

# **BASMAA Regional Monitoring Coalition Standard Operating Procedure for Ambient Creek Status Monitoring Site Evaluation**

## **1.0 Introduction**

The purpose of this document is to record standard operating procedures (SOPs) and guidance for evaluating sites selected for the creek status ambient monitoring to be conducted by the Bay Area Stormwater Management Agencies Association (BASMAA) Regional Monitoring Coalition (RMC).

The Creek Status Monitoring is described in the RMC Monitoring Plan (EOA Inc. 2011) and is being conducted to comply with the monitoring requirements of the Municipal Regional Stormwater NPDES Permit (MRP), specifically provisions C.8.c and C.8.e.

Ambient creek monitoring sites are evaluated through completing a series of three evaluation forms. The first two forms are completed through office work (e.g., the Primary and the Secondary Site Evaluation Forms). The third form is completed in the field.

This document consists of five additional sections that discuss a standard protocol for conducting the site evaluations and completing the three evaluation forms. These sections address the following topics:

- Materials required to conduct site evaluations (2.0)
- Procedures for completing the Primary Site Evaluation Form (3.0)
- Procedures for completing the Secondary Site Evaluation Form (4.0)
- Procedures for preparing for Field Site Reconnaissance (5.0)
- Procedures for completing the Field Reconnaissance Form (6.0)

## **2.0 Site Evaluation Materials**

### **2.1 Data Forms**

All original documents and related information are stored onsite in a secure location. Copies of these forms can be made to take in the field or as necessary. Data should be transferred to a spreadsheet or database if desired. Dossiers are made for each of the sampling entities to organize all paperwork, letters and forms. Three forms have been created for the phases of the ambient creek survey site evaluation and reconnaissance process.

1. Primary Site Evaluation Form: Level 1 Office
2. Secondary Site Evaluation Form: Level 2 Office
3. Field Reconnaissance Form

## 2.2 Site Information Materials for Office Evaluations

The Master Sample Draw Site List should contain the following information relevant for the site evaluator:

- Project and individual site codes
- Site GPS coordinates
- Geographic region (portion of county in Region 2 boundary<sup>1</sup>)
- GIS Landcover Type (urban or non-urban)
- Creek name (if known)

Materials for conducting the office site evaluations include:

- USGS topographic maps( paper/electronic eg. TOPO!/Garmin )
- Other topographic maps (USFS, BLM, State Park, NPS, etc.)
- Access to county assessor roll (Parcel Quest, Landvision, ArcView, County websites etc.)
- Aerial or satellite imagery(Google Earth, LandVision etc.)
- Street Maps (DeLorme, Atlas, Thomas Guide, etc.)
- ESRI ArcView® 8 or update and relevant layers
- CDEC/USGS stream gage data <http://waterdata.usgs.gov/ca/nwis/>
- Resource managers and Governmental agency phone numbers
- Google or web based search engines
- Excel/Access database sheet designed to track each sites' status
- Locations of stormdrain outfalls

Materials for conducting site reconnaissance visits include:

- Field Reconnaissance Forms
- Site dossiers with all available information to access the sites
- Site spreadsheets with access info.
- Mapping program or maps with all sites placed in proper locations
- Forest Service and State Park maps
- Laptop with topographical or other useful maps
- Map ruler for 7.5 minute topographical maps
- Notebook for notes
- Agency and landowner information and phone lists
- G.P.S. and auto based navigation units
- Cell phone
- Digital Camera
- Binoculars
- Any form of identification identifying you as a Fish and Game employee
- Back pack with provisions for safety during hiking trips
- Proper hiking attire

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<sup>1</sup> Except for Contra Costa which includes all County area within Region 2 and Central Valley Region boundary.

- Safety and emergency equipment
- Four wheel drive vehicle
- Appropriate permits
- Private property entry permission letters

### 3.0 Procedures for completing the Primary Site Evaluation Form

The Primary Site Evaluation Form is completed in the office and requires no field visit.

#### Step 1. Identify ambient monitoring sites from the Master Sample Draw List

**Step 1A.** Identify the number of sites that your respective entity is required to sample for a given year.

**Step 1B.** From the Master Sample Draw List, select that number of sites in sequential order.

***Note:** it is critically important to select sites in consecutive numerical order, never leaving out single or large groups of sites. If this rule is violated, the statistical power is diminished and the ability to draw inferences from the data will be compromised.*

**Step 1C.** Select an additional 25% sites from the Master Sample Draw List in order to conduct site reconnaissance for sites that may need to be visited if any of the initial set of sites are not suitable for sampling.

