

Assessment of Likely Use and Impacts from Proposed Devil's Slide Trail



Devil's Slide: Photo By Patrick Tierney

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EXECUTIVE SUMMARY

Upon completion of the Devils Slide Tunnel an existing, one mile scenic section of Highway 1 between the communities of Pacifica and Montara, south of San Francisco, will be converted to a hiking and bicycle trail segment of the California Coastal Trail, referred to in this report as the Devil's Slide Trail (DST). Research about potential levels of visitation to the DST, visitor characteristics and activities will be used by the California Coastal Conservancy to assist them and other members of the Devil's Slide Trail Taskforce to maximize potential public benefits and allow for adequate planning of facilities and budgets. Data was gathered by an on-site survey of 348 visitors in the DST area, the administration of a follow-up on-line survey to 30 intercept respondents and a survey of managers of adjacent parks. Over half the visitor survey respondents were from the Bay Area, over a quarter were local residents, only ten percent lived in the state outside the Bay Area, while two percent were international residents.

Key findings from the visitor survey were:

- About two thirds of visitor intercept survey respondents were very or extremely likely to visit the Devil's Slide Trail once it opened. Only one quarter would be very unlikely to visit. Most likely to visit are locals (80.6%), international visitors (75.0%) and Bay Area residents (59.1%).
- Respondents most desired rest rooms; maps of trail; and information on plants, animals, geology and marine resources.
- Viewing the Pacific Ocean, beach activities and walking/hiking or jogging were the most popular potential DST activities.
- About a third of all respondents indicated they very or extremely likely to take a free parking shuttle to the north trailhead.
- Over two thirds of all respondents were very or extremely likely to take other trails connecting to DST. Local residents were most likely to take connecting trails (73.4%).
- Follow-up survey respondents stated the biggest benefits to them from opening of the DST were: A safer car-free trail; improved access to other trails; a trail with great views of nature; a great place for exercise; and having a great trail so close to their home.
- Respondents to an open-ended follow-up question desired restrooms, parking, dog access or controls, maps/signs, adequate trail maintenance (rock removal), picnic tables and benches, more trails (multi-use) and new beach access.
- Largest potential problems cited in the follow-up were litter, parking, personal safety of users, traffic, impact on the coastal environment, sanitation and trail crowding.

- Most frequently mentioned environmental protection needs were: Get people to stay on trails; clearly posted regulations; animal-proof trash receptacles.
- DST area park managers were surveyed and all agreed DST was a tremendous chance to expand public recreation opportunities.
- All managers thought DST would be very popular. Use levels would depend on how nearby trails and facilities were developed.
- Manager consensus was that DST would greatly increase use in existing nearby parks.
- Every manager said their agency absolutely could not take on the added responsibilities associated with the operation and maintenance of the new DST without significant increases in their operating budgets.
- All managers agreed that the largest new impacts on their parks would be related to trail and amenity maintenance, law enforcement and public safety.
- Managers felt the wider width of the trail would reduce potential trail user safety issues. But this coastal area has very significant, unique public safety concerns that must be addressed.
- Proposed facilities at the tunnel portals were considered inadequate for the large demand. Additional parking, permanent restrooms, drinking water, signs, trash receptacles, et. al., at the portals, along the trail and at nearby parks will be needed.

Survey results indicated that the public and managers are excited about the great opportunity to expand recreation opportunities with the Devil's Slide Trail. Based on survey and call responses and use levels of similar trails the investigator estimates over 200,000 visits per year to DST. But the public and managers are also concerned about safety, emergency response, environmental protection, interpretation and providing needed facilities and services to foster compatible high quality recreation experiences. To ensure these occur will require significant agency staff time, support, equipment and related funding. The amount and sources of funding for operations and maintenance need to be identified. No agency has current funding to take on these responsibilities alone. If Golden Gate National Recreation Area (GGNRA) gets new funding associated with the Rancho Corral de Terra expansion they might be able to be the lead agency. But a multi-agency management approach may be needed. For example, CalTrans could continue to maintain the surface of the trail via their new tunnel maintenance facility, GGNRA could provide law enforcement and maintenance staffing to operate the new portal recreation facilities in conjunction with its southern expansion, State Parks could enlarge support facilities and associated maintenance in their adjacent parks and San Mateo County could assist in planning and acquiring grants for facilities and equipment. Hopefully, this research has provided valuable information for the Devil's Slide Task Force to address these issues and facilitate planning and implementation of the next phases of this Devil's Slide Trail project.

Table of Contents

	<u>Page</u>
I. Executive Summary	1
II Introduction	4
III Methods	5
IV. Visitor Survey Results	10
V. Conclusions	33

Introduction

Upon completion of the Devil's Slide Tunnel an existing scenic section of Highway 1 between the communities of Pacifica and Montara, south of San Francisco, will be converted to a hiking and bicycle trail segment of the California Coastal Trail (see Figure 1), referred to in this report as the Devil's Slide Trail (DST). The Devil's Slide Taskforce is considering if there will be a great deal of interest in visiting this new trail and if so, the trail's attraction could have an impact on existing regional recreation use patterns. Will new facilities and staffing be needed to address potential traffic and visitor management needs at portal trailheads and parking lots? The idea of a shuttle from areas with greater parking availability has been discussed, but will there be a need for a shuttle. Persons attracted to the DST may also increase visitation at nearby existing parks and recreation areas. Will additional facilities, staffing and funding be needed to meet increased demands for facilities, operations and related trail maintenance, trash collection, law enforcement, traffic management, public safety, conflict management between different types of users and resource protection?

Information about potential levels of visitation to the DST, visitor characteristics and activities are a basic need to allow for adequate planning of facilities and budgets. Dr. Patrick Tierney was contracted by the California Coastal Conservancy to assist them and other members of the Devil's Slide Trail Taskforce by gathering relevant information for planning appropriate facilities, operations and maintenance associated with the proposed Devil's Slide Trail (DST). Specific study objectives were to:

1. Conduct a telephone survey of land management, coastal resources and recreation agencies that may be affected by the DST.
2. Gather information on use levels, types of users, needed facilities, management, operations and maintenance issues and staffing levels from a comparable trail.
3. Survey potential DST users who are visiting the project area to learn about their interest in visiting the DST, frequency of use, what activities they would undertake and how likely they would take a shuttle from the Linda Mar area to the trailhead.
4. Estimate how the DST may impact individual recreation sites, regional park and recreation area visitation, recreation and traffic patterns, facilities, operations and maintenance needs.

Figure 1. Devil's Slide Trail and Vicinity



Methods

Three methods were used to gather data for this study. The first was to design, administer and analyze data from a survey of persons visiting three recreation sites adjacent to the DST. Trained San Francisco State University student surveyors intercepted visitors and asked them to complete a self-administered survey. The survey is shown in Appendix A. Surveys were conducted on the weekend days of October 8, 9 and 15 between the hours of 8am and 5pm in the parking lots at Grey Whale and Montara State Beaches and along the coastal trail and in the parking lot of Pacifica State Beach (Linda Mar area). These sites were selected because they are adjacent to the DST on the north and south along Highway 1. The intent was to gather data from persons who visit and use the DST area now and, therefore, are representative of visitors to the DST area in the future. Surveyors were instructed to contact all groups who entered the parking lot or approached them on a trail. If a person volunteered to complete the survey they were given a color photograph of the entire DST area showing the proposed new trail and adjacent parks (see Appendix A) and asked to complete the self-administered survey. Weather conditions during the survey periods ranged from foggy and cool to warm and sunny. Data from the visitors survey was analyzed using SPSS software. Appendix B contains detailed information from the visitor survey. A total of 348 usable completed surveys were entered into the database.

The last question of the visitor survey asked respondents if they would provide their email address so that a link to a follow-up on-line survey could be emailed to them. The intent of the follow-up survey was to gather more detailed information about the potential uses, concerns and facility needs for the DST area (see Appendix C for follow-up survey). On November 15, 2005 a total of 110 volunteers were emailed the link to an on-line survey located on Zoomerang.com. A total of 30 completed follow-up surveys were returned, while 8 email addresses were unusable. This resulted in a response rate of 29.4%. Results from the on-line survey are compiled automatically by the survey software and presented in tabular and text formats. Detailed responses to the Follow-Up survey are presented in Appendix D.

A final data collection method was a survey mailed to managers of parks and recreation sites adjacent to the DST, followed with telephone interviews to verify and elaborate on survey responses. Each manager was provided with preliminary data from the visitor survey and asked to describe potential impacts to their park from a new DST and any additional staffing, facility or maintenance needs that may result. Appendix E contains the manager survey. Findings are summarized later in this report.

Visitor Survey Results

Survey Locations

There were three locations where surveys were administered. The site with the greatest number of respondents was Pacifica State Beach (185), as shown in Table 1. Grey Whale State Beach (82) and Montara State Beach (81) were the other two locations, and they had about equal numbers of respondents. A total of 348 completed surveys were received.

