

## Educator Needs Assessment for the Alameda Creek Watershed Center

### **Introduction**

Creating an interpretive master plan requires understanding the needs and interests of target audiences. Given that a key target audience for the new Alameda Creek Watershed Center (Center) is K-12 students, The Acorn Group embarked on an education needs assessment in spring 2011. The purpose of this needs assessment was to understand administrative criteria regarding the selection of school field trips. Specifically, we compiled interview questions to reveal needs, interests, and constraints that could influence a school's potential use (and a district's approval of such use) of the Center for a field trip. Understanding that SAGE is assisting with the development of the education program plan for the Center, we avoided questions that focused on the academic content of specific programs. When we asked about alignment to content standards, it was within the context of the Center's exhibits, as well as experiences on the grounds.

### **Methodology**

In May and June 2011, Acorn Group staff contacted 16 administrators associated with the curriculum and instruction or pupil services divisions of local county offices of education and school districts. The purpose of this communication was to schedule time for a 10-minute phone interview. Our contact list included Alameda County, Contra Costa County, Santa Clara County Offices of Education and San Francisco Public Schools. The list of school districts within those counties includes Fremont Unified School District, Hayward Unified School District, Livermore Unified School District, Newark Unified School District, Pleasanton Unified School District, New Haven Unified School District, Sunol Glen Unified School District, San Ramon Unified School District, Milpitas Unified School District, San Jose Unified School District (2 staff), and San Francisco Unified School District (2 staff). Phone calls followed correspondence by email. The roster and introductory letter are included in the first and second appendices.

With summer recess on the horizon, the timing for this assessment has not been optimal. To date, we have not reached staff at Fremont, Hayward, or San Jose Unified School Districts. However, because the feedback we have gathered thus far has been very consistent, we are compiling this report with the information we have in order to remain on schedule.

### **Findings**

Nine phone interviews were conducted between May 26 and June 29, 2011. Two phone interviews were conducted in July, 2011. Each interview followed the same script. A brief description of the Center and project was followed by 10 questions. Responses to these questions are recorded in the third appendix.

Most of the respondents serve in some capacity related to science education within the curriculum and instruction divisions of their agencies. Approximately half of those interviewed (six respondents) are not familiar with the Sunol Water Temple. Only two individuals had actually been to the site (several years ago); another was aware of it because of the television show, *Myth Busters*.

Despite the lack of familiarity with the site and temple, most respondents see the proposed Center as a suitable field trip destination, provided certain conditions are met. One individual representing Santa Clara Office of Education and another representing San Francisco Unified School District expressed concern about the distance and constraints defined by district bus schedules. Districts “near the 680 corridor,” “on this side of the hill,” “that don’t have to cross bridges” likely will be more inclined to consider the new Center as a field trip destination. It should be noted that field trips typically need approval at both the school and district level. Decisions are based on relevance to content standards, grade level appropriateness, distance, cost, schedule relative to district bus schedule, and pupil safety (e.g., presence of venomous snakes, open water).

When asked how the Center could be used for educational purposes, most respondents noted the potential connection to science, not only at the elementary level, but also at the middle and secondary levels. Some also noted the history and social science connection, specifically the history of the state, the history of California’s water system, including the establishment of Hetch Hetchy, and the history of agriculture. Respondents view the proposed center as one that offers “real life” examples of what students are learning in the classroom. While they expressed concern about spending too much time indoors at the facility (given the rarity of students spending time outdoors), they expressed enthusiasm for the interpretive center and learning lab.

When asked about specific experiences offered to students and teachers, respondents voiced interest in hands-on, interactive learning. They indicated teachers are looked for opportunities to reinforce classroom learning with guided walks outdoors, use of science equipment such as microscopes, exposure to technology (e.g., iPads), data collection and analysis, and exposure to the region’s native plants and animals. One individual expressed interest in team-building exercise outdoors, comparable to what Chabot Space and Science Center is developing at their outdoor area. Another reiterated the importance of connecting to the real world—water quality testing, use of mathematical skills to interpret data, and the assimilation of this information into the students’ personal understanding of how the world works. Still another saw the connection of the Ag Park to the district’s garden program. Since almost every school in Pleasanton Unified School District has a garden, as well as a science specialist, there is strong potential to develop a program that meets academic needs in this particular district.

