

## AIR RESOURCES BOARD WEBSITE ANALYSIS



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## AIR RESOURCES BOARD WEBSITE ANALYSIS

This analysis of the California Air Resources Board (ARB) website, [www.arb.ca.gov](http://www.arb.ca.gov), focuses on the site's information architecture, design, and, most importantly, its ability to meet ARB's strategic and tactical objectives. Our analysis is intended to identify opportunities for improvement, rather than merely point out limitations.

### PROBLEMATIC ISSUES

#### 1. Goals and Target Audiences Not Well Defined

A successful website balances an organization's goals with the needs and abilities of its target audiences. A site based on this strategy intuitively directs its audiences down paths that ultimately (and quickly) allow both the audiences and the organization to achieve their goals.

Although ARB may have very well-defined goals and target audiences, these are not clearly apparent on its website. The following contribute to the site's lack of clarity:

- ***Ineffective Communication of Identity***

The ARB website does not effectively communicate its own mission and goals and how it serves Californians. This is apparent on the home page and throughout the website.

- ***Poorly Defined Target Audiences***

The ARB website does not clearly identify its target audiences. Furthermore, it does not provide logical pathways for users to follow based on their needs. This has two negative results:

- It is difficult for users (e.g., California's diverse residents; scientists; businesses; local, regional and federal policymakers and analysts; lawyers; advocates; educators; journalists) to find the information they need.
- ARB is unable to effectively deliver relevant messages to the appropriate audiences.

Because of its pioneering role in protecting public health and the environment, ARB has the potential to lead the state and the nation in addressing the health effects of climate change in addition to its mandate to reduce air pollution. ARB's present website does not adequately reflect its mission or potential, particularly in ways that allow the typical user to understand and take action related to the impacts of climate change on health.

#### 2. Poor Usability

The ARB website is generally difficult to use. While business users may have taught themselves to find relevant information quickly because it is essential to their businesses, new and general users must work hard to find what they need. Moreover, although more than 39% of California's population speaks a language other than English at home, ARB's website is not navigable in Spanish, only selected materials are available in Spanish, and no content is available in languages other than English or Spanish.

The difficulty with using the ARB website is the combined result of goal and targeting issues (mentioned above), and the following problems related to information architecture and tactical navigation, which require extensive scrolling to find desired information.

- ***Information Is Not Categorized or Presented by Audience Need***

Generally, information on the ARB website is not categorized by its relevance to user need—which requires users to investigate several paths to find relevant material. This is an inefficient way to gather data.

For example, the nested tab display on the home page is divided into three sections: “Resources,” “Health,” and “Education.” These categories are not particular to any one user type, and the information may or may not be relevant to all users. Users must therefore dig through the categories and follow unspecific links to seek relevant information. There is no way for users to know if the “Fact Sheets” contain personally relevant items unless they click the link and sift through a very long list spanning many different subjects.

- ***No Hierarchy of Information***

In many sections of the ARB website, it seems as though information has been randomly placed on the screen. The result is a frustrating experience for the user. A clear hierarchy of information would make it much easier to find and review relevant information.

- ***Few Primary Calls-to-Action***

On many pages, including the home page, the primary call-to-action is unclear. Users are unsure about why, how, and where to proceed. Literature on environmental communication has shown that the lay public and scientists have very different attitudes towards risk, and information needs to be targeted in ways that help the public understand and act on information about environmental hazards.

- ***Inconsistent Navigation***

Throughout the site, the 2<sup>nd</sup>, 3<sup>rd</sup> and deeper-level navigation varies greatly from page to page. The site’s lack of a standard navigational model is confusing to users, who must continually learn new navigation schemes. Furthermore, inconsistent navigation makes it difficult for users to maintain a sense of place while navigating through the site. This makes it very easy for users to get lost while on the ARB website.

- ***Inconsistent Design and Functionality***

The design differences from page to page are dramatic. Users generally prefer a consistent model for look-and-feel and functionality. Like inconsistent navigation, inconsistent design disrupts a sense of place and makes the website difficult to use.

*Note on inconsistent navigation, design, and functionality:* Dramatic inconsistencies in navigation, design, and functionality can have more severe consequences than increased user burden and/or loss of place. Such inconsistencies can adversely affect users’ perception of the entire organization. A cohesive, clean, efficient, and usable website will build user confidence in the organization, while the opposite may destroy confidence and lead users to question the professionalism and capability of the organization.

## **PROPOSED SOLUTIONS**

The following is an outline of proposed solutions and an approximate estimate of overall cost. This work can be undertaken through an interagency agreement between the Air Resources Board and the University of California Regents.

### **Phase 1: Stakeholder Interviews/Discovery**

As a first step in this process, HRA proposes to interview six key stakeholders within the Air Resources Board to identify the current state of and future vision for the website and audiences. The interviews would include questions to reveal internal perceptions, overall goals, brand, vision, and audience breakdown. These interviews would be part of the initial discovery process and would be used to inform the site's user personas and information architecture. The results of the stakeholder interviews would include notes in a summary format, with key findings outlined in an executive summary.

