Rationale for Adventure-Based Learning

This brief paper presents a rationale for using an adventure-based learning experience for the Safe Schools/Healthy Students (SS/HS) grant recently awarded to the Black Oak Mine Unified School District (BOMUSD). We will provide a justification for reinstating this program component in our overall program design, including reinstating funds for this programming. We will present the model, the need for this type of service, research supporting adventure based programs and study findings from our past use of these approaches. In addition, we will discuss liability issues for adventure-based learning.

The BOMUSD Adventure Program Model

BOMUSD's adventure-based program is an important component in the overall SS/HS initiative. The choice of an adventure-based approach complements the Youth Development theory of change which is the unifying principle in the proposed activities for the Black Oak Mine School District SS/HS grant.

Michele Gambone, a leading proponent of youth development approaches, identified several key factors contributing to positive outcomes for youth. Many of these factors are particularly well supported by the adventure-based learning experiences, specifically:

- **Positive peer and adult relationships**: rafting is a great leveler of participants; the youth and the adults on the raft need to work together as a team to successfully navigate the river. Friendships are initiated during the rafting trips, and students more readily communicate with teachers after these trips.

- **Meaningful opportunities for involvement and membership**: the team challenges and geo-caching activities that are part of the adventure program require a variety of skills and thinking styles, allowing diverse students to become invaluable members and/or leaders of the team.

- **Challenging and skill-building activities**: adventure-based learning activities challenge our youth to think in new ways, to communicate and to quickly learn to work with people they would not typically get to know.

According to Gambone, “Youth with opportunities to participate in challenging, engaging learning activities as teens have a 71 percent higher chance of having good developmental outcomes than youth in general, while youth reporting low levels of challenging learning experiences early in high school are 59 percent more likely than youth in general to have poor outcomes at the end of school.”

The primary target of BOMUSD Adventure-based program is the incoming ninth grade. The approach uses a day of adventure as part of freshman orientation.

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1 The positive outcomes we want for youth include being productive (doing well in school), navigating adolescent challenges and being connected to others and community in a positive way.
The experience kick-starts the prevention education series provided to freshmen in the early fall. All students are invited to participate\(^2\), and teachers, school administrators, counselors and prevention staff also participate in this experience. The morning includes challenges and activities in which students must work together as a team to be successful. The afternoon is spent rafting. The guides are trained in youth development practices and make good use of learning opportunities throughout the experience. The day leads to new friendships, develops teamwork and leadership skills, and largely overcomes the social and other anxieties that often seem overwhelming for new freshmen. Specifically, the program addresses transition issues often experienced by freshmen.

Other venues for use of adventure-based learning include the alternative schools and student groups (such as peer helping) in which we want to accelerate teamwork and leadership development. Geo-caching, an orienteering-type activity that requires teamwork, is expected to be used for most of these adventures. The alternative schools also plan to do week-long wilderness experiences.

**Research Basis for Adventure Learning**

There is a significant body of research demonstrating positive outcomes associated with adventure-based programs. Several of CSAP's own model programs incorporate adventure-based activities as a core program component. Hattie et al. (1997), in a comprehensive meta-analysis of 96 separate studies involving 12,057 unique participants, provides compelling evidence supporting the effectiveness of adventure-based experience. The meta-analysis was based on 1,728 effect sizes drawn from 151 unique samples from the 96 studies. The average effect size at the end of the program was .34. As the authors noted these results were "in a remarkable contrast to most educational research (in that) these short term or immediate gains were followed by *substantial* additional gains between the end of the program and follow-up assessments (es=.17)."

The authors present four themes explaining why adventure-based programs positively affect the participants (i.e., the theory of change). They are

1. Adventure-based programs emphasize an immediate quality of the experience, and more importantly, have a measurable impact on subsequent experiences. The participant clearly sees and experiences the results of their decisions and actions both individually and as a participant in a group.

2. Adventure programs set difficult goals and have highly structured tasks. A strong sense of accomplishment, confidence, and tangible positive feelings are associated with success in achieving the difficult goals of the program.

