Seattle Aquarium
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Executive Summary

Section 504 of the Rehabilitation Act of 1973\(^1\) prohibits discrimination against qualified individuals with disabilities by recipients of Federal financial assistance in all programs, services and activities operated by the recipient. As a recipient, the Seattle Aquarium (the Aquarium) needs to comply with these requirements and take necessary steps to provide equal opportunities for individuals with disabilities\(^2\). NASA’s review has determined that the Aquarium is cognizant of its responsibility and diligent in its overall efforts to provide accessible programs, services, exhibits and facilities for individuals with disabilities. The promising practices detailed in this report are an example of these efforts. However, NASA has determined that several Section 504 requirements are currently not being met by the Aquarium. Accordingly, NASA has developed a remediation plan (implementation plan) which appears at the end of this report, to assist the Aquarium in meeting these requirements, thereby strengthening compliance, prohibiting discrimination and enabling the Aquarium to provide accessible programs, services and activities to for individuals with disabilities. NASA highlights the following areas with respect to the Aquarium’s Section 504 compliance posture:

1. **Designated Responsible Employee.** The Aquarium should identify a single designated responsible employee (DRE) to stay abreast of all aspects of accessibility-related issues both inside and outside of the Aquarium. This need, which is reflected in the Section 504 regulations, addresses the complexity of accessibility in a diverse organization like the Aquarium. One key area that this subject matter expert will need to address quickly is the lack of disability training for Aquarium employees and the absence of an adequate grievance process. This report sets forth the skills needed in a designated responsible employee and the qualities of good accessibility training.

2. **Grievance Procedures.** The Aquarium’s visitor complaint mechanism does not substantially meet Section 504 regulatory requirements to investigate and resolve alleged discrimination on the basis of disability raised by visitors and other program beneficiaries and must be corrected. The Aquarium needs to ensure that visitors understand their rights as program participants and have meaningful opportunities to provide detailed feedback or file complaints. The current “comment card” system does not collect sufficient information and is not well-publicized. This undermines both the rights of program participants and the Aquarium’s interests in visitor feedback.

3. **Notification of Section 504 Obligations.** The Aquarium does not meet the requirements of the applicable Section 504 regulations with respect to this issue. While the Aquarium has a non-discrimination policy, it is written for application solely to its volunteer staff and not visitors. A review of the Aquarium’s publications and other media (i.e., website, newsletters, brochure and an exhibit map) also revealed that the Aquarium does not notify website visitors of its nondiscrimination policy, the existence of the DRE and does not provide contact information (postal address and phone number) for the DRE.

4. **Program Access.** Facets of the Aquarium’s efforts to provide accessible programs, services and activities to individuals with disabilities do not substantially meet Section 504 regulatory requirements and must be corrected. The Aquarium must consider the needs of people with disabilities in its emergency and evacuation plan. In addition, the Aquarium needs to provide sufficient notices to people with disabilities of available accessible programs and services can best take advantage of the Aquarium’s many benefits (for example, the Aquarium does not post information regarding the availability of accommodations or accessible facilities on its website). The report below outlines several areas where more information could help visitors with disabilities.
5. **Effective Communication.** The needs of users with hearing, visual and cognitive disabilities must be considered because oral interpretation and visual displays are a key part of the Aquarium experience. This report outlines several areas where Exhibits are problematic and where accessibility can be improved. This report outlines different possible options that the Aquarium can explore as it endeavors to meet the needs of its visitors with hearing and vision disabilities.

6. **Architectural Accessibility.** Section 504 architectural accessibility at the Aquarium is divided into two broad categories. The first category relates to those elements covered by the law's accessibility requirements for alteration projects, particularly given the extensive 2007 renovations. The second category relates to those elements covered by the law's program accessibility requirements related to the older portions of the Aquarium. This report provides a detailed “punch list” that the Aquarium should address in upcoming architectural changes.

We also note that while we identified areas where the Aquarium has 504 compliance issues, there are a number of areas where the Aquarium exceeds regulatory requirements and implements promising practices in meeting the needs of visitors. This report summarizes just some of these promising practices.

**Background**

**Aquarium History**

In 1968, King County in Washington State (which includes Seattle and the Aquarium) issued a bond for the construction of a new aquarium. Construction began in 1975 and the Seattle Aquarium opened to the public on May 21, 1977. The Aquarium was expanded and renovated in the mid-2000’s to include new exhibits as well as updated dining and retail facilities. The facility today is divided across two piers: Pier 59 includes fish and invertebrate marine life exhibits interpreted by volunteers and staff while Pier 60 contains examples of habitats and animals found in the Pacific Northwest. Pier 59 also includes space dedicated to conference rooms, educational facilities, and staff offices. The Aquarium is a medium-sized facility with approximately 82,000 square feet available for public activities. The Aquarium attracts over 800,000 guests to its exhibits and over 40,000 children and families to its educational programs annually.

In 2009, the Aquarium had 836,000 visitors. In addition to being a popular public attraction, the Aquarium is also a leading conservation and research facility. Their conservation program has included the first successful breeding programs for Alaskan sea otters, northern fur seals, giant pacific octopi and numerous bird species. They are also well known for their research into reproductive endocrinology, genetic diversity of sea otters, and research into Sixgill sharks.

Prior to July 2010, Aquarium was owned and run by the City of Seattle (the City). The Seattle Aquarium Society (a not for profit organization) did marketing, outreach, and fundraising for the Aquarium. This kind of public-private partnership model is not uncommon for aquariums in the United States. For instance, this partnership enabled the Aquarium to raise the $42 million needed for building its new entrance addition in 2007. In July 2010, the Aquarium transitioned to private ownership. While the City still owns the physical property and oversight of the facility, all of the staff and operations are managed by the Seattle Aquarium as a private entity. Given the recency of the Aquarium’s transition from City ownership, the Aquarium is still identifying services that were provided by the City—and working to fill these voids. For instance, HR, IT, and legal issues were all previously addressed by specialized departments in the City.
Budget and Immediate Short-Term Opportunities

The Aquarium has an annual budget of $11 million that comes mostly from ticket sales, membership fees, and fundraising. In general, aquariums nationwide are self-funding, but the Aquarium does receive some financial assistance from the City. The Aquarium receives $1.5 million annually from the City for maintenance of the facility. The City also pays for the Aquarium’s insurance.

As the Aquarium manages the transition from public to private ownership, it will be developing new processes (including accessibility processes) that were previously managed by the City of Seattle. Of course, this means that this compliance review report by NASA is particularly timely. But other factors also make architectural and other changes easier in the short term.

As part of the transition to private ownership in July 2010, the City agreed to pay $8 million for capital improvements as there were key structural needs at the Aquarium. The Aquarium had a thorough facilities review by VFA (a private construction engineering firm in Boston), which identified structural problems, such as rotting pilings under Pier 60. The Aquarium expects to spend $3.2 million for pier improvements and $5 million for exhibit improvements. To the extent that NASA can identify architectural barriers now, however, the Aquarium may be able to use this funding from the City to help pay for remediating barriers—or seek additional funding to address known architectural barriers. The Aquarium is also currently reviewing plans to upgrade Pier 60, which will affect the visitor experience and exhibit space—but the Aquarium has expressed interest in ensuring that barriers identified by NASA are considered. Even though the Aquarium generally provides good overall accessibility, it will be difficult to remove all barriers in the facility. Nevertheless, the availability of short-term resources through the City should enable the Aquarium to fully implement the key accessibility initiatives and changes identified in this report.

Compliance Review Background

NASA selected the Aquarium for an on-site compliance review from a pool of 13 informal education providers (i.e., museums) that were awarded grants from the 2008 Competitive Program for Science Museums and Planetariums (CP4SMP). In 2009, NASA awarded $499,498 to the Aquarium to integrate ocean science information gathered from space into its marine mammal exhibitory and educational programming. Specifically, the Aquarium developed a new interpretive exhibit/kiosk around its Northern Fur Seal and Windows on Washington Waters exhibits which includes NASA data. NASA’s satellites provide ongoing measurements of ocean surface temperatures, biological productivity, sea level, winds, surface circulation, rainfall, evaporation and sea ice. In addition, the program will fund curricula development to help teachers engage students in activities that will encourage them to consider the pursuit of Science, Technology, Engineering and Math (STEM) educational disciplines. Partnerships will be developed with local educational and research organizations.
The following chronology summarizes the events relevant to developing this compliance review.

- **February 16, 2010**: NASA sends initial information request to the Aquarium.
- **April 19, 2010**: The Aquarium responds to NASA’s initial request and provides basic information about its programs and facilities.
- **September 14, 2010**: NASA requests additional information from the Aquarium and advises the Aquarium of its interest in conducting an on-site review.
- **October 14, 2010**: The Aquarium responds to NASA’s September 14, 2010, information request.
- **January 11-12, 2011**: The NASA team conducts its onsite review. During this review, the Aquarium offered almost 20 individuals for interviews over a two-day period. The NASA team was also given free access to every area of the facility for its architectural review.

The Seattle Aquarium has been extremely forthcoming, helpful, and friendly throughout the review process. At all times, they have been flexible and have expressed a strong interest in knowing how to improve services and opportunities for people with disabilities. Rather than oppose recommendations from NASA, the Aquarium has actively encouraged input for improving the visitor experience.

### Analysis

Section 504 prohibits discrimination on the basis of disability. Specifically, Section 504 requires that,

> No otherwise qualified individual with a disability ... shall, solely by reason of her or his disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance....

This requirement has been adopted by the NASA nondiscrimination regulations, which itemizes specific prohibitions against forms of discriminatory conduct.

The following discussion is divided into five subsections where these regulations are applicable. Each subsection includes a summary of our review, a description of promising practices, and a listing of compliance issues and recommendations for additional changes for the Aquarium to pursue.

### Designation and Notification of Responsible Employee

The NASA Section 504 regulations provide that NASA grant recipients must designate a responsible employee to coordinate the recipients’ compliance with these regulations.

Section 504 provides relatively little specific guidance for implementing this requirement. However, technical assistance materials developed for comparable requirements under other civil rights regulations such as Title IX of the Education Amendments of 1972 and Title II of the ADA provide instructive assistance in establishing the roles and responsibilities of the DRE required by Section 504. In their technical assistance materials, the Department of Justice has identified the...
responsibilities and job requirements NASA deems as substantially delineating the obligations of Section 504 for the DRE with respect to this regulation. These responsibilities include,

- Providing consultation and information to potential complainants,
- Distributing and receiving grievance forms,
- Notifying parties, scheduling hearings, moderating procedures, monitoring compliance and timeliness, maintaining records, and training staff regarding grievance processes, and
- Providing ongoing training and technical assistance.

