

ascentium

INFORMATION ARCHITECTURE: USER RESEARCH FINDINGS AND RECOMMENDATIONS

Washington State Department of Natural Resources

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Ascentium Headquarters
Ascentium Corporation
225 108th Ave NE, Ste 225
Bellevue, WA 98004
Phone : 425.519.7700
Fax: 425.519.7758
ascentium.com

Bellevue Place Office
Ascentium Corporation
10500 N.E. 8th St. Suite 325
Bellevue, WA 98004
Phone: 425.519.7700
Fax: 425.519.7748

Spokane
Ascentium Corporation
108 N. Washington, Suite 505
Spokane, WA 99201
Phone: 509.455.4300
Fax: 509.456.8185

Portland
Ascentium Corporation
10260 S.W. Greenburg Road,
Suite 200 Portland, OR 97223
Phone: 503.546.1200
Fax: 503.546.1201

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Introduction

How to read this document

This document summarizes Ascentium’s user and internal staff research data and lists recommendations based on that data. The recommendations represent an ideal solution and are not limited to the scope of the Department of Natural Resources Website User Experience Redesign project.

Executive Summary

The goal of the stakeholder analysis was to discover the needs of the users and the requirements of the agency with regards to the Washington State Department of Natural Resources (DNR) public website. Over the course of two months, we gathered background documents and collected data from DNR employees and external users of the website. Data collection methods included:

DNR Employees

- Online survey (815 respondents)
- Focus groups (5 sessions, 29 people)
 - Website Redesign Core Team
 - Senior Communications Consultants
 - “Marketing to Business” focus group
 - “Marketing to the public” focus group
 - Scientists
 - Commissioner and Communications Director
- Email questionnaires (approximately 35 respondents)

External to DNR

- Online survey (449 respondents)
- Telephone focus groups (8 sessions, 23 people)
 - Concerned citizens
 - Conservationists
 - General information seekers
 - Government officials
 - Lessees
 - Professional information seekers
 - Recreationalists
 - Tribal representatives

Provided by DNR

- User personas (based on internal employee interviews conducted by DNR staff)
- User scenarios (based on internal employee interviews conducted by DNR staff)
- Search logs
- Website usage statistics
- Customer satisfaction survey of Forest Practices Division users
- Common email requests grouped by frequency

Results

Common themes

Some conclusions were obvious, but some themes were uncovered that may not have been previously recognized. The complete list of themes includes:

- Information is difficult to find
- Site has poor usability
- Use of the site requires an understanding of the organizational hierarchy
- Information on the site is excessively specific and complex
- Site lacks a cohesive message
- Some users unaware of website

Audience-specific issues

The target audiences of DNR were found to cluster in 4 broad categories according to common goals and information needs. Each of these audience categories has several unique information needs and tasks, and therefore each category faces unique barriers on the current site. This section addresses those issues, grouped by audience category.

- General Public
 - Site uses unclear terminology
 - Site lacks explicit definition of DNR and its divisions
 - Users have difficulty complying with policies
 - Recreational information is inconsistently located and hard to find
 - Site does not include many educational materials
- Business Users
 - Applying for permits and other forms can be challenging and confusing
- Researchers
 - Finding trustworthy publications is difficult
- Job Seekers
 - Job listings are hard to scan
 - Identifying new listings is difficult

See Figure 1, page 12, for more information regarding how the previously defined audience types grouped into audience categories.

Recommendations

Recommended solutions include the following:

- Content management system and publishing process implementation
 - Implement the content management system and create publishing procedures
 - Create a taxonomy and assign metadata to content
 - Optimize in-site search and add advanced search functionality
 - Optimize the site for search engine access
 - Get content out of PDF and into HTML

- Information architecture, taxonomy, and usability improvements
 - Assign broad audience categories
 - Subdivide content according to audiences & their tasks
 - Organize site according to user perspective
 - Apply usability heuristics in re-design
 - Add orientation cues

- Messaging, marketing, and content strategy
 - Create a brand identity and a simple message for the site
 - Communicate the message consistently
 - Provide site URL in all email and direct mail communications
 - Collaborate across divisional barriers in content creation
 - Collaborate with other state and local agencies

Common Themes

Information is difficult to find

Enabling users to find what they want quickly and easily is essential to the function of the website. The unanimous opinion is that the current browsing experience and in-site search system fail at this. Employees of DNR and the members of the public alike noted that it is very difficult to find information on the website by browsing. The site structure is inconsistent, and link labels are uninformative and confusing. Thus, users often resort to using the in-site search box. However, they complain that it returns irrelevant results.

Much of the content is in PDF files, so it is difficult to browse through quickly, as the files must be downloaded and opened in the Acrobat Reader application. When users do find content that meets their information needs, it is difficult to ascertain how recent the information is.

When all else fails, users attempt to contact a DNR employee, but contact information is difficult or impossible to find on the website.

DNR employee quotes:

- “Links to publications and topics need to be listed comprehensively and clearly, and topics should be organized both alphabetically and by subject area.”
- “Better organization so that people can find what they want without knowing in advance what division or program would fill their needs.”

User quotes:

- “I maybe got some inkling that DNR has a publication [that I want] out there, and then I go type the name of the publication in [the search box], and I don’t get anything. It doesn’t go anywhere.”
- “I have to call people and then it takes me a long time to find the phone number, and then the stream’s info is buried in the forest services, where you wouldn’t think it would be located.”
- “When you search for something, it brings up so many results. I wish it would narrow it down more.”
- "Most of time the sales results are not posted right away, sometimes 2 weeks after the sale. I have to call and have results faxed. Once in a while Road plans and or sample contracts won't print."
- "There are so many PDF files on the site and it is hard to go through each one to try and find the information that I'm looking for."
- "Not all information is easy to find some you have to know your way around the site. Maps that show area's for recreation need to be able to easy to find"
- "Need all publications accessible from a single listing"
- "employee contact information seems buried in the site"

Recommendations

Implement the content management system and create publishing procedures

The planned implementation of a content management system will aid in addressing many of these complaints. This must be accompanied by a simple and efficient content publishing workflow, which will enable deployment of time-sensitive information to the site, where users can find it, in a short time frame.

Create a taxonomy and assign metadata to content

To make the most of the content management system, a classification and content description framework must be in place. The assignment of metadata and the use of a controlled vocabulary will enable in-site search to work effectively. A taxonomy – a structured vocabulary that documents semantic relationships between terms – can then be used to classify pages in the site, which would form the basis of the navigational hierarchy. The terms in the taxonomy would be chosen according to the language of the users of the content, so the words used in labeling links would match users' expectations, enabling them to find what they are looking for.

Optimize in-site search and add advanced search functionality

The Find-It! Washington search engine has several features designed to improve the relevance of search results. Not all of these features are currently utilized. Optimizing Find-It! with the consistent use of metadata provided by the content management system, in-site search could be far more powerful and relevant. Find-It! also provides advanced search functionality, which could be leveraged within the DNR site, enabling yet another route to finding content.

Get content out of PDF and into HTML

Users should be given the option to easily browse content without the use of a plug-in or external reader. HTML versions of the PDF files should be provided to preserve the user's sense of orientation within the site and ease of reading. Putting the content into web pages would also provide an opportunity to offer related links and navigational aids to other parts of the site. Doing so may significantly improve the search engine ranking of the site and relevance of in-site search. The PDF files would still be necessary to provide a printable and portable version of the information.