***Note:** even if you do not reject any sites from your original set during your site reconnaissance, the site reconnaissance at these additional sites will not be wasted effort as you will need to visit these sites in the following year as part of your annual sampling effort.*

#### Step 2. Locate the site on a topographic map

Locate each site on the appropriate topographic map or in a GIS. Creek sampling sites were drawn from the Sample Frame (the “blue line” stream network represented in 1:100,000 scale National Hydrologic Dataset). It is often the most efficient to display all of the sites for the coming sampling season in a GIS.

#### Step 3. Complete the Primary Site Evaluation Form

For all sites to be evaluated, complete Sections I., II. and III. of the Primary Site Evaluation Form.

#### Section I: Background Site Information

Complete the fields listed below. Most of the information for this section can be gathered from the Master Sample Draw List and transposed to the Primary Site Evaluation Form.

- Creek Name
- Revision #
- Site ID
- Evaluator Name
- Evaluation Date
- Site Latitude and Longitude
- Sampling Entity (select one check box)

- Geographic Region (select one check box)
- Land use type (select one check box).
- Flow Status (select one check box); *see pp 11 for description of flow categories and timing of reconnaissance.*

## Section II: Determine Channel Status

All sites must have channel status determined in order to justify proceeding further with reconnaissance. For each site, select one of the three target status categories (described below) that best classifies the channel status and check the associated box. In the Primary Site Evaluation form the goal is to quickly “weed out” sites that are obviously Non-Target in status. Therefore, to expedite this process no ownership information is gathered unless ownership is obvious (e.g. USFS property or tribal ownership). A more comprehensive ownership evaluation will be performed using the Secondary Site Evaluation Form.

The most commonly used techniques for determining site status at level 1 evaluations are aerial mapping programs, Regional Conservation District websites, Google, and USGS stream gage data. It may be necessary to make an initial phone call to the appropriate agency or resource managers to confirm site status. Please denote which method was used in the information sources box. If a call has been made please note contact person, agency and phone number in the information sources box. For QA/QC purposes, all sites should include legitimate contacts to confirm or deny channel status. In some cases the evaluator may have significant site knowledge to eliminate the need for a second information contact.

- **Target Sampleable Box:** check this box if all information gained from maps, aerial photos and resource managers lead to the possibility that the site **MAY** be sampleable. The following criteria must be met in order for a site to be classified as Target Sampleable:
  - Permission to access land may be attainable
  - Site is physically accessible
  - Site may be entered safely
- **Target Non-Sampleable Box:** check this box if a site meets all the Target Sampleable criteria but it cannot be sampled during site reconnaissance period or season because the site is either:
  - Temporarily Inaccessible
  - Other legitimate reason

**Note:** *Occasionally a site meets all the criteria to sample but, there are temporary road closures, fires, floods etc. that may require delaying sampling of that site to the following year. Sites rarely fall into this category.*

- **Non-Target Box:** check this box if information gathered meets any of the following listed reasons for Non-Target status.
  - Watercourse not present (when coordinates are entered into a mapping program there is no obvious watercourse present at site location)
  - Impoundment (site falls on a lake, reservoir ,or pond)

- Tidally influenced (site is obviously influenced by brackish water content)
- Conveyance (site was not originally a natural watercourse)
- Boatable (site is too deep at 50% of length to be wadeable)
- Inaccessible (unable to reach site due to physical barriers or safety)
- Pipeline (site is located in a enclosed underground/aboveground pipe)
- Other (any obvious impediment preventing sampling)

**Note:** *Do not be surprised or discouraged by site rejections. The Primary Site Evaluation Form was created to help quickly weed out non-sampleable sites and allow for further investigation of sites that do appear to be sampleable through the Secondary Evaluations.*

### Section 3: Preliminary Ownership Information

- Four check box options are included under the Preliminary Ownership heading. Choose the most appropriate response.

**Note:** *If the site has been identified as Non-Target, then most likely the “Not Applicable” box will be checked because ownership information will not be required to be identified. If the site has been checked as Target-Sampleable then the “Unknown” box may be checked unless ownership is obvious from site placement on the map.*

- Priority for Second Office Evaluation forms box is checked “not needed” if the site has been found to be Non-Target and no further information needs to be gathered. If the site have been marked Target-Sampleable then further investigation **MAY** be needed. Mark the “required” box if a Secondary Office Evaluation is necessary.