The core competencies of the DRE include,

- In-depth knowledge of Federal anti-discrimination statutes, including Section 504, and general related knowledge of state non-discrimination laws,
- Knowledge of the recipient’s grievance procedures and personnel policies/practices, and
- Ability to prepare reports on compliance activities, make recommendations to appropriate decision makers, diagnose, and mediate differences of opinion.

According to the Department of Justice, for the DRE to be effective,

- The functions and responsibilities of the DRE must be clearly delineated and communicated to all levels of the entity, employees, and program participants, and
- The DRE must be provided all information and authority and access necessary to enforce compliance requirements.

Discussion

In our review, we found that the Aquarium staff could not consistently identify a single point person to address disability related questions or coordinate disability-related policies. Previously, questions about disability would go to Sue Donohue Smith, who was on leave during NASA’s onsite visit. Now, most questions go to Sal Muñoz or Veronica Smollen. Furthermore, we have found other individuals were tasked with duties that may be the responsibility of the DRE. For example, Robert Anderson, the Facilities Director, completed the Aquarium’s portion of the City’s ADA/504 Self-Evaluation, while Ryan Dean, the Finance Director, responded to NASA’s desk audit request for information in 2010. The Aquarium's Volunteer Manual does not identify the DRE and instead directs questions to the Volunteer Coordinator. The Volunteer Manual's disability policy focuses only on accommodating volunteer's needs.

*The Seattle Aquarium welcomes volunteers with disabilities and complies with the Americans with Disabilities Act. Please contact the Volunteer Programs Coordinator if you have special requirements so we may accommodate your needs.*

Rather than looking to a single DRE, the overall philosophy of the Aquarium is that accessibility is currently handled from a team approach that is pertinent to function. The Aquarium’s Volunteer Coordinator looks at ensuring accessibility from the perspective of volunteers. The Admissions team has an immediate knowledge of accessibility features in the Aquarium (e.g. availability of loaner wheelchairs). The interpretation staff is well trained on responding to the different learning and experiential needs of visitors with disabilities. Security can handle guest problems on a day-to-day basis. Internally, issues
escalate up the chain of command. In addition, all staff and volunteer supervisors have radios so they can get help as it is needed.\textsuperscript{32}

In addition, the NASA Section 504 regulations provide that NASA grant recipients notify program participants of its obligation to comply with Section 504 and must identify its DRE.\textsuperscript{33} We found that the Aquarium has a generic non-discrimination policy, but this policy appears only in its Volunteer Manual. This policy has not been updated since the Aquarium transitioned from City management. It is also apparently not applicable to its employees its visitors.

\textit{Non-Discrimination Policy: By law a government agency cannot practice any form of discrimination. It is the policy of the Seattle Aquarium that there is no discrimination or harassment in its programs, activities or employment based on race, color, gender, age, religion, sexual orientation, marital or parental status, national origin, mental or physical disability. Paid staff and volunteers must treat guests and each other with dignity and respect. Volunteers are expected to abide by the same ethical standards as paid staff regarding prohibitions against sexual or other forms of harassment. While volunteering at the Seattle Aquarium you will have an opportunity to meet diverse groups of people. It is our hope that you will see this as an enriching experience. Questions or concerns related to discrimination or equal opportunity should be directed to the Volunteer Programs Coordinator.}\textsuperscript{34}

A review of the Aquarium's publications and other media (i.e., website, newsletters, brochure and an exhibit map) also revealed that the Aquarium does not notify website visitors of its nondiscrimination policy or the existence of the DRE and does not provide contact information (postal address and phone number) for the DRE. The review team observed no signage or similar notification of the policy or the DRE posted in the museum or on its grounds. This shortcoming needs to be corrected by the Aquarium as soon as practicable.

\textbf{Compliance Analysis and Recommendations}

The Aquarium’s ad hoc approach may have worked well in addressing the most pressing and immediate needs of program participants with disabilities, but does not facilitate a proactive approach to accessibility. As noted above, relatively little guidance exists for the designation of a responsible employee under Section 504. While, the Aquarium’s current arrangement regarding the DRE does not violate Section 504, the Aquarium should consider, nonetheless, having one primary Section 504 Coordinator and ensure that this role is part of his/her job title and description. Doing so will augment compliance and streamline operations with respect to the needs of visitors with disabilities.

As this report also makes clear, understanding applicable accessibility laws and regulations is complicated and should not be left to be dispersed among multiple subject matter experts. Section 504 compliance requires a detailed understanding of different laws and regulations that affect accessibility. One person within the organization should be intimately familiar with all aspects of Section 504 as part of their day-to-day job duties and should stay abreast of new developments and trends. It may also make sense for this person to understand the Aquarium’s parallel obligations under the Americans with Disabilities Act and Washington state antidiscrimination laws for people with disabilities. Understanding the similarities and differences between these laws will help ensure that the Aquarium is a model in accessibility practices under all sets of requirements. Keeping up with complex and changing requirements is best done through a single subject matter expert.
In addition, having a DRE for the Aquarium enables the organization to more easily have a single global view of program access at the Aquarium instead of a stove-piped approach with differing viewpoints among different sectors of the organization. Section 504 compliance at the Aquarium requires balancing such factors as customer service, exhibit design, and architectural changes on a daily basis. One person within the organization needs to have the global view of how these different parts interoperate to ensure that program access is always maintained. However, since one individual cannot always possess expertise in all technical areas of 504 compliance, it may be necessary to consult staff who possess that expertise. This may require having “sub-coordinators” to address each of the specific areas; while these sub-coordinators may not report to the Section 504 Coordinator (and may even have a higher position within the Aquarium), their work should be coordinated with the Section 504 Coordinator to the extent that accessibility for people with disabilities may be affected. These “sub-coordinators” should be formed into an “Accessibility Team”, with the DRE as the primary liaison/point person for this team. The benefit of the Accessibility Team is to provide the DRE with expert consultation and input when the DRE communicates on behalf of the Aquarium with respect to accessibility issues and in turn, the DRE will have readily identifiable resources to rely upon when performing DRE duties and tasks.

The Section 504 Coordinator will also improve the Aquarium’s effectiveness in meeting its accessibility obligations. This DRE should be ultimately responsible for:

1. Enabling the Aquarium to be proactive in meeting the future needs of people with disabilities;
2. Establish compliance by giving the Section 504 coordinator direct access to the Aquarium’s Chief Executive Officer and the authority for coordination of Section 504;
3. Helping the Aquarium develop and articulate a clear vision and mission for accessibility with regard to its visitors with disabilities—as well as the steps to getting there;
4. Being the Aquarium’s “go to person” for coordinating issues for people with disabilities (e.g. provide effective communication for hearing impaired/deaf patrons or making reasonable modifications of policies for users with severe mobility impairments) thereby providing quicker and consistent responses to these requests, questions and concerns, which can help reduce confusion and improve the Aquarium’s day-to-day operations with respect to visitors with disabilities;
5. Helping ensure that employees and visitors have a clear understanding of their rights and responsibilities under Section 504.

Another element of Section 504 compliance is that proper notice must be given to patrons, visitors and all other participants and beneficiaries of the Aquarium’s Section 504 obligation of non-discrimination in its programs, services and activities, as well as the name, office address and telephone number of the DRE. The apparent lack of this notification by the Aquarium is insufficient for 504 compliance purposes and as a practical matter, may hinder it participants and beneficiaries from seeking full redress of any concerns regarding Section 504 compliance from the Aquarium.

This report describes several other shortcomings that require the immediate attention of the DRE. For instance, the DRE will need to:

- Develop a grievance process that is well understood by all program participants. This process needs to redress individual concerns quickly and fairly. It also needs to encourage feedback that can be used in programmatic planning.
• Develop and improve plans for ensuring overall program access, including overcoming challenges created by the Aquarium’s unique architecture.

• Ensure effective communication in displays and the highly interpretive presentations given throughout the Aquarium.

• Ensure that facilities are designed and built (or renovated) to accessible design standards.

• Conduct periodic self-evaluations and reviews of program access and compliance with Section 504.  

**Promising Practices**

While the Aquarium does not have a DRE, the Aquarium appears to have a good communication system within its operations to address the immediate needs of its visitors. Staff members carry two-way radios so that visitor questions and needs are addressed almost immediately through directly responsible supervisors. This “team approach” can be utilized in combination with a DRE for the organization. Indeed, many other organizations have succeeded best with a single DRE working in concert with a team of others who implement accessibility policies in a manner specific to the different aspects of the organization.

**Grievance Procedures**

The NASA Section 504 regulations provide that NASA grant recipients develop adequate grievance procedures. These regulations and accompanying materials do not provide exacting details about the requirements for a grievance procedure; the Department’s Title IX enforcement manual merely states, “Title IX regulations do not specify a structure or format for the grievance procedures. Instead, each recipient must develop grievance procedures that most effectively provide for prompt and equitable resolution of complaints.” The Department of Education’s Title IX technical assistance material provides more useful benchmarks for an adequate grievance procedure. While recognizing that institutions may be required to adopt unique grievance procedures, the Department of Education material does outline information the basic information sought in a complaint process:

• the name, address, and signature of the complainant;

• a sufficient description of the alleged discrimination to let the organization know what occurred;

• the identity of the injured party;

• the name and address of the institution alleged to have discriminated;

• the approximate date(s) on which the alleged discrimination took place; and

• sufficient background information to permit the organization to commence an investigation.
Discussion

As part of a 2008 City of Seattle 504/ADA Self Evaluation and Assurance of Compliance, the Aquarium noted that they have a grievance procedure that all employees know about and are trained in. By contrast, our review revealed that this process is not well known within the Aquarium and insufficient to meet Section 504’s requirements. We found that the Aquarium has two grievance/complaint mechanisms: 1) the Grievance Procedure for Volunteers; and 2) the Comment Card system for visitors.

The Aquarium has a general Grievance Procedure for Volunteers outlined in its Volunteer Manual. This procedure addresses all forms of discrimination, including discrimination on the basis of disability.

Grievance Procedure for Volunteers: In all organizations disagreements and misunderstandings may occur between volunteers or between volunteer and paid staff in relation to shared duties, responsibilities and performance. Actual or perceived discrimination may aggravate misunderstandings and eventually lead to formal complaints. The following guidelines constitute a procedure for volunteers:

1) All volunteers shall abide by the standards, policies and procedures of their respective departments. These expectations shall be made clear to the volunteer at the beginning of his/her assignment.

2) All volunteers shall have access to a responsible and receptive supervisor or manager who can answer questions or address complaints regarding his/her duties, working conditions, relationships and performance. Open communication is essential.