Table 1. Survey Locations

		Count	Col %
Survey Location	Montara Beach	81	23.3%
	Grey Whale Beach	82	23.6%
	Pacifica St. Beach	185	53.2%
	Total	348	100.0%

Figure 2. Survey Locations

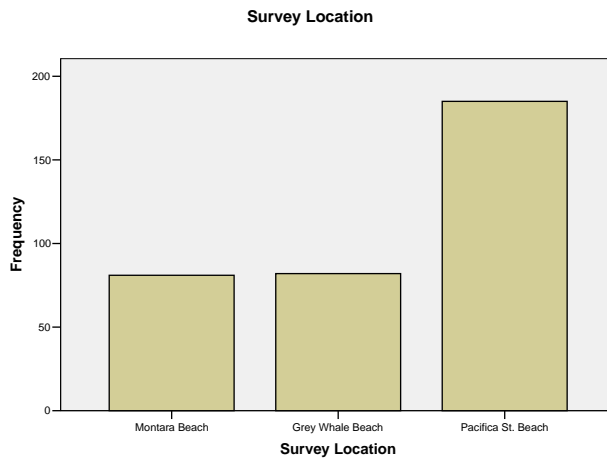


Table 2. Date Of Survey

		Col %
Survey Date	08-OCT-05	35.4%
	09-OCT-05	34.0%
	15-OCT-05	30.5%

Just over half (53.2%) of all completed surveys were collected at Pacifica State Beach with about 23% each at Montara Beach and Grey Whale Beach (see Table 2). About equal numbers of surveys were collected on each of the three weekend survey days.

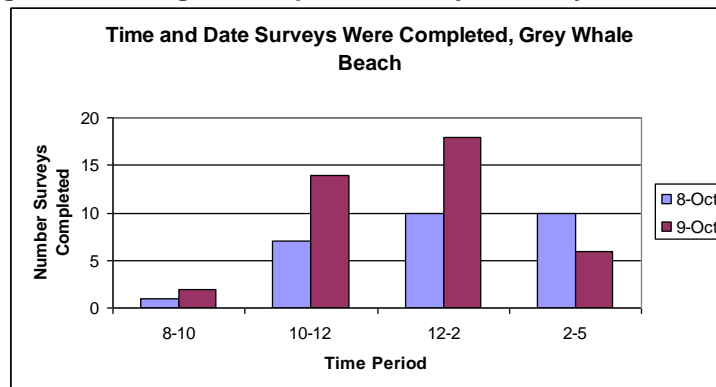
Time Of Day When Surveys Were Completed

The student surveyors were instructed to record the time when each survey was completed. This data is a reasonable representation of when persons visit the survey sites. Therefore, this data is an indication of the timing demand curve for a typical fall season weekend. This information indicates the peak times for visitation to the Devil's Slide Trail in the future.

Table 3. Time Of Day When Surveys Were Completed, All Dates And Sites

Time Survey Was Completed	Col %
8-10am	6.7%
10-Noon	36.8%
Noon – 2	32.2%
2-5pm	24.3%

Figure 3. Timing Of Completed Surveys At Grey Whale Beach



Survey results for all sites and survey collection dates, as shown in table 3 above, indicate that the peak time for visitation to the survey sites was 10am to noon, with the period noon to 2:00pm being the next most frequently used. However, Figure 3 shows when surveys were completed on Oct 8 and 9 at just Grey Whale State Beach. Data from all sites is not as representative because survey responses are dominated by those collected at Pacifica State Beach, which is very popular with surfers and is easy walking distance from residences in the City of Pacifica. The Devil's Slide area does not have either of these two site characteristics. Therefore, a better representation of future demand for Devil's Slide trail is shown by Grey Whale Beach data. Since surveyors tried to approach all visitors to the survey site, the data from Grey Whale State Beach are a reasonable representation of the timing of future demand at the Devil's Slide trail. They suggest that shuttles, if they are developed, should run between the hours of 10am to at least 2pm, maybe till 5 pm.

Respondent Residence

The survey asked respondents to provide their current residence. Local refers to residents in nearby communities to Devil's Slide, including Pacifica, Montara, Half Moon Bay and El Granada. Bay Area refers to cities in the Greater Bay Area from Santa Rosa to Pescadero to Concord (including San Francisco), but excluding Local residents. A California residence means a state resident, excluding Bay Area residents. A California residence means a state resident, excluding Bay Area residents.

Table 4. Respondent Residence

		Count	Col %
Residence Location	Local	94	27.4%
	Bay Area	191	55.7%
	California	35	10.2%
	USA	15	4.4%
	Int'l	8	2.3%
	Total	343	100.0%

Figure 4. Residence of Respondents

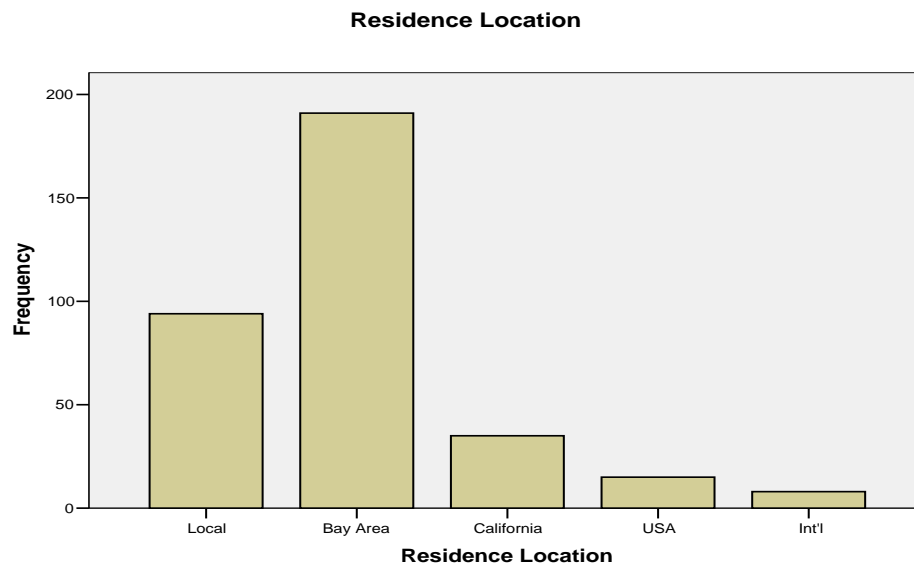


Table 4 shows that over half the respondents were from the Bay Area, over a quarter were local residents, only ten percent lived in the state outside the Bay Area, while two percent were international residents. See Appendix B for a listing of residents by City.

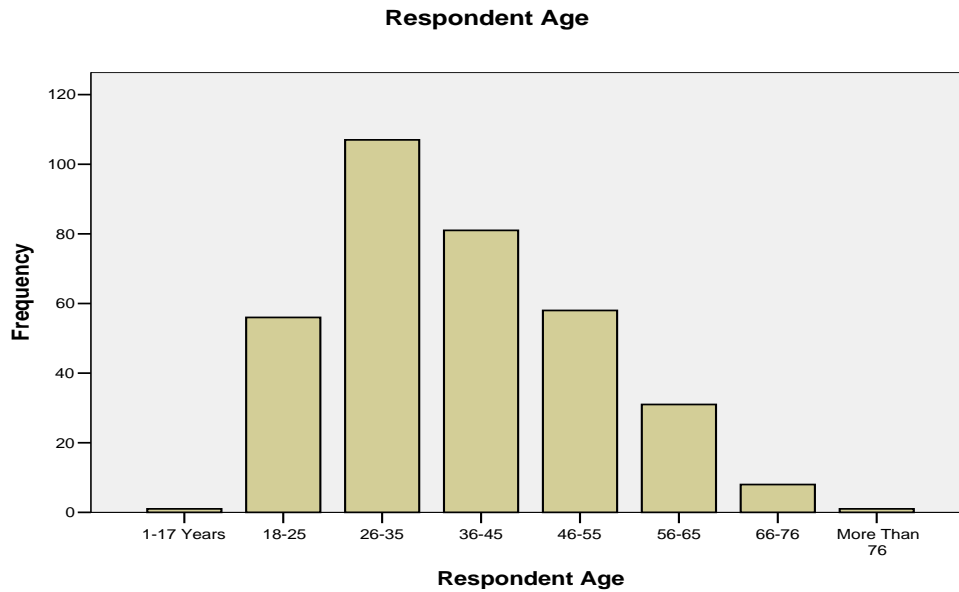
Respondent Age

Survey respondents were asked to indicate their age. Results are shown in Table 5 and Figure 5.

Table 5. Respondent Age

	Count	Col %
Respondent Age 1-17 Years	1	.3%
18-25	56	16.3%
26-35	107	31.2%
36-45	81	23.6%
46-55	58	16.9%
56-65	31	9.0%
66-76	8	2.3%
More Than 76	1	.3%

Figure 5. Respondent Age



Results show that respondents were most frequently between 26-35 years (31.2%) and 36-45 years (23.6%).

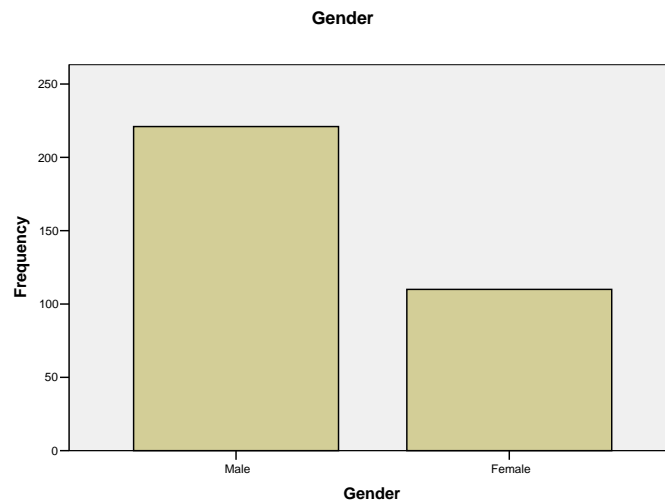
Respondent Gender

Surveyors were asked to identify the gender of respondents. Results are shown in Table 6 and Figure 6.

Table 6. Respondent Gender

		Count	Col %
Gender	Male	221	66.8%
	Female	110	33.2%

Figure 6. Respondent Gender



About two thirds of respondents were male. However, over 74% of local respondents were males. This dominance by males among respondents was probably due to the survey location which had the most responses, the surfing location of Pacifica State Beach.

