

HANDS ON THE LAND MONTHLY REPORT TO PRE, APRIL 2006 THE KEYSTONE CENTER

1. Develop and implement a business plan for HOL within the sponsoring agencies and nationally to ensure long-term sustainability of the program. Coordinate the interest and environmental education needs of each of the five federal partners.

1.1 Develop a list of potential funders (local and national) and share with PRE.

- This task is completed.

1.2 Increase and/or stabilize PRE agency contributions to HOL (PRE lead).

- This task is completed.

1.3 Develop draft monitoring and evaluation plan for HOL for PRE's approval.

- The webpage for the evaluation and monitoring can be viewed:
<http://www.handsontheland.org/manage/evaluation/methods.cfm>.
- Based on PRE feedback, TKC is in the process of surveying sites to gather actual assessment and evaluation models to be posted to the webpage.

1.4 Partner with PRE to develop a business plan based on HOL criteria, including necessary resources.

- Task is completed as per conversation with Drew Burnett, US EPA Office of Environmental Education, 8/25/2005.

2. Maintain and expand the HOL network, through increased capacity building. Bring additional partners and support into the HOL program at the national and local levels.

2.1 Develop a web-based application and screening process for joining HOL including sites and/or schools without established partnerships.

- This task is completed.

2.2 and 2.4 Assess environmental education and website needs for all sites (including those that currently do not meet HOL membership criteria that have applied to participate in the network) and provide technical assistance as appropriate.

- This task is completed.

2.3 And 2.7: Develop an online "How to" manual and other resources to guide individual site participation in HOL.

Develop a training program to help new HOL sites with the implementation of HOL at their site.

- TKC held a one-day workshop at the national NSTA convention. A summary of the workshop is attached as *Appendix C*.

2.5 Assure all relevant information is included in the website databases, and other content areas.

- This task is completed.

2.6 Conduct usability testing with HOL members on website data input page.

- This task is completed.

3. Maintain and improve communication among the sites, and browser/member access to information on the website (<http://www.handsontheland.org>).

3.1 Develop additional online tools that promote coordination and communication among HOL sites.

- A written report and evaluation of current online tools is attached as *Appendix D*.
- The May Newsletter was sent to the HOL network on April 28, 2006 and is available online by visiting the HOL home page and clicking on Bulletins.

3.2 Develop search pages for each of the databases on the website and conduct usability testing with HOL browsers and members.

- This task is completed.

3.3 Work with PRE to develop a portal webpage of programs and materials focused on high priority resource management issues such as: watersheds, invasive species, forest health, the role of fire etc. ~~Use the EE Guidelines to review the quality of the programs and materials and submit to Drew.~~

Note: The last sentence in this item is to be deleted as per conference with Drew Burnett, US EPA Office of Environmental Education, 8/25/2005.

- A Hot Topics webpage has been created. To view the webpage, visit: http://www.handsontheland.org/teachers/materials/hot_topics.cfm
- TKC worked with PRE members to finalize the background information for the Watershed Hot Topic page. TKC has continued to try to solicit information from PRE members for the background information for Fire and Forests. Responses have stated that there hasn't been time to work on the task. TKC will continue to attempt to gather the information.

3.4 Coordinate all revisions to and maintain the website according to PRE's Quality Assurance Plan.

- This task is completed.

4. Establish partnerships with national education institutions, environmental education monitoring programs and service learning organizations.

4.1 Work with national environmental education monitoring programs (e.g. GLOBE) that allow HOL sites to share environmental monitoring data.

- TKC is continuing to pursue the partnership between GLOBE and HOL.

4.2 Identify and investigate partnership opportunities with service learning organizations

- TKC is in the process of applying to become a formal partner with Take Pride in America (TPA). Once this is achieved, a link to the HOL website will be published to the TPA site.

5. Administration, Monitoring, and Reporting Requirements

5.1 Update the on-line task table

(<http://www.handsontheland.org/access/administrator.cfm>) with the information from this proposal, and every two weeks during the project.

- TKC has posted the monthly reports under Administrative Monthly Reports to the Admin Hub of the HOL website.
- This task is ongoing. See *Appendices A and B*.