3) Prompt and orderly consideration shall be provided for volunteer questions or complaints regarding working conditions, performance evaluations or discrimination based on race, religion, gender, age, sexual orientation, national origin or disability. Both volunteers and paid staff shall be alert to signs of disagreement or discontent and encourage the volunteer to bring the matter to the attention of the Volunteer Programs Coordinator verbally or in writing. All concerns will be kept in strict confidence.

4) Volunteers who are dissatisfied with their assignment or supervisor shall bring the matter to the attention of the Volunteer Programs Coordinator. If the problem is with the Coordinator, volunteers shall contact the Guest Experience Manager. The Coordinator will consult with the volunteer’s supervisor to determine whether the problem can be resolved, a different assignment can be considered or if the volunteer’s services should be terminated.

5) When a supervisor is dissatisfied with a volunteer’s performance, is unable to arrive at an understanding with that volunteer and is therefore considering dismissal, he/she shall notify the Volunteer Programs Coordinator. The termination procedure would then be followed.

6) A volunteer having a grievance or complaint concerning working conditions, discrimination or a termination has the right of appeal. Grievances or
complaints are kept in the strictest confidence. The written request for appeal must be presented to the Volunteer Programs Coordinator within 15 days of the occurrence that is the basis of the controversy. The Volunteer Programs Coordinator will meet with appropriate management to review the grievance and make final decisions. 

Volunteers are advised in the Volunteer Manual about how to address visitor comments and complaints.

*Guest Comments/Suggestions:* If a guest is totally disenchanted with the Aquarium, be sympathetic, not defensive. Ask the guest specifically what he/she did not like so you can share suggestions with other staff. Acknowledge legitimate complaints and suggestions. Explain situations when you are able. If a guest is angry and wants to register a formal complaint, Comment/Suggestion forms are available at the Guest Services desk.

In general, the process encourages volunteers to address concerns immediately and, only in the most contentious circumstances, to encourage a guest to fill out a comment card.

In practice, the Aquarium's grievance process relies almost entirely on comment cards. Comment cards are scanned, logged, and sent to the Executive Committee. Comment cards are available near the front desk and in the restaurant area. Each of the cards have prepaid postage, so that visitors can drop them into any mailbox. In general, the comment cards seek only very basic information instead of a detailed account of the problem.

Aquarium staff have stated that the comment card process is currently under review, particularly in how are cards handled and associated workflow. The Aquarium only had 20-30 comment cards in a typical quarter—both positive and negative. The Aquarium reported that it has had no complaints involving disabilities. In fact, the U.S. Equal Employment Opportunity Commission recently asked them about their practices in order to help resolve a complaint at a different facility.

**Compliance Analysis and Recommendations**

Our investigation found the Aquarium does not have a grievance procedure that comports with the regulatory requirements of Section 504. The current system of grievance and redress (comment card system) is lacking in the following required elements:

- **Content.** The comment cards are the size of a post card, which does not provide sufficient room for describing incidents in detail. This does not give aggrieved persons sufficient space or instructions for providing crucial details and does not provide the Aquarium with sufficient information for either redressing individual complaints or planning broader solutions that facilitate program access.

- **Notice.** While cards are available at the front desk and restaurant areas, visitors are not provided sufficient notice that the Aquarium uses this mechanism to address feedback, address visitor
needs, and improve program access. The comment cards are also not prominently displayed, which may cause visitors to easily overlook them.

- **Opportunity.** The current system does not provide visitors with sufficient opportunity to provide feedback. The lack of opportunity is evident in its insufficient content and notice (as noted above) as well as other details. For instance, while providing pre-paid postage is an excellent start, comment card drop boxes can be located throughout the facility to encourage more immediate feedback and collection of key details.

- **Oversight.** Under the current process, complaints are addressed as soon as they arise. While this responsiveness does help improve customer satisfaction, it can also tend to bury potential issues because these problems are never reported and thus never incorporated into the Aquarium's overall planning. Questions such as, “was your concern addressed by Aquarium and by whom” would tend to give the Aquarium the information it needs to prevent the problem in the future while also rewarding the attentiveness of the volunteer or staff member who corrected the problem. Also, this gives volunteers and staff members reason to encourage visitor feedback on problems—even if they are corrected.

We understand that the Aquarium is looking at ways to improve the comment card process. In addition, the Aquarium may consider including a visitor comment card with every visitor pamphlet as a quick means of getting visitor feedback where individual redress is not required (e.g. general visitor suggestions, positive feedback, etc.).

More importantly, however, the Aquarium should take immediate steps to develop grievance process(es) for both for employees and for members of the public and should take additional steps to ensure that members of the public and employees can access and understand the Aquarium’s grievance process. In addition to being a regulatory requirement for recipients, adequate grievance procedures will help the Aquarium ensure that specific incidents are properly investigated and redressed. More stringent data collection (both positive and negative) will also help the Aquarium how to allocate its resources and bolster potential weak spots in program access (see below). Visitors need to be informed that they have rights—and that the Aquarium understands its Section 504 obligations to provide these protections through a due process mechanism such as a grievance procedure. Specifically, the Aquarium’s grievance processes should be carefully developed and publicized on its website and other appropriate brochures and pamphlets. For instance, the grievance process (and accompanying forms and needed information) should be outlined in the visitor pamphlet given to every visitor along with the Aquarium nondiscrimination policy.

**Program Access**

As noted above, Section 504 requires that recipients ensure “program access” to program participants regardless of disability. The remainder of this report addresses these program access requirements.

Section 504 prohibits discrimination against qualified persons with disabilities. In general, this means that people who would otherwise be qualified to participate in a program cannot be discriminated against based on their disability. This obligation prohibits discrimination in the forms of segregation, denial of participation, discriminatory eligibility criteria, and other possible forms of discrimination. It also requires active steps to ensure equal participation by people with disabilities, such as making reasonable modifications of policies, removing architectural accessibility barriers that limit access to programs and activities (discussed later), providing accommodations and train employees on how to ensure that
programs, services, and activities are accessible to individuals with disabilities. In this section, we will examine how and to what extent the Aquarium accomplishes program access.

Discussion

As a major public attraction in the City of Seattle, the Aquarium includes over 800,000 people annually among its program participants. In addition, as a leading and accredited member of the Association of Zoos and Aquariums (AZA), the Aquarium playing a key role in shaping policies among other aquariums nationwide.50

In general, most requests for accommodations are made at the Aquarium’s “Life on the Edge” exhibit.51 This portion of the Aquarium, which is one of its most popular exhibits, allows visitors to see and touch sea animals, such as anemone and other sea creatures. The Aquarium’s staff and volunteers are thoroughly trained in taking animals out of tanks in the “Life on the Edge” exhibit for wheelchair users and visitors with other disabilities.52

One of the Aquarium’s most important programs is educating school groups about sea life and the importance of marine conservation. The Aquarium’s Program Guide (made available to Washington state teachers) describes the registration process for field trips and classroom experiences that the Aquarium provides both within its facility and in the outdoor environment. The registration section notes, “all exhibits and classrooms are wheelchair accessible. ASL Sign language interpretation is available upon request with two weeks notice.” Aquarium staff advised us that, since school groups arrange their visits well in advance of arrival, these accommodations are routinely provided without difficulty. We found that accommodation requests are either made online or through telephone. Staff answering these requests always ask if the group needs ASL interpreters or any other specific accommodations.53 The Aquarium generally requests 7-14 days advance notice for school groups in providing accommodations for students with disabilities.54 The Aquarium frequently receives school groups that include students who use wheelchairs and students with developmental disabilities.55 To meet the needs of these school groups, the Aquarium draws from the skills of its volunteers.56

In addition, the Aquarium’s programs offers additional facets where accessibility is considered. The Aquarium offers overnight camps, usually with students sleeping in the underwater dome or near the otter tanks.57 This summer, the Aquarium will offer a two-night overnight camp and visitors will use the shower near the dive tank,58 which our architectural review identified as also being accessible.59 The Aquarium also ensures that private events address accessibility. The Aquarium leases out portions of its facilities for private events. At private events generally, approximately 10% of reservations request some kind of accommodation for disabilities. The most common requests are for dropoff/pickup immediately in front of the Aquarium or to ensure that events take place in fully accessible locations.60 The Aquarium also holds private events for board members and donors. The Aquarium has had few difficulties “smoothing things out” for patrons with disabilities, such as working with nearby hotels, arranging car pickup and discharging along the busy Alaskan Way entrance.61

Figure 4: Underwater Dome-- A Popular Site for Overnight Camps
With respect to training, we found that no formal training on disabilities is given to its 92 full-time employees. However, training is provided to its volunteers through “Disability Awareness Training” workshops that are part of overall volunteer training program that occurs periodically. The Aquarium used to have a variety of training opportunities available through the City, including disability training. Reviewing the type and availability of different training resources is also currently under review. Many others who act on behalf of the Aquarium, however, receive disability training outside of the Aquarium.

While not specifically required in the Section 504 regulations, recipient staff training is a critical component of ensuring that disability policies are understood and followed in an organization. The urgency for designating a responsible employee is highlighted by its need to coordinate the development of such a program. This task is simplified by the fact that disability-specific training is generally supported for all staff and volunteers. The effectiveness of this training would be augmented if it is specific to the needs of the Aquarium. Other organizations have found that panel presentations by members of different disability organizations can offer valuable insights into fully meeting the needs of people with disabilities—and this format might be embraced at the Aquarium. Good accessibility training should include the following elements:

- awareness training regarding interacting with people with disabilities,
- the different legal mandates (including Section 504 and the Americans with Disabilities Act) that cover the Aquarium,
- situation-based training for meeting the needs of different types of disabilities (e.g. blindness, deafness, mobility impairments, etc.), and
- a clear delineation of points of contact within the Aquarium and required processes for seeking additional accommodations (e.g. requesting a sign language interpreter for a deaf visitor or a guide for a user with a developmental disability).

This information should also be made available through the Aquarium’s website and all employee materials.

**Compliance Analysis and Recommendations**

Three elements of program access need to be addressed by the Aquarium. First, the Aquarium needs an emergency and evacuation plan for people with disabilities. The Aquarium has a well-developed emergency and evacuation plan that all employees and volunteers for many years, but it does not include people with disabilities. This is particularly problematic because school classroom areas, for instance, are in areas accessible by elevator, which is unavailable during emergencies. The Aquarium does not have plans for evacuating wheelchair users in the event that elevators are unavailable. In addition, it was not known during our interviews if the Aquarium’s security firm trains their employees on such procedures. In addition, visual alarms are not present in the older sections of the Aquarium—including some areas used for program activities. The Aquarium should address these issues quickly given the hazard that they pose to program participants with disabilities.

