and are an effective way to satisfy attendees’ differing information needs through renowned speakers and local experts. Separating guides into groups (rookies, two to four years, and senior guides) and asking presenters to prepare three subsequent levels of education for their topics can make concurrent sessions even more effective.

Guides resonate with seminars as a **celebration** of the spirit of the river or coastal community that honors the power, hidden lessons, and metaphor of their local waters. Schedule social time into the seminar, but do not to confuse social non-structured time, i.e. “Break,” with an ongoing party, and be absolutely certain that the flow of the day does not taper off with a steady stream of exits all afternoon. The community celebration aspect of a seminar is an **invaluable** part of the whole experience that needs to be kept distinct in time and place, i.e. “seminar ends at 6PM with BBQ/fundraiser social immediately afterwards at Ray’s Tavern.”

3. Low Cost and High Quality

Local seminars are subsidized through federal agency, foundation, private donor, and local outfitter and agency support to: (1) maintain an attendance fee that is affordable for guides, i.e. \$20; (2) attract the greatest number of guides to the seminar; and (3) maximize guides’ aggregate public exposure. Increased attendance generates revenues that allow local coordinators to pay a premium for unique content, i.e. keynotes, and get paid themselves, which further improves the quality of seminar content and facilitates marketing to a broader public audience when the commercial pre-season is ramping up.

4. Seminar Location

Ideally, seminars are held at a location directly adjacent to the river or along the coast close to where the greatest number of guides live, work, and play. Remote waterside locations can transform into an **outdoor classroom** that intangibly, but substantially, impacts participant retention and interactive participation. Driving distances of more than 1-2-3 hours can be reasonably expected to negatively impact seminar attendance. Move the seminar to the audience and they will attend.

5. Resources and Materials on Location

The resources and materials required for presentations at a particular location must be considered and factored into the **action plan**. These logistics include considerations such as bad weather plans, electricity, slide projector, power point, indoor rooms, and many others. Plan “B”

contingencies should be considered in advance of final commitment to a host venue or location. The key is to be ahead of this wave or it will come down on your head with an unexpected thud!

6. **Headwaters Institute Seminars are NOT**

- ❖ Medical skills training: CPR, EMT, WFR
- ❖ Swift Water Rescue Trainings
- ❖ Technical skills trainings
- ❖ Whitewater rodeos
- ❖ Downriver races
- ❖ River cleanups
- ❖ Other

But seminars can be creatively marketed and packaged (“bundled”) alongside and in conjunction with these and other community events to build audience. It is imperative that any bundling establishes a clear firewall that delineates different entities’ activities for liability purposes, i.e seminar ends at 6PM in River Park and fundraiser with band/BBQ/beer starts at 6PM at Brew House.

7. **Learning Differences**

HWI recognizes that there are many different styles of learning such as:

- Visual Learners- learn best by SEEING
- Auditory Learners-learn best by LISTENING
- Kinesthetic Learners-learn best by USING THEIR BODIES in learning
- Tactile Learners-learn best by HANDS ON activities
- Musical Learners – learn best with instruments, sound, and/or song.

Be certain that your itinerary reflects a combination of learning styles and that the rhythm of the day is in synch with people’s morning, post-lunch, afternoon, and evening energy cycles. Use the full range tricks in your box to keep people fully engaged all day.

8. **Interactivity Mentors**

Part of HWI’s organizational history derives from the use of outdoor educators or facilitators who serve as interactivity mentors which can break a large group of 30 – 50 – 100 participants into smaller groups of 8 – 10 – 15 individuals who each have an opportunity to speak and interact with other seminar participants in a fundamentally different way than through listening to expert presenters alone. This is an ideal role for veteran guides from your community. This is one particular component of a seminar that does not come together automatically at the last minute without intention, focus, priority, and preparation in advance.