Not surprisingly, decisions to approve a field trip are based primarily on relevance to state content standards (<http://www.cde.ca.gov/be/st/>). In most cases, a district’s scope and sequence is derived from them. A couple of caveats should be noted: 1. The Acorn Group is creating the interpretive master plan and will be referencing these standards as interior and exterior exhibits and displays are developed. At the same time, we understand these media will be designed with multiple audiences in mind, and therefore, should not be geared to address the academic needs of K-12 students exclusively. 2. Currently, legislation has been introduced that would require review and subsequent revision of California’s Science and History-Social Science Content Standards. At the same time, California already has adopted Common Core Standards in English/Language Arts and Mathematics, thus opening up the door to consider eventually adopting the same for Science and History-Social Science. Further, the Common Core Standards in English/Language Arts and Mathematics have ties to science and history literacy. Because it will be years before this is sorted out, most respondents indicated they are using the state’s Science and History-Social Science Content Standards and new Common Core Standards for English/Language Arts and Mathematics as reference points.

Respondents offered uniform responses to the question about amenities that would enhance students' experiences. These include picnic tables, shade structures, restrooms with soap, hot water, and adequate numbers of stalls, an outdoor deck for seating (e.g., during a general orientation talk), wheelchair accessibility, an enclosed area outdoors where students could "run around" after lunch, but remain within view of chaperones and faculty, a place to store bag lunches, and adequate parking for private cars (if parent chaperones are doing the driving.) One respondent expressed interest in composting and recycling facilities. Two respondents expressed concern about the district's free and reduced lunch program and how this relates to field trips logistically speaking. Teachers are required to provide box lunches to students who qualify for this program. It was suggested that the SFPUC consider offering a free box lunch program for all students on a field trip.

Beside the cost of transportation and classroom time constraints, other limiting factors include the cost of substitute teachers should a middle and secondary level classes opt for a field trip, holding capacity of the Center (e.g., if a middle school participates, sometimes it is the entire class that goes), safety (it needs to be a relatively safe site), and access to phones (e.g., cell phone reception) in the event an emergency arises. One respondent suggested undertaking a marketing campaign to ensure that the Center is on the districts' list of approved field trip sites and further, that teachers perceive the Center as academically relevant.

Seven of the nine respondents indicated it was very likely that schools would consider using the Center as a field trip site if free bus transportation was provided by the SFPUC. Two others found it difficult to say one way or another. One of these respondents is the director of pupil services—he does not have a role in academic support. The other represents Santa Clara County Office of Education whose jurisdiction admittedly extends far west of Sunol.

The average field trip is either a half-day or full-day event. Elementary level field trips range from two to four hours in length. Unless the field trip constitutes the outdoor science school—typically a three or five-day overnight program—it will not exceed one day in length.

Three additional suggestions were made that could inform SAGE's work with program planning: 1. Market to charter schools and home schools (and use the testimonials of teachers for marketing); 2. Consider developing a visiting classroom program for those classes that cannot get to the Center; and 3. Seek teacher input early in the program development process.

## **Conclusion**

Although this needs assessment reflects the input of only nine county and school district administrators, it nonetheless yields important information for the Center's site plan, exhibits, and programs. While we will continue contacting those agencies that have not responded, we anticipate that the feedback we receive will be similar in nature.

From the respondents' perspective, the monetary cost of a field trip (admission and bus transportation) and "cost" of classroom time are significant constraints. In order to justify them, educators seek field trip experiences that are directly aligned to the state's academic content standards, supported with pre-trip preparatory material, and enriched with hands-on, interactive investigations in the field. Given the current concern over children's loss of connections with nature (Richard Louv's *Nature Deficit Disorder*), educators are also seeking top-quality experiences outdoors. Time spent in the Center's learning lab will need to be balanced by time spent on the grounds.