Add a DNR office directory

When all else fails, users should be provided with an easy-to-find, centralized, directory of phone numbers at DNR they can call for help. The content management system will make such a directory easier to create, update, and link to.

Site has poor usability

While content findability issues may be addressed by properly structuring and describing content, using the interface that provides access to that content is a matter of usability. Feedback from users and DNR staff about the poor usability of the current website was corroborated by grading the site according to various user interface design conventions. Poor usability leads to confused users who cannot find what they need on the website, and results in more phone calls or emails directly to DNR staff.

A variety of major problems were identified:

- Link options do not map to user goals. Link text is confusing or misleading.
- Orientation cues are lacking. It is impossible to know where one is within the site on any given page.
- Navigational aids are lacking. There is no way to move up the hierarchy or back along the path traveled. There is no consistent way to move down the hierarchy.
- Unexpected behaviors abound. Not all PDF links are marked as such. Pages open unexpectedly in new windows. Some images are image maps but many aren't, but few visual indicators exist to help users know the difference.
- The site is impossible to scan efficiently, since the vast majority of content is in PDF files.

In the online survey given to external users, more than half (61.8%) of survey respondents rated the site either “neither easy nor difficult to use,” “difficult to use,” or “very difficult to use.” Only 38.2% of respondents said they find it “very easy to use” or “easy to use.”

The aforementioned user interface conventions are known as heuristics: best practices and guidelines for designing and structuring user experiences. The heuristics used in evaluating the usability of the DNR website included a protocol of 25 questions created by Forrester Research, Inc. The possible scores range from -50 to 50. Three main information needs were identified by DNR staff as important and frequent: seeking trail-specific information; seeking facilities information at natural areas; and finding rules and procedures for organizing events on public land. The site scored -26 for these three information needs.

DNR employee quotes:

- “Our website has come to look like the front of my refrigerator. It looks about that organized. The eye jumps all over, it’s hard to get a sense of where you’re going.”

- “It almost seems like it was designed – though I know it wasn’t really designed – like a newspaper, instead of like web. It’s very linear.”
- “We have some educators who use the site, and the students complain about the navigation.”

User quotes:

- “Our constituencies do use the site. But the architecture isn’t set up in such a way as to appeal to those people, or to show them how to dive directly into the topics that are relevant. The info is not right at your fingertips. “
- “Bookmarks are essential to re-find specific sites that were difficult to find the first time.”
- “...if there were one thing I would really love to have come out of this, it would be a series of tabs that are integrated and easy to use.”

Recommendations

Apply usability heuristics in re-design

The major usability issues in the site's design may be addressed by optimizing the site for the heuristics in the Forrester protocol. With each design decision made, the heuristics should be taken into consideration.

Add navigational links

Links between pages form the connections essential to the hypertext that makes up the website. When these links are logically and consistently implemented across the site, they aid in efficient information discovery and use. Such navigational aids include:

- Global navigation links: Links to the major top-level sections of the site.
- Local navigation links: Links to the levels directly above (parents), at (siblings), and below (children) the current location within the site.
- Breadcrumb links: A list of links showing the path the user would take from the home page to reach their current location within the site.
- Related links: A list of pages or documents that are frequently associated with the current page but are not immediate ancestors or descendents.
- Utility links: Pages that allow users to complete a task, such as searching, viewing a site map, or editing their account.

Add orientation cues

The user must be given visual cues at all times as to where they are within the site. Highlighting the items in the global and local navigation links that correspond to the current page's location is one suggested method of adding orientation cues.

Test and revise design post-launch

Designing to meet common guidelines may solve major usability issues, but the most effective way to test the usability of the site is to conduct usability tests. This may be done after the re-design has launched to work out any remaining, more subtle, usability issues.

Use of the site requires an understanding of the organizational hierarchy

Over the history of the DNR website, it has grown by accretion, creating an ad-hoc organization system that roughly reflects the administrative structure of DNR. Unfortunately, this is not an ideal method of organization for most users. The vast majority of users external to DNR don't understand the structure of the agency. Their information needs, roles, and tasks cut across divisional lines and span multiple service areas. The content they seek to accomplish their goals requires information from units across the agency, which is currently dispersed in isolated, disconnected silos of content all across the website.

DNR employee quotes:

- "... it's organized around the org structure, the agency structure, instead of any structure about the end users' needs or even who those end users are. I think the closest thing is that there's a Recreation button."
- "You should know nothing about DNR and still navigate to an area you want to see. You shouldn't have to know the lingo to get around a website."

User quotes:

- "The site is very user-unfriendly. It looks to be designed for people who are already familiar with the inner workings of DNR instead of it being customer focused."
- "Had to search for it, couldn't get a logical connection from the choices presented. Not all of the public understands all the programs and mandates that are choices."
- "I sometimes find the site to be set up for the agency lingo versus an outsider."

Recommendations

Organize site according to user perspective

Users think in terms of who they are (audience) and what they want to do (tasks), which is incompatible with the agency's administrative structure. By separating content into the audience for whom it is intended and the common tasks or information needs of that audience, users can choose which audience definition best fits them and the pathway that best fits their needs. Instead of determining how DNR is structured, users need only to reflect on their own goals.

Guide users to the content they seek

At each point along their path through the site, users need to be given enough information to decide which link to click on next. If the link text and choices available appropriately match their goals, users will be able to quickly and painlessly find what they need. The website should direct users to opportunities. From there, users need to be given all the information needed to act on those opportunities. Providing adequate, timely, contextual information can reduce costs by minimizing phone calls to the agency, in addition to satisfying user needs.

Provide alternate views of content

As repeat users become more acquainted with DNR, they will become more comfortable with navigating the site according other factors than audience and task, including the administrative structure of the agency. Thus, content of the site should be described (via metadata) in multiple ways to enable browsing and searching by adept users. Some alternate views may include:

- Topic
- Division
- Publication Type
- Date
- Etc.

Information on the site is excessively specific and complex

The current DNR website contains a wealth of very specific information and provides access to the breadth of services and diversity of information available within the organization. However, the site does not provide a general view of the content that enables users to understand and select the specific information that is relevant to them. Extremely technical or highly targeted content is published out of context on the home page and other top-level pages, confusing many users.

This situation is further exacerbated by the fact that DNR's divisional structure is reflected in the site structure, and content is targeted to users according to divisional segmentations. However, user research showed that user tasks and information needs have many similarities within broad audience categories. There is limited crossover in the targeting of information on the current site, but, in reality, many users in distinct roles will have similar goals and questions and their information needs therefore overlap. By dividing the information into such specific mutually exclusive target audiences, users are forced to navigate through completely disparate, isolated parts of the site to find what they need.

A focus group of DNR communications staff identified 14 distinct audiences that DNR serves via the website. They also identified 78 representative content areas and services available through the web and related them to the 14 audiences, with each staff member focusing on the audiences they served. For the most part, the communications staff identified distinct subsets of the 14 audiences, with limited overlap. However, survey results and focus groups with external users show that the goals and tasks of these audiences demonstrated significant overlap between audiences. This issue is discussed more fully in Section 2.