APPENDIX A WORKPLAN TASK 5.1 WEBSITE USE STATISTICS

In April 2006, the current web hosting system Market Matrix announced a change to Northwest Nexus. TKC received the following email on Friday, April 21, 2006 (an excerpt from the email):

Northwest Nexus is taking over the Market Matrix web hosting accounts. We are going to move their web server from their datacenter to our datacenter Sunday night after 8pm (PDT).

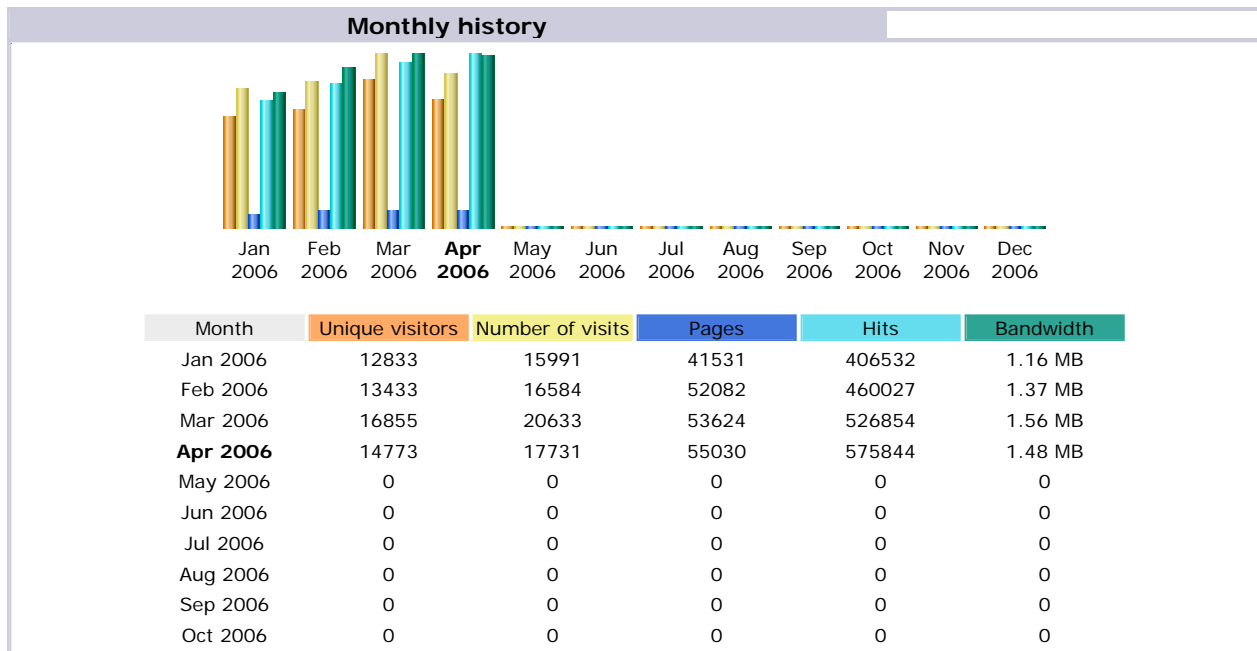
Greg Sibley
Northwest Nexus
Systems Administration
888-696-3987 x282

The website use statistics have been compiled to date for 2006. To view the statistics, visit: <http://reports.marketmatrix.com/cgi-bin/awstats.pl?config=HandsOnTheLand.org>

A brief summary of the April 2006 statistics is below.