\(^2\) 98% of freshmen participated in the adventure day in fall 2004.
3. Adventure-based programs encourage the use of feedback. Participants are in a new environment taking on new responsibility. Only through guidance and feedback can they accomplish the tasks. As Hattie et al. (1997) cite, "Feedback is the most powerful single moderator that improves affective and achievement outcomes.... Adventure programs increase the opportunities for giving feedback when the goals are difficult, where class sizes are small, when there is challenging problem-solving."

4. Adventure programs often caused the participants to reassess their coping strategies. Thrown into a different and unfamiliar environment, often presenting physical challenges, the participants are forced to reassess prior beliefs about their world and conceptions of self as many of their prior assumptions are rendered invalid by the experience itself. As Hattie et al. (1997) note, "our compassions with other people change as we experience the need to cooperate with them rather than judge, dismiss or compete with them." The net result is that program participants often replace "their coping strategies with newer, more functional and positive strategies."

In short, an adventure-based program clearly presents an excellent opportunity for individuals to have positive experiences that support positive youth development outcomes. Researchers of adventure-based programs have identified over 40 different positive outcomes categorized into leadership, self-concept and self-control, academics, intrapersonal, interpersonal and adventuresome (Hattie et al. 1997). In other words, they found positive, holistic (cognitive, emotional, social, physical and spiritual), developmental outcomes. These results are in alignment with the overall goals of the SS/HS initiative and those of the Black Oak Mine School District, in particular.

Adventure-based learning experiences are key strategies in several of SAMHSA's effective and model programs as identified in the NREPP process. Examples include The Leadership and Resiliency Program (model program), which includes ropes courses, white water kayaking, camping and hiking trips; the East Texas Experiential Learning Center Program (effective program), which includes adventure-based education and a Wilderness Challenge Ropes Course; and Project Venture, which includes outdoor experiential activities and adventure camps and treks. Researchers are increasingly recognizing that model programs frequently contain core components that are really the "active ingredients" producing program effects. Given the very positive meta-analytic findings concerning adventure-based programs, it is a very real possibility that the adventure-based activities are the core components of these model programs. We are very concerned that removing this active ingredient from our comprehensive program will negate the positive outcomes we have seen in prior activities in which the adventure-based program was a central component.
We are further concerned that removing the adventure-based component will have a negative influence on student acceptance and participation in other SS/HS activities, with corresponding reductions in the effectiveness of the overall program. Our extraordinary adventure activities do not stand on their own to adequately address youth development. Through past process evaluation and experience, we have learned the power of linking the initiatives/rafting day to the Project SUCCESS classroom curriculum. This curriculum allows us to build on the relationships developed between students themselves and between students and teachers on the adventure day. We have found that the adventure primes students to be honest about discussing their stressors, the fact that everyone needs help at some time and where and how to get help. Our continuous improvement process has provided the information to design and enhance these strategies, and we will apply that process to all of our uses of adventure-based learning.

One additional element of youth development is linking youth to their communities. Organizations in the community need to get to know our youth, and our youth must learn to competently access community resources. Our county's greatest resources include the American River and beautiful forested mountains that are ideal for recreational uses. We have found from experience that most families, especially those with low incomes, are unlikely to utilize these recreational opportunities. Our adventure activities familiarize our youth with great physical, non-drug-related local activities, as well as local businesses that are one of the best sources of jobs for our youth. In summary, removing the intense bonding and learning experience provided by the adventure-based activity may well have a ripple effect that reduces meaningful participation in, and effectiveness of, other SS/HS components.

Impact on 9th Graders
The District has defined the entire freshman class as a high risk group. Our students merge from two feeder schools and many are leaving the school setting where they have been since kindergarten. They go from being the upper classmen to the youngest students, and they tell us that it feels very important to shed their image as middle school students and join the high school social scene. Many girls begin dating upper classmen (and are exposed to older students using substances at higher rates). The academic expectations and responsibilities are far beyond what they have experienced before. At the same time, parents are giving their children more independence and responsibility.

Surveys conducted in our high school between 1999 and 2002 demonstrated a predictable and substantial increase in alcohol use by students during their 9th-grade year. The American Drug and Alcohol Survey, used during the evaluation of an alcohol abuse prevention grant, showed that 40% of 10th-grade students surveyed had initiated drinking to get drunk by the age of 14, which is during the freshman year for most students. In interviews with sophomores, our initial target
for the alcohol abuse grant, students repeatedly emphasized the importance of beginning our prevention interventions with the freshmen class.