DNR employee quotes:

- “You should know nothing about DNR and still navigate to an area you want to see. You shouldn't have to know the lingo to get around a website.”
- “As more people go to sites for information, we need to have something there for them that is easily understood. If they don't understand us to start with, and they go to the site and they don't get that either...”
- “...very jargony, have to know the layout of DNR to find your way around.”

User quotes:

- “I didn't understand the terms used... too technical.”
- “I sometimes find the site to be set up for the agency versus an outsider.”

Recommendations

Assign broad audience categories

From survey data and interviews with users, audiences formed 4 clusters according to sector and profession: General Public, Business, Researchers, and Job Seekers. Some crossover is apparent between these groups, but the categories are broad enough that a user could easily decide to which group they belong. This could reduce the amount of information a user would need to sift through by 75% in one click.

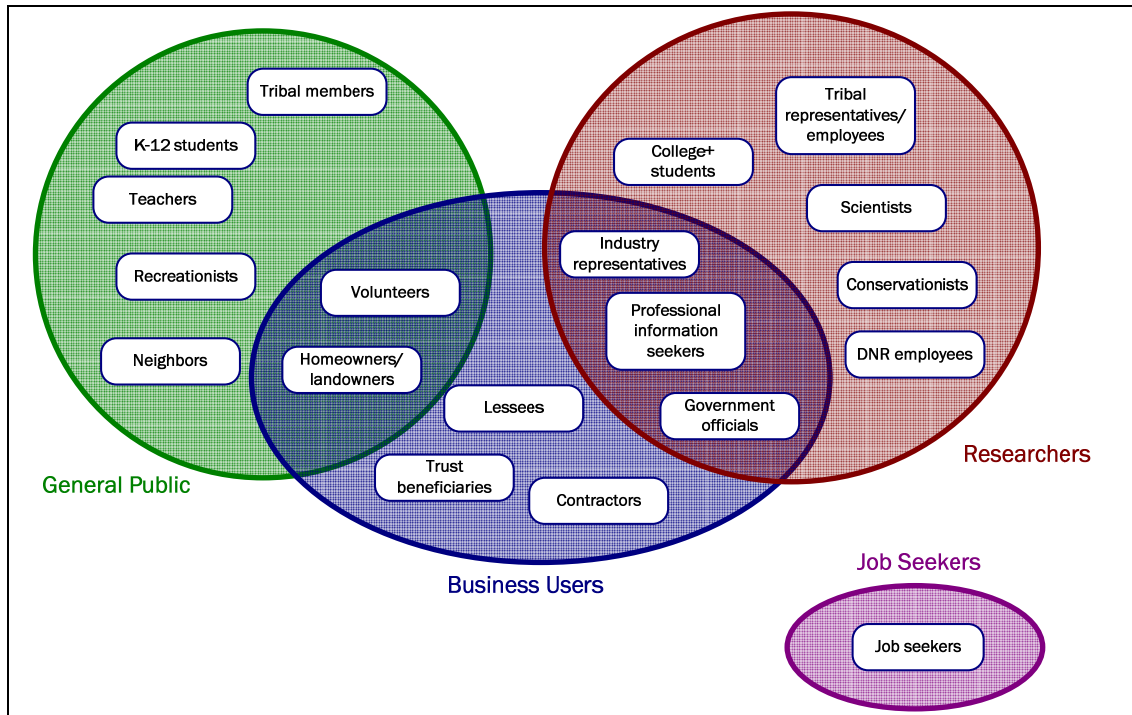


Figure 1: User Audience Categories

Subdivide content according to audiences & their tasks

Within the 4 major audience categories, content could be subdivided according to the specific industry or role. The personas generated by the communications team and will be extremely valuable in determining how to organize content within each broad audience category. Each audience will have a unique situation, and addressing those unique needs will further help users zero in on the content they need. However, some personas may be combined, since their needs and goals are very similar. This simplification will reduce the number of choices a user must make in determining their next step.

Enable common scenarios

Within each broad audience category and audience, the navigational structure and services available must provide a clear pathway for completion of the major scenarios identified for that group. The sequence of links within each scenario should match the user's task language – i.e., the words they would use in describing what they want to do or what they are looking for.

Provide summary content to aid users in selection

The site is an extremely rich repository of information with much depth. However, it requires a deep level of technical knowledge to navigate and understand for most users. This content needs to be summarized and made more accessible. As the content is divided according to audiences and their

tasks, content may be added at each decision point to aid users in understanding the purpose of each section and what content they are likely to find there.

Collaborate across divisional barriers in content creation

With the implementation of the content management system, it will be easier for content providers to partner with others in the agency in publishing content to the site. As long as a common taxonomy is in place for describing who content is for and what the user can do with it, publishers from across the organization could post information to common areas of the site. This will require more frequent and open coordination and communication amongst content providers, editors, and approvers.

Site lacks a cohesive message

From the uninformed perspective of a member of the general public, DNR often seems to work at cross-purposes. Many users don't know what DNR is or does. The mission and mandates of the agency are not especially visible on the website, appearing on the far right of a second-level page. Users are confused as to the purpose of site, what they will find there, and the information or services they can expect DNR to provide.

This leads to several serious problems. One is that DNR receptionists must field calls that should be going to other agencies. The obverse also occurs, with other agencies taking calls that should go to DNR. The misconceptions formed about DNR can be particularly damaging when setting budgets for the agency. For instance, vocal conservationist groups unhappy with DNR's involvement in oil & gas exploration could adversely affect legislators' votes on issues vital to the agency, even to the point of hampering DNR's conservation efforts.

DNR employee quotes:

- "... gravel permits, in surface mining, in oil and gas exploration, in geographic names, ... these are things that most people don't even have a clue that we have anything to do with."
- "I'm not entirely sure your average member of the public knows what we do."
- "We need to make the public understand that we manage resources for a reason."

User quotes:

- "It's missing a message. When you open a site you have the news but you don't get a real message of what DNR represents."
- "Provide some fundamental easy access information about who DNR is and what it does, because that is not clear... Rather than assuming that people know what it is and why they want the website."

Recommendations

Create a brand identity and a simple message for the site

The website needs to communicate a unified message overall and to clearly target content to the different audiences at the appropriate time. The message should be consistent with the mission and mandates of DNR and should concisely communicate how the different activities and services of the agency coordinate and complement each other. The new design and message could clear up misconceptions formed as a result of the above issues, particularly in communicating how the environmental protection role of the agency is balanced with the managed use role.

Target the message to audience needs

Within each of the 4 audience categories, the message should be augmented to target the needs and goals of each group. This can extend to each audience within each category, as long as it is done within the appropriate area of the site targeting a specific audience. Targeting the message to each audience's situation will increase the likelihood that they will learn, at a glance, what services and value DNR provides them. It will also help shape their expectations for what they will find within each area of the website.

Communicate the message consistently

A clear, unified message can deflect criticism, create support, increase budgets, and improve the operational efficiency of DNR. However, that message must be communicated consistently in order to be effective. A particular portion of each page within the site should be devoted to branding and messaging. The message for a particular audience should be the same across all publications targeted to them. The content of the message should also be internally consistent in all its iterations, reflecting the mission and mandates of the agency at all times.