**Note:** *When a site has been determined to be Target-Sampleable, sometimes a Secondary Office evaluation and recon may NOT be needed. This situation happens when all info for the site has been gathered in the Primary Site Evaluation. For example, a site (e.g. a commonly known perennial stream with no permission needed) may not need further evaluations or reconnaissance because the site has been visited in prior years, the site has public access and there are no foreseeable problems that may occur. In this situation checking the “not needed” box would be appropriate, and the site would become Target not needing any continuing work until sampling occurred.*

- If Sections 1, 2 and 3 are complete, continue filling out Primary Site Evaluations for all sites planned for sampling in the coming season as well as the additional 25% sites selected sequentially from the Master Sample Draw List as potential backup sites in case any sites in the original selection cannot be sampled. It is of critical importance to select sites by consecutive numerical order, never leaving out single or large groups of sites. If this rule is violated, the statistical power is diminished and problems will occur in the final results report. Continue to update electronic spreadsheets with the current appropriate channel status as you progress with the evaluations.

**Note:** *It may seem redundant to have paper copies and electronic forms; this method has proven invaluable in QA/QC to check for data entry errors, and loss of electronic files and is generally accepted by DFG as standard.*

## 4.0 Procedures for completing the Secondary Site Evaluation Form

The Secondary Site Evaluation Form is completed in the office and requires no field visit. It may only be completed after the Primary Site Evaluation Form has been completed.

### Section I: Background Site Information

Enter all appropriate heading information. All information for this section can be gathered from the Primary Site Evaluation form and transposed to the Secondary Site Evaluation Form.

### Section II: Channel Status

For each site, select one of the two target status categories and check the proceeding box that best classifies the channel status.

**Note:** *In the Primary Site Evaluation form the goal was to quickly “weed out” sites that are obviously Non-Target in status. On the Secondary Site Evaluation form, more comprehensive analysis should be performed. A resource manager or manager should be contacted to confirm flow status (perennial/non perennial) and entry details if possible. In many cases the managers may know the landowner if private and may help ease entry access.*

**Target-Sampleable Box:** check this box if all information gained from maps, aerial photos and resource managers etc. lead to the possibility that the site **MAY** be sampleable. The criteria for Target-Sampleable for the Primary Evaluation are as follows:

- Permission may be attainable
- Physically accessible
- Safely entered

**Target Non-Sampleable:** **There is no Target-Non-sampleable box on the secondary evaluation form.** If the site is Target Non-Sampleable but, cannot be sampled during the season mark the Target-Sampleable box and update the electronic forms so that the site will be first to be evaluated beginning next seasons sampling.

**Non Target Box:** check this box if all information gathered meets any of the following listed reasons for Non Target status. Select the most appropriate:

- Permission Denied(Landowners deny entry permission)
- Watercourse not present (when coordinates are entered into a mapping program there is no obvious watercourse present at site location)
- Impoundment (site falls on a lake, reservoir or pond)
- Tidally influenced (site is obviously influenced by brackish water content)
- Conveyance (site not originally a natural watercourse)
- Boatable (site is too deep at 50% of length to be wadeable)
- Inaccessible (unable to reach site due to physical barriers or safety)
- Pipeline (site is located in a enclosed underground/aboveground pipe)
- Not Accessible(Physical barrier or unsafe conditions prevent access)
- Other (any obvious impediment preventing sampling)

**Note:** All the same codes exist as in the Primary Evaluation form, except for adding Permission Denied. The PD code is rarely used on the actual form, but needs to be there just in case the evaluator does get denied entry permission at this stage. Having entry permission denied usually follows after the Secondary Evaluation Form is filled out and permission forms sent out have been returned denied.

### **Section III: Source information**

As with the Primary Evaluation Form all Target-Sampleable, and Non-Target selections must have a justification or verifiable reason in order to proceed further. Choose the checkbox that fits the information source best. Additional space is located on the back of the Secondary Evaluation sheet to list additional contacts. If agency personnel or resource managers have been contacted, please list all relevant information.

### **Section IV: Ownership Information**

**STEP 1: Property ownership information must be determined and verified for ALL potential target sites.**

Permission from all land owners, land managers, or agency must be obtained before entering any private property at or surrounding the site. Ownership must also be verified for public lands. There are often private land holdings inside national forest boundaries or other public lands. Crossing onto private land without permission is trespassing. For each site, record all information requested in the site ownership information field. The parcel number should be recorded in the specific county format if possible, as they are unique amongst counties.

Ownership information can be obtained in the following ways:

1. Visit the county assessor office and utilizing their resources.

At each county assessors office locate the county index map. The index map will have the UTM township/range grids located on it. The USGS topographical map will also have the township and range of a given site on the border of the map. Correlate the township and range of the site with that of the index map and locate the site. The site will lie in a region on the index map where ownership information can be assessed. This region or area of information can be found in the "plat" map book. The "plat" map book number represents a book of information that contains land parcels for a specific region on the index map. Plat maps also depict parcels, ownership boundaries, tax lot numbers, and the subsequent acreage contained within a tax lot number. Align the site on the topographic map with that of the plat map book. Record the name, mailing address, site address, and any additional information from the landowner at the site and any adjacent landowners that may provide access. Often multiple owners may need to grant permission in order to reach the site.