The possibility of free bus transportation appears to be a highly attractive incentive. Further, the availability of certain amenities, such as picnic facilities, restrooms, and access to scientific equipment, likely will serve as additional attractants.

### **Appendix I: Roster**

#### **Alameda County Office of Education**

Robert Curtis, Science Coordinator, [rcurtis@acoe.org](mailto:rcurtis@acoe.org), 510-670-4122

**Districts in range:**

Fremont Unified School District: Instructional Services (510) 659-2583 (ext. 12280), Assistant Sup., Deborah Sims, Ed.D., [dsims@fremont.k12.ca.us](mailto:dsims@fremont.k12.ca.us)

Hayward Unified School District (510) 784-2600 TBD

Livermore Valley Joint Unified School District: Pauleen Heuber, Teacher on Special Assignment, Curriculum Special Projects Department, (925) 606-3204

Newark Unified School District: Bill Whitton, Coordinator of Pupil Services (510) 818-4226

Pleasanton Unified School District: Jane Golden, Director of Curriculum and Special Projects, (925) 426-4340, [jgolden@pleasanton.k12.ca.us](mailto:jgolden@pleasanton.k12.ca.us)

New Haven Unified School District: Joe Feldman, Director, Instructional Programs, [jfeldman@nhusd.k12.ca.us](mailto:jfeldman@nhusd.k12.ca.us), (510) 471-1100 ext. 62612

Sunol Glen Unified School District, Molleen Barnes, Superintendent and Principal, [mbarnes@sunol.k12.ca.us](mailto:mbarnes@sunol.k12.ca.us) (925) 862-2026

#### **Contra Costa County Office of Education**

STEM Coordinator: Hilary Dito (925) 942-3396, [HDito@cccocoe.k12.ca.us](mailto:HDito@cccocoe.k12.ca.us) (speaking on behalf of Director, Educational Services: Pam Tyson (925) 942-3381, [ptyson@cccocoe.k12.ca.us](mailto:ptyson@cccocoe.k12.ca.us)

**Districts in range:**

San Ramon Valley Unified School District, Rob Stockberger, Director, Secondary Education, (925) 552-2922, [rstockb@srvusd.net](mailto:rstockb@srvusd.net)

#### **Santa Clara County Office of Education**

Sandi Yellenberg, Science Coordinator, (408) 453-6692, [sandra\\_yellenberg@scocoe.org](mailto:sandra_yellenberg@scocoe.org)

**Districts in range:**

Milpitas Unified School District, Educational Services, Beverly James, Assessment and Special Projects (408) 635-2600 (ext. 6041)

San Jose Unified School District, Nancy Albarrán, Curriculum, Instruction, and English Learner Services (PreK-5), Nancy\_Albarra@sjusd.org, (408) 535-6112.  
Yvette Irving, Curriculum, Instruction, and English Learner Services (6-12), Yvette\_Irving@sjusd.org, (408) 535-6348

**San Francisco Public Schools**

District in range:

San Francisco Unified School District, Nik Kaestner, Director of Sustainability, kaestnern@sfusd.edu, (415) 241-4327

San Francisco Unified School District, Jeanne D'Arcy, Supervisor, Mathematics and Science, darcyj@sfusd.edu, (415) 379-7748 x1148

## **Appendix 2: Introductory letter**

We are hoping you are willing to assist us by answering a few questions. We are the early stages of designing the Alameda Creek Watershed Center, a facility that will be adjacent to the Sunol Water Temple and the Sunol Agricultural Park. This facility will feature a learning lab, community gathering space, and interior and exterior exhibits that celebrate the natural and human history of this remarkable place. The Alameda Creek Watershed Center project is managed by the Natural Resources and Lands Management Division of the San Francisco Public Utilities Commission. The Commission has retained the services of The Acorn Group to develop the project's interpretive master plan.

We would appreciate about 10 minutes of your time for a phone interview the week of May 23 or 30. We have nine questions to ask, all related to field trip logistics, potential constraints, and desired amenities and student experiences.