Make the mission statement more accessible and visible

The mission statement and mandates of the organization should be apparent from the unified message and content of the home page. Should a user be interested in more detail on the mission and mandates of DNR, a link to the agency's mission statement should be easily accessible from the home page. The mission statement could also be augmented with content discussing how DNR accomplishes its mandates tactically, with links to relevant services, programs, and publications within the site.

Some users unaware of website

Some users, lessees in particular, were unaware that the DNR site had information relevant to them. However, they are often in regular contact with DNR by email and phone, even though some of their questions could be

answered by the site. Many DNR staff members noted that a DNR employee often ends up answering questions by phone or email when a user does not find their answer on the website.

DNR employee quotes:

- [External users find information by]...”word of mouth, or a basic google search and they find our program.”

User quotes:

- “I never thought too much about using the site, but I sure could...”
- “I use the internet a lot but it never occurred to me because I got everything taken care of in person.”

Recommendations**Provide site URL in all email and direct mail communications**

Many users could be made aware of the site simply by inserting the site URL and a simple message (e.g., "Did you know you can get [resource] on our website?") in the footer of all email and direct mail communications to the public. This would be especially effective in cases where frequently asked questions could easily be answered online.

Optimize the site for search engine access

A major method by which users encounter the DNR site – and practically any other site on the Internet – is by way of a search engine, such as Google or Yahoo!. By structuring the HTML code to be standards-compliant and metadata-rich, the search engines will more effectively index the site. In addition, a site map XML file explicitly describing the structure of the site should be created and submitted to the search engines. This will further boost the likelihood that the DNR site will be returned in search results for queries relevant to the services and information DNR provides.

Collaborate with other state and local agencies

It seems inevitable that many users will not know which agency to turn to for their information need. Thus, it is crucial that DNR reach out to other state and local agencies to provide cross referential linking between organizations. At appropriate points in the DNR website, links should be provided to other agencies – with appropriate labeling so users know they are leaving the DNR site – for information or services external to DNR. Additionally, reciprocal linking agreements should be set up with those agencies to ensure that their constituents can easily find the relevant content on the DNR site.

Audience-Specific Findings

As discussed previously, the approximately 14 audiences originally identified have been collapsed into four major categories. These groupings emerged based on analysis of users' tasks, methods of completing tasks, and information needs. Because it is based largely on user tasks, many user groups cross over between groups, performing tasks from both. In these cases, the user group can be considered to be a member of both categories, and are discussed below as such.

These categories are loose groupings that are not absolute – users from all audiences may occasionally need to perform the tasks more commonly associated with a different group.

See Figure 1 or Appendix J for a diagram of the user category groupings.

Audience Category 1: The General Public

The General Public audience category encompasses several audience types. The last two, Homeowners/landowners and Volunteers, are both General Public and Business Users.

- Tribal members
 - Distinct from the audience called “Tribal representatives/employees,” tribal members are not scientists or professional researchers, but members of the public, although different laws apply to them than to non-tribal members. They are concerned with DNR activity taking place near or on their areas.
- Recreationists
 - This audience includes individuals of all ages, from all locations, and of all levels of technological capability. They are trying to find various types of specific information associated with diverse recreational activities.
- K-12 students
 - Students of all age levels might access the DNR site to complete tasks related to schoolwork.
- Teachers
 - Similar to students, teachers may use the DNR site for various educational purposes, including creating curricula, drafting specific assignments, or helping students conduct research.
- Neighbors
 - This subdivision of the “concerned citizen” group is a vocal, active audience type that is concerned both with DNR activities near their homes or recreation areas, and other citizens’ activities on DNR property or that DNR may have jurisdiction over.

General Public mixed with Business Users

- Homeowners/landowners
 - This is another vocal group that expresses concern over DNR activities near their property, but they have the added concern of making sure that their activities on their own properties comply with DNR rules and regulations, which may include applying for permits.
- Volunteers
 - Related to the recreationists and the conservationists, this is an involved group of citizens that works with DNR, or separately but on DNR’s or DNR-related lands, to organize volunteer projects. Often the projects center around work parties, but sometimes they include participating in public comment periods or other methods of providing input to DNR.

Problems Specific to the General Public

Site uses unclear terminology

Members of the general public come to the DNR site sometimes with a vague idea of what they are looking for, and sometimes with very specific queries, including specific search terms. These users, however, do not utilize the same vocabulary as that of DNR employees or other scientists, who are generally the authors of the content being searched or read. This leads to a disconnect between the language the users expect to find, and indeed the language that the users can easily process, and the language that is actually used.

This topic was covered in further detail in section 1, but as it is particularly applicable to the general public, is also addressed here.

DNR employee survey quotes

- “You should no nothing about DNR and still navigate to an area you want to see. You shouldn’t have to know the lingo to get around a website.”
- “Do not assume knowledge of DNR program/division/region structure or naming conventions to access info.”

External user survey quotes

- “Didn't understand the terms used too technical”
- “I sometimes find the site to be set up for the agency lingo versus an outsider.”

Recommendations

Create a taxonomy and assign metadata to content

The “Create a taxonomy and assign metadata to content” recommendation described in section 1 would resolve most of the issues.

Expose vocabulary

To ensure that the general public is able to use the taxonomy effectively, the site should expose some DNR terminology to them, such as acronyms and scientific terms, via a glossary or similar feature.

Site lacks explicit definition of DNR and its divisions

Users looking for specific information do not know if the DNR site is the correct place to seek the information they need. Further, they do not have a clear way to find out which division is the appropriate one to select. This is due to a lack of clear explanatory text or introduction to any of the sections of the site. This issue is also related to the site organization issue discussed in section 1, but again is particularly relevant to general public users, who are

the least likely to be familiar with the organizational structure of DNR, which is currently also the organizational model of the site.

DNR employee survey quotes

- “Better organization so that people can find what they want without knowing in advance what division or program would fill their needs.”
- “Identify what each of the different divisions duties are so someone who knows nothing about DNR can at least start at the right place.”

External user survey quotes

- “Navigation - I had no idea how to find [what I was looking for].”
- “Not arranged in a helpful manner. Too much information. Need to categorize and condense.”

Personas and scenarios (provided by DNR)

- “[The homeowners] try to deduce which agency seems most likely to have ... authority [over the issue they are dealing with].”
- “[The recreationist] finds it hard to sort out which government agency manages which lands, and what the differences between the agencies are.”

Recommendations

Clarify site structure and site message

The recommendations described under the “Use of the site requires an understanding of the organizational hierarchy” item in section 1 will alleviate most of these problems, especially when combined with the recommendations in the “Lack of cohesive message” section. The general public users should particularly be kept in mind when addressing those recommendations.

Users have difficulty complying with policies

This issue is especially relevant for neighbors and homeowners/landowners, who are often looking for DNR’s policies relating to a particular issue. The main concerns are finding policy information; verifying that the information they find is up-to-date and does in fact apply to their situation; and ensuring that all the relevant information is obtained, since on the current site, information about one topic can be spread across divisions.

DNR employee survey quotes

- “Easier to find regulations for landowners wanting to remove hazard trees, definition of hazard trees.”
- “The site is heavily rules-based, and presents little assistance in how to navigate the rules, forms, and processes.”