9. **Informational Context and Relevance**

HWI seminars lend structure and direction for delivery of high-quality information and interpretive skills specifically oriented to professional guides. Know your **core audience** and ask yourself, “What does a guide need while out on the river or coast to make his/her interpretation of the watershed complete?”

Factor into your planning process the length of trips (day/multi-day), duration of vehicle transport to the launch point and from the takeout, and the available array of human and natural history specific to the region, i.e. Los Alamos Laboratory, Taos Pueblo, JWP River Running Museum, mining, outlaws, Gold Rush, mountain men, Lewis and Clark, etc.

10. Headwaters Institute Presentation

Every seminar should include a brief 5 minute introduction and overview to HWI as a **national** program, ideally at the beginning of the day when people are in one place and potentially curious to know the basics about the event. There will be a charge in the air and YOU can supercharge it. Also see **Planning Guidelines**.

11. Regional Experts & Keynote Speakers

Finding a good keynote speaker can swing a good seminar to an unforgettable one. Examples include former Secretary of the Department of the Interior, Stewart Udall, and authors, Marc Resiner, Tim Palmer, and Charles Wilkinson, among many, many others. If you get the right person at an appropriate cost, you can advertise your seminar and promote the speaker to attract a broader audience. Keynotes can set the tone for the day and frame the big issues or put an exclamation point towards the end of the day before or after dinner.

HWI, its Advisors, Coordinators, and Steering Committee members have contact information for a range of experts and potential keynotes. Public resource managers can often contribute specialized archeologists, biologists, hydrologists, and fish and wildlife experts who are professionals in the social or natural sciences. Chambers of Commerce and State Tourism Boards may also have unique access to high quality experts, specialists, and speakers.

When contacting a potential keynote, you are asked to **coordinate** with the Education Director, since collaboration on this matter minimizes the risk of chaotic non-professionalism, which might annoy special speakers whom HWI would like to contact in the future. (In one year the same person was independently asked to keynote at three different seminars and they spoke at two). If you have a keynote speaker in mind that is not on HWI's list, please consider introducing them to other coordinators through HWI. HWI is happy to help promote a good speaker or local VIP, either regionally or nationally.

12. Actively Educate!

One of HWI's greatest challenges is to recognize the difference between advocacy, activism, interpretation, and educational outreach. HWI provides opportunities that inspire people to connect with and care for their watershed, yet the key is that HWI does its work solely through active interpretation and education, not advocacy.

Excellent educational outreach needs to be open to all possibilities on tough issues and cannot take sides as advocates do by definition. Advocates advocate for a particular cause. Education seeks truth through a diversity of opinions and HWI seminars offer a neutral space for all sides to be considered. Be an advocate for learning all sides. **Actively educate** and engage your community in quality outdoor and environmental education. Make it interactive.

Objective: Coordinators create seminars that engage and inspire participants through interactive experiential education and excellent content, not through partisan advocacy.

Resources: Education Director, workshop panel, planning guidelines, curriculum.

Procedure: review itinerary to ensure any hot topics are presented fairly. Ensure HWI does not take sides and remains non-biased in respect to the overall outcome and balance of the seminar.

13. **Environmental Education vs. Outdoor Education**

Objective: Coordinators, Presenters and Guides know the difference between outdoor education and environmental education. In the best cases, guides are given environmental education skills at the seminar to use with clients.

Resources: Earth Education by Steven Van Matre, independent research, specialist presenters

Procedure: Become literate in the distinction between the two to communicate and prepare presenters. Include this excerpt from Earth Education in materials to guides at seminars:

Outdoor Education:

- ❖ Curriculum enrichment and application
- ❖ Recreational skills and outdoor pursuits
- ❖ Socialization experience and group development

Environmental Education:

- ❖ How do the ecological systems of the earth function?
- ❖ How are we personally tied into those systems in our lives?
- ❖ How can we make changes (individually and collectively) in order to lessen our impact upon those systems?