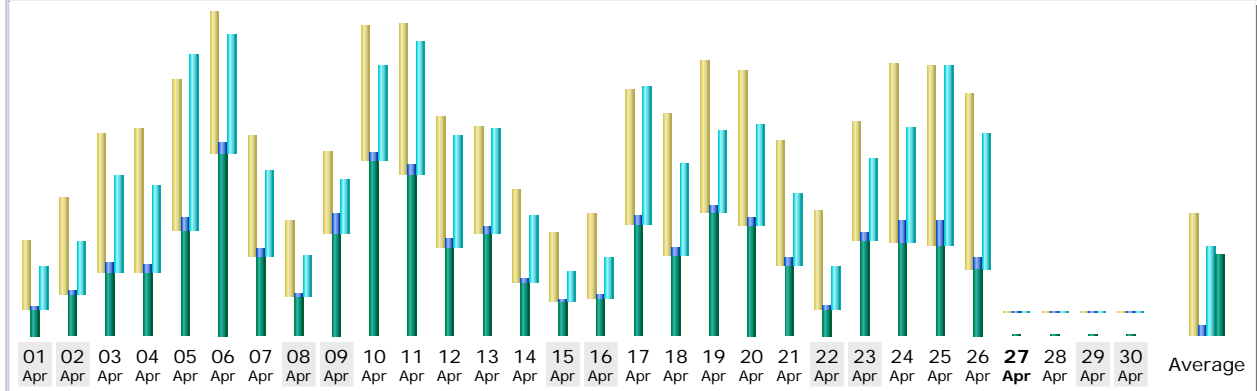
Summary					
Reported period	Month Apr 2006				
First visit	01 Apr 2006 - 00:00				
Last visit	26 Apr 2006 - 23:59				
	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Viewed traffic *	14773	17731 (1.2 visits/visitor)	55030 (3.1 pages/visit)	575844 (32.47 hits/visit)	1.48 MB (0.08 KB/visit)
Not viewed traffic *			96879	126647	8.01 GB

* Not viewed traffic includes traffic generated by robots, worms, or replies with special HTTP status codes.



Nov 2006	0	0	0	0	0
Dec 2006	0	0	0	0	0
Total	57894	70939	202267	1969257	5.56 MB

Days of month



Day	Number of visits	Pages	Hits	Bandwidth
01 Apr 2006	381	856	10589	17.52 KB
02 Apr 2006	523	1018	12669	26.84 KB
03 Apr 2006	761	2081	23411	43.14 KB
04 Apr 2006	774	1753	21035	42.44 KB
05 Apr 2006	823	3204	42398	71.65 KB
06 Apr 2006	773	2470	28532	125.42 KB
07 Apr 2006	664	1655	20879	52.97 KB
08 Apr 2006	410	926	9992	26.44 KB
09 Apr 2006	451	4367	13330	69.84 KB
10 Apr 2006	738	1897	22865	119.91 KB
11 Apr 2006	825	2288	32194	110.16 KB
12 Apr 2006	714	2136	27128	60.04 KB
13 Apr 2006	586	1454	25240	69.99 KB
14 Apr 2006	510	1257	16063	35.24 KB
15 Apr 2006	374	843	7682	22.37 KB
16 Apr 2006	464	1016	10015	24.39 KB
17 Apr 2006	738	2177	33691	75.96 KB
18 Apr 2006	769	1843	22037	54.91 KB
19 Apr 2006	831	1699	20231	84.87 KB
20 Apr 2006	840	1833	24135	75.63 KB
21 Apr 2006	684	1843	17463	48.24 KB
22 Apr 2006	543	1404	10378	17.05 KB
23 Apr 2006	644	1497	20187	65.20 KB
24 Apr 2006	977	5084	27520	63.37 KB
25 Apr 2006	980	5960	43412	62.54 KB
26 Apr 2006	954	2469	32768	45.35 KB
27 Apr 2006	0	0	0	0
28 Apr 2006	0	0	0	0
29 Apr 2006	0	0	0	0
30 Apr 2006	0	0	0	0
Average	656.70	2038.15	21327.56	55.98 KB
Total	17731	55030	575844	1.48 MB

APPENDIX B

WORKPLAN TASK 5.1

UPDATES TO WEBSITE

April Website Updates

Began PDF upload work for Educators Resources

PDF upload completed; quiz fix and troubleshooting for Joy Fatooh

Continued fixes on quiz and questionnaire tool, added move up and down function, added an instant score feature for the quiz, fixed back button question duplication issue; more tests on the PDF upload feature

Server file cleanup

print view for membership applications

prepared site for server-side includes, changed template for tours so non-cfm pages won't be affected by the includes; switched over entire site to perform within include templates, old html files were renamed and redirected; added links to monitoring admin page and tested site, did full backup, reply to applicant feature on membership application