- “We should have links to other permits that are commonly required - such as to WDFW's HPA, DOE's SEPA environmental checklist, etc. Or just link to DOE's permit assistance center.”

External user survey quotes

- “Easier to find regulations for landowners wanting to remove hazard trees, definition of hazard trees.”

Personas and scenarios (provided by DNR)

- Several of the example scenarios include situations like that in Homeowner/Concerned Citizen scenario 2: “They go to the DNR home page hoping to find information and guidelines, but cannot find these anywhere. After exploring various links, they try ‘Frequently Asked Questions.’ They still find nothing ...”

External user interview quotes

- “[I like MRSC.org.] They see what people are asking for and then they create a packet if there is a FAQ. Then when I ask for something they say ‘have you seen this link?’ and there are a whole bunch of documents [on that subject] that they have gathered together – maps, whitepapers, court proceedings, whatever. Things are gathered in one place, kind of in a program format.”

Recommendations

Improve site layout, navigation, and search engine

An improved site layout and navigation, combined with a better search engine, both discussed in section 1, will help alleviate the usability issues surrounding this problem.

Site map

An improved and comprehensive site map, listing all pages of the site, will increase users’ ability to scan visually and find the relevant page or site section.

Comprehensive Frequently Asked Questions and Information Packets

A more comprehensive Frequently Asked Questions (FAQ) section with informative headers and/or other metadata will allow users to verify that they have found the correct information. An enhanced FAQ or “info packet” feature, such as a page or section of the site consolidating different types of information about one topic from various sources across the organization, would help users verify the completeness of the information.

Recreational information is inconsistently located and hard to find

Recreational use is one of the main uses of the DNR site. Though only 10% of the external survey participants self-identified as “recreational information seekers,” several others who identified as “other” listed recreation-related titles in the “please specify” field. Additionally, many of the

external users interviewed listed recreational use in addition to their primary role (professional information seekers used the site for recreation as well, for example). Since any user could at some point be a recreational user, and recreational information can change seasonally as well as from day to day, in the case of fire situations, it is important for this information to be easy to find, easy to read, and clearly up-to-date. Currently, the information is scattered throughout the site, and if it is up-to-date, it is not always easy to tell.

Recreational information has the added complication of being searched for on three primary axes: by type of recreation (hiking, horseback riding, ATV riding, etc.); by location of recreational area; and by season (particular areas might be closed in the winter, while others might be closed during particular times of the summer). Users could conceivably want to find recreational information based on only one of these criteria (“I’m willing to travel, so show me anywhere I can ride my ATV”), or on any combination of two or three (“show me sites on the Olympic Peninsula, open in October, where I can go camping”).

DNR employee survey quotes

- “Users need a wider array of information on the campsites and all facilities that we have to offer. We only list high use sites now. We need a state map with every recreational facility and opportunity listed on it.”
- “It takes a while to get to the recreation list of open & closed trails, etc. When I worked in reception, I was constantly walking people thru how to get to it.”

External user survey statistics

- Of the 38 users who self-profiled as recreational information seekers, more than half (52.6%) said they find the site either “neither easy nor difficult,” “difficult,” or “very difficult,” leaving only 47.3% of recreational users feeling that the site was easy or very easy to use.

External user interview quotes

- “Each local office needs to have a way to get info up on the website within 24 hours, especially when there are trail changes.”
- “Getting information out about volunteer opportunities, trail closures, other time-sensitive issues is really hard. Email lists are OK but the existing setup [for getting on email lists] is not sufficient.”

Recommendations

Site map and FAQ

Several previously-mentioned solutions would help solve this issue. A combination of a comprehensive site map and more detailed FAQs with better metadata would provide better usability, as would the enhanced FAQ/information packets feature described above.

Advanced search of recreational information

Further, due to the various ways users want to search for recreational information, an advanced search feature of the recreational section, especially if combined with an interactive map system, would greatly enhance the user experience.

Site does not include many educational materials

Although DNR lists both students and teachers as target audiences, few educational materials are available on the site, either as curriculum development for teachers or as student-targeted research materials. Those materials that are available are difficult for users to find.

DNR employee focus group quotes

- “There’s a big hole where environmental education materials should be.”

External user survey quotes

- “There was more for education, but it was under Arbor Day and I would not have naturally known to go there. Also looking for threatened/endangered plants I just happened on them. For educators it would be nice to have some common names for students to do research.”

External user interview quotes

- “Teachers are screaming for free resources. If they’re on a website and they find something they can utilize, they will grab it up in a heartbeat. Even a page of links of suitable things with a disclaimer.”
- “Would be fun to have a link to a game for kids to play about taking a hike or something. It would be good to involve them, and it would draw parents to this as well.”

Recommendations

Develop educational content

The primary recommendation for improving usability and reaching target audiences in this area is to develop more educational content. This content could be structured in the information packet format as described above, organized by grade level and by topic, to facilitate its use by educators.

Specific student-targeted content is also recommended.

Audience Category 2: Business Users

There are three types of strictly business users, as well as two user types that are both business and general public, and three that are both business and researchers.

General Public mixed with Business Users

- Homeowners/landowners
 - This is a vocal group that expresses concern over DNR activities near their property, but they have the added concern of making sure that their activities on their own properties comply with DNR rules and regulations, which may include applying for permits.
- Volunteers
 - Related to the recreationists and the conservationists, this is an involved group of citizens that works with DNR, or separately but on DNR's or DNR-related lands, to organize volunteer projects. Often the projects center around work parties, but sometimes they include participating in public comment periods or other methods of providing input to DNR.

Business Users

- Lessees
 - This group encompasses people currently leasing land or water property from DNR, or people interested in pursuing a lease with DNR. They are interested in having a smooth, efficient working relationship with DNR, and that relationship often requires a lot of paperwork.
- Trust beneficiaries
 - This is a diverse group of institutions, including counties, universities, and schools, that receive funding from DNR based on DNR's income-generating business. Some beneficiaries depend more on the income than others, but all are interested in finding out how much money they will be getting.
- Contractors
 - Contractors depend on correct policy and procedure information from DNR to be able to do their jobs legally and efficiently, as well as using the site to track upcoming opportunities. Their work is often seasonal and/or regionally based and also often requires filing permit applications or filling out other forms.

Business Users mixed with Researchers

- Industry representatives
 - Similar to contractors, industry representatives need up-to-date policy and procedure information, especially notices of proposed changes. They also need to fill out forms and apply for various permits, and would like to complete those tasks as quickly as possible.
- Professional information seekers
 - This diverse group is largely interested in finding various types of information, such as statistics or maps and reports. They may

work in positions that also require them to file permit applications or otherwise fill out forms.

- Government officials
 - The needs of this audience type are generally relatively urgent, particularly when pertaining to fire situations, and are at the very least time-sensitive, as they must respond to constituents' needs and concerns regarding the most recent developments in policy, procedure, and regulations. Often, the constituent base, and therefore the needs and concerns, are based on geographic location. Government officials may need access to DNR forms, or may need to be able to direct constituents to the appropriate forms.