14. **Risk Management**

Liability insurance is available for your seminar free of charge, but only with approved itinerary three weeks in advance. As a general policy, neither on water activities or alcohol distribution are permitted to be part of a seminar. BUT seminars can creatively work with local establishments to host a post-seminar party or **bundle** with an on-water festival in such a way as to ensure maximum marketing benefit without attaching the seminar to added liability. Also see **Planning Guidelines**.

15. **Continuing Education & www.HeadwatersInstitute.org**

Objectives: Guides are provided with resources to continue learning beyond the seminar.

Resources: Photocopied handouts at seminar with digital copies posted on HWI website as local seminar “paper.”

Procedure: Insist that presenters submit written materials and a digital copy (.pdf) of their presentation or key concepts on the topic. Add any pertinent links, recommended books, photos, or quotes on your seminar’s homepage. Make sure to use recycled material, copy on both sides of paper, and save extra resources for following years. This can be an online folder that grows to reflect the full information available for inclusion in your seminar from your watershed, which greatly facilitates the transfer of local knowledge from coordinator to guide to guest.

VII. TOPICS

A. Intro

Objective: Guides choose from a variety of topics offered at the seminar.

Resources: Education Director, curriculum, steering committee.

Procedure: Use the Topics List as a guide, work with steering committee, local educators and the Education Director to come up with topics for your seminar that fit together, and deliver a variety of subjects and interesting topics for guides. Enhance topic impact and outcomes with intentional lesson plans and objectives pertinent to your place.

B. Topics List from Past Seminars

Work with steering committee and local presenters to come up with pertinent OBJECTIVES for each topic so that the distilled lesson plan can be transferred. Any of the following topics could be its own session or combined with others at the seminar. This list is non-exclusive and is merely a sample to jump start your synapses if they are not already filled with ideas. Have fun choosing!

1. Natural History

Physical & Chemical Processes

- Geology
- Hydrology
- Geomorphology
- Astronomy
- Climate
- Sediment
- Turbidity
- Erosion
- Dissolved oxygen
- Toxicology
- Ground Water
- Geochemistry
- Relations to biological world

Biological Processes

- Terrestrial plants
- Aquatic plants
- Aquatic organisms
- Terrestrial organisms
- Ecology
- Relations to physical world

2. Human History

Ancient/pre-industrial revolution

- Indigenous
- Non-indigenous
- Primitive skills
- Historically significant people

Modern/post-industrial or agricultural revolution

- Distinguish between indigenous and non-indigenous

- Historically significant people and events
- Cross-cultural issues and awareness
- Language barriers and communication challenges

3. Natural Resource & Environmental Justice Issues

- River management issues: visitor use capacity, permit allocation, and public access; fishing and aquatic diseases, i.e. Whirling disease, red tide; campsite and LNT ethics
- Mining
- Dams
- Energy
- Irrigation
- Ranching
- Endangered species
- Habitat destruction/restoration
- Fish health & disease
- Pollution/ point source and non-point source
- Introduced species/ effects
- Deforestation
- Sedimentation
- Water quality monitoring
- Socio-economic, ethic, and racial consideration, i.e. access to clean water/air or open space

4. Public Lands & Natural Resources Stewardship

- Legal & policy issues
- Sustainable practices
- Restoration efforts: fisheries, riparian habitat
- Protection campaigns
- Conservation easements/land trust policies
- Hydropower
- Flood plan management and levee utilization
- Renewable energy
- Leave No Trace
- Local conservation and resource user groups
- Water quality monitoring
- Identify each of the federal land managing agencies: NPS, BLM, USFS, USBR, FWS

5. Education, Communication, Interpretation, Leadership

- Interpretation methods, i.e. Tilden
- Working with disabilities
- Female Guides
- Group dynamics and backcountry leadership
- Problem solving, decision making, information analysis