Ed resources query added multiple keywords

added cross-site accessibility text size changes

added login cookie for username

Sent group mail to members about pdf upload

added new program providers graphic

added email link in contact directory

added email link in contact director

Flash home page slide show complete, provided alternative and flash detector for non-flash sites; updated site profile Flash map

reorganized h2o/hydrology/watersheds page so it could be used for Hot Topics watersheds info created function for uploading of jpeg images for site profile, fixed mail user function and added mail icon

Fixed main map point non-transparency

data export for Ozone garden

Hot Topics watershed work, updated The Reach so it focuses more on watersheds

Insured transition to Northwest Nexus goes smoothly

edits to membership page and FTP logon changes

captured image and installed Desert Discovery Center

updated profile_details page so new image upload system works

Qualitative Evaluation of Hands on the Land's On-line Tools

Posted May 2006 Newsletter

APPENDIX C

WORKPLAN TASK 2.3 & 2.7

NSTA WORKSHOP SUMMARY

On April 5, 2006 The Keystone Center (TKC) staff facilitated a one day workshop in conjunction with the National Science Teachers Association conference in Anaheim, California with Hands on the Land (HOL) site managers and Partners in Resource Education (PRE) representatives. A total of 25 participants attended the workshop.

Below is a summary of the notes Betsy Wooster (BLM) took through the workshop.

- Ellen summarized goals for the day.
- Mary gave brief history of PRE and indicated that the partnership could be solidified by establishing field-level “mini-PRE’s.” Agency sites located close to each other were encouraged to work together, keeping in mind that the primary goal should be to support schools. All HOL programs should be driven by the schools.
- Funding both at the national and local levels continues to be a challenge. Barbara Simon from San Diego National Wildlife Refuge mentioned that FWS is being divided into regional units for EE. There are eight regions with Congressional funding set aside for EE (?). Nature of Learning sites can also be part of HOL, it was pointed out. It was also mentioned that by expanding HOL into a truly national program, it was more likely to secure funding from national partners.
- Linking HOL to the Environmental Literacy movement might be a good way to attract the attention of potential funders.
- A variety of events, such as NPLD, could help to establish branding, especially if a k-12 education program could be included as part of the events. These national events can also provide opportunities for service-learning projects for students—another opportunity for good local publicity. Branding at local sites can help to establish national visibility.
- National support for HOL is varying, but program can grow more quickly if flow of information about HOL can take place up, down, and across.
- Mary, Safiya, and Ellen all agreed that they would be happy to speak to regional coordinators for the FWS.
- Potential national level partners:
Take Pride in America—but what happens if administration changes and it goes away?
CA State Dept. of Education(?) has established the CREEC network (www.creec.org). This might be a good avenue for publicity and statewide partnership.
Consider PLT as a potential partner.
- Two key considerations: integration. HOL cannot just be a science program. Must integrate math and reading into any programs offered. Also need to collect as much data as possible: how many students are being impacted?
- Breakout groups considered partnership strategies with schools and community partners. Groups were asked to come up with steps to take, barriers to achieving partnerships, and outcomes they would expect to achieve. Transportation costs are still a major barrier. It was suggested that busing costs could be written into grant applications. CA (I think!) will pay \$5/mile for busing students. *See the list of partnering ideas included.*

- Consider use of skype.com with its web cam capability, which allows groups to interact from a distance. Community links can be established—e.g., after school programs can do the same thing and then compare outcomes. School coordinators can hold monthly teleconference meetings.
- Working with teachers: it's critical to plan in advance. Experiment to see what works best. When beginning a program, it's probably best to choose science classes, but do not limit your programs to just science. Reading really is fundamental! Make sure your program fits grade-level standards. Money spent for docents is money well spent. It's good to provide both classroom and field programs. Integration of other subjects is important—cross-disciplinary programs are most valuable. HOL can stand out by “selling the experience.”
- We should consider ways to bring sites to the people—possibility of live broadcasts from the sites.
- Other ideas:
Sarah Flinders (Uinta National Forest—Utah) mentioned that they actually teach management skills to their students. They learn GIS and mapping. They help with NEPA assessments, and the students also help with curriculum development.

To publicize programs, consider trying to get invited to teacher training programs; provide summer institutes for teachers. Consider working together with teachers for grants. Joe mentioned that an intern in his area is creating an inventory of EE program offerings throughout the region.