Although we had a freshman orientation program, and prevention curriculum was delivered at the end of the freshmen year, we realized this was not enough. We shifted the timing of our strategies used in our federally funded (Grants to Reduce Alcohol Abuse) Project SUCCESS program. This grant also funded adventure-based learning as a way to enhance student participation in the model program. It was our belief that we could maximize the benefits by starting the freshman year with the orientation and the adventure day, followed quickly by the classroom sessions. We implemented this plan in the fall of 2004. Other elements of the Project SUCCESS model were also implemented throughout the year, with the freshman class as a focal point for services. It was because of our initial success with this approach that this program design was included in our SS/HS strategic plan.

The following data from surveys taken at the end of the 2005 school year demonstrates that the first freshman class to receive these integrated programs and services did very well compared to previous classes. Of special note is that only 20% of the class showed 30-day drinking behavior at the end of the school year. This was the first cohort of freshmen students to experience the adventure learning component.

<table>
<thead>
<tr>
<th>Freshman Risk-Behaviors</th>
<th>Spring</th>
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<tbody>
<tr>
<td>30-Day Smoking</td>
<td>11%</td>
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<tr>
<td>30-Day Alcohol Use (at least one drink)</td>
<td>31%</td>
</tr>
<tr>
<td>30-Day Binge Drinking</td>
<td>15%</td>
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<tr>
<td>30-Day marijuana use</td>
<td>N/A</td>
</tr>
</tbody>
</table>

In addition to survey data, we conducted extensive interviews to determine the impact of our enhanced Project SUCCESS model with the freshmen. The following are comments from interviews with students, teachers and administrators concerning the adventure-based program offered to freshmen at Golden Sierra High School, as well as their experiences during the rest of the school year:

They [the adventure day activities] were fun. It's good to do something fun instead of drugs. It's a natural high. The activities helped us find new friends quickly. (Student interviews)

I can't say enough about how valuable [the adventure day activities] are for the confidence and self esteem of our students. They come back comfortable
with each other and at ease in class asking questions etc. (Kim Bernatchy, freshman P.E. Teacher)

The rafting was great. It broke down the stereotypes of the adults. Of the students on my raft, I didn't see many of them in my office. Rafting is a great leveler of people. Probably the biggest benefit of the rafting, combined with the other activities for freshmen, was that the entering freshmen 'became the freshman class' very quickly. It was excellent for assimilating the students from the two feeder schools. The freshmen class was less cliquey than other freshmen classes I have seen. (Dustin Blank, Vice Principal at GSHS)

Students in this class became connected at the beginning of the school year through the experiential activities and the smaller groups in classes [Project SUCCESS Education series). Kids that came on the rafting trip were connected in a new way, were able to appreciate differences and provide their own kind of support to classmates that needed it. It is important to have a way to knit these large classes together quickly, and the rafting trip clearly did that. More kindness was exhibited throughout the year. (Audrey Keebler, Principal at GSHS)

I did not see as much bullying/harassment this year in the 9th grade among 9th graders. (Debra Herr, District School Nurse, concerning the impact of the 9th grade interventions)

Kids felt more comfortable with themselves and with each other. There were fewer cliques. I saw students making friends with other students that I wouldn't normally have expected and less of the 'Northside/Georgetown thing.' I did not see as much 'I don't want to be with that kid.' (Rod Hedlund, freshmen P.E. teacher)

The trips brought the students together as a group. We all related to it as an ongoing metaphor about teamwork—we could all relate back to the experience. By the end of the year, we didn't need to relate back to it much because they already 'got' it. It was also cool for me to get to know freshmen who were not in my classes. (Larry Bryant, freshman core science teacher)

These adventure trips made the beginning of the year more powerful. The biggest impact was that we got a 'class feeling' quickly. Usually this happens much later in the year. It broke down the barrier between the students from Northside and Georgetown schools. The connection from rafting also made the personal aspects of the [Project SUCCESS] education series work better. The students already knew the adults and each other so it was easier to share. (Larry Bryant, freshman core science teacher)

The overall impact of the adventure day for freshmen was clear. Students begin their freshmen year with an overwhelming concern about how they will fit into the high school social scene. The adventure day helps them reconnect with old
friends and make new ones in a very effective and efficient manner. It helps them relate to their teachers, so they feel more comfortable participating in class. They can put these anxieties behind and attend to their school work. They don’t have to posture and perform to make friends, so they don’t feel pressured by peer invitations to use substances. Although we do not have the data yet, there is anecdotal evidence that our approaches have reduced harassment.