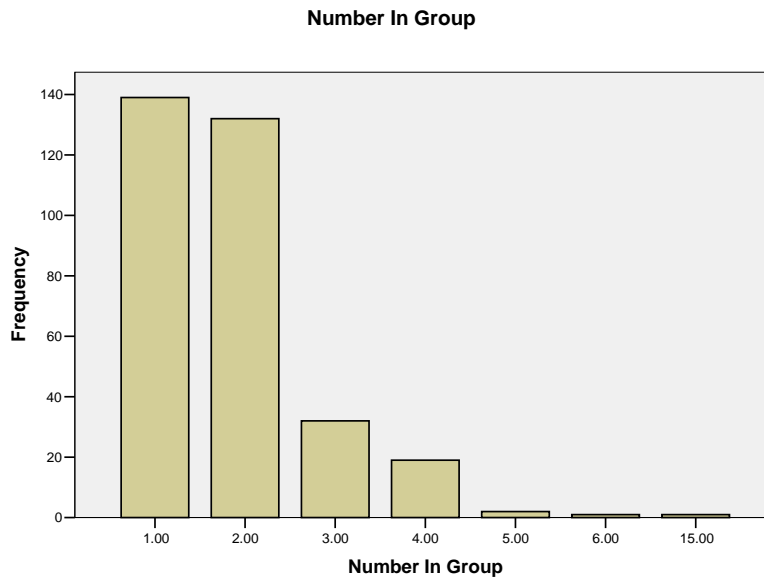
Number Of Persons In Travel Group

Surveyors were asked to record how many persons were in the travel group. Results are presented in the table below.

Table 7. Number In Travel Group

	Col %
Number	1.00
In Group	42.6%
	2.00
	40.5%
	3.00
	9.8%
	4.00
	5.8%
	5.00
	.6%
	6.00
	.3%
	15.00
	.3%

Figure 7. Number Of Persons In Respondent Group



Survey findings shown in Table 7 and Figure 7 indicate that the vast majority of respondents were alone or in a group of 2 persons. Average group size was 1.9 persons. There were very few groups of more than 5 persons interviewed. But one group had 15 persons and this suggests that DST facilities might need to accommodate an occasional large group in vans or even motor coaches.

Transportation Used To Arrive At Survey Site

Respondents were asked which type of transportation they used to arrive at the survey site. See Figure 8.

Figure 8. Transportation Used By Respondents To Survey Site

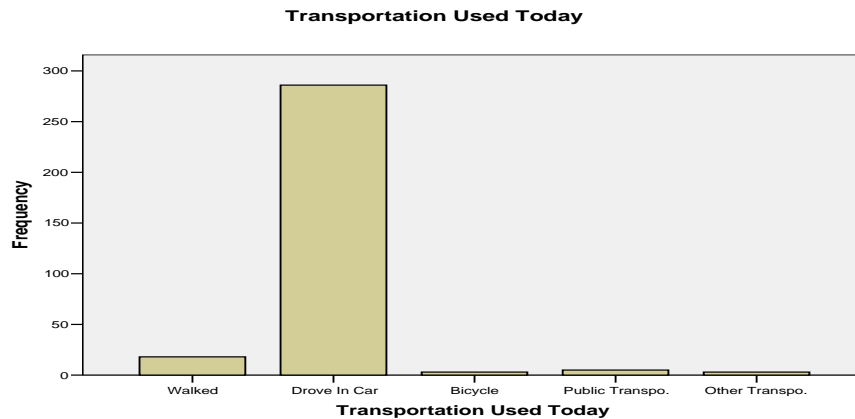


Table 8. Transportation Used By Respondent Residence

		Transportation Used Today				
		Walked	Drove In Car	Bicycle	Public Transpo.	Other Transpo.
		Row %	Row %	Row %	Row %	Row %
Residence Location	Local	17.9%	75.0%	2.4%	2.4%	2.4%
	Bay Area	.6%	98.3%	.6%	.6%	
	California	3.3%	90.0%		6.7%	
	USA		93.3%			6.7%
	Int'l	14.3%	85.7%			

N=350. Chi Square Sig. = .000

Table 9. Transportation Used By Respondent Age

		Transportation Used Today				
		Walked	Drove In Car	Bicycle	Public Transpo.	Other Transpo.
		Row %	Row %	Row %	Row %	Row %
Respondent Age	1-17 Years		100.0%			
	18-25	2.0%	91.8%	2.0%	2.0%	2.0%
	26-35	4.0%	94.0%		2.0%	
	36-45	1.4%	97.2%	1.4%		
	46-55	10.9%	87.3%			1.8%
	56-65	11.1%	81.5%	3.7%		3.7%
	66-76	42.9%	28.6%		28.6%	
	More Than 76		100.0%			

N= 312. Chi Square Sig = .000

Automobile was by far the most common form of transportation to the survey site (see Tables 8 and 9). However, locals, international visitors and respondents 66-76 years old were more significantly likely to walk.

Familiarity With Nearby Parks and Trails

Respondents were asked if they were familiar with a list of parks and trails in the Devil's Slide area. Results are shown in the following tables.

Table 10. Familiarity With Nearby Parks And Trails, All Respondents.

Park/Recreation Area	Yes (%)
Pacifica State Beach (Linda Mar)	86.1
Montara State Beach	78.8
Montara Mountain	65.3
Grey Whale State Beach	56.7
Pedro Point Headlands	52.4
San Pedro Valley County Park	46.9
Sawyer Camp Trail	42.1
Sweeney Ridge or Mori Point	41.9
Mc Nee Ranch	40.6
Other	
Half Moon Bay State Beach	NA
Rockaway Beach	NA
Fitzgerald Marine Preserve	NA

Table 11. Percent Familiar With Nearby Parks, By Residence*

Park/Recreation Area	Bay Area Resident	Not B.A. Resident
Pacifica State Beach (Linda Mar)	90.5	62.3
Montara State Beach	83.2	54.7
Montara Mountain	69.0	44.0
Grey Whale State Beach	60.6	40.0
Pedro Point Headlands	56.0	32.1
San Pedro Valley County Park	49.6	28.6
Sawyer Camp Trail	45.0	26.5
Sweeney Ridge or Mori Point	45.9	22.4
Mc Nee Ranch	43.3	24.5
* Significant difference between two groups at p=.05, all variables		

By far the most popular parks were the beaches at Pacifica and Montara, with over 78% knowing about them. Over half of respondents were familiar with Grey Whale Beach, the site closest to DST (see Table 10). Sawyer Camp trail, the only trail on the list, was familiar to over 42% of respondents. Not surprisingly, Bay Area residents were significantly more likely to be familiar with all parks than were non-residents of the Bay Area. Table 11 illustrates the percentage of respondents familiar with each park, with the beaches and Montara Mountain being more well known.

Visited Nearby Parks and Trails

Respondents were asked if they visited nearby parks and trails in the last six months. Results are shown in the following tables.

Table 12. Visited Nearby Parks and Trails, All Respondents

Park/Recreation Area	Yes (%)
Pacifica State Beach (Linda Mar)	78.2
Montara State Beach	65.4
Montara Mountain	45.1
Grey Whale State Beach	41.2
Pedro Point Headlands	32.8
San Pedro Valley County Park	31.7
Sweeney Ridge or Mori Point	31.1
Sawyer Camp Trail	25.3
Mc Nee Ranch	25.6

Table 13. Percent Visited Nearby Parks By Residence*

Park/Recreation Area	Bay Area Resident	Not B.A. Resident
Pacifica State Beach (Linda Mar)	84.0	44.2
Montara State Beach	68.9	47.7
Montara Mountain	48.7	23.1
Grey Whale State Beach	44.5	23.1
Pedro Point Headlands	35.9	12.8
San Pedro Valley County Park	34.6	13.9
Sweeney Ridge or Mori Point	34.5	13.2
Sawyer Camp Trail	27.6	10.8
Mc Nee Ranch	27.5	10.8

* Significant difference between two groups at $p=.05$ for all variables

The most frequently visited parks were also the beaches at Pacifica and Montara, with over 65% having visited (see Figure 12). Grey Whale Beach was visited by 41% of respondents and 23% of non-residents in the last 6 months. Sawyer Camp trail, the only trail on the list, was visited by 25% of all respondents, with 27.6% of Bay Area residents and 10.8% of persons living outside the Bay Area having visited. Bay area residents were significantly more likely to visit all parks than were non-residents of the Bay Area (see Figure 13).

Likelihood of Visiting New Devil’s Slide Trail

The survey described that a tunnel would be replacing part of Highway 1 at Devil’s Slide and the existing one mile section of highway would be converted into a new addition to the California Coastal Trail. A map of the Devil’s Slide area was provided. Respondents were asked how likely they would visit this new Devil’s Slide Trail after it opened (see Figure 9).

Figure 9. Likelihood of Visiting DST.