A second area for improvement is addressing the lack of information specific to the needs of users with disabilities. Section 504 regulations provide that the recipient shall adopt and implement procedures to ensure that interested persons, including persons with impaired vision or hearing, can obtain information as to the existence and location of services, activities, and facilities that are accessible to and usable by
persons with disabilities. Besides the lack of a required notice on non-discrimination, there are no brochures specific to disabilities and little information in visitor information media is provided about facility accessibility, how to receive accommodations, or even the Aquarium’s nondiscrimination policies. The Aquarium’s website, which is designed to focuses on basic information about the Aquarium, does not currently have information specific to the needs of visitors with disabilities (i.e., types of accommodations available)—a practice followed by a number of museums across the United States. The Aquarium is currently working on an “extended map” that would provide a physical layout of the Aquarium with a very detailed description of each of the exhibits and presentations. This would enable visitors with disabilities and others to gain information about a display or exhibit independently without communication barriers. In addition, a map that outlines the ideal accessible routes for visitors with disabilities (including wheelchair users) and that avoids the steep curving ramp near the marine mammal exhibit should be developed.

The third area that needs to be addressed is training for the provision of accessible programs and services to individuals with disabilities. Currently the only training that is provided by the Aquarium is for its volunteers and for those full-time employees who are still employed by the City and are eligible to participate in the City’s employee training program. The Aquarium should provide the Disability Awareness Training not only to its volunteers but also to its entire full-time staff. One example of the need for this training is when from desk staff informed us that they do not serve individual in wheelchairs at accessible counter space or approach individuals in wheelchairs who are viewing the Waters on Washington exhibit presentations if it appears that their view may be blocked by others.

Promising Practices

The Aquarium also has special accommodations that go beyond the basic requirements of program access for ensuring inclusion of the disabled community. For instance, the Aquarium maintains four loaner wheelchairs (and two backup loaner wheelchairs) for use on premises. These are available free of charge from the front desk. This service greatly eases the burden of extended standing for the Aquarium’s visitors with mobility impairments or elderly visitors.

In addition, while all people with disabilities are not offered free admission, their attendants are. The Aquarium does provide free admission to a large number of people with disabilities in the Seattle area. In 2010, they offered free admission to 1,100 “flash card” holders (a City program for people with disabilities) and 3,200 “gold card” holders (a City program for senior citizens—many of whom have disabilities).

The Aquarium’s most important promising practice, however, is its volunteer program. The Aquarium appears to effectively develop and utilize the skills, abilities, and enthusiasm of its hundreds of volunteers to meet the needs of many of its visitors, including those with disabilities, particularly in the “Life on the Edge” exhibit. In addition to the 92 employees at the Aquarium, the Aquarium relies on its 500-800

![Figure 5: Visitors Enjoying One Portion of Life on the Edge Exhibit](image)
volunteers, who donate over 60,000 hours annually to the Aquarium. This training has included a Safety and Disability Awareness Program since 2001. The Aquarium has worked with Little Bit Therapeutic in Woodinville, Washington in developing this course for its volunteer training program. In addition, the Aquarium and Little Bit have worked together to create an overnight adventure camp specific to people with disabilities. The volunteer selection process is tightly integrated with the training program. Several times a year, the Aquarium holds a three-hour Orientation Session to acquaint prospective volunteers about the Volunteer program. If the prospective volunteer is still interested, they can submit an application and then go through an interview process. Candidates are selected based on the results of the interview process, as well as their schedule of availability. If they are selected, then they enter training. In addition to being trained on accessibility, volunteers are held accountable. Volunteers at the Aquarium are subject to routine personal review and evaluation and, in the event of inappropriate behavior; the Aquarium uses a three-step disciplinary procedure ultimately culminating in termination of the volunteer.

**Effective Communication**

The NASA regulations provide that,

> Recipients shall take appropriate steps to ensure that no handicapped individual is denied the benefits of, excluded from participation in, or otherwise subjected to discrimination in any program or activity receiving Federal financial assistance because of the absence of auxiliary aids for individuals with impaired sensory, manual, or speaking skills.

This “effective communication” requirement means that recipients must take steps to ensure that people with disabilities are not excluded based on disabilities that affect communication. This requirement may include providing sign language interpreters, transcripts, or Braille or audio information.

The term “auxiliary aids” is not specifically defined in the NASA Section 504 definitions. The Department of Justice Section 504 regulation, which agency regulations must conform with, defines “auxiliary aid” as:

> Auxiliary aids means services or devices that enable persons with impaired sensory, manual, or speaking skills to have an equal opportunity to participate in, and enjoy the benefits of, programs or activities conducted by the agency. For example, auxiliary aids useful for persons with impaired vision include readers, Brailled materials, audio recordings, telecommunications devices and other similar services and devices. Auxiliary aids useful for persons with impaired hearing include telephone handset amplifiers, telephones compatible with hearing aids, telecommunication devices for deaf persons (TDD’s), interpreters, note takers, written materials, and other similar services and devices.

Because meeting the “effective communication” requirement is essential for program participants in deriving equal opportunities and benefits from the Aquarium’s programs, it is essential for meeting the Aquarium’s overall program access requirements under Section 504.
Discussion

The Aquarium offers a highly interactive experience where staff or volunteers offer interpretation services that educate visitors about marine life and marine conservation. While some exhibits are intended for individual exploration, the most interesting and exciting portions of the Aquarium are described by staff and volunteers through local public address systems or one-to-one communication.

We found that the Aquarium provides individuals with hearing impairments with sign language interpreters upon request with two weeks’ notice. The Aquarium’s staff informed us that it has been able to meet the needs of deaf visitors by using its own volunteers and staff members who know American Sign Language (ASL). In general, this may be appropriate with as a last resort for very short-duration situations when certified ASL interpreters are not available and the arrangement is acceptable to the individual with a hearing impairment. While we recognize that the Aquarium has taken affirmative and proactive measure in leveraging the skills of its staff and volunteers, proper ASL interpretation is a demanding and highly specialized skill that extends beyond casual users of sign language or sign language users who have interpreted for a limited range of users. Nevertheless, the Aquarium must provide appropriate auxiliary aids to individuals with hearing impairments. In providing these aids, the Aquarium can make a determination with its two-week timeframe, but it must give primary consideration to the individual’s disability and how the accommodation can best serve the individual’s total experience at the Aquarium. The Aquarium can select from either from its internal resources or the Seattle community of professional interpreters, but they must provide necessary and effective sign language interpretation.

Alternatively, the Aquarium could consider leveraging newer video remote interpreting (VRI) services, which offer the possibility of on-demand certified interpreting services through the Aquarium’s broadband internet service. This is important given Seattle’s large and active deaf community.

Not all people with limited hearing, of course, benefit from sign language interpretation and may require assistive listening devices (ALDs) for effective communication. The applicable Section 504 regulations provide such flexibility. The Aquarium has not investigated the availability or feasibility of ALDs at the various stations where oral presentations are given. This is not something that the Aquarium has ruled out.

Portions of the Aquarium where interpretation is not provided creates additional challenges for the Aquarium. Captioning is used sporadically (but not universally) on multimedia displays. To meet the communication needs of visitors, staff and volunteers usually utilized handwriting. For more complex communication needs, there is usually someone (either on the staff or among the volunteers) who knows sign language.

For visitors with vision impairments or who are blind, volunteers and staff describe the exhibits. None of the displays, however, have Braille signage. The Aquarium uses an innovative “guide by cell” program, which they instituted about two years ago. At each location where staff provides audio description, there is a small sign with a telephone number and special code. By calling that number and entering the code, a caller can obtain an audio description of the display. Unfortunately, the lack of Braille signage or other guides specific to visitors with disabilities makes these resources difficult to use for blind or visually impaired visitors. For blind visitors, the Aquarium has an “audio for the blind” cassette tape tour, but this program is currently unavailable as it is under revision. In addition, visitors can arrange to have a volunteer chaperone them through the Aquarium and provide audio description of visual content, displays, and information. This service is highly useful to many visitors but also compromises the independence of visitors with disabilities in accessing the Aquarium’s programs and services.
Compliance Analysis and Recommendations

There is no evidence of complaints by users who are deaf or who have hearing impairments, nor is there evidence that the Aquarium denies or fails to provide auxiliary aids for visually and hearing impaired individuals. However, the Aquarium should nonetheless consider developing and publicizing clear processes for visitors and employees to request auxiliary aids and services (including qualified sign language interpreters) to serve a range of disabilities. This review should identify a set of auxiliary aids and services appropriate to the Aquarium’s setting.

- **Information for Employees and Volunteers.** Aquarium employees and volunteers should clearly understand the availability of and the process for requesting and obtaining auxiliary aids and services (including qualified sign language interpreters) when needed. This information would help them better meet the needs of deaf and hard of hearing visitors and should be made available to all employees and visitors.

- **Information for Visitors.** Aquarium visitors also need to have a clear understanding of the availability of auxiliary aids, the process for requesting and obtaining auxiliary aids and services (including qualified sign language interpreters)—and the time period in which a request must be made. This information should be included in general information for the public as well as every application or announcement of events where audio content will be an essential component. NASA’s Section 504 regulations require that recipients provide notice to program beneficiaries (i.e., visitors) of the availability of accessible programs and services.

The Aquarium needs to take steps to make printed material available to meet the needs of users with disabilities. For instance, many similar organizations provide “loaner copies” of handouts that can be checked out from the information desk. These copies can be made available in a variety of different formats (audio cassette, large print, and Braille) and only a few of each format are needed in all but the most demanding circumstances. Creating an audio format is the simplest of all, as it only requires that a staff member read the contents of a brochure into a tape recorder. Other formats could be outsourced to organizations that specialize in creating alternate media.

The Aquarium should also focus on the accessibility of its website. Internet accessibility is an increasingly important topic and the Aquarium is likely aware of developments like the NFB v. Target settlement ($6 million settlement to class action brought by blind advocacy organization) and the nationwide settlement in early September 2009 by the New York State Attorney General’s Office with HSBC Card Services, Inc. over its inaccessible website.