- Michiko Martin from NOAA spoke about some of their programs. Their National Marine Sanctuaries are “water-based parks” established for many different purposes. They realize that they need to expand their efforts to connect non-coastal people to the oceans. HOL sites offer a great opportunity to highlight the “watershed connection.”
- Evaluation of program effectiveness is becoming increasingly important. This is challenging for Feds because they are not supposed to conduct surveys, collect data on citizens. There's nothing wrong with partners collecting this type of information, however—e.g., The Nature Conservancy, Scouts, etc.
- Estuaries Live is a program involving multiple sites that has helped to create a national identity (see www.estuaries.gov)
- HOL website still needs information for teachers who aren't doing actual monitoring. Their students could still study the results. Water quality monitoring on the HOL website has no established protocols to that's easier for students to participate in.
- Terrestrial invertebrate monitoring can be ad hoc. If sites want to participate, they can contact Ellen, Dave, or Susan Sachs for help. Great Smokey Mountains NP can provide protocols and does provide local trainings for teachers. Could possibly establish trainings in other locations or sites should consider getting help from local universities to establish other protocols. These are important if students are to compare data. We might want to consider establishing some HOL protocols, so all students would be looking at the same data.

- Sites are encouraged to do monitoring projects. Partners could also get involved and sites could develop and post their own protocols. Mona Daniels (Big Morongo Canyon Preserve—CA) mentioned that monitoring projects can help students understand what various scientific careers are like (what it's like to be a ____ologist) and what science in general is all about, and projects can be set up so that they involve several disciplines—not only among the sciences, but also with math, reading, etc.
- Besides participating in monitoring projects, sites are encouraged to post more of their activities and program information on the HOL website. Concerns about “borrowing” from others are valid, but it's usually okay to use “adapted from...”
- Joe Ross, from Roseburg, Oregon (home of two HOL sites—Alder Creek Children's Forest and Glide School) spoke about some of the Service Learning components of the programs in his area. He pointed out that service learning is part of the HOL mission and he mentioned several benefits of incorporating service learning into HOL programs: Students learn to work together as a team. Service learning is integral to character education and helps build confidence as well. Students develop a sense of community, as well as a sense of stewardship and ownership of natural resources. Service learning is a valuable complement to the experiential education model—Do, Observe, Relate, Experiment.
- Joe also talked about marketing service learning opportunities to schools. It's a good idea to make personal connections and to tie these programs to character issues and to the development of social consciousness. It's important to meet the needs of teachers in terms of scheduling, transportation, and adapting programs to appropriate age groups. Joe suggested identifying a “staff entry point” at the school and scheduling a brief meeting to go over opportunities. Offer teacher institutes with incentives to bring guests and include professional development credits if possible. School district would need to buy into this. Pre-service teachers may be particularly interested. A couple of specific projects Joe mentioned from his area: RAPcamp (www.rapcamp.org) is an outdoor education/service opportunity for students and teachers; oral history project involving the logging and milling communities; Take Pride Schools and Cities—schools need to do only 2 service projects a year on public lands to be eligible (<http://www.takepride.gov/programs/schools.cfm>)
- National Public Lands Day is another good opportunity to involve students in service projects on public lands; it's easy to incorporate education into NPLD events too. Sarah added that NPLD is a great way to involve families in projects that students have been working on throughout the year. Students love to showcase what they've been doing.

PARTNERING WITH SCHOOLS

- Look at outcomes FIRST
- Meet teacher's education standards for teacher's school
- Professional development
- Marketing to teachers
- Meet with administration and teachers
- Relationship with teachers (feed, etc.)
- Coordinate professional development with the district

- Students help with curriculum development
- Tie programming to standardized test questions at the state level
- Gather materials from the classroom and align your programming
- Integrate the disciplines
- Bring the site to the classroom via class visits, internet, and live TV
- Give students a 'project' that is REAL

PARTNERING WITH COMMUNITY

- Call them!! Get to the table.
- Non-profits offer so much-liability insurance etc.
- Eliminates competition
- Neutrality
- Match your missions (strategic & effective)
- Bottom up support, teachers/students selling it
- Partners can help with evaluations
- Get partner to run training or other programs
- Get out & make relationships – face time!
 - Chamber of Commerce, etc.
 - foundations
- Student programs – High School students/colleges/universities
- Boys & Girls Club
- Troubled youth