Please let us know if you are willing to provide some feedback and if so, what day and time is most convenient. (If we need to contact a different staff member, please let us know this as well.) We are striving to make the Center's experiences as engaging and relevant as possible for students.

Thank you very much.

Sincerely,

Jennifer Rigby  
The Acorn Group  
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### Appendix 3: Narrative Responses

#### Stakeholder interview

Interview date: 05.27.11  
 District: Alameda Co. Office of Education  
 Staff: Robert Curtis  
 Title: Science Coordinator, Curriculum & Instruction

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park? I was there seven years ago (lived in Fremont down by Niles).

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the Center might become a field trip destination for schools within your district? Yes, I think for anyone on that side of the hill.

3. (If yes) How might the schools use this Center for educational purposes? See below.

4. What experiences would you like to see offered for students as well as teachers?

Would love to see some technology. Have experiences inside the Center (iPads) students can use. Videos and pictures studied in advance they use to compare to the outdoors. Some centers build in team-building (learn science and have fun (comparable to a ropes course). See Chabot (currently building an outdoor education facility).

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?

Scopes and sequences are aligned to content standards. National science standards, common core standards, new national science framework, and proposed legislation to review/revise California's science standards are placing people in the state in limbo.

6. What physical amenities would enhance your students' experiences? Picnic tables, shade structure, outdoor instructional areas. Don't spend all the students' time indoors!

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the Center? Parents are allowed to drive (provided they have a certain amount of insurance). Field trip cost is also a factor.

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the Center, is it more likely schools would consider using this site as a field trip destination?

Absolutely!

9. What is the average length of time for a field trip in your school district? One full day. Target audience: elementary and middle school. Science isn't being taught at elementary. But it is taught in middle school (and 8<sup>th</sup> grade is a test year). Overnight programs and evening programs as well.

10. Other

#### Stakeholder interview

Interview date: 07.20.11  
 District: Livermore Valley Joint Unified School District  
 Staff: Pauline Heuber  
 Title: Teacher on special assignment, Curriculum Special Projects Department

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park?

Yes, years ago. But I know a friend who takes her class every year.

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the site might become a field trip destination for schools within your district?

I would certainly recommend it. I have heard great reviews of the docent program in place now.

3. (If yes) How might the schools use this site for educational purposes?

I don't know how much it will be aligned with state standards. However, if comparable to the wildlife refuge (Alviso), yes. Align to the curriculum pre-, during, and post-trip. Develop a scheme that students can constantly refer to. Then I think it will be used a lot and considered very valuable. We can no longer afford one-shot deals. Chaperoning parents will return with their families as well.

4. What experiences would you like to see offered for students as well as teachers?

Definitely some preliminary classes (night-time orientations) for the adults. For the students, hands-on programs. Get down and get dirty! Parents and students need to get directly involved. For the teachers, the same thing, though they will be spending their time doing classroom management. What are the best management strategies for outdoor field trips? (Share these tips with them). Also, provide opportunities for kids to take pictures (e.g, Science Odyssey. *The Art of Science* entry).

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?

All of the above.

6. What physical amenities would enhance your students' experiences?

Adequate parking, clean and ample restroom facilities, a picnic area for bag lunches, protection during inclement weather (e.g., a covered area), possibly an orientation/projection display (would prefer this given to teachers in advance), fresh water (drinking), botanical ID tags, anything to help students gain deeper knowledge and appreciation

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the site?

Some places are so booked, they have lotteries. Teachers may not get an opportune time slot. Multilingual needs (Spanish is predominant language in the district). Access for students with special needs. Ipods for non-English speaking students.

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the site, is it more likely schools would consider using this site as a field trip destination?

Absolutely. Our parent chaperones are reduced in number. They no longer have large SUVs and a lot of mothers now work.

9. What is the average length of time for a field trip in your school district?

Grade-specific and dependent on the actual set up for the field trip. If there are multiple things to do, we could be there all day long, as we are at Alviso. For most field trips, however, it is typically a morning or an afternoon.

10. Other



Website access.

Research opportunities for secondary level students.