Architectural Accessibility

The NASA Section 504 regulations distinguish between existing facilities and newly constructed or altered facilities. Newly constructed facilities and alterations must be “readily accessible to and usable by” people with disabilities. In general, this means that such facilities and alterations must meet the stringent Uniform Federal Accessibility Standards (UFAS). By contrast, for existing facilities, NASA recipients must ensure that their programs or activities are accessible “when viewed in their entirety.” This requirement does not mean that every physical feature of a facility must meet the UFAS standards, but the UFAS standards generally provides a useful benchmark for those portions of a facility that are used for programs, services, or activities. Instead, the recipient may choose to redesign equipment, reassign services to accessible locations, or choose other methods that ensure accessibility for people
with disabilities. \(^{106}\) “In choosing among available methods for meeting the requirement of paragraph (a) of this section, a recipient shall give priority to those methods that offer programs and activities to handicapped persons in the most integrated setting appropriate.”\(^{107}\) The UFAS standards generally provide a useful benchmark for those portions of a facility that are used for programs, services, or activities.

Although not covered by this report, the Aquarium is a private entity and has additional accessibility obligations under the Americans with Disabilities Act (ADA)—including the requirement to make "path of travel" changes under Title III of the ADA.\(^{108}\)

Compliance Analysis

As noted above, Section 504 requires the Aquarium to make architectural changes for two separate reasons. First, the Aquarium must ensure that all new construction or alterations fully comply with UFAS.\(^{109}\) Second, the Aquarium must ensure that its programs or activities are offered in accessible locations, which may entail making architectural changes to existing spaces.\(^{110}\)

The Aquarium has undergone relatively few significant architectural changes since its opening.\(^{111}\) The first major renovation was the addition of the “Life on the Edge” touch tank exhibit in the late 1990s.\(^{112}\) In 2000, the City of Seattle developed plans for the eventual redesign of the Aquarium on Pier 59 and began the process towards private management of the Aquarium. The City also approved funding (to be matched by private fundraising) for the Aquarium, but renovations were delayed until 2005. Construction began in May 2005 with the replacement of over 700 wooden pier pilings and 125 steel and concrete pilings.\(^{113}\) Construction was completed in 2007. The 2007 renovation to the main entrance extended from the front door on Pier 59 to the gift store and involved completely renovating this footprint on both the first and second floors of the facility.\(^{114}\) The bathrooms immediately adjacent to the NASA funded exhibit were added after the 2007 renovations.\(^{115}\) These renovations also included the installation of the highlight Washington Water exhibit, which includes regular interpreted presentations describing the important aquatic ecosystem of the Washington Puget Sound area.

The following analysis was undertaken by Bill Hecker, one of the nation’s foremost experts on accessibility, both from an architectural and programmatic perspective. It is divided into New Construction/Alterations and Program Access Barriers "punch list" subsections and considers each area of the facility with respect to the UFAS accessibility requirements.

New Construction and Alterations "Punch List"

There has been no "new construction" at the Aquarium since the August 7, 1984 publication date of the UFAS standards (original facility constructed May 20, 1977), but the 2007 renovations included a new two story addition which now houses the public entrance lobby, the Great Hall and public at ground level and
the Cafe and new public restrooms on the second floor. This new additional also offered the perfect opportunity for the Aquarium to install a new elevator to provide access to the upper level Cafe area, administrative offices and classrooms used by visiting school groups. The new public entrance along Alaskan Way was particularly challenging for the architects of this addition, but if approached from the southern side of the porch area, this entrance meets the accessibility requirements of UFAS. This new entrance includes an automatic door opening system to aid disabled visitors get into the Aquarium. Once inside, there were a few "punch list" items that must to be corrected to comply with UFAS "alterations" accessibility requirements of Section 504 for alteration projects and they include the following:

1. **New Ticket Lobby** - All stanchion mounted tape barriers, with only one retractable tape used as aids for queuing visitors, create a protruding object for blind and visually impaired guests prohibited by UFAS 4.4.1. The use of tape barrier systems with two parallel retractable tapes including one at or below 27" (as provided by the Aquarium in the second floor classrooms) will correct this problem.

2. **New Gift Shop Issues**
   
   a. The hanging clothes support brackets on display units project further than 4" into the circulation route above the maximum 27" cane detectable height per UFAS 4.4.1. An additional bracket or element that is mounted below this inaccessible element and positioned no higher than 27" will correct this issue.

   b. The higher of the two stainless steel display tables is not cane detectable because the underside of the table apron on the front and back is positioned above (at 30 3/4") the maximum 27" cane detectable height per UFAS 4.4.1. An additional horizontal rail that is mounted below this inaccessible element and positioned no higher than 27" will correct this issue.

   c. The clothes rack placed just inside of the pair of exterior doors leading to the central pier is positioned closer (at only 36") to these doors than allowed by UFAS 4.3.3, which requires at least 48" of depth when the accessible route makes a turn around an obstruction (e.g.: clothes rack) that is less than 48" wide. Rearrange the clothes racks to allow for the minimum 48" space between the last rack and the exterior doors.

   d. The display unit housing the umbrellas includes a clear plastic tray set into the slat board system such that it projects further (at 6") than 4" into the circulation route above 27" high. An additional bracket or element that is mounted below this inaccessible element and positioned no higher than 27" will correct this issue.

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Figure 7: Aquarium's Large Gift Shop Area
3. **New Upper Level Cafe** –

a. The two ends of the drink rail along the balcony edge project further (at 9 1/4") than 4" into the circulation route at 33 1/2" high in violation of UFAS 4.4.1. Provide a cane detectable element at the ends of the railing.

b. The corner of the stainless steel tray slide by the soup/salad station projects 12" into the circulation route at 33 1/2" in violation of UFAS 4.4.1. Provide a cane detectable element below the tray slide at the corner.

c. The spoons and sweeteners located in the upper trays to the right of the soda machine are higher (at 54") than the maximum 46" height allowed by UFAS 5.3 for self-serve condiments and utensils set on top of a counter further than 10" (at 16 1/2"). Move them forward to be within 10" of the front edge of the counter.

d. The ends of the four tray slides serving the two mobile checkout stands project further (at 12") than 4" into the circulation route at 32 1/2" in violation of UFAS 4.4.1. Provide a cane detectable element or apron below each of the 4 tray slides.

e. None of the 18 two-person tables on the exterior dining balcony include table bases that allow wheelchair users to pull 19" underneath as required per UFAS 5.1. A minimum of 5% or (1) two-person table that allows a 30" wide by 27" high by 19" deep knee space must be purchased and placed in this dining area.

f. None of the 44 two-person tables within the interior dining area include table bases that allow wheelchair users to pull 19" underneath as required per UFAS 5.1. A minimum of 5% or (3) two-person tables that allows a 30" wide by 27" high by 19" deep knee space must be purchased and placed in this dining area.

g. The route to the exterior dining balcony is blocked by the location of the recycling receptacles and high-chairs stored too near (at 28 1/2" and 22 1/2" respectively) the
checkout stand in violation of UFAS 4.3.3. Relocate both the high-chairs and the recycle receptacles to ensure a minimum 32" clear passage width at the checkout stand. Note that the other door leading out to the exterior dining balcony is not accessible due to a 3/8" high unbeveled wooden strip placed on the deck at the exterior side of the door that creates an abrupt level change greater than 1/4" in violation of UFAS 4.5.2 and while only one of these doors needs to be accessible (and the other one needs a sign directing disabled guests to the accessible door) per UFAS 4.3.2(3). Note that the strip of wood may be necessary for proper weather resistance at the inaccessible door.

h. The ketchup and mustard dispenser controls, as well as the spoons located in the upper trays to the right of these dispensers in each of the two condiment stations in the Cafe are higher (at 53", 53" & 50 1/2" respectively) than the maximum 46" height allowed by UFAS 5.3 for self-serve condiments and utensils set on top of a counter further than 10" (at 15") from the front edge. Move them forward to be within 10" of the front edge of the counter.

4. New Public Restrooms at the Great Hall –

a. The higher drinking fountain of the two in the lobby area outside the Men's and Women's restrooms here projects further (at 17") than 4" into the circulation route at 39 3/4" in violation of UFAS 4.4.1. Provide a cane detectable element to the left side of this higher drinking fountain to alert blind and visually impaired visitors to the potential protruding object beyond.

b. In both the Men's and Women's restrooms there are wall mounted paper towel dispensers which project further (at 9") than 4" into the circulation route at 47" in violation of UFAS 4.4.1. Provide a cane detectable element on each side of these dispensers to alert blind and visually impaired visitors to the potential protruding object beyond.

c. In the Women's restroom, there is a storage cabinet under one lavatory and a "kid step" under the other lavatory which eliminates the ability of wheelchair users to make a forward approach with the required 19" deep knee space under either lavatory in violation of UFAS 4.19.3. Relocate the storage cabinet to another location that does not block accessibility.

d. In both the Men's and Women's restrooms there is a toilet seat cover dispenser in the accessible stall and the opening of the dispenser is higher (at 49") than the maximum 46" allowed for a forward approach wheelchair reach range per UFAS 4.22.7. Relocate and reinstall the dispenser within the accessible stall at an alternate accessible location per UFAS.
5. **New Unisex Restrooms at Marine Mammal Exhibit** –

   a. In each of the two unisex restrooms, there is a wall mounted paper towel dispenser which projects further (at 9") than 4" into the circulation route at 48" in violation of UFAS 4.4.1 and encroaches into the lavatory clear floor space. Relocate each of these paper towel dispensers per UFAS on the wall between the door and the baby changing table.

   b. In the northern restroom (behind NASA exhibit), the toilet is centered further (at 20") than 18" from the adjacent sidewall in violation of UFAS 4.16.2. Relocate the toilet so it is centered 18" from the adjacent sidewall per UFAS - note that a common corrective measure in which the side grab bar is repositioned on a spacer board equal to the 2" distance necessary to obtain the required 18" relationship with the center of the toilet will not work in this restroom because of the position of the lavatory just in front of the toilet. The protruding grab bar would encroach into the required 30" wide clear floor space at the lavatory, which is unacceptable in this particular location.

   c. In each restroom, the "pull-down" style plastic baby changing table is mounted too high, with the handle for opening above (at 64") the 46" maximum forward reach range over an obstruction per UFAS 4.22.7 and the work surface (when opened) upon which one would actually place the baby for changing is higher (at 46") than the maximum 34" work surface height per 4.32.4. Reconstruct the counters and relocate the baby changing stations per UFAS.