2. Use a certified map assessor program (Parcelquest, Landvision).

There are several companies that offer online services, or have parcel information on CD.

These companies offer subscriptions or the ability to purchase information. These Assessor mapping programs offer a slight learning curve, but are much quicker and easier to use and offer greater usability than visiting the assessor's office.

**Note:** *This methodology is highly recommended if the evaluator is assessing site locations over many different counties. It also offers the ability to go back and recheck ownership information at a later date if either an error was made or not enough sites were evaluated in the Primary Evaluation form.*

3. Use up-to-date GIS data available from the county.

GIS data may be obtained by contacting the individual counties and making arrangements to obtain relevant information. Information is generally offered in ESRI ARC GIS format with a database of APN numbers.

4. Online assessor information available from county websites.

Online assessor information is available for **some** counties and is getting better with time and technology. The assessor's office may be contacted by phone or by visiting the assessor's website to find the most current information available. The county assessor sites operate similarly to ParcelQuest/Landvision but are free on the World Wide Web.

#### **STEP 2: Transfer all ownership address info into a separate excel spreadsheet.**

After all sites evaluated by the Secondary Evaluation Form have had ownership information gathered, transfer all ownership address info into a separate excel spreadsheet allowing each portion of information its own field for use in the mail merge feature.

### **Section V: Site Contact Information**

The second page of the Secondary Evaluation sheet includes space to list contacts in addition to primary owners. These fields are not necessarily mandatory and need only be used if 1) the space provided in Section IV is inadequate to accommodate all contact information, 2) agency personnel or resource managers have been contacted. If the latter is true, list all relevant information.

### **Section VI: Permits**

Potential target sites that are not private and have no public access permission require an encroachment permit to be obtained. During the process of gathering information about the Site Source and Ownership it should be obvious which county, city, and or agency will hold ownership and or management roles of the stream or river. Make sure to denote the agency in section 4.

**Note:** *examples of agencies requiring entry permits are The National Park Service, State Parks, All county and city managed waterways in the state, Sanitation districts, and Utility Districts etc.*

Vertebrate collection permits may be necessary from agencies such as US Fish and Wildlife, and National Marine Fisheries Service under the section 12 and 4D programs. Agencies such as the California Dept. of



Fish and Game are exempt from benthic macroinvertebrate collection. If collecting under University Foundation's or other entities per contract purposes, a permit will be required. Update all permit contact information in the spreadsheet to track which agency needs to be contacted.

## 5.0 Procedures for Preparing for a Field Site Reconnaissance

### STEP 1: Obtain site access entry permission

After ownership information is obtained via the Secondary Site Evaluation Form, the landowners or land managers are contacted to gain permission to access sites.

**STEP 1A: Permission packets are sent to the owners of ALL privately owned sites and any agency or company requesting a letter or information about sampling activities.**

The permission packet includes: a cover letter with a brief description of project goals, a permission form that the party completes, a self-addressed stamped envelope and (optional) a map of the site (it is helpful for landowners to confirm the location of the site on their property. [See appendix A for example.](#)

For public ownership the proper agency and personnel must be contacted to determine if a permit, entry agreement or permission letter is needed. A complete effort needs to be made to determine who and what agency manages the targeted waterway. Contact all possible agencies and land managers to inform them of sampling activities.

Permission to sample can be denied in the following ways:

- The permission letter is returned denying access to the site, with the "no" permission granted box is checked.
- Any required permits are not received in time, or are denied.
- Permission has been denied over the phone.
- The permission letter is not returned, returned with no response, or mailed back unopened.

If the target site meets any of these criteria, check the "no" box in the letter status field in the Secondary Site Evaluation Form, remove the site from the target list and stop evaluation of the site.

Permission to sample can be granted in the following ways:

- The permission letter has been returned with a "yes" marked in the appropriate box, granting access to the site.
- A required permit has been submitted and approved by the agency that manages the target sample location.
- Permission has been granted over the phone. The sample site has been thoroughly researched and confirmed to be managed by the person who has given the permission.

If the target site meets any of the previous criteria, the landowner may request further

information identified in the site information fields.

- Check the appropriate box in the letter status box in the Secondary Site Evaluation Form if entry permission is granted.
- Check appropriate box for “wants data”. Often the land owner or land manager requests copies of data after the sampling event occurs.
- Gate, key, or special requirements. This information needs to be transferred from the permission letter or from any phone calls. Follow any and all requests from land owners.

