

**San Francisco Public Utilities Commission
Alameda Creek Watershed Center in Sunol
Working Outline: Architecture and Visitor Experience**

I. Quick Review

The team behind the design and planning of the proposed Alameda Creek Watershed Center in Sunol has begun to pull the project together and move it forward. This team includes SFPUC staff, The Acorn Group and Okamoto Saijo Architecture.

This project to date has been educated by, and shaped by, the feedback provided by the Sunol Water Temple Preservation Association, SAGE, and other interested organizations and stakeholders since last year. These include input at the Sunol Water Temple Centennial Celebration in September 2010, a mission and vision brainstorming session in May 2011, meetings with the aforementioned groups on May 24, June 17th, August 19th, October 7th (site visit), and October 25, 2011. In addition, the Preservation Association provided two detailed Input documents in October 2011. The team conducted interviews with nearby school districts, museums, like organizations, and other stakeholders as well.

We are pleased to present for consideration these preliminary concepts for the site layout, which accompany this document. Please see a few different working options attached. Some of these differ from one another. *These are all working documents and by no means represent any final product. They will change as the project evolves.*

Watershed Center Location

There is one notable proposed change that we would like to mention. Our current layout moves the Center to the east side (quarry side) of the Sunol Water Temple (Temple). Why?

- minimizes the potential visual concerns of building near the Temple (compared to the previous proposed location), thus protecting its role as a visual landmark and center piece for the site;
- avoids the need for a tremendous amount of fill material to be imported and compacted to create sufficient space for the Center outside of the floodway at the previous proposed location;
- create additional space for the Center and surrounding grounds compared to the previously proposed location;
- allows more direct access to the picnic grounds and what (hopefully) will eventually be trail access over Alameda Creek to the EBRPD Vargas Plateau.

II. Interpretive Framework - Review

We had originally proposed these themes and subthemes at our October 25, 2011 meeting. We will summarize here.

The Alameda Creek Watershed Center in Sunol (Center) site poses an interesting challenge for interpretation. The Sunol Water Temple is a powerful icon and the Center should serve as a portal to its “spirit of place.” Because of its proximity to the creeks, woodlands, and other natural features, the Center should also serve as a sanctuary that helps define the visitor’s “sense of place.” One paradigm focuses on the importance of the land and water. The other focuses on the *nature* of the watershed from both an ecological and cultural perspective.

In response to these dual perspectives, we propose two interpretive themes:

*Here at the Sunol Water Temple, we honor the watershed
and the water that flows through it.*

*At this unique confluence of waterways, we also see the confluence of people and nature,
and we are reminded of the significance of water in sustaining both.*

We also propose five subthemes to support these overarching themes.

- ☞ Throughout time, water from Alameda Creek and Arroyo de la Laguna has sustained the lives and cultures of Sunol Valley people.*
- ☞ The Sunol Water Temple is a powerful icon that symbolizes the importance of water in nature and human culture.*
- ☞ Human activities, including ranching, farming, mining, urban/suburban development, and individual behavior, can affect the health of the Alameda Creek watershed and its creeks.*
- ☞ The quality and quantity of water affects the lives of humans and other species.*
- ☞ The Spring Valley Water Company and San Francisco Public Utilities Commission’s early water conveyance system along this waterway is a testament to human ingenuity. More recent action by the SFPUC is a testament to an evolving land and water ethic.*

This interpretive framework guides the exhibit development process. The themes link important ideas together and create powerful experiences for the visitor, both intellectually and emotionally. The subthemes further develop the main themes and allow for a logical progression into storylines.

III. Watershed Center Grounds

Watershed Discovery Trail

In direct response to comments, we propose a Watershed Discovery Trail. This could be an approximately two-acre outdoor “immersion exhibit” that takes them on a meandering walk through a landscape that resembles the middle and upper reaches of the Alameda Creek watershed.