6. **New Public Restrooms at the Upper Level Cafe** –

   a. In the Women’s restroom, there is a storage cabinet under one lavatory and a "kid step" under the other lavatory which eliminates the ability of wheelchair users to make a forward approach with the required 19" deep knee space under either lavatory in violation of UFAS 4.19.3. Relocate the storage cabinet to another location that does not block accessibility.

   b. In the Women’s restroom, the lavatory counter is higher (at 35") than the maximum allowable lavatory counter height of 34" per UFAS 4.19.2. Relocate the counter so the top is between 28"-34" per UFAS.

   c. In both the Men’s and Women’s restrooms there are wall mounted paper towel dispensers which project further (at 9") than 4" into the circulation route at 45" in violation of UFAS 4.4.1. Provide a cane detectable element on each side of these dispensers to alert blind and visually impaired visitors to the potential protruding object beyond.

   d. In both the Men’s and Women’s restrooms there is a toilet seat cover dispenser in the accessible stall and the opening of the dispenser is higher (at 48") than the maximum 46" allowed for a forward approach wheelchair reach range per UFAS 4.22.7. Relocate and reinstall the dispenser within the accessible stall at an alternate accessible location per UFAS.

7. **New Ramp from the Central Pier up to River Otter Exhibit** - This new ramp constructed as part of the pier reconstruction project in 2007 is inaccessible at the bottom portion. This bottom portion has a running slope greater (at 10.0%) than the maximum allowable 8.3% per UFAS 8.2; this portion of the ramp lacks the required edge protection of UFAS 4.8.7; and, this portion of the
ramp has an inaccessible 1/2" high abrupt level change at the lower edge of the steel expansion joint cover plate on the ramp in violation of UFAS 4.5.2. Reconstruct the bottom portion of this ramp to achieve a maximum 8.3% running slope, replace the expansion joint and install new accessible handrail on the exterior side so it includes the required edge protection.

Program Access Barrier Removal
"Punch List"

For those areas of the facility that were constructed before the effective date of the UFAS standards, the NASA regulations require that an existing facility analysis be based on the "program accessibility" provisions such that all programs, services and activities offered by the Aquarium are accessible to individuals with disabilities when those programs are viewed in their entirety. There are many architectural barriers in the older portions of this facility, but not all need to be modified for physical accessibility. After analyzing comments from Aquarium staff and management regarding the full range of programs, services and activities offered here, the following architectural barriers should be corrected per applicable accessibility standards to ensure program access, unless the Aquarium can relocate affected elements to accessible locations or otherwise ensure access to affected elements in a manner that conforms to UFAS. Any alterations to achieve program accessibility must be documented in a updated transition plan, the development and implementation of which is proscribed in the Section 504 regulations.

1. **Volunteer Entrance on South Pier** - The existing video intercom unit at the locked door on the south pier which is used by volunteers, invited guests and "after-hours" visitors to communicate with the Aquarium's receptionist, is mounted above (at 56") the maximum allowable 54" side reach range for wheelchair users per UFAS 4.27.3. Relocate the intercom to meet UFAS.

2. **Exterior Door Directional Signs** - While the new main entrance door, the exterior Gift Shop door and the exterior door leading from the Life on the Edge exhibit pools out onto the central pier are accessible per UFAS, all other public use exterior doors have significant threshold barriers, but are not required to be accessible under the minimum provisions of 504 program access. These inaccessible doors should have new signs mounted adjacent to them that direct disabled visitors to the nearest alternate accessible entrances. Note that in the Promising Practices section of this report, all of these exterior door threshold barriers are proposed to be corrected.

3. **South Circulation Pier** - To the left of the Volunteer entrance there is a collection of grey wall mounted electrical utility boxes that project further than 4" into the circulation route above 27" in violation of UFAS 4.4.1. This circulation pier area is used periodically to access the end of the pier that is leased by the Aquarium for private parties and cane detectable barriers should be installed below or to the sides of these boxes.

4. **Central Circulation Pier** - To the left of the chain-link gate near the end of this pier there is a grey wall mounted electrical utility box that projects further than 4" into the circulation route above 27" in violation of UFAS 4.4.1. This circulation pier area is also used periodically to access the end of the pier that is leased by the Aquarium for private parties. Additionally, at the door leading from the Ocean Oddities Exhibit onto this central circulation pier, there is a white wall mounted
sconce light that is mounted (at 76 1/2") below the minimum required 80" head height required along circulation routes in violation of UFAS 4.4.2. Cane detectable barriers should be installed below or to the sides of these protruding elements.

5. **Finger Pier** - While the finger pier is accessible for its full length, the route to the Harbor Seals exhibit from the Sea Otter area is inaccessible due to steep (11% or more) running slopes just inside the exterior door along the circular Salmon Ladder ramp. New directional signs informing disabled visitors of the alternate approach route to the Harbor Seals exhibit are required at the top of the inaccessible Salmon Ladder ramp, the south end of the finger pier and near the entrance to the Shore Birds exhibit.

6. **Older Main Building Exhibits** –
   
a. **A Closer Look Exhibit** - There are stanchion mounted tape barriers in this exhibit area with only one retractable tape used to keep visitors from the staff-only area and these create a protruding object for blind and visually impaired guests prohibited by UFAS 4.4.1. The use of tape barrier systems with two parallel retractable tapes with one at or below 27" (as provided by the Aquarium in the second floor classrooms) will correct this problem.

b. **Giant Octopus Exhibit** - The clear Plexiglas tube that runs horizontally between the two larger octopus tanks is not cane detectable and has a height at the underside of only 40". This creates a protruding object for blind and visually impaired guests prohibited by UFAS 4.4.1. Install cane detectable curbs or rails at the floor level to act as cane detectable barriers for blind visitors.

c. **Sixgill Shark Research Exhibit** - The counter on the top railing of this raised platform projects 10" into the main circulation route of this exhibit at 47 1/2" high and creates a protruding object for blind and visually impaired guests prohibited by UFAS 4.4.1. Relocate the counter or screen it off with a cane detectable element in compliance with UFAS.

d. **Pacific Coral Reef Exhibit** - This tunnel-like exhibit has multiple wall mounted TV monitors that project more than 4" into the circulation route above 27" high in violation of UFAS 4.4.1. Install cane detectable elements at each barrier in compliance with UFAS.

e. **Ocean Oddities Exhibit** - Substantially compliant with Section 504 existing facility provisions.

f. **Life on the Edge Pools** - Substantially compliant with Section 504 existing facility provisions.

g. **Crashing Waves Exhibit** - Substantially compliant with Section 504 existing facility provisions.
h. **Window on Washington Waters Exhibit** - Substantially compliant with Section 504 existing facility provisions.

7. **Older Marine Mammal Building Exhibits** –

a. **Shore Birds & Alcids** - While all four of the ramps that run through this exhibit area have slightly steeper than 8.3% running slopes (between 8.6% - 9.2%), they are compliant with Section 504 when considering generally accepted building industry construction tolerances noted in UFAS 3.2. Unfortunately, each of the four ramps lacks accessible handrails on each side of the ramp as required by UFAS 4.8.5. Install UFAS compliant handrails on all four ramp sections. Note that this route from the main Aquarium building is the only accessible route to the Underwater Dome, Orca exhibit and Puget Sound Fish exhibit, given the inaccessibility of the steep circular ramp at the Salmon Ladders exhibit.

b. **Puget Sound Fish Exhibit** - The upper portion of the curved ramp leading down to this exhibit from the Shore Birds exhibit is steeper (at 12.0%) than the maximum allowable 8.3% per UFAS 4.8.2 and lacks accessible handrails per UFAS 4.8.5. Reconstruct the ramp to have a running slope of 8.3% the entire length and install new handrails per UFAS. Additionally, there is a wall mounted fire extinguisher box near the exit stair door that projects 6 1/2” into the circulation route above 27” high in violation of UFAS 4.4.1. Remount the fire extinguisher so the bottom edge is at or below 27”.

c. **Underwater Dome Exhibit** - Each of the four wood capped railings flanking the four short stairways to the lower level viewing areas projects more than 4” into the circulation route above 27” high in violation of UFAS 4.4.1. There is a wall mounted metal control box and lighted wall mounted display panels along the side of the tunnel leading from this exhibit to the Orca exhibit and they each project more (at 6”) than 4” into the circulation route above 27” in violation of UFAS 4.4.1. Install cane detectable elements per UFAS.

d. **Orca Exhibit** - There is a wall mounted fire extinguisher box near the exit door that projects 6 1/2” into the circulation route above 27” high in violation of UFAS 4.4.1. Remount the fire extinguisher so the bottom edge is at or below 27”. There is a ceiling
mounted poster in this exhibit area and a ceiling-mounted TV monitor that do not offer
the minimum required head height (at 67" & 69 1/2" respectively) of 80" per UFAS
4.4.2. Screen off undersides of these elements so they are cane detectable or relocate
the barriers per UFAS.

e. **Underwater Marine Mammal Viewing Area** - Substantially compliant with Section 504
existing facility provisions.

g. **Salmon Ladder Exhibit** - This is one of only two areas of the
entire Aquarium facility that is inaccessible in such a manner
that there is no technically feasible architectural solution.
The inaccessibility here is due to the steep (11.7%) curved ramp
running slope in violation of UFAS 4.8.2. Provide alternate
programmatic accommodations (such as video, closed circuit TV,
etc.) for disabled visitors who cannot experience this exhibit
due to the steep ramp.

h. **Overlook Deck near Sea Otters** - This is the other area of the Aquarium facility that is
inaccessible such that there is no technically feasible architectural solution. The
inaccessibility here is due to the lack of ramp or elevator access to this upper level
observation platform in violation of UFAS 4.5.2. Provide alternate programmatic
accommodations (such as video, closed circuit TV, etc.) for disabled visitors who cannot
experience this portion of the facility due to the numerous stairs used on the approach
to this area, or do not hold any functions on the observation deck.120

i. **Sea Otter & Fur Seal Exhibits** - There are two ramps that lead
down to an intermediate viewing level at this exhibit and
these two ramps lack handrails per UFAS 4.8.5. Install new
handrails per UFAS.

j. **NASA "Exploring the Ocean from Space" Exhibit** - While the
actual exhibit is compliant with Section 504 alterations
provisions, just to the left of this exhibit is a wall mounted fire
extinguisher box that projects 6 1/2" into the circulation route above 27" high in violation of UFAS 4.4.1. Remount the
fire extinguisher so the bottom edge is at or below 27".

j. **River Otter Exhibit** - Substantially compliant with Section 504 existing facility provisions.
k. **Sound to Mountains Exhibit** - While the actual exhibit is substantially compliant with Section 504 existing facility provisions, just to the right of this exhibit is a wall mounted fire extinguisher box that projects 6 1/2" into the circulation route above 27" high in violation of UFAS 4.4.1. Remount the fire extinguisher so the bottom edge is at or below 27".

8. **Public Classrooms on the Upper Level** - The route to the classrooms on the upper level administrative area via the new elevator leads along a hallway near the Aquarium receptionists desk and includes 4 wood angle brackets that offer less than the minimum required 80" head height per UFAS 4.4.2. There are also similar wood brackets in the classrooms. In the larger classroom there is a wall mounted shark display and a fire extinguisher that project more than 4" into the circulation route above 27" - screen off these elements with cane detectable barriers. The inaccessible round door hardware on the main classroom entry door is in violation of 4.13.9 and must be replaced with UFAS compliant hardware.