It is very important to contact land managers and private property owners to obtain as much information as possible. Most of the time spent in the office will be used making telephone calls and emailing information to scientists and resource managers. The more time spent acquiring office based information results in less time spent on field reconnaissance, in turn, resulting in more sites being evaluated efficiently by sampling season.

**STEP 1B: All returned owner permission letters are filed in a “permission returned” folder and a copy is made and attached to all prior and current evaluation forms.**

Update all entry permission information into a spreadsheet. If the site received Target status and permission has been approved, the site keeps the Target status and possibly moves into the reconnaissance phase. If the site received Target status and permission was denied, change the site status to Non-Target and collect no further information regarding the site.

On occasion, enough information *may* be obtained in the Secondary Evaluation Form that a field visit may not be required. More often than not, however, a field visit will need to be made in order to make for a smooth and efficient visit during sampling season.

## **STEP 2: Determine if Field Site Reconnaissance is necessary**

In most cases, a site visit is necessary to confirm site flow status and access. Reconnaissance will confirm or contradict any office evaluation information received. Reconnaissance should attempt to get as close as possible to the site without trespassing. If entry permission has been obtained, the evaluator should attempt to visit the site if safety permits.

The following are common situations that require site reconnaissance:

- Contact persons are unknowledgeable of core data requirements found in primary and secondary evaluation forms and a site visit is the only method of determining target status.
- Digital aerial photos may not show seasonal variations and are unable and inaccurate regarding perennial and non-perennial site status. A site visit near sampling season will help clarify and confirm flow status.
- Insufficient data was obtained during the primary and secondary evaluation. A site visit is required to complete the data.
- Entry to the site appears to be very complicated. A site visit is required to simplify and document the best way to enter to the site.

- Confirm any information received. Information received from land owners and managers are often incorrect and inaccurate.
- Coordinate a visit to local resource managers with a site visit if possible.

### **STEP 3: Organize site visits**

#### **STEP 3A: Determine the mode of travel (i.e., vehicle 4x4 or 4x2, foot, boat), or combination that is best for locating and reaching each site.**

Most sites will be accessible with a vehicle. However, some sites may be very remote and require different forms of transportation to access them, for example, boats, or on foot.

#### **STEP 3B: Determine proper timing of the reconnaissance phase.**

Site reconnaissance visits are conducted in August – September prior to the first significant precipitation event, in order to classify the site flow status of the site as one of five categories:

- **Wet Flowing:** continuously Wet or nearly so, flowing water;
- **Wet Trickle:** continuously wet or nearly so, very low flow (trickle, <0.1 L/sec.);
- **Majority Wet:** discontinuously wet, >25% (by length) of stream bed covered with water (isolated pools);
- **Minority Wet:** discontinuously wet, <25% of stream bed (by length) covered with water (isolated pools); or
- **No Water:** no surface water present.

Categories 2-4 have not been classified as perennial vs non-perennial. The RMC will determine such classification during Fall 2011.

If sites require a second reconnaissance visit to ascertain accessibility, such visits may be scheduled closer to the scheduled sampling date, however, flow status may only be determined during the August-September timeframe.

#### **STEP 3C: Determine if a site can be visited for reconnaissance without trespassing.**

Every effort should be made to physically observe a stream or river without formal contact to the landowner. Targeting a bridge, adjacent road, cliff, or other vantage point near the site without crossing private land will eliminate the need (and save time) to request permission for access. Depending upon the distance from the site, binoculars might allow site classification.

If reconnaissance requires entering private property, make sure landowner permission has been obtained on or near the property that surrounds or abuts the site. The evaluator may call the land owner directly and informally request access to the site through the owner's property before the field visit. If contact cannot be made and every effort has been attempted to communicate with the landowner then the site must be considered inaccessible and dropped from the site list.

### **STEP 3D: Plan a route for visiting multiple sites.**

To maximize the efficiency of reconnaissance it is advisable to plan routes to visit multiple sites daily, including the 25% additional sites selected as backup sites. Such planning includes coordinating overnight accommodations, driving directions, obtaining keys, permits, and/or permission to access land, anticipating road closures due to weather conditions or construction, and estimating the time required to complete the trip into and out from the site.

## **6.0 Completing the Field Reconnaissance Form**

After visiting and evaluating each site, complete the Field Reconnaissance Form.

### **Section I: Background Site Information**

Fill out all heading information requested on the form as denoted in the Primary and Secondary Site Evaluation Forms.

If a Flow Status box was checked during either the Primary or Secondary Site Evaluation, update this classification with information based on field observation during the dry season, e.g., August-September prior to the first significant precipitation event.

### **Section II: Channel Status**

Check the new channel status code applicable to the site visited. During major and minor drought seasonal fluctuations, many variations will exist from the norm. Be prepared for major differences from information gathered in the office evaluation portions of the work.