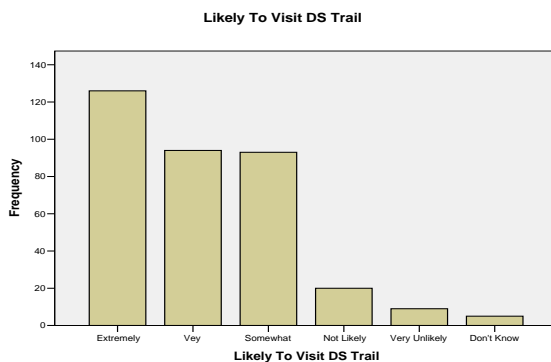


Table 14. Likelihood of Visiting Devil’s Slide Trail (%)

		Count	Percent
Likely To Visit DS Trail	Extremely	126	36.3%
	Very	94	27.1%
	Somewhat	93	26.8%
	Not Likely	20	5.8%
	Very Unlikely	9	2.6%
	Don't Know	5	1.4%

Table 15. Likelihood of Visiting Devil’s Slide Trail By Respondent Residence

		Likely To Visit DS Trail					
		Extremely	Very	Somewhat	Not Likely	Very Unlikely	Don't Know
		Row %	Row %	Row %	Row %	Row %	Row %
Residence Location	Local	51.6%	29.0%	16.1%	1.1%	1.1%	1.1%
	Bay Area	29.3%	29.8%	29.3%	7.3%	2.6%	1.6%
	California	37.1%	14.3%	37.1%	2.9%	8.6%	
	USA	13.3%	13.3%	53.3%	13.3%		6.7%
	Int'l	50.0%	25.0%		25.0%		

Significant difference between groups at p=.05

Table 14 shows that over 63% of all respondents indicated they would be very or extremely likely to visit the Devil’s Slide Trail once it opened. Only 2.6% stated they would be very unlikely to visit. Those most likely to visit are locals (80.6%), international visitors (75.0%) and Bay Area residents (59.1%). This suggests there will be strong interest in visiting the trail, especially among locals and Bay Area residents who have relatively easy access to the trail and could be frequent users of it. Bay Area residents are less familiar with the DST area than locals, so the biggest potential influx of new visitors is likely to be from the Bay Area, once DST is publicized in regional media.

Desired Facilities And Information At New Devil's Slide Trail

Respondents were asked to indicate their interest in a list of potential facilities and information that could be provided at the new Devil's Slide Trail. Results are shown in the tables below.

Table 16. Desired Facilities and Information At Devil's Slide Trail

Desired Facility Or Information	Extremely Interested %
Rest Rooms	62.6
Map of Trail On Sign At Trail-Head	58.0
Information on Animals, Plants, Marine Res.	43.1
Map Showing Other Parks In Area	37.4
Information on History of Area	35.5
Information On Activities and Things To Do	34.6
Picnic Tables	29.1
Other	
Food Service	NA
Dog Access	NA
Trash Containers and Recycle Bins	NA
Water Fountain	NA
Bicycle Access	NA

Table 17. Percent Extremely Interested In Facilities and Information By Residence*

Desired Facility Or Information	Bay Area Resident %	Not Bay Area Resident %
Rest Rooms	60.4	70.4*
Map of Trail On Sign At Trail-Head	58.2	55.2
Information on Animals, Plants, Marine Res.	39.6	58.6*
Map Showing Other Parks In Area	35.8	41.4
Information on History of Area	32.2	50.0*
Information On Activities and Things To Do	32.0	44.8
Picnic Tables	27.0	36.2

* Significant difference between two groups at p=.05

Respondents were most likely to be extremely interested in rest rooms; map of trail; and information on plants, animals, geology and marine resources (see Table 16). Non-residents of the Bay Area were significantly more likely to want rest rooms and information on plants, animals, geology, marine resources and history, than were residents.

Types of Activities Likely To Participate In During Visit To Devil's Slide Trail

The survey asked respondents what types of activities they would most likely participate in during a visit to the new Devil's Slide Trail and adjacent areas. Results are presented in Tables 18 and 19 below.

Table 18. Activities Extremely Likely To Participate In During Devil's Slide Area Visit

Activity Participation	Extremely Likely %
Viewing The Pacific Ocean	59.5
Beach Activities (e.g. Sun bathing, Surfing)	45.3
Walking/Hiking/Jogging	44.1
Accessing Other Trails In The Area	30.8
Observing Scenery/Plants/Nature	27.6
Bicycle	24.0
Scenic Drive In Car	23.2
Picnicking At Tables and Benches	19.1
Learning About Marine Resources	18.8
Dog Walking	18.7
Learning About History Of Area	17.8
Other	
Horseback Riding	NA
Mountain Biking	NA
Meditation	NA
Skating	NA

Table 19. Activities Extremely Likely To Participate In During Visit To Devil's Slide Area By Residence*

Activity Participation	Bay Area Resident	Not B.A. Resident
Viewing The Pacific Ocean	58.4	65.5
Beach Activities (e.g. Sun bathing, Surfing)	45.0	48.3
Walking/Hiking/Jogging	44.3	44.8
Accessing Other Trails In Area	30.6	30.4
Observing Scenery/Plants /Nature	25.8	36.2
Bicycle	25.4	17.2
Scenic Drive In Car	21.9	30.9
Picnicking At Tables	16.8	29.3*
Learning About Marine Resources	17.9	24.1
Dog Walking	18.7	17.9
Learning About History Of Area	17.1	22.4

* Significant difference between two groups at p=.05

The above tables show that during a visit to the DST area over 40% of respondents would be extremely likely to undertake the following activities: Viewing the Pacific Ocean, beach activities and walking/hiking or jogging. Assessing other trails in the area was selected by 30.8%, observing nature (27.6%) and bicycling (24%) were also popular. Non-residents of the Bay Area were somewhat more likely to do all activities than locals, except for accessing other trails, bicycling and dog walking. Non-residents were significantly more likely to picnic at provided tables and benches than were residents (see Table 19). These data suggest that demand will be for a multi-purpose trail with a variety of recreation uses.

Likelihood Of Taking Shuttle To Trailhead

A question in the survey described how parking would be limited at the Devil's Slide trailheads and that a free shuttle was being considered from the Linda Mar area in Pacifica to the north trailhead. Respondents were asked about the likelihood of them going to Pacifica and taking a free shuttle to the north trailhead if all trailhead parking was full. Results are shown below.

Figure 10. Likelihood of Taking Free Shuttle

Table 20. Likelihood of Taking Free Shuttle To Trailhead

		Col %
Likelihood of Taking Shuttle	Don't Know	5.2%
	Not At All	28.9%
	Somewhat	35.3%
	Very	13.3%
	Extremely	17.3%

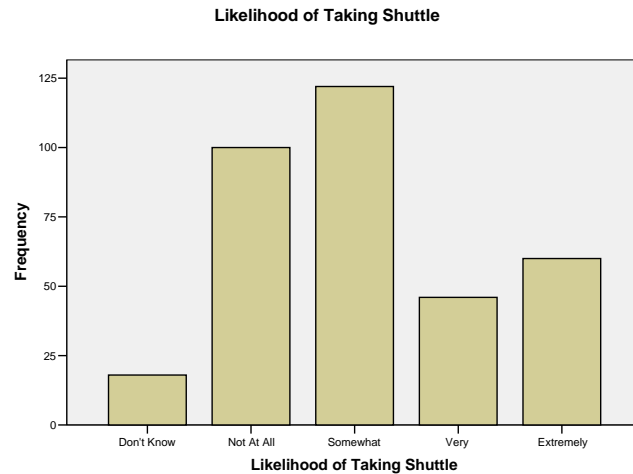


Table 21. Likelihood Of Taking Free Shuttle To Trailhead By Residence

		Likelihood of Taking Shuttle				
		Don't Know	Not At All	Somewhat	Very	Extremely
		Row %	Row %	Row %	Row %	Row %
Residence Location	Local	4.3%	32.3%	37.6%	8.6%	17.2%
	Bay Area	6.3%	30.0%	33.2%	17.4%	13.2%
	California	2.9%	25.7%	45.7%		25.7%
	USA		6.7%	40.0%	20.0%	33.3%
	Int'l	12.5%	25.0%	12.5%	25.0%	25.0%

* Significant difference between groups at $p=.05$

Responses to the survey indicate that about 30.6% of all respondents would be very or extremely likely to take a free shuttle from the Linda Mar area in Pacifica to the north trailhead. Tourists from outside the state (53.3%) and international residents (50.0%) were significantly more willing to take the shuttle than locals or Bay Area residents. Over 30% of Bay Area and 25% of local residents were very or extremely likely to take the shuttle. About 69.9% of locals and 63.2% of Bay Area residents were not at all or only somewhat likely to take a shuttle.

Likelihood Of Taking Nearby Connecting Trail

The survey stated that several nearby recreation areas have access trails that will eventually connect with the Devil's Slide Trail. Respondents were asked how likely they would be to take a connecting trail from the Devil's Slide Trail. Results are presented in the Tables 22 and 23 and Figure 11 below.

Figure 11. Likelihood of Taking Other Trails

Table 22. Likelihood of Taking Other Trails From Devil's Slide Trail

	Col %
Likelihood Of Taking Other Trails	
Don't Know	1.7%
Not At All	5.8%
Somewhat	30.6%
Very	33.2%
Extremely	28.6%

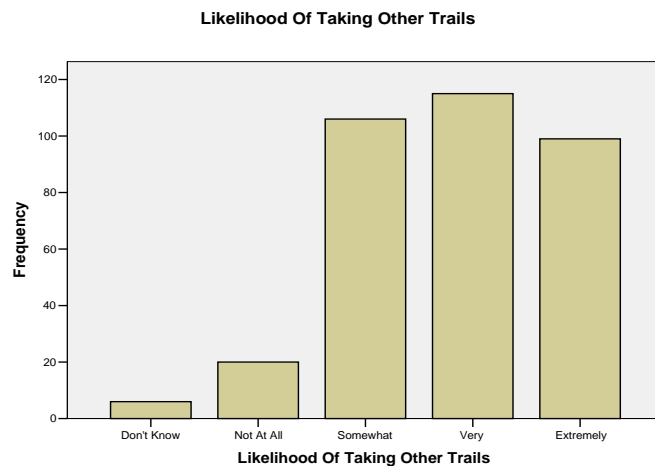


Table 23. Likelihood of Taking Other Trails From Devil's Slide Trail By Respondent Residence

		Likelihood Of Taking Other Trails				
		Don't Know	Not At All	Somewhat	Very	Extremely
		Row %	Row %	Row %	Row %	Row %
Residence Location	Local	2.1%	4.3%	20.2%	38.3%	35.1%
	Bay Area	1.6%	4.7%	32.1%	34.2%	27.4%
	California	2.9%	17.1%	34.3%	17.1%	28.6%
	USA			73.3%	13.3%	13.3%
	Int'l		12.5%	37.5%	25.0%	25.0%

No significant differences between groups at $p=.05$

Survey responses showed that about 60.8% of respondents were very or extremely likely to take other trails connecting to the DST. Only 5.8% stated they were not at all likely to take a connecting trail. Local residents were the most likely to take connecting trails (73.4%), compared to USA residents (26.6%). These findings suggest that over half of local and Bay Area residents drawn to the area to visit the new DST will utilize other trails to visit nearby recreations sites.