9. **Administration Conference Room** - The conference table has knee height that is 1" less (at 26") than the minimum required by UFAS 4.32.2. Install 1" spacers on the legs of the conference table to achieve the minimum 27" knee height.

10. **Older Public Restrooms** - The Pacific Coral Reef Exhibit restrooms and Administrative Office restrooms have UFAS barriers, but are not required to be accessible under 504 program access provisions because there are nearby newly constructed accessible restrooms. Section 504 program access provisions do mandate that there be new directional signs at these older restrooms stating where the nearby accessible restrooms are located.

**Promising Practices**

There are two key "promising practices" related to architectural accessibility evident at the Aquarium. First, many of the exterior doors include automatic door openers to aid in entering the spaces. Secondly, most of the room identification signs include both raised letters and Braille characters.

**Implementation Strategies**

This report identifies a number of key recommendations for bolstering Section 504 compliance as well as deficiencies that must be corrected by the Aquarium. These recommendations and compliance requirements include:

- Designating a DRE (Designated Responsible Employee) to coordinate and oversee Section 504 compliance and accessibility issues at the Aquarium
- Improve the comment card process and encourage more feedback
- Develop a grievance procedure for program participants
- Create a nondiscrimination policy for program participants
• Create an emergency evacuation plan for people with disabilities
• Conduct periodic self-evaluations
• Explore and implement options for improving opportunities for visitors with sensory disabilities (deaf, hard of hearing, blind, and low vision)
• Ensure that the Aquarium’s website is accessible
• Incorporate information about the above in printed materials and the Aquarium website
• Correct architectural violations of new construction and alterations standards
• Incorporate architectural changes needed for program access into capital planning

The following diagram represents one possible way in which these goals can be reached by the Aquarium. Rather than require a specific implementation strategy, we trust that the Aquarium is best suited to design, create, and implement its own strategy that best utilizes its resources in the most time-efficient and cost-effective manner.

![Figure 7: Proposed Implementation Strategy](#)
Conclusion

NASA has determined that the Aquarium strives to provide accessible programs, services, exhibits and facilities for individuals with disabilities, as there were a number of promising practices that have been implemented that other recipients would do well to adopt (disabilities awareness training for volunteers). However, NASA has also determined that several Section 504 requirements are currently not being met by the Aquarium, which includes several “procedural requirements” of Section 504 (lack of a grievance procedure), certain non-architectural program access issues (lack of notice of available services to individuals with disabilities) and a number of architectural building elements. In addition, NASA has also determined that several aspects of their programs, services and activities, while meeting Section 504 requirements, can be modified to be more effective (staff training and DRE designation).

Actions

The Aquarium shall take steps to implement corrective action to remediate elements of its programs, services, activities, exhibits and facilities that do not meet the Section 504 requirements detailed above, no later than 90 days after the Letter of Findings for this review is issued. At a minimum, the Aquarium shall adopt the above implementation plan or develop and implement an alternative acceptable to NASA within this 90-day period. NASA will consider the Aquarium to be in compliance with NASA’s Section 504 Regulations at 14 CFR 1251 with the Aquarium’s commitment to implement the corrective actions. NASA will also recommend that the Aquarium take steps to enhance several programs, services, activities, exhibits and facilities that serve individuals with disabilities. Lastly, NASA will contact the Aquarium one year after the issuance of the Letter of Finding for an update on the steps it has taken to implement these actions.

Endnotes

2 The Aquarium receives Federal financial assistance from several other Federal agencies. Because all Federal agencies, including but not limited to NASA, are required to develop Section 504 regulations consistent with the Attorney General’s Section 504 regulations, Exec. Order No 12,250, 45 Fed. Reg. 72,995 (Nov. 2, 1980), the analysis and recommendations contained herein will be vital to the Aquarium in future activities. In addition, as described in more detail in below, the Aquarium recently transitioned from public to private ownership. Thus, in addition to its obligations under Section 504, the Aquarium has duties to refrain from discriminating against people with disabilities under Title III of the Americans with Disabilities Act. 42 U.S.C. § 12181 et seq. (2008).
4 Letter from Sal Muñoz to Brenda Manuel (Apr. 19, 2010).
6 Letter from Sal Muñoz to Brenda Manuel (Apr. 19, 2010).
8 Interview with Bob Davidson (Jan. 11, 2011).
While the City has oversight of the property of the Aquarium through the Parks Department, they only tend to give a cursory review of proposed changes by the Aquarium. Interview with Robert Anderson (Jan. 12, 2011).

Interview with Bob Davidson (Jan. 11, 2011).

Interview with Bob Davidson (Jan. 11, 2011). To further ease this transition, the City and the Aquarium are operating under a five-year window agreement during which existing Aquarium employees will transition away from City employment. At the end of this period, there will be no City employees working for the Aquarium and the Aquarium will no longer be able to avail itself of City resources. Interview with CJ Casson (Jan. 12, 2011)

Interview with Bob Davidson (Jan. 11, 2011).

Interview with Ryan Dean (Jan. 12, 2011).

Interview with Bob Davidson (Jan. 11, 2011).

Interview with Ryan Dean (Jan. 12, 2011).

Interview with Ryan Dean (Jan. 12, 2011).

Interview with Ryan Dean (Jan. 12, 2011).

Interview with Robert Anderson (Jan. 12, 2011).

Interview with Robert Anderson (Jan. 12, 2011).

Interviews with Ryan Dean and Robert Anderson (Jan. 12, 2011).

Interview with Bob Davidson (Jan. 11, 2011).

Much of the Pier 60 portion of the facility is constructed with poured concrete and it would be an enormous undertaking to reconstruct this portion of the facility to meet current accessibility standards, In addition, as originally constructed, the Aquarium's entire physical structure is built around an intricate water supply system that runs throughout both piers of the facility. Salt water is pumped from two large pipes below Pier 59, passes through a large filtration system, and passes through all of the saltwater exhibits. A separate water supply and filtration system (drawn from the City of Seattle municipal water supply) feeds all of the freshwater exhibits in the facility Seattle Aquarium Volunteer Manual, pp. 11, 16 (Apr. 2010).

Currents (the Aquarium’s Newsletter) – Spring 2010 and NASA in-house grant information


14 C.F.R. § 1251.106(a)


ADA Best Practices Tool Kit for State and Local Governments” Chapter 2, ADA Coordinator: Notice and Grievance Procedure (December 6, 2006)

U.S. Department of Justice, "ADA Best Practices Tool Kit for State and Local Governments” Chapter 2, ADA Coordinator: Notice and Grievance Procedure (December 6, 2006)

Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

Interview with CJ Casson (Jan. 12, 2011); Interview with Katrina Bettis (Jan. 12, 2011).


Interview with Sal Muñoz, Veronica Smollen, and Robert Anderson (Jan. 12, 2011).

14 C.F.R. §1251.107(a)


NASA's Section 504 regulations require fund recipients to conduct a self-evaluation within three years of becoming a recipient. 14 C.F.R. § 1251.105(c). While part of the Seattle City government, the
Aquarium conducted regular self-evaluations—the last one conducted in April 2008 (copy provided to NASA). While not explicitly required by Section 504, periodic self-evaluations would augment compliance.  

14 C.F.R. §1251.107 (b)


Id. at p. 16.

504/ADA Self Evaluation and Assurance of Compliance (Apr. 9, 2008).


Interview with CJ Casson (Jan. 12, 2011). Interview with Bob Davidson (Jan. 11, 2011); Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011); Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011). In addition, the Aquarium takes in comments through its website. In reviewing the Aquarium’s website (http://www.seattleaquarium.org), there does not appear to be a grievance form or nondiscrimination notice.

Interview with CJ Casson (Jan. 12, 2011).

As this area is managed by a subcontractor (Sodexo), one copy of the card goes to Sodexo management and another is processed within the aquarium. Interview with Tim Kuniholm, Marsha Savery, and Rose Van Ommen (Jan. 12, 2011).

Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

Interview with Bob Davidson (Jan. 11, 2011).

Interview with Bob Davidson (Jan. 11, 2011).

Interview with Sal Muñoz, Veronica Smollen, and Robert Anderson (Jan. 12, 2011); Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

The AZA has very limited accessibility requirements as part of AZA accreditation. In general, accreditation is limited to question such as whether there are loaner wheelchairs and if bathrooms are accessible. Interview with CJ Casson (Jan. 12, 2011).

Interview with Katrina Bettis (Jan. 12, 2011).

Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011).

Interview with Katrin Bettis (Jan. 12, 2011).

Interview with Ryan Dean (Jan. 12, 2011).

Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011).

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Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011).

Because there are no “Behind the Scenes” tours given at the Aquarium, our review did not include maintenance and nonpublic areas of the Aquarium. Staff and volunteers may sometimes brings family or guests into non-public areas, but no programs are offered. Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011); Interview with Katrina Bettis (Jan. 12, 2011).

Interview with Tim Kuniholm, Marsha Savery, and Rose Van Ommen (Jan. 12, 2011).

Interview with Lori Montoya (Jan. 11, 2011).

Interview with Sal Muñoz, Veronica Smollen, and Robert Anderson (Jan. 12, 2011).

Interview with Bob Davidson (Jan. 11, 2011).

All cashiers at the Aquarium are currently Seattle City employees and have undergone special training required for cash-handling persons. This training includes training specific to disabilities. Future employees, however, will not be able to avail themselves of this training. Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011). In addition, all of the food and beverage employees at the Aquarium
are employees of its subcontractor, Sodexo, which provides lots of employee training and “secret shops” its locations at least three times a month to ensure that customer service meets company standards.

Interview with Tim Kuniholm, Marsha Savery, and Rose Van Ommen (Jan. 12, 2011).

Interview with CJ Casson (Jan. 12, 2011).

Interview with Ryan Dean (Jan. 12, 2011); Interview with CJ Casson (Jan. 12, 2011).

Interview with CJ Casson (Jan. 12, 2011).

Interview with Sal Muñoz, Veronica Smollen, and Robert Anderson (Jan. 12, 2011).

14 C.F.R. § 1251.301 (e)

Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

Interview with Ryan Dean (Jan. 12, 2011).

Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011).


Interview with Katrina Bettis (Jan. 12, 2011).

In addition, the Seattle Aquarium consults with a number of other organizations or services and information regarding people with disabilities, including Work Opportunities, Mainstay, Bellevue Community College and Highline Community College. Letter from Sal Muñoz to Miguel Torres (Oct. 14, 2010).