Anticipate when the best base flow conditions exist for sampling and check the box that represents the best month for sampling.

In the "Directions to site" box write down the best way to enter the site. Make sure to include which side of the creek is best or the only way to enter. If street names apply please use them. Auto Navigation units are very helpful at getting as close to the site as possible.

**Note:** Please refrain from using the terminology "left" and "right" when writing down directions as those terms only work if you are heading in the same direction or are approaching the site in the same manner as the crew who may be sampling. Please use formal terms north, south, west and east. (e.g. west on 680 exit Monroe drive and head north).

Other special needs such as gates and keys should be noted and written clearly, especially gate combinations. Please enter this info in the box provided.

Be as specific as possible when filling out the form. The person performing the reconnaissance may not be the person who will return to sample the site. Giving detailed instructions and site information will help the returning team access the site quickly and efficiently and will be greatly appreciated by other crew members.

As with previous forms, the latest information gathered trumps previous information as time proceeds

closer to the sampling period of the site.

After all reconnaissance activities are complete, update all spreadsheets and Secondary Evaluations sheets with the correct information and channel status.

## **References:**

EOA Inc. 2011. BASMAA Regional Monitoring Coalition Draft Creek Status Monitoring Plan. 30 pp.  
Currently under development.

DRAFT



**WATER POLLUTION CONTROL LABORATORY  
OFFICE OF SPILL PREVENTION AND RESPONSE**



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California Department of Fish and Game  
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The California Department of Fish and Game and the State Water Resources Control Board's Surface Waters Ambient Monitoring Program (SWAMP) request your assistance for a multi-agency survey to assess the condition of wadeable streams and rivers throughout the state called the Perennial Stream Assessment (PSA). As part of the program, over 150 sites were randomly selected throughout the state and one or more of these sites are located on your property.

We want to assure you that this study is not connected to any specific regulatory action or activity. The data collected for the PSA survey will be used to provide information that will help the state's water quality agencies evaluate the overall condition of streams and rivers in California. PSA is a continuation of the state's California Monitoring and Assessment Program (CMAP), and US EPA's Environmental Monitoring and Assessment Program (EMAP) which was designed to assess the condition of wadeable streams and rivers at national and statewide scales. In both of these surveys, data from randomly sampled sites are used to make general assessments at large scales with sites not being chosen for any specific regulatory purpose. It is extremely important that we collect data from the randomly selected locations, whether they fall on private or public land, so the results of the studies provide an objective representation of California's streams and rivers.

The field crew responsible for collecting data will conduct physical, chemical and biological sampling of the water body and its banks. The field crew is aware that working or traveling on your property to access the site is a privilege and will respect your wishes at all times. They will not enter the surrounding property except to reach the stream or river and they will consider any special conditions that you may impose upon them to be a priority.

In order to save valuable project time and money, please complete the enclosed access permission form and mail it back to us in the enclosed self-addressed stamped envelope no later than Feb 28th, as sampling will commence on or about May 1st, 2011.

If you have any questions regarding the information mentioned in this letter or would like additional information, please feel free to contact us. For detailed information about past CMAP and EMAP programs, please visit:

[http://www.swrcb.ca.gov/water\\_issues/programs/swamp/](http://www.swrcb.ca.gov/water_issues/programs/swamp/)  
<http://www.epa.gov/emap/west/html/docs/wstream.html>

Thank you for your consideration of our request.  
Sincerely,

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**CREEK AMBIENT SURVEY SITE ASSESSMENT  
PRIMARY SITE EVALUATION FORM: LEVEL 1 OFFICE**