Issues specific to Business Users

Applying for permits and other forms can be challenging and confusing

The main issue that distinguishes business users from the other audience categories is that this category is the most likely to need to fill out forms, apply for permits, or otherwise conduct business with DNR, especially on paper. Most of the audience types have several other commitments – dealing with DNR is not their only work task – so streamlining the relationship as much as possible is important to them. To that end, the current trend is for this audience category simply to call their contacts at DNR, and to rely on those people to help guide them through the process of filling out the correct paperwork and tracking that paperwork through the application process.

DNR employee survey quotes

- “The site is heavily rules-based, and presents little assistance in how to navigate the rules, forms, and processes.”
- “We should have links to other permits that are commonly required - such as to WDFW's HPA, DOE's SEPA environmental checklist, etc. Or just link to DOE's permit assistance center.”
- “Please consider creating a web entry point for potential lessees to apply for leases on-line and ultimately to be able to check their accounts - similar to on-line banking.”
- “People are looking for 'forms', usually applications. Or, they want to know IF they need to fill out an application and what other agencies need to be notified.”
- “DNR could reach many more interested customers for land sales and exchanges by listing properties on our website like a real estate page.”

External user interview quotes

- “I never thought too much about using the site, but I sure could, and frankly with other organizations we do everything through email.”

- “Anything that you can do to make it easier for me to comply with my lease, that’s good.”
- “It sure would be great if there were one place to go to find out what I need to do to run a marina, across all agencies, not just DNR. The rules about discharge from boats, etc. are always changing.”
- “The site could be a tool to make lines of communication clearer and easier, by using the site to get a faster response from DNR.”

Recommendations

Implement transaction management system

Users who need to submit and track applications would greatly benefit from a streamlined application process and a transaction tracking system, probably behind a login. An application wizard system would allow users to know exactly which forms were needed, fill them out and submit them online, and track the application and approval process online, reducing their time as well as saving the time of DNR employees who field calls and emails trying to resolve application questions. An automated system would also allow users to be automatically updated via email when changes to regulations or policies affected them directly.

Trust beneficiaries could also use a similar transaction management system. There was no direct feedback from this audience type, although it seems that the current system of receiving notices via postal mail is sufficient for most of these users; however, since some depend on the trust income to a greater degree than others, an automated system might simplify communication between DNR and trust beneficiaries.

Information Packets

Barring the implementation of an automated transaction management system, the usability of the application process could be improved by another implementation of the previously-discussed information packet/enhanced FAQ feature, wherein users could navigate to a single page that contained all the information they needed to proceed with their applications, including links to other organizations with which they may need to interact, downloadable versions of all forms with a checklist, and complete contact information for the form recipients.

Sales/leasing opportunity interface

Additionally, users, especially lessees, contractors, and industry representatives, would benefit from an improved interface for determining what opportunities are currently available for them to do business with DNR. Maps or listings, like real estate listings, showing where there are properties available for lease or harvest, for example, would facilitate public involvement and, in turn, bring more money in to DNR.

Audience Category 3: Researchers

There are several types of strictly business users, as well as three that are both business and researchers.

Business Users mixed with Researchers

- Industry representatives
 - Similar to contractors, industry representatives need up-to-date policy and procedure information, especially notices of proposed changes. They also need to fill out forms and apply for various permits, and would like to complete those tasks as quickly as possible.
- Professional information seekers
 - This diverse group is largely interested in finding various types of information, such as statistics or maps and reports. They may work in positions that also require them to file permit applications or otherwise fill out forms.
- Government officials
 - The needs of this audience type are generally relatively urgent, particularly when pertaining to fire situations, and are at the very least time-sensitive, as they must respond to constituents' needs and concerns regarding the most recent developments in policy, procedure, and regulations. Often, the constituent base, and therefore the needs and concerns, are based on geographic location. Government officials may need access to DNR forms, or may need to be able to direct constituents to the appropriate forms.

Researchers

The audience types in the Researchers category all have very similar motivations and tasks that they perform. They are looking for DNR publications and research results, including maps, statistical data, reports, and other documents. Often, the information they find informs their own research, so it is critical to their success that they have up-to-date documents. The audiences' level of familiarity with DNR as an agency and scientific research in general varies, with college students less familiar or skilled than professional scientists, for example.

The audience types represented in the Researchers category are:

- Scientists
- Tribal representatives/employees
- Conservationists
- DNR employees
- College (and above) students

Issues specific to Researchers

Finding trustworthy publications is difficult

Access to DNR's research is this audience category's primary reason for using the DNR site. However, actually obtaining the results of the research – maps, statistics, reports, and other documentation – is a challenging process that consumes researchers' time. Even those returning users who are familiar with the site and the process of conducting scientific research, and who have specific pages of the site bookmarked, for example, find that once they arrive at a page where documents should be, they are sometimes not there, or they are outdated, or they are not dated at all and therefore unreliable. Additionally, as documents do not go through an established peer review process, users can never be sure if the information is accurate.

DNR employee survey quotes

- “More information regarding our different policy documents, such as our HCP, policy for sustainable forests, etc.”
- “Links to publications and topics need to be listed comprehensively and clearly, and topics should be organized both alphabetically and by subject area.”

DNR employee focus group quotes

- “I don't know if there's a single standard for scientific reports. We write ones published in peer review, and also just DNR reports, and no one in communications does any review, there is no standard distribution process, it's on a program by program individual basis.”
- [Question: Is getting updated information on the site an issue for you as a DNR scientist?] “In terms of [providing updated information on] policy issues, we have gotten so that the web isn't even considered because it's so cumbersome.”

External user survey quotes

- “There are so many PDF files on the site and it is hard to go through each one to try and find the information that I'm looking for.”

External user focus group quotes

- “I try to find documents that will help me help the public understand why certain rules are in place and why they have to follow them. So I spend a lot of time trying to find the different rules and regulations ... I usually end up calling someone.”
- “There is a ton of information but it's not all in the same place. There used to be a database of water resources, and now I can't find it. You had to go a certain way to get to it.”
- “I maybe got some inkling that DNR has a publication [that I want] out there, and then I go type the name of the publication in [the search box], and I don't get anything. It doesn't go anywhere.”
- “On the site, they will put something in there saying ‘[this publication is] coming soon’ – when is soon? When did they post that?”

- “[There are only active links for] annual reports there for two years; does that mean they only DID two years [of annual reports]?”

Recommendations

Better site structure and organization

The primary recommendation for this issue is to resolve site organization problems, enabling researchers to find information more efficiently.

Further research on best formatting and presentation of publications

In addition, the best way to format and present the publications should be analyzed. In many cases, it seems that features like interactive maps and searchable databases would be more appropriate than simply linking to PDF documents.

Improved and visible metadata for publications

Regardless of format, however, utilizing better metadata, such as author, date, title, and subject(s), for publications would increase findability via the site’s search engine; displaying the metadata on the page would increase the users’ ability to scan the page visually and find the appropriate document.

Publishing workflow and procedures

Further research should also be conducted into the possibility of establishing a publishing workflow for publications that DNR produces; steps in the workflow might include peer review, metadata analysis and assignment, publishing to a specific area of the site, distribution to the state library, and regular archiving of older documents. This would ensure that all documents that are intended for public use are in fact made available to the public.

Automated updates on changes

Many users would benefit from an easy, automated way to find out when policies and regulations have changed and when documents or topics of interest are updated or added to. There are many potentially appropriate technological solutions to this, including RSS feeds for page updates or query results, automatic email updates, and automated timestamps on documents or pages.