- Continuing education: local experts, resources, and groups
6. Industry, Agencies and Organizations
- Guide Associations & guide professionalism
 - Local resource management agencies: federal, tribal, state, county officials and managers engaged in broad issues related to the watershed.
 - Outfitter associations
 - View of guides by outside third parties, i.e. Chamber of Commerce, State Tourism Boards
7. Other Seminar Components/Ideas
- Breakfast, Lunch, Dinner - Great way to get people to come and stay for the entire day. People will get hungry and leave the seminar to find food, whether you plan for it or not.
 - Raffles - good opportunity to relax, have some fun, give away free stuff. (Thanks to our sponsors!)
 - Games - ammo-can tug of war, oar toss, hacky sack-off, throw bag, fly casting, knot tying, joke telling contest.
 - Service projects - "many hands make light work" and seminars have put guides to work on pulling out non-native plants and weeds, creating "seed balls," and doing riverside cleanups. Weave doing dishes together as service project to reduce trash.
 - Panel discussions - Structured discussions of local hot topics. Create space and structure to foster open and safe conversations. Introduce speakers, run a tight clock, and actively facilitate. Include ample time for Q&A. These have been successful in the past, but they need to be done fairly and with neutrality, as the audience may automatically create an awkward bias for speakers.
 - Keynote speakers - can provide an amazing highlight and an excellent opportunity to invite non-guide community members to a seminar, and if choreographed well, they can be an ideal catalyst for local press. Be sure to coordinate with the education director in advance.
 - Live Animals - always steal the show!
 - International - Considerations for international seminars include communication difficulty, language and cultural differences, eco-tourism potentials and problems, and differences in pay-scale/ dollar power.
 - Dutch Oven cook-offs - no better time to establish annual bragging rights!

C. Examples of developed objectives from the topics list above

1. Geography – Demonstrate ability to create a watershed map using readily available materials (sand beach and stick, whiteboard and marker, throw bag rope) that details the headwaters to mouth including major land features, tributaries, population areas, dams/diversions, and other major points of interest.
2. Natural History – Define and describe the major life forms, their function, and interrelationship/interdependence with each other within the river corridor ecosystem

- including five (5) of each category: plants/flowers, fish, amphibians, reptiles, birds, mammals, and all listed federal and state Endangered/Threatened Species known to exist within the corridor.
3. Cultural History – Define, describe, and demonstrate in commonly accepted terminology an understanding of the history and recognized practices of all known human cultures to inhabit the river corridor from prehistory to present.
 4. River/Coastal Ecology – Define, describe, and demonstrate an understanding of the biological form and function of the riparian/coastal ecosystems and relate it to other river/coastal systems.
 5. River Morphology – Define, describe, and demonstrate an understanding of the occurrence, circulation, and properties of river water and fluvial geomorphology within the river channel and river corridor, the downstream effects of dams/diversions and relate it to other river corridor systems. Demonstrate knowledge of any local restoration of the river channel.
 6. Geology – Define, describe, and demonstrate an understanding of the forms and function of geology and geological processes that have occurred and are present within the river corridor or along the coast.
 7. Resource Management Considerations – Seminars often, but don't always have content that directly addresses local resource management issues with representation from conservation organizations, various agencies that manage water, and other resource users to introduce themselves and their public interest missions, i.e. angler's clubs, Friend of Lake Powell, jet ski groups. Ultimately, any seminar discussion that explores outdoor recreation ethics, broader resource stewardship issues, and sustainability is ideal content.

These issues are approached with the intention of broadening the perspective of guides who might not otherwise understand the complexity of resource issues that define their river or coastal health, especially if they grew up elsewhere and are not local. Speaking invites are selectively extended to maximize the educational value and relevance of each issue as determined by the steering committee, i.e. commercial fishermen and regulated quotas on catch; dam removal and impacts; recreational access and permitting.