WEBSITE SUGGESTIONS

- Protocols for monitoring?
 - Limited-for comparison purposes
- Facilitate networking among sites through group emails?
 - Bulletin?
 - Partnering sites and projects
 - Classified section?
- Write-in monitoring protocols
- Standardize protocols
- Why important to study? Who's studying?
- Assign students to be 'ologists' and take on these roles
- Additional hot topics?
 - Focus of key agencies
- Video to profile sites
- Importance of releases and confidentiality
- Copyright concerns
 - Adapted from?
- Section to describe characteristics of science



APPENDIX D

WORKPLAN TASK 3.1

QUALITATIVE EVALUATION OF ONLINE TOOLS

The Hands on the Land web site has four categories of on-line tools: site administration, public information management, public contributions management and environmental monitoring data management. The site administration tools are primarily designed to help members maintain web site functions and network with other members. Public information management tools are generally designed to help program providers market their education programs and teaching materials to teachers, students and other audiences. The public contributions management tools allow members to maintain control over content contributed by students and teachers, such as artwork, photography, poetry and essays. The environmental monitoring data management tools allow program providers to post and manage classroom-based environmental monitoring data.

The dynamic information detailed in this report was compiled from the Hands on the Land web site on April 25, 2006.

Site Administration Tools

Membership Application System

Over the years, the membership application system has been successfully adapted so that agency representatives can review membership applications, print them, and directly contact potential members by email using Hands on the Land's on-line email function. It is recommended that the application system be expanded in two important ways. 1) Limit the viewing of applications so that agency representatives may review only agency-specific applications. 2) Create an on-line approval process to streamline the application process.

Automatic E-mail Notification

Currently, our agency representatives and web site administrators may sign up for automatic e-mail notification when users submit data into our databases. The databases allowed for automatic notification are: feedback, membership applications, bulletin, glossary, artwork and photography, and poetry and essays. This tool has had little use by members other than our project manager and web site administrator. It is recommended that this feature be expanded so that members can receive custom notifications. For example, agency representatives may sign up to be notified only when a site from their agency submits an application.

Highlight Updates

Highlight updates is a tool that allows agency representatives and web site administrators to post front page bulleted information. This tool is gaining use, but should be expanded so that users can post thumbnail images along with a brief statement.

Toolbox

The toolbox for creating custom database access from members' web sites has had very little use over the two years that it has been available. It may be that this code-producing tool is too complex for the general user. And it may have little application since users generally do not have access to their local web site.

Group Mail

Another tool that has had little use, except by the Hands on the Land project manager and the web site administrator, and that affords great potential for networking is the group mail function. This tool allows registered members to send group emails to a variety of member types: teachers, PRE members, site managers, steering committee members, and the web site administrator. Recipients may be limited by state for local information dissemination and additional addresses may be included. As our contact directory increases and as we recruit teachers into our contact directory, this tool will become a more useful enterprise for members who wish to network and market their ideas and educational products available to other Hands on the Land members.

Public Information Management

Site Profiles

The primary content management tool within Hands on the Land is the site profile editing page. In 2005, we created the membership requirement table that analyzes the total content provided by member sites. To date, members have posted 79% of the content required of Hands on the Land membership (see http://www.handsontheland.org/manage/documents-/site_info_table.cfm). Fourteen sites have posted 100% of the required content. Required content includes: 'big picture' information, site link, educational partners information, detailed information, site tour, site photo and educator resources. In May 2006, we provided the option for members to upload their own site photo to the web site. This should help members gain more complete control over their site's content. The same should be done for the Flash-based site tours. An interface should be created so that members can post and update their own site tours.

Educator Resources

Use of the Educator Resources database has increased significantly in the past year. In May of 2005, the database contained 45 entries. As of April 2006, the database contained 142 resources. In April of 2006, we began allowing Adobe Acrobat PDF resource uploading through the educator resources database. This should increase the use of the database because many member sites do not have a method for posting materials on the Internet and this service will help members to provide teachers and other audiences lesson plans, worksheets and activities for classroom use.