Audience Category 4: Job Seekers

This category contains only one audience type, the job seekers. Although a member of any other audience type can also be, at any given point, a job seeker, the tasks that a user performs when seeking a job on the DNR site are different from the tasks performed by the other audience categories. Most external survey respondents said they had little to no trouble accessing job information.

Issues specific to Job Seekers

Job seekers' main concern, of course, is finding out about new jobs at DNR for which they might be suited, and finding it out in a timely manner. Currently, the site does a good job of prioritizing access to the available jobs via the "Employment with DNR" link on the left of the main page. The Job Openings page, however, is poorly laid out and hard to scan visually. The built-in site search feature sometimes pulls up job listings, but there is no discernable way to limit searches to just job listings, and no other job-listing-specific search feature, so that the task of finding relevant jobs takes longer than should be expected.

Although there is a job listings mailing list, users have no way to filter the listings they receive, so, for example, someone looking for a position in an office will receive every new firefighting-related listing. While some job listings are marked as "New," there is no mention of how recent "new" jobs are.

- Heuristic evaluation of the Job Listings page shows that the details of job seekers' tasks cannot be completed easily. The site scored low on several measurements, including:
 - Is essential function available where needed?
 - Are essential content and function given priority on the page?
 - Are items classified logically?
 - Are hyperlinks clear and informative?
 - Are keyword-based searches comprehensive and precise?

Recommendations

Job-specific search engine

The site currently provides easy access to the job listings page, which should not change. However, once on the job listings page, there should be a prominent search feature that allows users to search based at least on keyword and location.

Better metadata for job listings

To increase the ability to scan visually the page itself, the job description should be listed as well as the job title and application due date. Each column of information should have a title, so that the application due dates, for example, are clearly marked as such. Adding a timestamp listing the date the job was posted is also recommended.

Automatic updates on new job postings

The ability to sign up to receive job listing updates should be prioritized, rather than at the very bottom of the page. An ideal system would include a way for users to receive updates only on specific keywords or other metadata.

There are other options for automating the notification process, including RSS feeds for page updates or query results and automatic email updates.

Appendix A: External user survey

Demographic Statistics

Almost half (42.5%) of the 415 survey respondents identified themselves as external Government Employees, with the next highest number of respondents identifying as Conservation/Environmental Community Members (12.6%) and the fewest identifying themselves as Tribal Members (0.5%).

More than half (61.8%) of survey respondents rated the site either “neither easy nor difficult to use,” “difficult to use,” or “very difficult to use.” Only 38.2% of respondents said they find it “very easy to use” or “easy to use.”

Public Comments

The free-text questions on the external survey included:

- Describe your experience in visiting the DNR website today. What problems did you encounter?
- What information were you looking for today? Did you find what you were looking for?
- What could be added to the DNR website to better meet your needs?

Several themes arose, many of which have been uncovered in previous research:

- Contact info
- Finding documents
- Currency of information
- Organization of site
- Naming/terminology
- Search engine usability

See Appendix A – Supporting Document – External Survey Comments.xls for more detailed results of the survey, grouped by theme.

Appendix B: Core Team Information Gathering Session

Principles Exercise

This exercise addressed the ways in which the website meets the goals set in DNR's mission statement, principles, and vision. Participants brainstormed different ways that the website helped, or could help, meet each principle, uncovering themes as well as goals regarding how to better meet the principles going forward.

Of the six principles, three – Creative Solutions, Inclusive Decision-Making, and Visionary Leadership – explicitly addressed the need for informed decision-making and public trust in DNR. The others implicitly addressed that need; discussion of Respectful Relationships, for example, led to the goal “full disclosure” and “current content,” which are related to public trust and informed decision-making, as is “balance the value story with the revenue/business story,” which emerged from discussing Enduring Stewardship.

Overall, all participants in this exercise agreed that the website addressed most principles, but could do so more explicitly and comprehensively. All principles are seen as leading to increased public trust in DNR as an agency, which can be promoted by greater transparency of and public access to DNR decisions, workflow, projects, and research.

See Appendix B – Supporting Document – Core Team Home Page Prioritization Results.xls for detailed results of this exercise, grouped by principle and then further grouped by theme.

Home Page Prioritization Exercise

This exercise asks participants to imagine that there is room for only ten links on the home page, and then list which ten links are most important. This exercise often results in a great variety for most answers, with general consensus on a few key subjects.

In this case, a few topics were universally rated as important: “publications/maps/data” as a general topic and “doing business with DNR,” which includes permits, leases, contracts, applications, and regulatory info. Also important were “public events and involvement;” “about DNR;” “fire information;” “contact information;” and “recreation.”

However, for an organization of the size and scope of DNR, with this many different target audiences, many important categories of information are likely to be mentioned by only one or two individuals in any given group. This exercise, therefore, should not be used to determine the contents of the home

page, but rather to provide a general idea of the relative importance of topics based on target audience size.

See Appendix B – Supporting Document – Core Team Principles Exercise Results.xls for detailed results of this exercise, grouped by theme.

Appendix C: Senior Communications Consultants Information Gathering Session Results

This exercise explored how participants categorize their activities according to their perceived audience. The Senior Communications Consultants and the Core Team identified 14 audiences that DNR serves. These 14 were selected as "personas," archetypal audience members who represent the typical needs, motivations, and scenarios of users of the DNR website. The Senior Communications Consultants were asked to list as many services and content areas as they could think of that the DNR website should provide and assign those items to the 14 audiences. Participants were given ten minutes to generate ideas and categorize them according to audience. A discussion of the choices they made followed.

The 5 participants listed 78 services and content areas, noting that the items identified represented a small subset of the information and functionality the website should ideally provide. However, as these were the first items that came to mind, it is likely that they are the highest priority and/or the most frequently requested items.

Results indicate that participants view their responsibilities as relatively isolated to very specific audiences. Four participants identified a subset of 7 or fewer audiences they serve, while 1 participant assigned their services and content 13 audiences. Overlap between participants was significant. While only 1 audience is served by 4 participants, 7 audiences are served by 3 participants, and 6 audiences are served by 2 participants. No audiences are targeted by only one Senior Communications Consultant.

See Appendix C – Supporting Document – SCC Session Results.xls for detailed results of this exercise.

Appendix D: “Marketing to Business” DNR Employee Focus Group Results

Theme:

- **Lack of overview**
The DNR site currently does very well at communicating breadth of services and diversity of activities. There is a wealth of very specific information. However, this is not accompanied by a big-picture perspective that gives the user a broad overview.
- **Cultivating awareness and managing perceptions**
The website is seen as a very powerful tool for increasing visibility into some of the more crucial, time-sensitive, and innovative activities and services of DNR. For example, DNR could be more proactive at publicizing its involvement in sustainable resource management practices and alternative fuels.
- **Search is broken**
Enabling users to find DNR's site via a search engine and, once there, to find what they want quickly and easily is essential to the success of DNR's website marketing strategy. The unanimous opinion is that the current in-site search fails miserably at this.
- **Guiding users to opportunities**
The website needs direct users to opportunities. From there, users need to be given all the information needed to act on those opportunities. Providing adequate, timely, contextual information can reduce costs by minimizing phone calls to the agency.