8. Working with the Disabled and Special Needs Clients – Describe and demonstrate an ability to meet the needs to all clients especially those with disabilities including how to speak about disabilities in a sensitive and professional manner, asking to provide assistance, and how to provide assistance to the physically disabled.
9. Methods of Interpretation – Demonstrate an understanding of Tilden's Principles of Interpretation and an ability to lead an interpretive lesson utilizing these principles. Demonstrate understanding of different learning styles and accepted methods of teaching to those learning types on a guided trip.

10. Communication Skills – Demonstrate understanding of types of interpersonal communication, effective methods of communication, and how communication relates to working with the visiting public.

D. Special: Leave No Trace

1. The Leave No Trace Principles

- a. Plan Ahead and Prepare
- b. Camp and Travel on Durable Surfaces
- c. Pack It In, Pack It Out
- d. Properly Dispose of What You Can't Pack Out
- e. Leave What You Find
- f. Minimum Use and Impact of Fire
- g. Be Considerate of Others

2. Background and Partnership

Both commercial and recreational river and coastal use has exploded in recent years. With an increase in use comes an increase in impacts.

Guides – rafting, flyfishing, sea kayaking - carry a high degree of **responsibility** because they are role models for novice, intermediates, and experts who utilize professional outfitter services or use the same resource. The direct recreational impacts of uninformed adventurers can be significant, especially in aggregate. HWI is committed to communicate and teach river, land, and coastal stewardship values on behalf of the unique and irreplaceable natural resources proximal to HWI seminars. At the same time, HWI does not advocate for mandatory interpretive trainings for guides. It is a voluntary standard.

In an effort to curb human impacts, Leave No Trace, Inc. (LNT) and HWI have specially partnered to educate professional guides and the general public about LNT land use ethics. LNT's **mission** is to promote and inspire responsible outdoor recreation through education, research, and partnerships. It is the standard minimum-impact message being delivered on public lands throughout the U.S. HWI offers an efficient point of training - distinct from the more extensive "LNT Master Training" - for a large number of guides within the outdoor recreation industry.

The HWI LNT skills module trains professional guides to inform the visiting public about proper land use ethics and behavior while on a guided trip. The LNT principles can resonate beyond the immediacy of the guided trip to future activities on public or private land or at home.

Objective: Seminars include a representative from LNT or an LNT Master to train guides in minimum impact skills and ethics. Guides understand the impacts of using the river or coastal corridor, how to minimize negative impacts, and methods of effectively conveying LNT principles to guests.

Resources: Education Director, LNT, Inc., public resource managers, local LNT Masters

Procedure: Concurrent sessions during the seminar or a large group presentation by a LNT master to train guides in the LNT principles and how to pass them on to others.

3. Leave No Trace Skills Course

These principles will be taught to guides using a 30-45 minute skills course that emulates the successful program between **LNT** and **Boy Scouts of America** where a high number of participants are exposed to LNT principles and skills in a short period of time in what is known as the “Jamboree Skills Course.” This program is two-fold in that it first exposes the professional guide to the six Leave No Trace Principles then encourages them to practice LNT principles on their trips, and ultimately become practitioners of proven LNT teaching practices.

Through the use of a standardized skills course, the expertise of Leave No Trace Masters level instructors, or assistance of HWI Interactivity Mentors, professional guide participants will have a basic understanding of the Leave No Trace principles, know why LNT is important, and have specialized skills needed to inform their clients about LNT principles.

VIII. SEMINAR AND CURRICULUM EVALUATION & FEEDBACK PROCESS

A. Education Director

The Education Director is the central **communication switchboard** between coordinators, Executive Director, curriculum, planning guidelines, and the Board of Educators. The Education Director keeps a **pulse** on local seminar needs and developments so that HWI can best serve each seminar’s unique support service needs. Through the Education Director, HWI maintains its right to review each itinerary and ensure it aligns with core value, design considerations, and topics within the curriculum.