Results Of Follow-Up On-Line Survey

A total of 110 email respondents of the first survey provided their email address and were emailed the link to a follow-up on-line survey November 15, 2005. Eight had unusable email addresses. A total of 30 were returned completed. This resulted in a response rate of 29.4%. The follow-up survey was designed to elicit more detailed responses about the DST through open-ended questions, as well as providing linking questions to allow a comparison of the types of persons who completed the initial intercept survey and the follow-up survey. Results are presented below. The first two sets of data are for linking variables, allowing a comparison of respondents for the intercept and follow-up surveys.

Respondent Residence

Table 24. Comparison of Respondent Residence, Intercept and Follow-Up Survey

		Intercept Survey	Follow-up Survey
Residence Location	Local	27.4%	46.7%
	Bay Area	55.7%	50.0%
	California	10.2%	3.3%
	USA	4.4%	0.0%
	Int'l	2.3%	0.0%
	Total	100.0%	100.0%

Table 24 shows that follow-up survey respondents were much more likely to be local residents versus California, USA or International visitors. Therefore, responses to the follow-up survey reflect primarily San Francisco Bay Area and local community (Pacifica, Montara, El Granada, Half Moon Bay) viewpoints.

Likelihood of Visiting Devil's Slide Trail

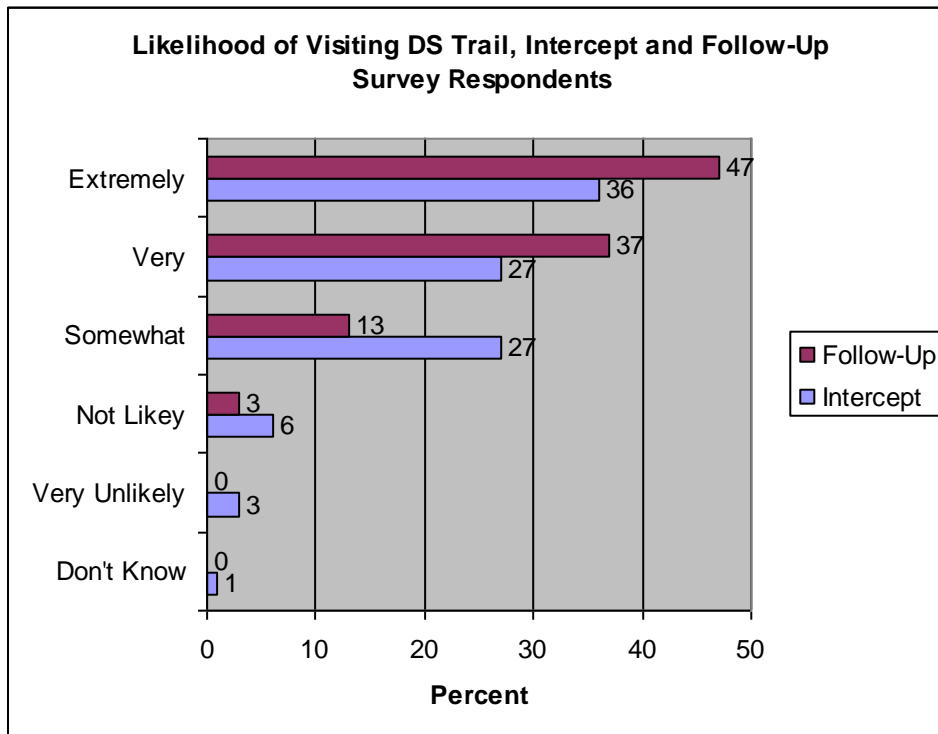
The likelihood of respondents to visit the Devil's Slide trail for the initial intercept and the follow-up survey respondents is shown below in Table 25. Over 47% of follow-up respondents were extremely likely to visit the trail, while 37% were very likely. Combining extremely and very likely, the likelihood totaled over 84%. Data from both surveys suggests the new Devil's Slide trail will be a popular recreation attraction.

Table 25. Likelihood of Visiting Devil's Slide Trail (%), Intercept and Follow-Up Survey Respondents

		Intercept	Follow-Up
Likely To Visit DS Trail	Extremely	36%	47%
	Very	27%	37%
	Somewhat	27%	13%
	Not Likely	6%	3%
	Very Unlikely	3%	0
	Unlikely	3%	0
	Don't Know	1%	0

Intercept percent responses are rounded.

Figure 12. Likelihood Of Visiting Devil's Slide Trail



Likelihood of Visiting Adjacent Parks and Recreation Sites

Respondents were asked if they were more likely to visit the DST area than in the past. Results are presented in Figure 13 below.

Figure 13. More Likely To Visit Devil's Slide Area Than In Past

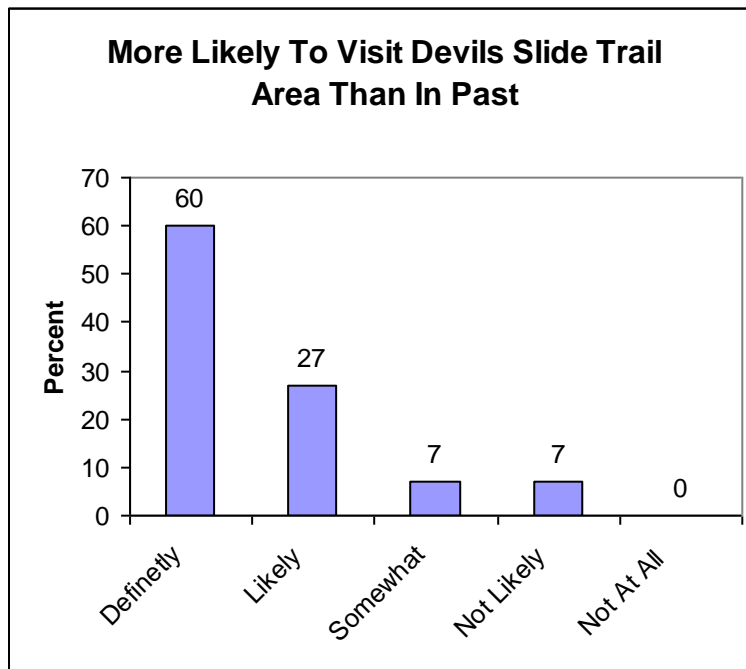
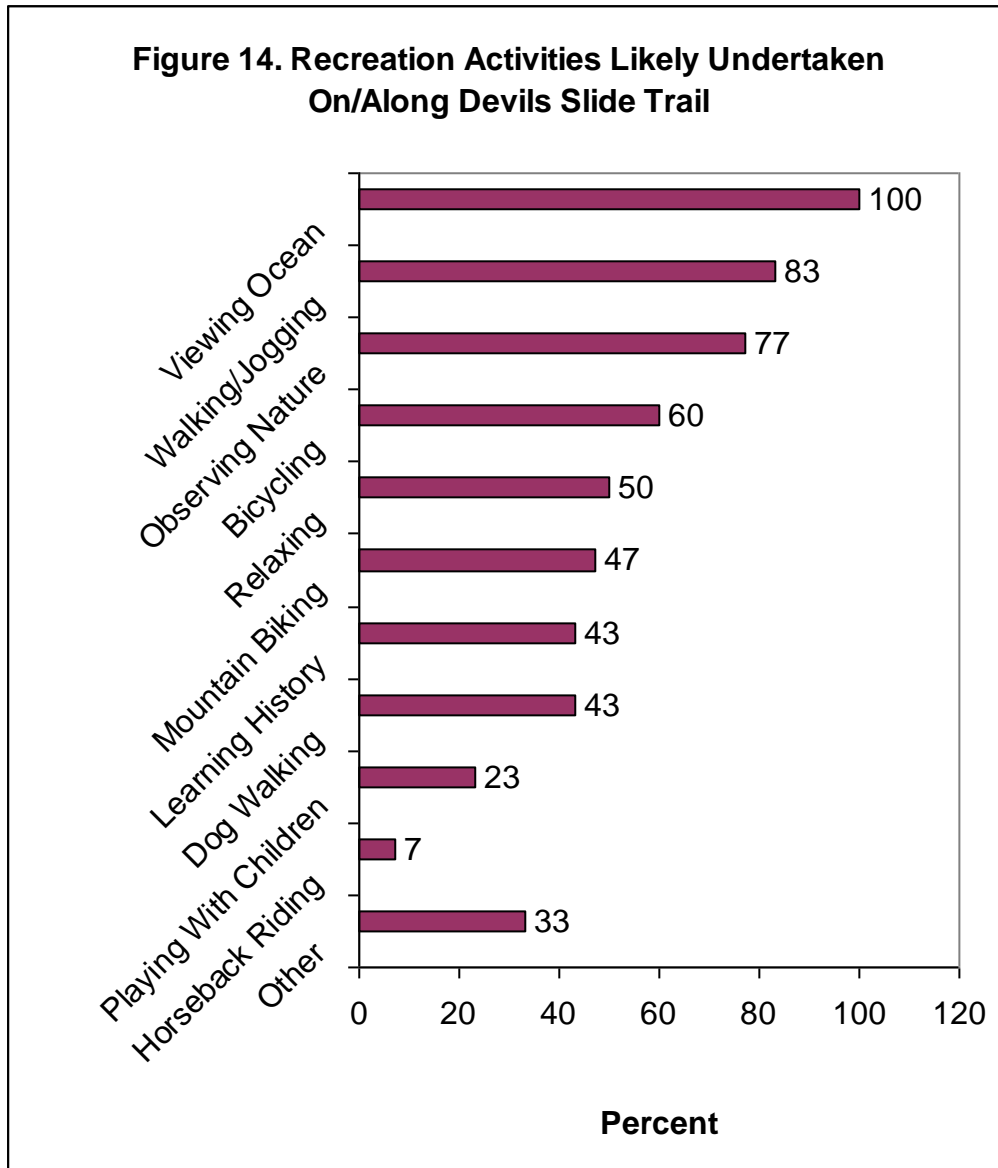