**Stakeholder interview**

Interview date: 06.29.11  
District: Newark Unified School District  
Staff: Bill Whitton  
Title: Coordinator of Pupil Services

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park?

Yes. Visited it and seen it on *Myth Busters*.

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the Center might become a field trip destination for schools within your district?  
Sure. One-day trip that is less than 100 miles one-way and academically relevant.

3. (If yes) How might the schools use this Center for educational purposes?

If it's tied to the state standards, it might fit in as a science trip.

4. What experiences would you like to see offered for students as well as teachers?

Outside of area of expertise.

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?

State content standards.

6. What physical amenities would enhance your students' experiences?

Outside my area of expertise. I look at safety.

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the Center?

Those are the major concerns.

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the Center, is it more likely schools would consider using this site as a field trip destination?

Hard to say.

9. What is the average length of time for a field trip in your school district?

Vast majority are less than one day. Our 6<sup>th</sup> graders do a one-week science camp experience. Burden of funding and burden of teacher time. This may be our last year of a week-long camp.

10. Other

**Stakeholder interview**

Interview date: 06.01.11  
District: Pleasanton Unified School District  
Staff: Jane Golden  
Title: Director of Curriculum and Special Projects

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park?

Yes, somewhat. I've lived in East Bay my entire life. I know that the temple and park are there, but I haven't visited. I live in San Leandro.

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the Center might become a field trip destination for schools within your district? Definitely. We have science specialists at all of our schools. Each school has a full-time science specialist. Almost all of our schools have gardens. This is a big focus at the elementary level. At middle and high school, they take science every year. For the school district, it will be important to reach out to schools and teachers to develop packets that are standards-based.

3. (If yes) How might the schools use this Center for educational purposes?

At middle school, seventh grade for life science. At two of our middle schools, they have outdoor experiences (hot houses, gardens). At sixth grade, it is also relevant (earth science and resources).

4. What experiences would you like to see offered for students as well as teachers?

Hands-on is always really important, especially for younger kids. Lessons they can make connections to, to classroom and to bigger world. It must be fun. I would be happy to help organize direct input from Pleasanton USD teachers.

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?

It is going to be a long time before science standards are changed. Science common core standards are coming, but 2018 is not unrealistic to expect any changes for instructional materials, assessment tools, standards.

6. What physical amenities would enhance your students' experiences?

Plenty of bathrooms, shade structures, parking for cars (adult drivers), if a half-day trip, a place to store bag lunches, picnic facilities, composting and recycling facilities.

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the site? Cost of program.

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the site, is it more likely schools would consider using this site as a field trip destination? Yes. You would sell out!

9. What is the average length of time for a field trip in your school district? For 4<sup>th</sup>, 5<sup>th</sup>, probably half-day and all-day trips. (Assistant superintendent approves all field trips). Fifth grade goes to outdoor science for 2½ day program.

10. Other

Not that I can think of right now.

### **Stakeholder interview**

Date: 05.31.11  
District: New Haven Unified School District  
Staff: Joe Feldman  
Title: Director, Instructional Programs

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park?  
Not at all.

[Based on a brief description of proposed new facilities and exhibit and program focus]  
2. Do you think the Center might become a field trip destination for schools within your district?  
I don't know. It's possible.

3. (If yes) How might the schools use this Center for educational purposes?  
Depends on grade levels. Reading level, accessibility. Finds ways to get teachers on board early. Teachers can take more than one field trip.

4. What experiences would you like to see offered for students as well as teachers?  
I would want to see standards across the disciplines, math, reading, critical thinking skills. I would want to see activities that connect to classroom learning. The field trip would therefore offer exploratory learning. Service-learning, per se, is not focus of the district. (There is a district requirement, but this doesn't sound like a match).

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence? Field trips are ultimately approved at district level. Scope and sequence follows California content standards.

6. What physical amenities would enhance your students' experiences?  
Comfort—bathrooms with plenty of stalls and sinks, shade, picnic tables, an area that is pretty clear so chaperone can see the kids.