B. Board of Educators

HWI has an informal Board of Educators, selected from a **high caliber** group of recognized leaders in outdoor and environmental education, who are responsible for the oversight and periodic review of the curriculum [this document]. This curriculum is used by the Education Director to guide local seminar coordinators to a superior and consistent standard of seminar excellence. They include:

- America Outdoors
- Colorado Plateau River Guides
- Headlands Institute
- Leave No Trace, Inc.
- Outward Bound
- River Management Society

These organizational entities have been selected to protect the integrity and credibility of HWT’s curriculum, so that the HWI does not create its own arbitrary standard of quality. This level of peer review is intended to show respect for the tradition of ideas and influences that have been incorporated into HWI seminars from a variety of sources. It also places HWI within a broader community of outdoor educators.

In some cases, HWT’s Board of Educators provide **interactivity mentors** who can facilitate small group activities where the ratio of guides to presenter shift from 100:1 to 10:1, increasing the likelihood that all seminar participants receive personal and interactive training in leadership, interpretation, communication, and other **soft skills** that provide value added **high touch** to each client interaction.

In addition, Board of Educator members are invited to participate in seminars and provide an objective level of feedback on top of the review given by guides and steering committee members. Reporting directly to the Education Director, they provide an independent third party review and assessment of a seminar distinct from a coordinator's Final Report.

C. Intention and Need

HWI provides leadership in watershed education through coordinators and steering committees who design local seminars. HWI core values recognize that **knowing place** and **interpretation** of that special place are two cornerstones for successful realization of educational outcomes. The Education Director cannot create itineraries specific to communities and places which he does not know, which makes coordinators the **essential link** to this knowledge of place. They receive the full benefit of any doubt as to how to best assemble the substantive content of their seminars.

Still, HWI applies **curriculum** to guide coordinators and their steering committees to achieve consistently superior annual seminars in a wide variety of locations across the United States, from Alaska to Maine and across the West. A handful of seminars have specially been conducted on the Rio Futaleufu, Chile. Curriculum is used to establish firm boundaries and help instruct individuals who may not have a specific background in outdoor or environmental education. While HWI does not pretend to own the idea of interpretive seminars, its distinct approach and method of organizing seminars has successfully trained over 5,000 guides over ten years.

Yet, in some instances, coordinators have taken seminars beyond the curriculum and express outcomes of a seminar as defined by HWI's mission and vision. HWI is not a covert advocacy organization to convert guides into mouthpieces for a narrow agenda. Accordingly, the Education Director reserves the **right to review** an itinerary three weeks before the seminar to ensure that its content and direction are in alignment with HWI's curriculum. The most important consequence of a disapproved itinerary is the loss of HWI liability insurance, which has rarely been an issue during the course of designing seventy-one seminars.

HWI's review and oversight is not intended to limit coordinators as much as it is intended to enhance the effectiveness and impact of their efforts in subsequent years. Organizing seminars is an **iterative process**, which is never completed or perfected. There are always new ideas and considerations to factor in the creation of a local seminar. In this regard, feedback is a two-way process intended to enhance the quality of seminars and their impact as measured by attendance.

D. Seminar Evaluation and Review

Objective: Coordinator receives clear feedback and evaluations from guides and steering committee about the seminar. Coordinators present evaluations to HWI through emailed Final Report to the Education Director. The Board of Educators provides 3rd party review of the curriculum and seminar itineraries as appropriate.

Resources: Curriculum, planning guidelines, feedback forms, Final Report template.

Procedure: Receive standard evaluation form from HWI online and add questions you would like to have answered about your seminar. Pass evaluations out at a good time towards the end of the seminar to maximize value.

1. Seminar Participants

It is important that seminar participants have the opportunity to give HWI, the local coordinator, and the steering committee feedback on the seminar. Informal discussions and conversations are excellent forms of feedback, but a **written form** is the most valuable tool to document this year's seminar and start to improve on next year's. Evaluation forms are provided by HWI online as a MS Word document and can be customized by local coordinators to fit their own feedback needs.