Figure 13 above illustrates that 87% of follow-up survey respondents were definitely or likely to visit the Devil's Slide Area and adjacent trails once the DST opened than they have visited the area in the past. Only 7% of respondents stated they would not likely visit any more than they have done in the past. This suggests that the new Devil's Slide trail will have a substantial effect on nearby parks and recreation areas.

Recreation Activities Most Often Undertaken On Or Alongside D.S. Trail

Viewing the Pacific Ocean (100%), walking/hiking/jogging (83%) and observation of scenery, plants, animals and nature (77%) were the most frequently mentioned types of recreation activities likely to be undertaken on or adjacent to the new Devil's Slide Trail (see Figure 14). Many other activities were planned by at least 10% of respondents. Horseback riding (2%) and playing with young children (7%) were the least likely to be undertaken.



Greatest Respondent Benefits From New Devil’s Slide Trail

This was an open-ended question and a full list of responses is included in Appendix D. A summary of the most frequently mentioned benefit themes, from most to least frequently cited were:

- A safer car-free trail than now exists along Highway 1;
- Improved trails and access to other trails;
- A trail with great scenery and views of nature;
- Improved coastal access;
- More recreation options;
- A great place for exercise;
- Having a great trail so close to their home.

Most Important New Facilities, Services Or Management Policies Needed

An open-ended question asked respondents to describe the two most important new facilities, services or management policies needed to best provide them with an outstanding future recreation experience in the Devil’s Slide Area. The researcher tabulated these open-ended responses and they are presented in the table below. Restrooms, parking, dog access or controls, maps/signs, adequate trail maintenance (rock removal), picnic tables and benches, more trails (multi-use) and beach access were the most frequently desired.

Table 26. Most Frequently Mentioned Needed Facilities, Services and Policies

Needed Facilities, Services Policies		Percent Mentioned
Restrooms		21.6
Parking (Enough, accessible, etc.)		15.7
Dog access/control/limits		11.7
Maps/signs		9.8
Adequate Trail Maintenance (rock removal, etc.)		7.8
Picnic tables or benches		5.9
More trails		5.9
Beach access		5.9

Largest Potential Problems Associated With Opening Devil's Slide Trail

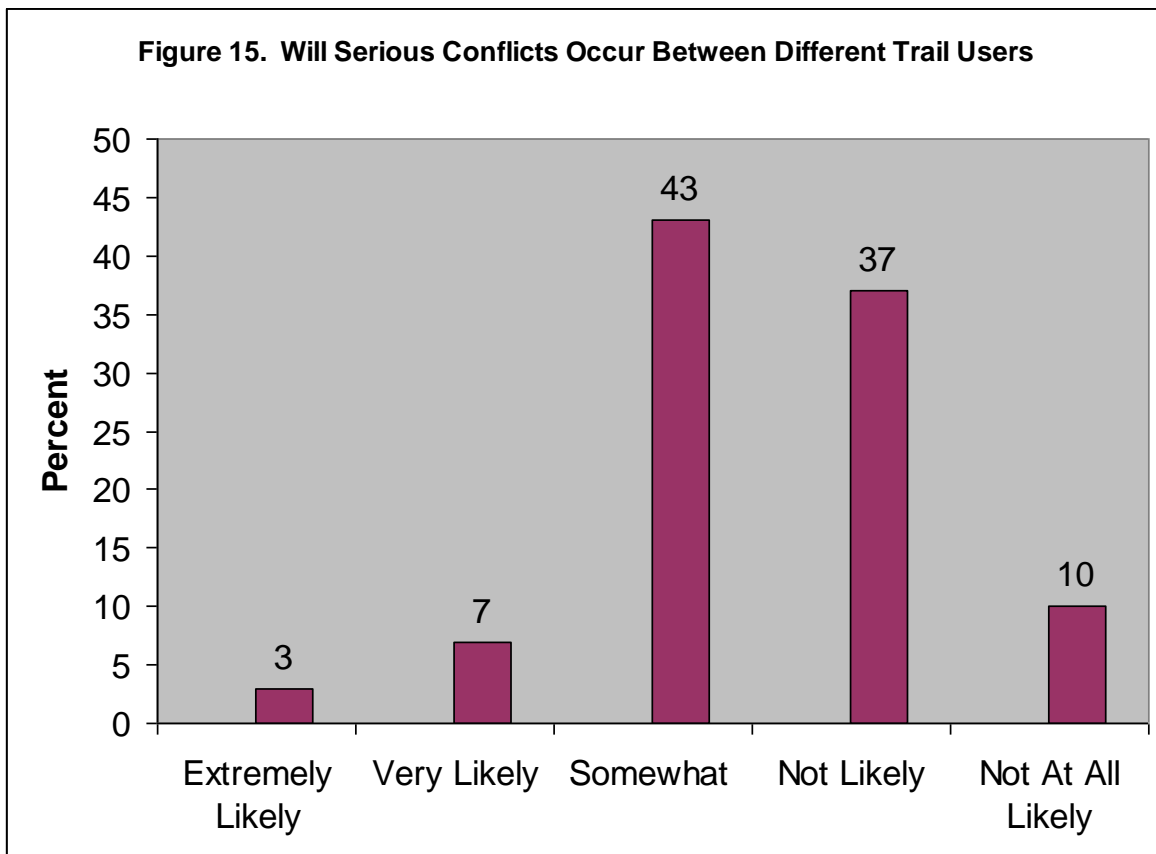
The survey asked respondents what they believe to be the two largest problems associated with the opening of the Devil's Slide Trail and associated visitor use. The researcher tabulated results from this open-ended question and these are presented below. Table 27 shows that the largest potential problems are litter, parking, personal safety of users and their cars, traffic, impact on the coastal environment, sanitation, conflicts with other users and crowding. A complete list of responses is provided in Appendix D. No one potential problem was by more than 13.2% of respondents.

Table 27. Most Frequently Mentioned Potential Problems With Opening Trail

Potential Problems		Percent Mentioned
Litter	7	13.2
Parking	7	13.2
Personal safety and vandalism	6	11.3
Traffic	6	11.3
Impact on coastal environment	5	9.4
Sanitation, human waste, rest rooms	5	9.4
Conflicts with other users (dogs, bikes, etc.)	4	7.5
Crowding	3	5.8

Likelihood of Serious Conflicts Between Trail Users

Respondents were asked the likelihood of serious conflicts occurring between different users of the paved Devil's Slide trail after it opens. Over 47% of respondents indicated that serious conflicts were not very likely or not at all likely, while 10% stated serious conflicts were either very or extremely likely (see Figure 15). A total of 43% indicated that serious conflicts were somewhat likely. This suggests there is a moderate level of concern among the respondents over the potential for conflicts between different users to occur.



What Facilities, Services Or Management Policies Should Be Provided To Lessen Serious Conflicts

Respondents who believed serious conflicts are at least somewhat likely were asked what facilities, services and/or management policies should be provided or implemented to lessen user conflicts. The researcher tabulated responses, which are presented in Table 28 below. The most frequently mentioned needs were posted trail regulations on signs (35.3% of those responding), separate lanes for walking/jogging and biking (35.3%) and adequate patrolling of the trail by rangers to enforce regulations (17.6%). Thirteen of the 30 respondents (43%) did not reply to this question. Responses to this question indicate that there are at least three things the public would like to see trail managers undertake to lessen potential user conflicts: Separate lanes for walking and biking, trail regulations posted and patrolling of the trail to enforce regulations. A complete listing of responses to this question is found in Appendix D.

Table 28. Most Frequently Mentioned Facilities, Services or Policies Needed To Lessen User Conflicts

Needed Facilities/Policies		Percent Mentioned
Separate lanes for walking & bikes	6	35.3
Trail regulations on signs	6	35.3
Patrol and enforce regulations	3	17.6

Needed Facilities, Services Or Policies To Protect Environment Along Trail

The survey described how protection of the natural environment along the Devil's Slide trail and adjacent parks is mandated. Then it is asked respondents what facilities, services or management policies should be provided or implemented to lessen potential damage to the natural resources along the trail and in the area. Responses to this question described numerous and more complex suggestions. A list of the most key themes was tabulated by the researcher and is summarized below. A complete list of responses is provided in Appendix D. The most frequently mentioned environmental protection needs were:

- Get people to stay on trails
- Clearly posted regulations and user obligations
- Animal-proof trash receptacles and dog feces bags with regular trash pick-up
- Restrooms
- Enforce laws, have patrols
- Describe why conservation is important and existence of fragile resources
- Habitat restoration programs
- Keep dogs on leash

Results show almost all respondents were concerned about likely impacts to the environment from the opening of the DST and provided suggestions to mitigate potential impacts.