Messages

- Communicate how DNR can help businesses control costs
- Alternative energy
- DNR is sustainable & balanced (managed use vs. environmental protection)
- Professional
- Correct, succinct, useful information
- Current and relevant
- Environmentally conscious
- Benefits schools
- Friendly advisor (not regulatory)

Keywords

- Stewardship
- Sustainable
- Best management practices
- Natural areas

- Friendly
- Service-oriented
- Alternative energy
- Leader in green energy
- Proactive

Appendix E: “Marketing to the Public” DNR Employee Focus Group Results

Common Themes

- Lack of overview
- Cultivating awareness and managing perceptions
- Search is broken

Themes

- **Need for cross-links & collaboration**
From the uninformed perspective, DNR often seems to work at cross-purposes. The site needs to show how the different activities and services of the agency coordinate and complement each other.
- **Mixed messages**
Content does not seem to be targeted to any one audience. The website needs to communicate a unified message overall and to clearly target content to the different audiences at the appropriate time.
- **Need for publicizing sustainability & balance**
The site could clear up misconceptions formed as a result of the above issues, particularly in communicating how the environmental protection role of the agency is balanced with the managed use role.

Messages

- Professional, research-based
- Service-focused
- Clearly defined role as manager of public lands
- What DNR is/does
- Value that DNR provides to the public
- Collaboration & relationships between DNR and other agencies/orgs

Keywords

- Interdisciplinary focus
- Collaboration
- Innovation
- Environmental protection
- Access
- Environment, Natural Resources, and Ecological Services

Appendix F: Commissioner & Communications Director Interview Results

Common Themes

- Lack of overview
- Need for cross-links & collaboration
- Mixed messages
- Need for publicizing sustainability & balance
- Cultivating awareness and managing perceptions
- Guiding users to opportunities

Themes

- **Growth by accretion, organization by division**
Over the history of the site, it has grown by accretion. This has created an ad-hoc organization system that roughly reflects the administrative structure of DNR. This is not an ideal method of organization for most users.
- **Need for simplicity**
The site is an extremely rich repository of information with much depth. However, it requires a deep level of technical knowledge to navigate and understand for most users. This content needs to be summarized and made accessible.
- **Communicating the message**
A clear, unified message can deflect criticism, create support, increase budgets, and improve the operational efficiency of DNR. The website does not currently present such a message.

Messages

- Bio of the agency
- Mission & principles
- History of the trusts
- Benefits to ecosystem & society

Keywords

- Mandates
- Stewardship
- Sustainability
- Benefits
- Value to society

Appendix G: Internal user (DNR employee) survey

Demographic Statistics

Approximately half (49.3%) of the 810 survey respondents were from regional offices, with the most (12.7%) coming from the Pacific Cascade region and the fewest (6%) coming from the Olympic region. In terms of divisions, the Engineering and General Services division had the highest representation, with 65 participants (8.0% of the total), while the Office of Budget and Economics had the lowest participation rate, with only five respondents (0.6% of the total). These statistics do not, however, tell us the participation rate within each division or region.

Over half (55.6%) of survey respondents rated the site either “neither easy nor difficult to use,” “difficult to use,” or “very difficult to use.” Only 38.1% of respondents said they find it “very easy to use” or “easy to use.”

Employee Comments

The free-text questions on the internal survey included:

- What could be added or changed on DNR’s public website to better meet your needs as an employee?
- List the public audience(s) you think DNR could better serve on its public website.
- How could the needs of the audience(s) you listed above be better served on the website?
- Any other comments or concerns?

The second question resulted in a list of public audiences that largely mapped to the previously researched audience groups and personas, with a few additional audiences that had not been brought up before:

- Outdoor burning users;
- The visually impaired;
- The media.

Responses to the first, third, and fourth questions above were consolidated, as employees addressed public needs as well as their own in their answers to the first question. Several themes arose, many of which have been uncovered in previous research:

- Finding documents/search engine usability
- Fire information
- Recreation information
- Currency of information
- Organization of site
- Naming/terminology
- Contact info

- Targeting customers for sales and leasing (marketing)
- Messaging

Other respondents brought up points that had been touched on but not explored in depth in other research:

- Optimization
- Text-heaviness
- Help with policy, procedures, and forms
- Site map

See Appendix G – Supporting Document – Internal Survey Comments.xls for more detailed results of the survey, grouped by theme.

Appendix H: Regional Employee Questionnaire Results

Questionnaire

In order to solicit information from the employees of the regional offices, a brief survey was sent to regional employees who had responded to the online survey. The questionnaire included the following questions:

1. What specific information about your region / regional office would you like to communicate through the DNR public website?
2. For example, seasonal information, events, history, etc.
3. In what ways is the staff of your region unique:
 - a. from other regions?
 - b. from the main offices in Olympia?
4. In what ways is the audience you serve unique?

Results

As expected, the regional employees expressed needs similar to those uncovered from other research methods, but with variations on priority. In particular, several themes were more important to regional employees than to Olympia employees:

- Geographically specific information
- Seasonal information
- Providing links and contact info to other agencies and organizations
- Fire information

Other more common themes included:

- Naming/terminology issues
- Currency of information
- Availability of contact information
- Help with policy, procedures, and forms
- Messaging
- Recreation

See Appendix H – Supporting Document – Regional Employee Questionnaire Results.xls for more detailed results of the survey, grouped by theme.

Appendix I: Receptionist Questionnaire Results

Questionnaire

Various DNR receptionists were sent a brief questionnaire designed to discover what types of questions they receive most frequently. The questionnaire included the following questions:

1. Which division do you represent? Who is your supervisor?
2. What are the top ten questions you receive from the public? For each, please explain:
 - a. Who generally asks the question?
 - b. How do you usually answer the question?
 - c. What resources do you use to answer the question?

Results

Questionnaire results were grouped into Frequently Asked Question categories, listed below:

Permits and Applications

- Where do I get a _____ permit?
- How do I apply for _____?

Publications & Maps

- How can I get a copy of the _____ ?
- Where can I get a map of _____?

Contact Info

- Who do I talk to about applying for...?
- May I please speak to ...?

Resources

- I need information on hazardous _____ who can I talk to?
- I was told I need to replant trees, where can I purchase seedlings?
- Who can I talk to about water typing?
- Can I harvest mushrooms, dig trees, etc. for personal use on State Lands?

Forests

- Where can I find information on ___ Forest?

Land

- Do I need a permit to _____ on my land? (also applies to permits)
- Are state lands open to the public to _____?
- Who do I talk to in order to lease my land for _____ ?

Recreation

- Is (name of campground) open, what facilities are available, how long can I stay?

- Hunting info: Where can I go? Restrictions? I am disabled, where can I go?
- I want to ride my motorcycle/ATV/horses on state land, what are the rules?

Fire

- Can I burn? Are campfires ok, on state land and on private land?
- What is the fire danger rating?
- Where is the fire?

Other

- *Volunteering* - How do I get my equipment signed up to work on the fire? What do I need to do to volunteer for the fire?
- *Jobs* - Are there any job openings?

Appendix J: Audience Categories Venn Diagram

This diagram, referenced in this report as Figure 1, is also included as a full-size PDF. See Appendix J – Supporting Document – Audience Categories Venn Diagram.pdf.