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the site?  
Cost of field trip. Capacity of kids accommodated at one time. At middle school it is usually the entire the grade level that goes, but not necessarily at the same time.

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the Center, is it more likely schools would consider using this site as a field trip destination?  
Yes.

9. What is the average length of time for a field trip in your school district?  
At the elementary level, it varies. For kindergarten-1<sup>st</sup>, it's short. For fifth grade, it can be a day. New Haven does not go to outdoor science school.

10. Other

**Stakeholder interview**

Interview date: 05.26.11  
District: Contra Costa County Office of Education  
Staff: Hilary Dito (Pam Tyson)  
Title: STEM Coordinator, Curriculum & Instruction

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park? Not very. And I grew up at Pleasanton.

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the Center might become a field trip destination for schools within your district?  
I could see it fitting into some of the environmental and science curriculum + historical interest. Outlying schools (Richmond) probably won't use it. But those on the 680 corridor would.

3. (If yes) How might the schools use this Center for educational purposes?  
Hard to say, because I have a high school background. This could be used in California units, environmental units.

4. What experiences would you like to see offered for students as well as teachers?  
I will be self-serving. Using science and technology to showcase the environmental (water testing, real life math, getting real world connections to their specific curriculum at that time)

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?  
Their scope and sequence is based on the California State Content Standards + Common Core (math + English/language arts [which is tied to science and history literacy]). I've seen the EEI units, and EP&Cs.

6. What physical amenities would enhance your students' experiences?  
Hands-on activities. Direct experience. The issue you get into is that amount of time spent on a specific subject, specific standards (state requirement).

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the site?  
Geography (length of time to commute). Free bus transportation would be a huge drawing point. Parents do volunteer to drive: a district by district waiver.

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the Center, is it more likely schools would consider using this site as a field trip destination?  
Yes. See above.

9. What is the average length of a field trip in your school district?  
Generally, all day event or after hours events. Average two-three hours.

10. Other

Interview date: 07.26.11  
District: San Ramon Valley Unified School District  
Staff: Rob Stockberger  
Title: Director, Secondary Education

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park?  
Yes, familiar with it. Played golf at Sunol. Driven by it several times and always wondered.

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the site might become a field trip destination for schools within your district?  
Yes. I was already thinking it might be appropriate for all three levels, including AP environmental science.

3. (If yes) How might the schools use this site for educational purposes?

At elementary and middle, I absolutely see upper grade elementary relevance (e.g., self-contained 4<sup>th</sup> grade classroom for California history in concert with science). I see middle school (6<sup>th</sup>-8<sup>th</sup> [inc. physical science elements]). But push more for 7-8 to avoid consecutive visits. Perhaps recommend visits at 4<sup>th</sup> and 7<sup>th</sup> grade.

4. What experiences would you like to see offered for students as well as teachers?

Certainly an opportunity to go to the temple, to have a docent provide the same history you just shared with me. At the upper grades, more than just the typical "visit, look, and listen." Provide opportunities to engage in critical thinking. If there is a facility that features a lab, or access to the creek, that would be great.

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?

These are connected. As we morph from content standards to common core standards, we will need to be flexible. Standards define content. Scope and sequence define timing and course offering. A decision to move to common core for science and history/social science will be based on politics. This is long way off. Part of me sees this as an opportunity to also engage in English/language arts and mathematics. Students should do some expository writing and apply math skills. Span the field trip experience across the curriculum.

6. What physical amenities would enhance your students' experiences?

Access/egress safety. Parking lot suitable for buses, restrooms (adequate number of stalls), drinking fountains, shaded area, covered picnic area, covered, open air pavilion. Barbeques possibly.

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the site?

Not really. This is amazingly close. This falls within a category one field trip (no board approval).

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the site, is it more likely schools would consider using this site as a field trip destination?

Sure.

Free is always better than asking parents than bus transportation donations.

9. What is the average length of time for a field trip in your school district?

It is content- and trip-specific defined. We drive 80 miles to Jackson for gold panning. This is at least a two hour plus travel trip for the elementary level and possibly a three hour trip for the middle/intermediate level and a four hour trip for the secondary level.