- The grounds will also offer a peaceful retreat for those who are there simply to enjoy the day. Comfortable seating areas accentuated with shade and public art, such as theme-focused mosaics and sculptures, will be considered.
- The Watershed Discovery Trail will be laid out metaphorically like the watershed with the confluence of the waterways located symbolically at a low point behind the outdoor amphitheater. Here, a small water feature will present a strong visual element for visitors, as well as a passive cooling technique that utilizes prevailing summer winds coming up Niles Canyon to the west. It will serve as an important green building design feature.
- The trail will extend from the northwest to the southeast, reflecting the correct orientation of the watershed corridor. Visitors will meander from a central coast live oak-riparian forest to a grasslands area, a section of Diablan sage scrub, an oak savanna, and last, to a mixed evergreen forest/oak woodland. Interpretive media will add interest to this exhibit space.
- Visitors would be able to meander through these trail sections and read interpretive panels that identify representative plants and animals, explain the ecological relationships between physical and biological components, and reveal their location relative to the real watershed. Other potential interpretive features: maps, signage, and life-size sculptures of animals.

Entry Road and Area Surrounding Temple

We propose to replace the asphalt at the temple with suitable paving materials and re-landscape both the road from the entry monument to the Sunol Water Temple to accentuate the architecture.

Picnic Area

This part of the project will include an upgrade to the existing picnic facilities, increased public access, and opportunities to get closer to Alameda Creek. The SFPUC is working with EBRPD to eventually provide trail access across Alameda Creek to EBRPD's Vargas Plateau, and the Center and its surrounding grounds will be designed and constructed to prepare for this proposed increase in recreation and public access.

Outdoor Amphitheater

Since the Center is a potential conference center, there appears to be a strong argument to connect the main assembly space(s) and exhibit hall with an outdoor terraced seating area, or amphitheater. This outdoor space, roughly 3,700 square feet, could be considered an additional space for use during classes or conference break-out sessions when weather permits. Here, provisions for a drop down screen or monitor could accommodate video or still image projection for outdoor presentations.

Outdoor Deck

Most of the circulation access to the three separate buildings will consist of outdoor decking partially covered by roof overhangs and trellises, roughly 3,600 square feet. Part of the outdoor circulation space near the watershed classroom could be considered another area for use during classes or conference break-out sessions.

On the shady north side of the interpretive pavilion, we recommend placement of storage cabinets for the sack lunches of visiting students.

IV. Watershed Center Buildings - Architecture and Green Design

The proposed Watershed Center Buildings consist of three separate buildings, an outdoor amphitheater, and decking. While the building layout has not been finalized, we do know that space will be allocated for interior exhibits and displays, as well as for staff offices and classrooms, an event gathering space with kitchen.

Care has been exercised to maintain sight lines with the Sunol Water Temple, allow access for maintenance, operations, and emergencies via an access road, and integrate eastern portions of the Watershed Discovery Trail with the interpretive wing. Visitors will be able to exit from the front or rear of this building, or through a side door that leads directly to the trail.

The following is a preliminary list of innovative green building features that have been discussed for possible inclusion in the design of the Center. These need to be incorporated at the beginning of the design process. Additional green building features items will be fleshed out during design development.

Passive Solar Design

Implementation of passive design techniques is critical to achieve the goal of a zero net energy building, which can help stabilize the interior temperature during both the hot summer and cold winter seasons without the need for excessive mechanical equipment. This is a fundamental green building technique that needs to guide the design of the overall building form and site layout.

Photovoltaic Solar Panel System

A photovoltaic system would generate renewable electrical energy to help achieve the goal of being a net zero energy building.

Green Roof

An intensive green roof would help retain rainwater, add thermal insulating value, and integrate the building with the surrounding landscaping.

Rammed Earth Wall Construction

Some walls could be made of rammed earth, which would be a thermal mass for passive solar design and is an aesthetic consideration to integrate the building with the surrounding landscape.

Greywater System

All non-black wastewater from sinks and lavatories could be collected and treated on site and then reused for irrigating the extensive landscaped grounds.

Hydronic Solar Heating in a High-Mass Thermal Sand Bed

To eliminate the need for gas-powered mechanical heating equipment and to reduce the size of electric-powered mechanical equipment, there is a passive heating system using solar heated-fluid running through a radiant concrete floor slab system.

Night Misting System for Cooling

During the summer, night misting could be used to help cool the interiors of the Center. This would be important to reduce the need for electric-powered air conditioning. This passive system could be used in conjunction with the rainwater collection tanks.

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