Survey Of Managers From Adjacent Parks

A survey about the potential use, users and probable impacts on their park was sent to managers of nearby parks and recreation areas to solicit their insights in early December, 2005. The survey is shown in Appendix E. This survey was followed-up with a phone call by the investigator to verify and elaborate on their responses. Individuals who were sent a survey included: Chet Bardo, Superintendent and Paul Keel, Supervising Ranger, San Mateo Coast Sector, California State Parks; Chris Powell, Public Affairs Specialist, and Steve Grizwold, Landscape Architect, Golden Gate National Recreation Area; and Lisa Grote, San Mateo County Community Development Director, and Neil Cullen, Director of San Mateo County Public Works. Surveys were received back from Chet Bardo; David Moore, Superintendent of Parks, San Mateo County Parks and Recreation; and Chris Powell. Calls were completed with Sam Herzverb, San Mateo County Recreation Planner, Steve Grizwold and Chet Bardo. The following is a summary of the manager survey and follow-up calls.

- All managers stated the Devil's Slide Trail (DST) would be very popular and draw a large number of new visitors to the region. Managers saw DST as a tremendous chance to expand public recreation opportunities. One believed the Devil's Slide - Montara Mountain area could even become a nationally recognized recreation resource.
- An idea of the scale of potential DST use is suggested by the Sawyer Camp Trail, a multi-use trail not associated with any public-accessible park, located on City of San Francisco Water Dept. lands on the east side of Crystal Springs Reservoir managed by San Mateo County Parks. This trail is one of the most popular recreation sites in the county, attracting over 350,000 users in 2004 (Herzverb, 2005).
- The managers believed the amount of new use associated with the DST would depend on how trails and facilities in the near-by recreation and open space areas were developed. There are several proposals to expand recreation trails and park boundaries in the region.
- All managers indicated the DST had the potential to greatly increase visitation and related impacts to nearby state parks and the national recreation area. Existing county parks would be less affected.
- Managers stressed that demand would be for a multi-use trail with all types of trail users from roller bladers, joggers, parents with babies in strollers, dogs off-leash to horseback riding. It

would serve a wide cross section of the public, but this would also present management challenges and require trail use policies.

- With these levels and types of recreation users all the managers felt that there could be significant problems in their existing and newly expanded parks. Every manager said their agency absolutely could not take on the added responsibilities associated with the operation and maintenance of the new DST without significant increases in their operating budgets. DST would be unusually expensive to maintain due to the unstable road, required coastal development permits for maintenance and disposal of rock fall debris. California State Parks and GGNRA managers stressed that the new DST would impact their ability to operate existing parks, much less take on more responsibilities for the new trail, without significant new staff and operations budget increases.
- All managers agreed that the largest new impacts on their parks would be related to trail and amenity maintenance, law enforcement and public safety.
- All managers believed that the proposed new parking at north and south trailheads would not be adequate during many weekends and holidays and displaced visitors would park in lots at other parks or along Highway 1. This would present serious problems for their agencies and law enforcement since parking is already often full on sunny weekends and holidays.
- They all supported the idea of a shuttle and felt that a substantial number of persons may ride a parking shuttle if it was free and traversed the road from Pacifica to Montara. One manager cited a new parking shuttle in Muir Woods, which started in 2005, that is considered successful by GGNRA. Managers did not know who would operate or how to fund the shuttle.
- The managers felt the wider width of the trail would reduce potential trail user safety issues. But this coastal area has unique public safety concerns that must be addressed.
- Experience with the Sawyer Camp Trail suggests that active on-site management would be needed on the DST, at a minimum during weekend and holiday periods. Accidents related to normal recreation activity, medical emergencies and crime occur on/near the Sawyer Camp trail or parking areas and would be expected on the DST.
- The generous width of Highway 1 will help reduce conflicts and safety issues on the DST. Area managers suggest trail user conflicts would be moderate.

- There is potential for environmental impacts related to the new DST, primarily because of the significant additional number of new recreationists drawn to the area. Most of these impacts would be related to off-trail hiking or biking on undesignated “social” trails and dogs off-leash.

Conclusions

Area residents, visitors and all park managers viewed the new Devil’s Slide Trail (DST) as a tremendous chance to expand public recreation opportunities. The majority of survey respondents and nearby park managers indicated the trail will become a heavily used recreation attraction. It is not unreasonable to expect DST use to fall between 50,000 to 100,000 person-visits during the first full year it is open. The level of use could double in five years after opening. The area in and around the DST might even achieve national recognition as a recreation complex if all proposed area recreation additions are completed in the near future.

The amount of increased use in the DST area would depend on how trails and facilities in near-by recreation and open space areas were developed. For example, federal legislation is pending to expand Golden Gate National Recreation Area (GGNRA) to include the San Pedro Point Headlands. Plans call for a California Coastal trail segment going from Pacifica to the north tunnel portal. Federal legislation has been introduced to expand GGNRA to include Rancho Corral de Tierra, a vast tract that is east and south of the DST. There is great potential for a number of trail connections in this addition linking with the south tunnel portal and McNee Ranch. In addition, the City of Pacifica is applying for grants to rebuild the old San Pedro Mountain Road into a bike trail, with the potential to create a loop trail using the DST. If all these expansions and trail additions were to be approved in the next five years, then the entire region could become very well known and heavily used by local residents, out-of-state tourists, but especially the number of Bay Area tourists would increase. Devil’s Slide could be the “missing link” to tie together many existing and proposed trails, state parks, southern additions to GGNRA and San Pedro County Park.

Survey responses indicated the new DST would attract a wide variety of users, mostly walkers and bicyclists, but also visitors ranging from roller bladers, joggers, parents with babies in strollers, dogs off-leash to horseback riding. There will be a mix of casual and “hard-core,” specialized users going on the trail because they can access many trails from the DST and they have easy access from Highway 1. There will be significant increases in use of nearby recreation sites, especially by Bay Area residents who learn about the existence of a “new” recreation area close to their home through the inevitable media coverage following the tunnel opening.

Residents, certainly park managers, but even some out-of-area visitors, strongly believed that the trail would present operations and maintenance challenges. Every manager said their agency

absolutely could not take on the added responsibilities associated with the operation and maintenance of the new DST without significant increases in their operating budgets. California State Parks and GGNRA managers stressed that the new DST would impact their ability to operate existing parks, much less take on more responsibilities for the new trail, without significant new staff and operations budget increases.

Visitors, local residents and managers indicated the largest new impacts associated with opening of the DST would be related to trail and amenity maintenance, law enforcement and public safety. Managers, this researcher and some local residents see the trail requiring a very high level of maintenance due to frequent rock falls and shifting road surfaces and the challenges of operating in the coastal zone above a national marine sanctuary. It is reasonable to expect a portion of the DST may experience a major slide within the next 15 years and a plan would be needed for who would rebuild the trail and how to fund this construction.

Most survey respondents and managers felt that trail user conflicts would be moderate. The width of Highway 1 will help reduce these conflicts and safety issues. But a large number of the public wanted to separate or prohibit different types of users on the trail. Conflicts may arise when different types of users are allowed (or not) on adjacent parks. There will need to be significant agency efforts to learn from and educate the public to reduce conflicts, accidents and adverse impacts on the environment.

The likely significant increases in the number of recreationists drawn to the area poses a threat to sensitive natural environments in the area, not so much on the DST, but in adjacent off-trail areas. There are sensitive natural resources located along the DST that may be more impacted by new trail users than they have been by past automobile use. Most of these impacts would be related to off-trail hiking or biking and creation of undesigned "social" trails. Additional regulations, enforcement and public education will be needed to minimize environmental damage.

Public safety at trailhead parking areas and along the DST was a big concern expressed in the visitor survey and especially by recreation professionals. This coastal area has unique public safety concerns that must be addressed including: Climbing and falling from steep cliffs, crossing from one side to the other side of busy Highway 1 at portals and parking areas, potential for trail users being hit by a rockfall during/after storms and bike crashes at the infamous, steep off-camber corner on Highway 1 (where many cars have crashed in the past). Accidents related to normal recreation activity, medical emergencies and crime occur on the Sawyer Camp trail and parking areas and would be expected at the DST. There are currently no agency personnel stationed full time in the DST vicinity who could respond to a public safety emergency. Rather state park and county park recreation rangers and maintenance staff are required to maintain very large regions,

thus spread between multiple parks. The closest permanent EMT response units are in Pacifica and Montara, several miles away. Maintenance and public safety needs may warrant a full time recreation professional presence in this remote area.

Survey respondents and managers indicated that proposed new parking at north and south trailheads would be inadequate to meet demand during many weekends and holidays and that a substantial number of visitors would park in lots at other recreation sites or along Highway 1. This could present serious safety problems and law enforcement demands for agencies since parking is already often full on weekends and holidays. All managers and one in three survey respondents indicated their support and willingness to use a free shuttle from Pacifica to/from the north or south trailheads. The public is becoming more accepting of shuttles, such as one recently implemented in Muir Woods or hotel-airport shuttles. Survey results and experience at other recreation sites suggests that a shuttle system on weekends and holidays, March through October, would be used by the public. But no one seems to know who'd operate it and how it would be funded.

There are very few existing recreation support facilities between Pacifica and Montara. Plans by CalTrans for the tunnel portal areas, as shown in the May 2005 Devil's Slide Final Public Access Implementation Plan, include parking spaces at portals (17 north and 27 south), bus pads, a number of traffic signs, an interpretive sign and trash receptacles. CalTrans initially proposed pedestrian traffic signals at the access road for both north and south portals to allow safe crossing of Highway 1, but has since eliminated signals. Survey results from visitors and park managers strongly suggest more facilities than those proposed by CalTrans will be required or are highly desired.