<b>I. BACKGROUND SITE INFORMATION</b>							
Creek name:						REVISION #	
Site ID:			Evaluator Name:			Date	
Latitude:				Longitude:			
<b>SAMPLING ENTITY (X ONE)</b>							
<input type="checkbox"/> SWAMP	<input type="checkbox"/> ACCWP	<input type="checkbox"/> CCCWP	<input type="checkbox"/> SMCWPPP	<input type="checkbox"/> SCVURPPP	<input type="checkbox"/> FSURMP	<input type="checkbox"/> Vallejo	
<b>GEOGRAPHIC REGION (X ONE)</b>							
<input type="checkbox"/> Other	<input type="checkbox"/> Alameda	<input type="checkbox"/> Contra Costa	<input type="checkbox"/> San Mateo	<input type="checkbox"/> Santa Clara	<input type="checkbox"/> Solano		
<b>LAND USE (X ONE)</b>			<b>FLOW STATUS<sup>1</sup> (X ONE)</b>				
<input type="checkbox"/> Urban	<input type="checkbox"/> Non-Urban	<input type="checkbox"/> Wet Flowing	<input type="checkbox"/> Wet Trickle	<input type="checkbox"/> Majority Wet	<input type="checkbox"/> Minority Wet	<input type="checkbox"/> No Water	<input type="checkbox"/> Unknown
<b>II. CHANNEL STATUS (X ONE)</b>							
<input type="checkbox"/> <b>Target – Sampleable</b>		<input type="checkbox"/> <b>Target – Non Sampleable</b>			<input type="checkbox"/> <b>Non-Target</b>		
<i>High probability for evaluation Form 2 (see III.)</i>		<i>Evaluation. Form 2 required</i>			<i>Permanently remove site from Master Sample List</i>		
		(X ONE) <input type="checkbox"/> Temporarily inaccessible <input type="checkbox"/> Other (explain in comments)			(X ONE) <input type="checkbox"/> Watercourse not present <input type="checkbox"/> Impoundment <input type="checkbox"/> Tidally Influenced <input type="checkbox"/> Conveyance Channel <input type="checkbox"/> Boatable <input type="checkbox"/> Inaccessible <input type="checkbox"/> Pipeline <input type="checkbox"/> Other ( Please Explain)		
<i>Information Sources/ Phone # to confirm Non-Target and comments:</i>							
<b>III. PRELIMINARY OWNERSHIP</b>							
<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Unknown	<input type="checkbox"/> Private	<input type="checkbox"/> Public	<input type="checkbox"/> Mixed			
Explain:							
<b>PRIORITY FOR SECOND EVAL/RECON FORM</b>							

<sup>1</sup> **Wet Flowing:** continuously Wet or nearly so, flowing water; **Wet Trickle:** continuously wet or nearly so, very low flow (trickle, <0.1 L/sec.); **Majority Wet:** discontinuously wet, >25% (by length) of stream bed covered with water (isolated pools); **Minority Wet:** discontinuously wet, <25% of stream bed (by length) covered with water (isolated pools); or **No Water:** no surface water present.



<input type="checkbox"/> Required	<input type="checkbox"/> Not Needed
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DRAFT

**CREEK AMBIENT SURVEY SITE ASSESSMENT  
SECONDARY SITE EVALUATION FORM: LEVEL 2 OFFICE**

<b>I. BACKGROUND SITE INFORMATION</b>									
Creek name:						REVISION #			
Site ID:			Evaluator Name:			Date			
Latitude:				Longitude:					
<input type="checkbox"/> SWAMP	<input type="checkbox"/> ACCWP	<input type="checkbox"/> CCCWP	<input type="checkbox"/> SMCWPPP	<input type="checkbox"/> SCVURPPP	<input type="checkbox"/> FSURMP	<input type="checkbox"/> Vallejo			
<input type="checkbox"/> Other	<input type="checkbox"/> Alameda	<input type="checkbox"/> Contra Costa	<input type="checkbox"/> San Mateo	<input type="checkbox"/> Santa Clara	<input type="checkbox"/> Solano				
<b>LAND USE (X ONE)</b>			<b>FLOW STATUS <sup>1</sup>(X ONE)</b>						
<input type="checkbox"/> Urban	<input type="checkbox"/> Non-Urban	<input type="checkbox"/> Wet Flowing	<input type="checkbox"/> Wet Trickle	<input type="checkbox"/> Majority Wet	<input type="checkbox"/> Minority Wet	<input type="checkbox"/> No Water	<input type="checkbox"/> Unknown		
<b>II. CHANNEL STATUS (X ONE)</b>									
<input type="checkbox"/> Target Sampleable			<input type="checkbox"/> Non-Target (X One)						
COMMENTS:			<input type="checkbox"/> Permission denied <input type="checkbox"/> Watercourse not present <input type="checkbox"/> Not Accessible (physical barrier) <input type="checkbox"/> Impoundment <input type="checkbox"/> Tidally Influenced			<input type="checkbox"/> Conveyance <input type="checkbox"/> Boatable <input type="checkbox"/> Pipeline(underground/overground) <input type="checkbox"/> Other (explain in comments)			
<b>III. SOURCE INFORMATION</b>									
<input type="checkbox"/> BPJ <input type="checkbox"/> evaluator knowledge <input type="checkbox"/> resource managers (document) <input type="checkbox"/> GIS <input type="checkbox"/> Google Earth <input type="checkbox"/> Land Owner <input type="checkbox"/> Other									
Explain:									
<b>IV. SITE OWNERSHIP INFORMATION</b>									
<input type="checkbox"/> Private		<input type="checkbox"/> Public		<input type="checkbox"/> Mixed		<input type="checkbox"/> Other			
<b>A</b> <u>Parcel Number</u>		<u>Name</u>			<u>Address</u>				
<u>City</u>		<u>State</u>	<u>Zip</u>	<u>Letter Status</u>		<u>Call Before Entry</u>		<u>Wants Data</u>	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Returned <input type="checkbox"/> Pending	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Gate, key, or special requirements		<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, Describe:						
<b>B</b> <u>Parcel Number</u>		<u>Name</u>			<u>Address</u>				
<u>City</u>		<u>State</u>	<u>Zip</u>	<u>Letter Status</u>		<u>Call Before Entry</u>		<u>Wants Data</u>	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Returned <input type="checkbox"/> Pending	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Gate, key, or special requirements		<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, Describe:						
<b>C</b> <u>Parcel Number</u>		<u>Name</u>			<u>Address</u>				
<u>City</u>		<u>State</u>	<u>Zip</u>	<u>Letter Status</u>		<u>Call Before Entry</u>		<u>Wants Data</u>	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Returned <input type="checkbox"/> Pending	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Gate, key, or special requirements		<input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, Describe:						