Geo-Caching

We have just started utilizing geo-caching as an adventure-based learning opportunity for youth in our district. On one level, geo-caching or geo-teaming is similar to orienteering, except a global positioning system device is used in addition to maps and compasses. When the course is set up with teambuilding in mind, and the guides know how to incorporate adventure-learning concepts into the activity, successfully completing the course requires teamwork and cooperation.

The following comments were taken from interviews with students about their adventure at Divide High School, a continuation school. The students had a very positive experience on their trip, and clearly worked with each other in ways that were new to them:

- We all have very good judgment.
- It made us work together and put aside our differences.
- [Why the event would make it easier to get along with others in the group during the rest of the school year] Because we have it in common.
- How to work together as a team.
- The problems were frustrating, but we got them solved.
- You can have a boring job and still do something exciting in your life.
- Go for your dreams and goals in life.
- How to work as a team even with people you don’t necessarily get along with.
- That even though they [my classmates] are never serious, they worked hard.
- How to work with others and to compromise on your ideas.

Liability

As discussed in the Research Basis for Adventure Learning section, effective adventure-based programs do put people in unfamiliar environments, often with physical challenges, thus allowing participants to re-evaluate and change their coping strategies.
Black Oak Mine Unified School District considered both the safety of students and liability issues before implementing adventure-based learning strategies with our Grants to Reduce Alcohol Abuse funding. The following summarizes what we have learned about risk management related to these activities:

- Field trips, including the rafting and geo-caching trips, are voluntary field trips for students. Parents sign permission and liability waivers before their children are allowed to participate. At least one certificated employee is always along for supervision. Education Code 35330, the primary statute governing field trips and excursions, states that all persons making a field trip or excursion supervised by district certificated employees shall be deemed to have waived all claims against the school district as well as the State of California.

- An opinion from the California Education Legal Authority states that: the courts have generally held districts liable for injuries received during the course of school events which result from a failure to provide a reasonably safe environment; failure to warn participants of known hazards...; failure to instruct participants properly when they participate in school activities; and/or a failure to supervise or ineffective supervision of students during school activities.

- Geo-caching or geo-teaming is about on par with taking a hike in the countryside in terms of physical risk. The challenges to students relate to using teamwork to navigate the course.

- Mother Lode River Center is the company we have used for our rafting trips. They hire very experienced river guides and have an excellent safety record. Adults from the school district, including certificated employees, keep the ratio of adults to children at 6:1 or less. Trips are scheduled in the fall when the lower river levels make the difficulty of the rapids enough to be challenging but not overly dangerous. Students all wear life jackets. Students spend the morning of their rafting trips participating in teambuilding activities, and students who will not follow instructions or work with others are not allowed on the river. The river trip is preceded by safety instruction, and, once on the river, the students practice the skills they will need, including flipping over the raft and getting everyone back into the boat.

- Parents are notified of potential hazards in the paperwork they complete for the trip, and Mother Lode requires a release form acknowledging potential hazards and waiving liability. Their insurance company includes Black Oak Mine Unified School District as "other insured" on their policy.

As we have already discussed, adventure-based learning is included in several model programs selected by SAMHSA, and these activities were an allowed expense in our federal Grants to Reduce Alcohol Abuse funding.

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3 Permission forms and liability waivers are available upon request.
Conclusion

On the basis of research and our experience and outcomes with last year's freshman class, we strongly urge the Department's reconsideration. We ask that you rescind the decision to remove the adventure-based learning experience from our SS/HS budget. We know that the removal of that component will have negative impacts on student acceptance and participation in SS/HS activities and that it will reduce program support among teachers, school staff and parents. In our judgment, based on our own evaluation and the larger research record, we also believe that removing this core component of our program will significantly reduce benefits to Black Oak Mine School District students. We have appropriately managed potential liability.

The adventure-based components of our program represent less than 5% of our overall budget. The benefits of these strategies far exceed these expenditures.