2. Steering Committees

HWT's experience has proven that **many hands makes light work**. Starting 2-5 months in advance of a seminar, a Steering Committee of local guides, outfitters, resource managers, educators, and others is invited to participate in the creation of the seminar itinerary. The shared community ownership, commitment, and support for the seminar are often the most important factors in determining the success of a seminar.

The **debrief session** at the end of a seminar is a vital step in the pursuit of excellent seminars when it creates the opportunity for the coordinator to solicit verbal feedback from local organizers and take notes. Feedback on the seminar can improve the process of putting together future seminars by creating a shared foundation of community knowledge. This can serve as a formal end to a process that has been in motion for several months.

3. Coordinator Final Report

Each coordinator provides the Educational Director with evaluations from the seminar and feedback on the organizational process, financial administration, and their working relationship with HWI. Quality two-way communication between the grassroots seminar and the central organization is the most important aspect of a positive and enduring relationship. In the end, seminars are a team effort involving hundreds of people and while perfection will never be reached, the pursuit of excellence is a strong motivator to "do it better next year."

This report is what the coordinator(s) need to send in to the Education Director to bring their seminar to formal closure with HWI. A Final Report should include:

- Seminar Evaluation forms from guides at the seminar
- Feedback and other comments from steering committee
- Final Attendance numbers
- Final Budget
- Final Itinerary
- All contact information
- Digital copy of any media generated
- Photos, presenter's handouts, fliers, etc.
- Will you return next year? If not, can you suggest an alternate?

VIII. CURRICULUM FOR GUIDES TO GUESTS

This section of our curriculum is the most difficult for HWI to quantify and monitor. HWI recognizes the inherent limit of quantifying the impact of a seminar and how a HWI-trained guide will interact with their clients due to a seminar. HWI provides ideas for guides who want to further

their education beyond seminars and who desire to increase their impact on a client's appreciation of and for watersheds.

A. Practicing What You Have Learned

Awe your clients with the skills of interpretation as you strive to learn more about your surroundings. Always keep learning about your area or new areas and nurture curiosity and wonderment with humility and intention. Listen to your guests and broaden their experience and understanding of place with unique interpretive insight.

Objectives: Guides actively continue their naturalist and interpretation skill development on trips

Resources: Online at seminar homepage via "Papers."

Procedures: Go on trips! Use new eyes while on trips. When you see something that's intriguing, research it. It might be a migrating hummingbird that came from South America eating a high energy berry that only grows in THAT bush during a three week window each year OR it could be an old wooden and decayed mining sluice for water alongside the river!

B. Professionalism

Clients know when a guide is giving them more value than they expected: sharing insights behind the beauty of the immediate river or coast, providing moments of silence, and providing genuine answers to their questions that respect their intelligence and curiosity. False answers do not respect the question or the person and, more to the point, provide no inherent respect or service to the watershed.

Clients will respond favorably when they are treated with a standard of care that exceeds the average or minimum expectation. They may tip you, they may return, they may recommend the trip to friends, or they may take lessons back home with them thanks to good interpretive guidance.

Objective: Guides infuse their job with professionalism

Resources: Guide schools, HWI Seminars, "The Guide's Guide" or "The Guide's Guide Augmented" by William McGinnis

Procedures: HWI encourages guides to elevate the guiding profession through whatever training and resources available.

C. Evaluation Measures

It's really tough to know when you've created a new natural connection or educational pathway for someone that will last. Find your passion and develop your educational voice and both will carry you far.

Objective: Guides understand if they've reached the client and given them a quality, informative trip

Resources: ASK them!

Procedures: Once you've created a rapport with your client take a moment at the end of the day, at lunch, or whenever it feels right to ask them if they have appreciated your added information. Ask them what they'd like to learn more about. If you don't know the answer to a question, thank them for bringing it up and tell them you'll research it. Better yet, get their address and send them a short paragraph and thank you letter once you have. That will earn their respect and make a lasting impression of you and your company.

END OF DOCUMENT