

Human Centered Design Tools & Techniques




We strove to design with the users' needs foremost in mind, bringing high use features front and center for quick, intuitive access while still providing depth of functionality. To do this, we gained as much information as we could about our users' lives, needs, and pain points so that, as we began storyboarding, our focus was on developing user flows natural to them that would alleviate their difficulties. We then scrutinized our design through usability testing and heuristic analysis, incorporating feedback into our backlog of user stories to improve design in future sprints.

Explore the human centered design techniques our design team employed below:

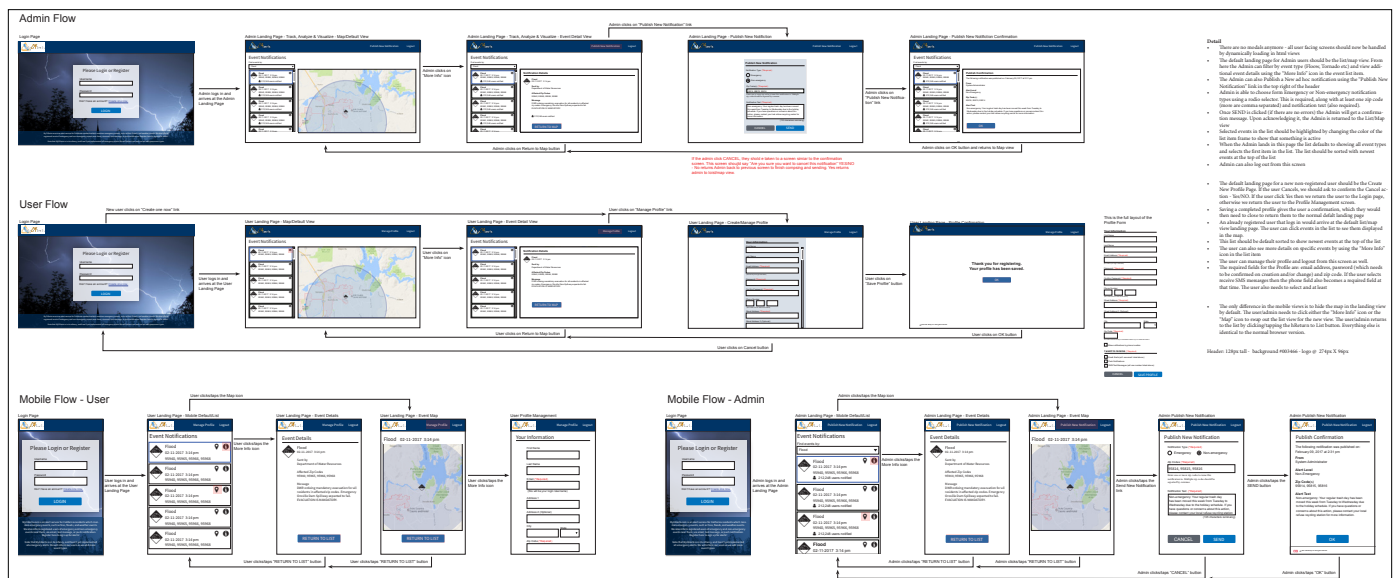
Persona Interviews

By conducting personal interviews with different potential user types, we established sound personas from which we could base design and development decisions. For more detailed information on Persona development please read the complete Persona Development document.

Michael Robertson Role: Alert System Administrator	Jane Remington Role: California Resident
 Competencies <ul style="list-style-type: none">IT & InternetSoftwareMobile AppsSocial Media	 Competencies <ul style="list-style-type: none">IT & InternetSoftwareMobile AppsSocial Media
Background <p>Michael has been living in California for the past 35 years with his wife and children, who are now mostly grown and out of the house. He has been working in a software and tech in some capacity for his entire career. He is familiar with infrastructure and the challenges that surround managing, maintaining, and messaging potential critical public facing crises.</p>	Background <p>Jane is a lifelong California resident and has small children in school across town from where she works. She is a part time student and considers herself to be computer and internet savvy. She worries that with the current system she can't be notified of events happening in different parts of town. She has to rely on word of mouth and news events rather than a State or locally managed alert system.</p>
Goals <ul style="list-style-type: none">To be able to send notifications to a large number of registered users with a simple, easy to use interfaceTo be able to track past events and see where they occurredTo be able to get a count on the number of registered users that notifications were sent out in an effort to analyze overall system efficiency and efficacy	Goals <ul style="list-style-type: none">To be able to receive notifications in multiple formats for multiple areas or regionsTo be able to create preferences that allow her to register her residence, work location, and other areas to receive emergency notifications (e.g. work, home, child's school, etc.)To be alerted in real time when an emergency event is happening near her
Frustrations <ul style="list-style-type: none">System is not able to handle very large numbers of notifications quickly, the system must queue and batch send notifications which can sometimes mean notifications go out in a less than ideal windowHe is currently only able to see a list of event notifications in a list view, but there is no real way for him to easily visualize these events	Frustrations <ul style="list-style-type: none">Jane is currently only able to receive notifications via email, would like other format optionsThe current system does not allow her to see other emergency events in her area

Wireflow Development

Our design team incorporated the insights from the personal interviews into the POC's primary objectives while developing wireflows. Through iterations of brainstorming and trial, the user journeys we crafted became progressively more efficient and intuitive. For more information please review the System Wireflow document.



Usability Testing






















After each sprint, we worked with user test subjects to gain valuable insights about where users experienced difficulties in order to identify areas where we could make improvements. For complete usability testing results please review the Usability Test Results Report document.

Lean UX

We developed the application with an emphasis on lean UX, making the interface simple and usable for the present but flexible and adaptable for the future. Drawing insight from our other HCD efforts, we built a backlog of user stories with improvements and functionality useful going forward. Here are some of the ways we incorporated feedback into design. For complete list of all user stories included in the Lean UX process please review our product backlog.

Backlog 59 issues

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	Change language of "password is required" message on login page.	PQVP-224	
	Reduce number of flood notifications	PQVP-223	
	As an admin user, I would like to have a faster and more responsive landing page	 PQVP-221	
	508 Compliance: Missing language tag in HTML	 PQVP-213	
	As a product owner, I want the application to reflect the agreed logo and branding.	PQVP-155	
	Publish New Notification - description for 50 mile radius of zip code for notifications	PQVP-193	
	Add renotifications if significant event information changes	PQVP-218	
	Notify people who have registered since the event was first received, if it is received again.	PQVP-219	
	As an admin user I would like to have a more concise view of my list events	PQVP-196	
	Manage User Profile - Unfriendly error message when change email address to a duplicate email address.	PQVP-222	