Bulletin board

The bulletin board may be used by any members with teacher-level passwords or higher to post brief articles on Hands on the Land. Even though the bulletin board has had little use in the years prior to 2005, its use is gaining momentum with members such as Joe Ross of Alder Creek Children's Forest. It provides an easy way for members to market programs to Hands on the Land's general audience. It is recommended that an image upload function be added to the bulletin board so that members may post one image along with their article.

Quizzes and Questionnaires

With the addition of new functions within the quiz and questionnaire tool, use of this tool by members is certain to increase. Members now may manage their own private list of quiz and questionnaire resources. The tool also now allows members to reorder questions and includes the ability to add feedback fields as questionnaire questions. To increase the use of this tool by members, we should be market this tool to program providers as a method for program evaluation and assessment for their education programs and teaching materials.

Contact Directory

The contact directory has recently been enhanced so that members may post entries at their access-level and below. This allows program providers to install their local teachers into the Hands on the Land member database. Once a teacher is installed, teachers can post student contributions, such as essays and artwork. It also allows program provider members to add additional content editors for their site. We also have created a password editing system, so that members may customize their password through the contact directory. It is recommended that teachers be recruited into the contact directory to enhance content on Hands on the Land as well as increase the networking potential of member sites. Teachers who are in the contact directory may log in, post articles on the bulletin board and create quizzes and questionnaires. It is recommended that teachers be allowed to post into educator resources database. By providing lesson plans, curriculum ideas and other teaching materials, teachers will help program providers advance their local educational missions.

Public Contributions Management

Glossary

Because of Hands on the Land's relatively high ranking on search engines such as Google, the Glossary receives much attention by general web visitors. Over 250 words have been posted in the Glossary. In 2005, the glossary was enhanced so that the each definition contains automatic hyperlinks to other words listed in the Glossary. This new feature has effectively made the glossary a dynamic glossary. With use of the Toolbox members may install definition links to pop-up windows on their local educational web sites that access Hands on the Land's glossary database. This function has been used only minimally outside Hands on the Land's web site. It is recommended that the glossary be enhanced so that members may also post images along with definitions. Even though Hands on the Land allows public contribution of words and definitions, no public definitions have been posted since the initiation of the Glossary. It is recommended that this public function be removed and that the glossary as a dynamic library of words be marketed to members for content management.

Artwork, Photography, Poetry and Essays

Many of Hands on the Land's program providers work directly with elementary school groups and have lesson plans that involve the creation of student-created artwork, essays and poetry. The Hands on the Land web site allows members and non-members to post these resources within the Hands on the Land database. As a quality control measure, content posted by non-members is not public until a member 'approves' the posted contribution. By allowing students to contribute materials on Hands on the Land, we effectively allow students to publish creative work, which is an essential learning standard within many states' education standards. It also allows students to engage with the resource in manner that increases the retention of information provided by educators. In total, less than 100 contributions have been provided to both databases. These tools should be marketed to program providers as a means of assessment of their programs and to teachers as a means of fulfilling their state's education standards.

Environmental Monitoring Data Management

Data Management

The environmental monitoring data management tools offered by the Hands on the Land Network allow program providers to post and manage classroom-based environmental monitoring data

within the web site database. Currently, 49 sites are signed up to collect data in five active environmental monitoring projects.

User Assignments and Password

All of the five Hands-on Science projects are managed by members with ‘administrator’ or ‘envmon’ level access. These users may dynamically add new sites, organize members within each project, and add new users to each site. Users who are assigned to projects and sites may post and update data on-line using the Hands-on Science data input interfaces. These tools help to protect data quality by restricting access by project- and site-specific user assignments.

Graphs and Reports

Additionally, each project has a number of on-line graphing and data search tools that allow the general public to work with the data. Since these tools are fairly complex, it is recommended that lesson plans and instructions on how to use these tools in the classroom be developed and provided to teachers and other program providers.

New Tools

Interest is increasing in these projects, but Hands on the Land does not have an organized way to distribute information or protocols about starting a new project. Hands on the Land should work with Great Smoky Mountains National Park, the original developer of these databases, to develop on-line Flash-based tutorials and Adobe Acrobat files to help new sites get started collecting classroom environmental monitoring data and using Hands on the Land’s data management resources.