Interview with Katrina Bettis (Jan. 12, 2011). In addition, the Aquarium has online learning activities to continue volunteer education. While the Aquarium does not have refresher training, it does have an Aqua University, which is a set of eight training classes that must be completed within 12 months of joining the Aquarium. In addition, they have e-learning resources available to all staff and volunteers. Interview with Katrina Bettis (Jan. 12, 2011). The Seattle Aquarium provided NASA with a login for their e-learning courses for volunteers. Unfortunately, the e-learning resources were not available during our review.

The Little Bit Therapeutic Riding Center in Woodinville, Washington focuses on helping people with physical and/or developmental disabilities improve physical health and confidence by guided riding on horseback and through interaction with their peers. More information about this program can be found at http://www.littlebit.org. Since 1990, Little Bit has worked with the Aquarium in developing an overnight camp experience. This program offers Little Bit participants an overnight adventure at the Aquarium while also offering the Aquarium staff and volunteers a valuable learning experience in interacting with people with disabilities. This program takes place annually one night per year in September. The average attendance is 150 guests and 20 volunteers (including volunteers from Little Bit).

Interview with Katrina Bettis (Jan. 12, 2011).


14 C.F.R. § 1251.103(b)(3).

14 C.F.R. § 1251.102.

28 C.F.R. § 39.103.

The Little Bit Therapeutic Riding Center in Woodinville, Washington focuses on helping people with physical and/or developmental disabilities improve physical health and confidence by guided riding on horseback and through interaction with their peers. More information about this program can be found at http://www.littlebit.org. Since 1990, Little Bit has worked with the Aquarium in developing an overnight camp experience. This program offers Little Bit participants an overnight adventure at the Aquarium while also offering the Aquarium staff and volunteers a valuable learning experience in interacting with people with disabilities. This program takes place annually one night per year in September. The average attendance is 150 guests and 20 volunteers (including volunteers from Little Bit).
The aquarium has only received one ad hoc request for a sign language interpreter. Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011).

The aquarium does not get many requests from school groups asking for sign language interpreters—in general, schools bring their own interpreters. Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011).

In addition, people with late-acquired deafness may also communicate more effectively through text. In such cases, communication aided real-time text (CART) services may be more appropriate. Many VRI services also provide remote CART services.

Because of the active deaf community within Seattle, the Aquarium is also fortunate to have local resources available. For instance, Seattle’s Hearing, Speech and Deafness Center is a leading resource that can assist the Aquarium in meeting its effective communication requirement.

Interview with Andrea Dos Santos, Darcie Larson, and Cherie Williams (Jan. 11, 2011); Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

Interview with Katrina Bettis (Jan. 12, 2011).

Interview with Katrina Bettis (Jan. 12, 2011).

Interview with Katrina Bettis (Jan. 12, 2011).

Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

Interview with Alfredo Verzosa and Vickey Swalley (Jan. 12, 2011).

In addition, as part of their 2008 504/ADA Self Evaluation and Assurance of Compliance, the Aquarium noted that they have training in providing auxiliary aids and services and that notice of their availability as provided to all program participants. Materials are made available in alternate formats. The only exceptions are that they do not notify people that meetings will be held in accessible locations and they do not publicize their TTY number. 504/ADA Self Evaluation and Assurance of Compliance (Apr. 9, 2008). The availability of training and materials in alternate formats appears to no longer be available.

14 C.F.R § 1251.301 (e) provides,

Notice. The recipient shall adopt and implement procedures to ensure that interested persons, including persons with impaired vision or hearing, can obtain information as to the existence and location of services, activities, and facilities that are accessible to and usable by handicapped persons.


14 C.F.R. § 1251.302(a) provides,

Design and construction. Each facility or part of a facility constructed by, on behalf of, or for the use of a recipient shall be designed and constructed in such manner that the facility or part of the facility is readily accessible to and usable by handicapped persons, if the construction (ground breaking) was commenced after the effective date of this part.

14 C.F.R. § 1251.302(b) provides,
Alteration. Each facility or part of a facility which is altered by, on behalf of, or for the use of a recipient after the effective date of this part in a manner that affects or could affect the usability of the facility or part of the facility shall, to the maximum extent feasible, be altered in such manner that the altered portion of the facility is readily accessible to and usable by handicapped persons.

103 14 C.F.R. § 1251.302(a)-(b).


105 NASA’s Section 504 regulation states,

§ 1251.301 Existing facilities.

(a) Program accessibility. A recipient shall operate each program or activity to which this part applies so that the program or activity, when viewed in its entirety, is readily accessible to handicapped persons. This paragraph does not require a recipient to make each of its existing facilities or every part of a facility accessible to and usable by handicapped persons.

(b) Methods. A recipient may comply with the requirement of paragraph (a) of this section through such means as redesign of equipment; reassignment of classes or other services to accessible buildings; assignment of aides to beneficiaries; home visits; delivery of health, welfare, or other social services at alternate accessible sites; alteration of existing facilities and construction of new facilities in conformance with the requirements of § 1251.302; or any other methods that result in making its program or activity accessible to handicapped persons. A recipient is not required to make structural changes in existing facilities where other methods are effective in achieving compliance with paragraph (a) of this section. In choosing among available methods for meeting the requirement of paragraph (a) of this section, a recipient shall give priority to those methods that offer programs and activities to handicapped persons in the most integrated setting appropriate.

106 Id at § 1251.301(b).

107 Id.

108 The ADA’s path of travel obligation is a detailed requirement set forth in the Department of Justice’s Title III regulation, 28 C.F.R. § 36.403 (2010); see also, 42 U.S.C. §12183(b). It requires places of public accommodation, like the Aquarium, to make accessibility upgrades to its existing facility when those upgrades serve primary function areas being directly altered. Furthermore, places of public accommodation like the Aquarium are required to spend up to 20% of the total cost of the alteration in making these upgrades before they are considered “disproportionate” to the cost of the alteration.

109 Specifically, the Aquarium must ensure that all new construction or alterations after the latter of the Aquarium’s first receipt of Federal funding and the effective date of UFAS (August 1984) fully complies with UFAS. Note that the ADA has similar new construction and alterations requirements, 28 C.F.R. §36.401-06, that apply to any new construction or alterations after January 26, 1993.

110 Specifically, Federal fund recipients must ensure that their programs or activities are accessible “when viewed in their entirety”—and should make architectural changes where necessary to meet this requirement. NASA’s Section 504 regulation states,

§ 1251.301 Existing facilities.
(a) Program accessibility. A recipient shall operate each program or activity to which this part applies so that the program or activity, when viewed in its entirety, is readily accessible to handicapped persons. This paragraph does not require a recipient to make each of its existing facilities or every part of a facility accessible to and usable by handicapped persons.

(b) Methods. A recipient may comply with the requirement of paragraph (a) of this section through such means as redesign of equipment; reassignment of classes or other services to accessible buildings; assignment of aides to beneficiaries; home visits; delivery of health, welfare, or other social services at alternate accessible sites; alteration of existing facilities and construction of new facilities in conformance with the requirements of § 1251.302; or any other methods that result in making its program or activity accessible to handicapped persons. A recipient is not required to make structural changes in existing facilities where other methods are effective in achieving compliance with paragraph (a) of this section. In choosing among available methods for meeting the requirement of paragraph (a) of this section, a recipient shall give priority to those methods that offer programs and activities to handicapped persons in the most integrated setting appropriate.

14 C.F.R. § 1251.301.

111 This is not uncommon with aquariums in the United States. Unlike museums or even zoos, aquariums tend to have limited space and technical constraints resulting in far fewer rotating exhibitions or displays. While this limits revenue, it also limits the number of alterations in a facility. Interview with Bob Davidson (Jan. 11, 2011).

112 Interview with Sal Muñoz and Veronica Smollen (Jan. 12, 2011).


114 Interview with Bob Davidson (Jan. 11, 2011).

115 Interview with Sal Muñoz and Veronica Smollen (Jan. 12, 2011).

116 In a, NASA advised that accessible features can be installed to the maximum extent feasible given dimension for mobility throughout the store (September 19, 2011 telephone conversation Sal Muñoz, Veronica Smollen and Robert Anderson)

117 NASA was advised that the cost to retrofit the toilet was high and may require altering a load bearing support. NASA advised the Aquarium of 20% cost threshold allowances in the accessibility standards. It also recommended that the Aquarium first reevaluate whether the retrofits called for would be technically infeasible or structurally impracticable to make that toilets accessible, since UFAS does not require full compliance in this situation (alteration or removal of a load bearing support under UFAS is not required). Another option that was presented is to designate the one unisex bathroom where retrofits can be done without touching the concrete supports as the accessible unisex bathroom (UFAS permits this as an alternative). (September 19, 2011 telephone conversation Sal Muñoz, Veronica Smollen and Robert Anderson)

118 U.S. Department of Justice (USDOJ) has determined, pursuant to its coordination authority for Section 504 of the Rehabilitation Act under Executive Order 12250, that federal agencies such as NASA have the authority to permit their recipients of federal financial assistance to use the 2010 ADA Standards for Accessible Design (2010 Standards) for new construction and alterations in lieu of the Uniform Federal Accessibility Standards (UFAS), the Section 504 accessibility standard. Specifically, USDOJ guidance dated March 29, 2011 provides that for new construction and alterations undertaken between September 15, 2010 and March 15, 2012, recipients have a choice of using UFAS or the 2010 Standards as the accessibility standards for new construction or alteration of existing facilities. A similar choice is provided to entities that are covered by Title II and Title III of the Americans with Disabilities Act of 1990 (entities...
have the additional choice of using the 1991 Standards), for which NASA does not have compliance and enforcement authority. http://www.ada.gov/504_memo_standards.htm
119 14 C.F.R. § 1251.301(d)

NASA advised the Aquarium that if the purpose of the overlook is to provide a view of Puget Sound and surrounding landscapes, individuals with disabilities can be accommodated with use of the grade level walkway that is over the Sound, but if someone with disability wanted to access the overlook, it was recommended that the Aquarium develop a process to accommodate individual requests for that access, unless it is found to be technically infeasible. (September 19, 2011 telephone conversation Sal Muñoz, Veronica Smollen and Robert Anderson)

NASA advised the Aquarium that an alternative method of accessibility not requiring retrofits can be provided if a staff person (the receptionist) is stationed at the reception desk during public hours (which sits in front of the ceiling supports) and can guide an individual with a disability past the supports where it provides proper clearance on the accessible route (September 19, 2011 telephone conversation Sal Muñoz, Veronica Smollen and Robert Anderson)