<sup>1</sup> **Wet Flowing:** continuously Wet or nearly so, flowing water; **Wet Trickle:** continuously wet or nearly so, very low flow (trickle, <0.1 L/sec.); **Majority Wet:** discontinuously wet, >25% (by length) of stream bed covered with water (isolated pools); **Minority Wet:** discontinuously wet, <25% of stream bed (by length) covered with water (isolated pools); or **No Water:** no surface water present.

Gate, key, or special requirements	<input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, Describe:	
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<b>V.</b>	<b>SITE CONTACT INFORMATION</b>
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Date:	Contact:
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Comments:

Date:	Contact:
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Comments:

Date:	Contact:
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Comments:

<b>VI.</b>	<b>PERMITS</b>
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PERMIT DESCRIPTION	OBTAINED Y OR N

COMMENTS:

## CREEK AMBIENT SURVEY SITE ASSESSMENT FIELD RECONNAISSANCE FORM

I. BACKGROUND SITE INFORMATION						
Creek name:					REVISION #	
Site ID:		Evaluator Name:			Date	
Latitude:			Longitude:			
<input type="checkbox"/> SWAMP	<input type="checkbox"/> ACCWP	<input type="checkbox"/> CCCWP	<input type="checkbox"/> SMCWPPP	<input type="checkbox"/> SCVURPPP	<input type="checkbox"/> FSURMP	<input type="checkbox"/> Vallejo
<input type="checkbox"/> Other	<input type="checkbox"/> Alameda	<input type="checkbox"/> Contra Costa	<input type="checkbox"/> San Mateo	<input type="checkbox"/> Santa Clara	<input type="checkbox"/> Solano	
LAND USE (X ONE)		FLOW STATUS (X ONE)				
<input type="checkbox"/> Urban	<input type="checkbox"/> Non-Urban	<input type="checkbox"/> Wet Flowing	<input type="checkbox"/> Wet Trickle	<input type="checkbox"/> Majority Wet	<input type="checkbox"/> Minority Wet	<input type="checkbox"/> No Water
II. CHANNEL STATUS (X ONE)						
<input type="checkbox"/> <b>Target - Sampleable</b>		<input type="checkbox"/> <b>Target - Not Sampleable</b>		<input type="checkbox"/> <b>Non-Target</b>		
Estimated Channel Width		<input type="checkbox"/> Temporarily Inaccessible		<input type="checkbox"/> Watercourse not present		
Estimated Channel Depth		<input type="checkbox"/> Other (explain in comments)		<input type="checkbox"/> Impoundment (lake, reservoir, etc.)		
4WD Required		<input type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> Tidally Influenced		
site visited		<input type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> Pipeline		
Picture/s		<input type="checkbox"/> NEED MORE INFORMATION		<input type="checkbox"/> Conveyance Channel		
Best month for sampling				<input type="checkbox"/> Not Accessible		
		<input type="checkbox"/> April <input type="checkbox"/> May <input type="checkbox"/> June <input type="checkbox"/> July <input type="checkbox"/> August <input type="checkbox"/> Sept		<input type="checkbox"/> Boatable		
		<input type="checkbox"/> Unknown		<input type="checkbox"/> Other (Please explain)		
<b>DIRECTIONS TO SITE:</b> (Include x-streets and landmarks, address for auto nav)						
Ownership Verified?						
Gate, keys, special needs		Site Address				
<input type="checkbox"/> Yes <input type="checkbox"/> No						
Lodging/Camping Comments:		<input type="checkbox"/> YES <input type="checkbox"/> NO		If yes, Describe:		

COMMENTS:

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