The most critical facility concern are restrooms at the portals, since there will be thousands of DST users and there are only a few portable toilets at Montara and Grey Whale State Beaches. There are new permanent restrooms at Pacifica State Beach, but these are several miles from the DST. Other important facility needs, at a minimum, are additional parking or a shuttle, drinking water fountains, interpretive signs and trash receptacles. These will be needed at portals, on the trail and at adjacent parks that will get spill-over and new recreation users. Funding sources for these additional facilities must be identified.

The greatest need created by DST and additional regional recreation use will be for the operations and maintenance of the DST itself and increased demands in adjacent parks. Survey results indicated that the public and managers are excited about the great opportunity to expand recreation opportunities but are also concerned about safety, emergency response, environmental protection, interpretation and providing needed facilities and services to allow for compatible high quality recreation experiences. To ensure these occur will require significant agency staff time, support,

equipment and related funding. The amount and sources of funding for operations and maintenance need to be identified.

No agency has current funding to take on these additional operation and maintenance responsibilities alone. If GGNRA gets new funding associated with the Rancho Corral de Tierra expansion they might be able to be the lead agency. But a multi-agency management approach may be needed. For example, CalTrans could continue to maintain the surface of the trail as it does now, but from the new tunnel maintenance yard, GGNRA could provide law enforcement and maintenance staffing to operate the new portal facilities in conjunction with its southern expansion, State Parks could enlarge support facilities and associated maintenance in their adjacent parks and San Mateo County could assist in planning and acquiring grants for facilities and equipment.

Hopefully, this research has provided valuable information to address these issues and facilitate planning and implementation of the next phases of the Devil's Slide Trail project.

Appendix A

Visitor Survey

Appendix B Detailed Results From Visitor Survey

Respondent City of Residence

City

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	2.0	2.0	2.0
Alameda	2	.6	.6	2.6
Albany	1	.3	.3	2.9
Atlanta	1	.3	.3	3.1
Berkeley	4	1.1	1.1	4.3
Beverly Hills	1	.3	.3	4.6
Burlingame	1	.3	.3	4.9
can't Read	1	.3	.3	5.1
Canyon City	1	.3	.3	5.4
Charleston	1	.3	.3	5.7
Cheltenham	1	.3	.3	6.0
Cologne	1	.3	.3	6.3
Concord	2	.6	.6	6.9
Cupertino	3	.9	.9	7.7
Daly City	10	2.9	2.9	10.6
Danville	1	.3	.3	10.9
East Palo Alto	1	.3	.3	11.1
Easton	1	.3	.3	11.4
El Cerrito	1	.3	.3	11.7
El Granada	8	2.3	2.3	14.0
El Sobrante	1	.3	.3	14.3
Ellisville	1	.3	.3	14.6
Falls Church	1	.3	.3	14.9
Foster City	1	.3	.3	15.1
Freemont	7	2.0	2.0	17.1
Fresno	1	.3	.3	17.4
Half Moon Bay	5	1.4	1.4	18.9
Hayward	3	.9	.9	19.7
Henderson	1	.3	.3	20.0
Hercules	1	.3	.3	20.3
Hillsborough	1	.3	.3	20.6
La Fayette	1	.3	.3	20.9
Lodi	1	.3	.3	21.1
Menlo Park	1	.3	.3	21.4
Mexico City	1	.3	.3	21.7
Modesto	1	.3	.3	22.0
Montara	12	3.4	3.4	25.4
Moss Beach	4	1.1	1.1	26.6
Mountain View	1	.3	.3	26.9
Mumster	1	.3	.3	27.1

Napa	1	.3	.3	27.4
New Orlean	1	.3	.3	27.7
Newark	1	.3	.3	28.0
Nottingham	1	.3	.3	28.3
Novato	1	.3	.3	28.6
Oakland	10	2.9	2.9	31.4
Pacifica	73	20.9	20.9	52.3
Palo Alto	3	.9	.9	53.1
Penn Valley	1	.3	.3	53.4
Pleasant Hill	1	.3	.3	53.7
Portland	1	.3	.3	54.0
Redwood City	6	1.7	1.7	55.7
Reno	2	.6	.6	56.3
Richmond	1	.3	.3	56.6
Rohnest Park	1	.3	.3	56.9
RWE	1	.3	.3	57.1
S.F.	111	31.7	31.7	88.9
Sacramento	5	1.4	1.4	90.3
San Bruno	6	1.7	1.7	92.0
San Jose	4	1.1	1.1	93.1
San Leandro	3	.9	.9	94.0
San Lorenzo	1	.3	.3	94.3
San Luis Obispo	1	.3	.3	94.6
San Mateo	3	.9	.9	95.4
San Pablo	2	.6	.6	96.0
San Rafael	3	.9	.9	96.9
Santa Barbara	1	.3	.3	97.1
Santa Cruz	2	.6	.6	97.7
South S.F.	1	.3	.3	98.0
Sparks	1	.3	.3	98.3
Stockton	1	.3	.3	98.6
Toroto	1	.3	.3	98.9
Turlock	1	.3	.3	99.1
Walnut Creek	1	.3	.3	99.4
Washington DC	1	.3	.3	99.7
Yuba City	1	.3	.3	100.0
Total	350	100.0	100.0	

Appendix C Detailed Responses To Follow-Up On-Line Survey

What do you believe would be the two (2) greatest benefits to you from this new Devil's Slide Trail?	
#	Response
1	A. car free zone B. hiking
2	A. More scenic ocean views B. No car traffic
3	A. Areas to Bike B. Areas for walking
4	A. recreational use B. discovery of the area
5	A. Recreation (hiking, biking, sightseeing, etc) B. Community development
6	A. more beautiful trails B. nice beach access
7	A. Not sure yet. B. Easier access to the same trails I've used prior.
8	A. The views up there are incredible B. I'll be healthier walking more in beauty
9	A. Exercise B. Nature
10	A. New, Safe access to scenery and Coast. B. More recreational opportunities nearby
11	A. Bike access to great views B. Linking existing coastal trails
12	A. Incredible views formerly only accessible at 35mph B. Activites (rollerblading) with few current options
13	A. recreational purposes B. scenic areas
14	A. access to beautiful area B. convenience of travel through the area
15	A. Having a gorgeous hiking trail so close to my home B. Property values enhanced
16	A. nature B. Grey Whale Beach
17	A. peaceful atmosphere B. uninterrupted hiking
18	A. access B. bike riding
19	A. More option for hiking, biking, horse riding, dogs B. diffusion of "tourists" from congested rec areas
20	A. access to mountain biking and running trails
21	A. bike trail B. picnicking
22	A. Ocean vists B. Relatively flat trail for running
23	A. Scenic biking route B. Exploration of the area
24	A. enjoyment B. exercise

- 25 A. to be able to walk on it now!
B. the safety for those who wish not to drive on the
- 26 A. safer biking
- 27 A. Enjoyment of Nature
B. Better Access
- 28 A. safety when admiring the view
B. preserving access to this section of coast

What are the two (2) most important new facilities, services or management policies, you feel are needed in order to help best provide you with an outstanding recreation experience in the
4. Devil's Slide AREA?

#	Response
1	A. trailmaps B. changing area
2	A. beach access B. maps/information of area
3	A. Parking B. Bathrooms
4	A. traffic and parking needs to be addressed B. bathroom facilities
5	A. more multi-use trails (mountain bike) B. restroom @ trailhead
6	A. Trail maintenance B. Sufficient (and safe) parking nearby
7	A. dogs allowed, possible dog enclosure B. good maps
8	A. Unfortunately, parking. B. Benches
9	A. Keep dogs out and protect people from them B. Protect the ocean from plastic and litter
10	A. Bathroom B. Bathroom
11	A. Staging area with Bathrooms & posted Maps. B. Clear expectations for shared use (dog/bike/walk)
12	A. Parking B. restrooms
13	A. Accessible parking B. Sign at trailheads describing policies, history
14	A. bathrooms B. picnic tables
15	A. trail maps B. marked trails
16	A. Clean restrooms. Benches, picnic tables. B. Doggies on leash allowed, but hefty "poop" fines
17	A. Rest Areas B. Food and Drink with a view
18	A. restrooms B. benches
19	A. parking B. hiking trails
20	A. Lots of trash/recycle/bathroom options/cleanliness B. off leash dog area/s
21	A. over night camping on beach B. and camp fires on the beach

- 22 A. A well maintained path
- 23 A. Trail maintenance - rock slide repair
B. Map of adjoining trails
- 24 A. restrooms
B. drinking water
- 25 A. Bike Rentals
B. Tours
- 26 A. parking nearby so I can bring older folks and kids
B. compatible use for bike/dog access

What are the two (2) most important new facilities, services or management policies, you feel are needed in order to help best provide you with an outstanding recreation experience in the
4. Devil's Slide AREA?

#	Response
1	A. trailmaps B. changing area
2	A. beach access B. maps/information of area
3	A. Parking B. Bathrooms
4	A. traffic and parking needs to be addressed B. bathroom facilities
5	A. more multi-use trails (mountain bike) B. restroom @ trailhead
6	A. Trail maintenance B. Sufficient (and safe) parking nearby
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22	A. A well maintained path
23	A. Trail maintenance - rock slide repair B. Map of adjoining trails
24	A. restrooms B. drinking water
25	A. Bike Rentals B. Tours

- 26 A. parking nearby so I can bring older folks and kids
 B. compatible use for bike/dog access