10. Other

**Stakeholder interview**

Interview date: 05.26.11

District: Santa County Office of Education

Staff: Sandi Yellenberg

Title: Science Coordinator, Curriculum & Instruction

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park? No

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the Center might become a field trip destination for schools within your district? I hate to say this, but generally speaking, the schools are hesitant to go too far out of town. The practical reality is that buses have to be back in time by the end of day. Schools with private cards have a little more opportunity, controlled by individual district boards.

3. (If yes) How might the schools use this Center for educational purposes?

A couple of possibilities: As a teacher, the most exciting part is access to the learning lab if it had equipment I normally do not have access to. As far as other exhibits, it would really depend on the message you were giving and what I could not offer easily on my own grounds. (Have we thought about carbon footprints.)

4. What experiences would you like to see offered for students as well as teachers? On site, I would like to see them receive information and have questions posed that stretch their thinking. The *what if...* with paper and pencil that students post online; opportunities that support science fairs (Synopsis Championships at SCCOE).

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence? Made district by district individually. Some schools forbid field trips.

6. What physical amenities would enhance your students' experiences?

Would love to see Scaler Scopes run through computers interacting with the outdoors; images that they will recognize on the grounds, pre-field trip background information, and preparatory activities, trade books to read in advance, enough benches so that students can all sit, picnic area, adequate numbers of restrooms, wheelchair accessibility, signage (yes to wayfinding; depends on the interpretive. Adults want information on flora and fauna. On the other hand, does that detract from the aesthetic experience. Can this be on a handout? Show plants at different stages, seasonal changes.) I love to have questions posed on signs whose answers are available in the teacher's pack. Computers to display all this information. Have students think about the questions.

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the Center?

Distance. Perceived learning potential. *Perceived* is the operative word here. Is the marketing effective? Standards at 4<sup>th</sup>-5<sup>th</sup>, 8<sup>th</sup> and secondary level students due to testing. Focus on 6<sup>th</sup> (earth science, resources), 7<sup>th</sup> (due to life science).

8. If the San Francisco Public Utilities Commission provided free bus transportation from schools to the Center, is it more likely schools would consider using this site as a field trip destination?

I don't know.

9. What is the average length of a field trip in your school district?

Elementary: two hours. Middle: half day or all-day (for the whole grade).

10. Other

Charter schools + home schools. Get testimonial from schools, teachers.

**Stakeholder interview**

Interview date: 06.10.11  
District: Milpitas Unified School District  
Staff: Beverly James  
Title: Educational Services, Assessment and Special Projects

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park?

I am not.

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the Center might become a field trip destination for schools within your district?  
I would think so. It appears to be in our range (within 50 miles) so would not have to get Board approval.

3. (If yes) How might the schools use this Center for educational purposes?

We have classes that go to farms, including Ardenwood and others closer to Santa Cruz. I definitely see the agricultural piece. Plus a focus of habitats.

4. What experiences would you like to see offered for students as well as teachers?

Hands-on, with some experiential learning. When I think of water, I think of filtering processes, use of microscopes. Interactive things that spark interest of students as well as teachers. Guided tours, e.g., Alviso EE Center requires teacher and chaperone training in advance of the field trip. I believe teachers would be willing (to go after school).

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?

Yes.

6. What physical amenities would enhance your students' experiences?

Restrooms with hot water and soap, drinking water access, a place for students to eat (picnic tables, deck). Free lunch program: Nutrition Services could prepare a bag lunch for these students.

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the Center ?

Needs to be a relatively safe environment (e.g., running water or lake fenced off), access to telephones (cell phone reception). If the activities are there for students to engage it, these become less significant issues. Is there a fee?

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the Center, is it more likely schools would consider using this site as a field trip destination?

Definitely! This is the highest cost. Some field trips extend beyond the course of a full day. This has not been an issue. We don't have busing issues like other districts.

9. What is the average length of time for a field trip in your school district?

At the elementary level, four hours. I see this as more appropriate at the elementary levels. We see few field trips at middle and high school.