The Discovery Phase would also include:

- Review and refine site goals drafted by ARB
- Request and review necessary site analytics
- Kick off meeting – full team
- Schedule and interview key ARB stakeholders—6 phone interviews
- Summary of findings
- Project plan creation, deliverables documentation

### **Phase 2: In-depth Interviews/Walk-Throughs and Development of Personas**

Following the stakeholder interviews, HRA proposes to conduct a total of 10–12 in-depth, 60–90-minute interviews with users (remote and in-person). Recruiting would be conducted by HRA. ARB may be asked to provide a list of recruits based on audience segmentation. Interviews may include a site walk-through and a brainstorming session. Screening characteristics would be approved by ARB prior to the recruiting process, with the goal of interviewing two to three individuals per segment.

Remote sessions would be conducted via phone and web conference. In-person sessions would be held at HRA and/or ARB offices.

After completing the interviews, HRA proposes to synthesize the data into a summary document. The summary would provide a profile of all interview subjects for easy reference and comparison. In addition, HRA would develop rich personas to be used throughout the design and development process.

Personas are detailed character studies of representative users, combining the most common needs and goals of each user type into exemplars that can be used by design and marketing teams in future efforts. By adding a richer personality to each user type, these personas allow for a fuller understanding that the user interface must satisfy. This helps designers and marketing specialists go beyond dry and often inaccessible data points.

Phase 2 would include the following deliverables:

- Identify user groups and audiences for interviews
- Develop screener and initial questionnaire
- Recruit and schedule participants
- Conduct interviews with audience/user groups—estimated 10–12 individuals
- Identify both primary and secondary personas based on known and desired usage of ARB's website
- Create final report (collect, organize, analyze and prepare reports based on findings from stakeholder and user interviews)

### **Phase 3: Wireframes and Site Structure/Information Architecture**

HRA's information architecture team would work closely with the user experience team to establish high-level, page-specific architecture for the main arb.ca.gov site. The teams would create a scalable structural framework to guide current and future revisions of the ARB website. The information architecture team would propose labeling as well as models for content organization and distribution. The team would create page-specific wireframes at a high-level to display content and navigation for main sections of the website.

Phase 3 would include the following deliverables:

- Develop a high-level site map, depicting the location of each web section and how it will be labeled
- Draft wireframes (3 rounds) that will inform the site form, function, navigation and interface, interaction, and visual design. Actual number of wireframes to be determined, but estimated at 7–10 pages

### **Phase 4: Visual Design**

HRA proposes to address the overall look and feel of the ARB website, providing a refined approach for the homepage and key subpages in accordance with ARB and ca.gov branding guidelines (provided by ARB). The process will follow standard redesign methodology, with a conceptual period followed by reviews and refinements. The visual design will portray the desired feel—easy to use, simple, and effective in protecting public health. Additionally, HRA would create 2–3 unique designs that match the new overall look and feel for specific pages.

Phase 4 would include the following deliverables:

- Create 2 design directions (2 rounds + revisions)
- Create final home page and subpage designs
- Design templates for key pages in Photoshop Document, a cross-platform format that enables layering, true spot color, and other features

### **Phase 5: HTML Templates/Style Guide**

HRA would develop a series of 5–7 HTML templates using cascading style sheets (CSS) for key pages of the ARB website. After developing the templates, we would develop the full site. This estimate does not include full production or backend integration. HRA would create a design style guide based on the approved homepage and templates created in the visual design phase. The style guide will assist ARB designers in adding additional pages to the website and will outline use of all graphical elements created in the templates designed by HRA's team. Phase 5 would include the following deliverables:

- Create 5–7 HTML templates
- Create HTML style guide

### **Phase 6: Handoff**

The final phase would confirm that all materials are working, and allow for necessary modifications/fixes/additional consulting. Any outstanding issues and next steps would be resolved in a final meeting. A copy of the staging area, including all deliverables, would be delivered on CD-ROM.

Phase 6 includes the following deliverables:

- Final modifications/fixes consulting
- Wrap-up meeting
- Deliver copy of staging area

### **Phase 7: Usability Testing**

HRA would conduct testing with different types of users, analyze their experiences with ARB's new website, and make modifications based on feedback from users. Phase 7 would include the following deliverables:

- Conduct usability testing with 8-10 users representing different user types
- Revise website based on user comments

### **Content Revision/Rewrites**

The amount of content to be rewritten and revised will depend on how many levels of content ARB is interested in revising and would affect the budget. Because so much content is hard to read and understand, ARB and HRA will discuss what is doable and practical within budgetary constraints.

**Budget Estimate:** \$300,000+, not including a materials audit and subsequent rewriting and translating of most ARB resources.

**Time Estimate:** 8-10 months