10. Other

Visiting classroom programs should be considered as an add-on. The key thing is that the program is interactive.

**Stakeholder interview**

Interview date: 06.01.11  
District: San Francisco Unified School District  
Staff: Nik Kaestner  
Title: Director of Sustainability

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park?  
Have not been there.

[Based on a brief description of proposed new facilities and exhibit and program focus]  
2. Do you think the Center might become a field trip destination for schools within your district?  
Possible. We have to use school buses after 9 a.m. and must be back by 1 p.m. Students would have two hours only on-site.

3. (If yes) How might the schools use this Center for educational purposes?  
Jean Darcy is a better person to answer this. Middle school (earth science and resources standards)

4. What experiences would you like to see offered for students as well as teachers?  
I would say as much hands-on as possible. A project they could work on, as opposed to walking along and looking at a description of a water system.

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?  
There is talk about shifting to common core. That's why we are hesitant to use EEL. I have been working on EE and an ecoliteracy project with the City. I have a new position focusing on operations.

6. What physical amenities would enhance your students' experiences?  
Picnic tables, shade structures, ability to walk around and explore things. If you entice people with grants (transportation grants, teacher training grants, free lunch) that would be a plus.

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the site? Commute time, funding for the trip, standards alignment. And For middle and high school, substitute teacher costs.

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the site, is it more likely schools would consider using this Center as a field trip destination  
Yes, definitely. SF Environment Dept: mandatory training plus sanctioned field trips (four sites). Get on this list.

9. What is the average length of time for a field trip in your school district? 9 a.m. – 1 p.m.  
Also, some 4<sup>th</sup> and 5<sup>th</sup> grades go to outdoor science school and that decision is made at the teacher level.

10. Other.  
Nik has a report on what teachers are looking for (NatureBridge).



**Stakeholder interview**

Interview date: 06.02.11  
District: San Francisco Unified School District  
Staff: Jeanne D'Arcy  
Title: Supervisor, Mathematics and Science

1. Are you familiar with the Sunol Water Temple and the land surrounding it, including the Sunol Ag Park?

I am not.

[Based on a brief description of proposed new facilities and exhibit and program focus]

2. Do you think the Center might become a field trip destination for schools within your district? I think it would be hard, partly because of crossing bridges, particularly given the district.

3. (If yes) How might the schools use this Center for educational purposes?

Depends on the grade level. Any connection to California content standards to science would be great. Social studies application (4<sup>th</sup>) also has merit. There is a connection to 6<sup>th</sup> grade as well (not just earth science, but also architectural and historical connection.)

4. What experiences would you like to see offered for students as well as teachers?

Anything about the water cycle, quality of water (testing), erosion (stream tables). Plus social studies, the history of California's water system (Hetch Hetchy), agriculture.

5. Does the district base academic decisions to use a site for field trips primarily on relevance to grade-specific California State Content Standards or the district's Scope and Sequence?

In science, it's the scope (the what). The sequence is a recommended modular sequence. Things need to be taught (standards) but they are divided into chunks taught at different times of the year, depending on teacher preference, professional development, seasonal relevance, and availability of equipment.

6. What physical amenities would enhance your students' experiences?

A place to eat, restrooms, at middle school, some kind of enclosed area (to channel that energy), a docent-led outside activity, ability to break into small groups, whole group activities indoors where they can sit down.

7. Beyond the cost of bus transportation and classroom time constraints, are there other factors that could limit schools' potential use of the Center ?

Food (free and reduced lunch). They are entitled to a free lunch. Teachers forget about this during field trip. Fund a box lunch.

8. If the San Francisco Public Utilities Commission provided bus transportation from schools to the Center, is it more likely schools would consider using this site as a field trip destination?

Yes.

9. What is the average length of time for a field trip in your school district?

Lower: about four hours, plus transportation

Middle school: about four hours plus transportation

High School: would be one or two teachers joining together. Kids are missing other classes with other teacher. Maybe four hours, inc. transportation. Not useful for school day school service-learning. During weekends and breaks, high schools could do service-learning.

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**10. Other**