

Elaboration on the Prioritization Protocol for Perchlorate Impacts

	Question/Comment *	Response
1	The protocol should reference either the federal or state definition of drinking water.	The State definition of drinking water should be used.
2	Does this protocol include sampling at private wells, or does it only consider wells subject to state regulation? Do impacts of private wells have to be considered as well?	As specified on Page 3 of the protocol, both public and private wells should be considered.
3	Would implementation of the protocol be consistent with the September 2003 DoD sampling policy? There appear to be inconsistencies. If a site is a potential release site but has not been sampled, the understanding from installations is that they should not sample unless there is a likely exposure pathway, according to the DoD sampling policy.	Yes, the protocol is consistent with the DoD sampling policy. This question refers to when sampling is allowed under the protocol versus the DoD sampling policy. There is nothing in the DoD sampling policy that says there has to be an impact to a well before sampling can be performed. The PWG decided to use the proximity definition for the protocol.
4	Another potential inconsistency between the DoD sampling policy and the protocol is in the area of reporting. The protocol directs a facility to report to the state, while the DoD sampling policy requires that DoD reporting occur at a higher level.	The protocol requires DoD installations to share perchlorate sampling data, obtained pursuant to this protocol, with state regulatory agencies in order to jointly assess the threat of perchlorate contamination on California drinking water supplies from DoD activities. The reporting requirement under the protocol is consistent with DoD Sampling Policy. The DoD Sampling Policy does not prohibit installations and FUDS from reporting perchlorate data to regulatory agencies, and in fact, many installations did so under the initial request of their Regional Water Boards.
5	One of the three questions posed in the Planning section of the protocol is, "Is there a likely complete human exposure pathway for drinking water (public and private sources)?" What exactly is meant by "likely"?	The answer to this question should be based on site-specific conditions. (Also refer to 3).
6	The protocol should explain how funding issues would be handled. If sites are prioritized, will funding be prioritized across DoD installations?	We are seeking clarification on the issue of prioritization of funding from OSD and service headquarters.

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7	Should the prioritization be applied between installations or within an installation (release location by release location)?	There are really two tiers to the ranking. The first occurs within each installation. It is possible that an installation would have more than one release location ("site") to sample. In this case, each installation would prioritize all of their sites according to Table 2 of the protocol ("installation ranking"). The second tier of prioritization ("master ranking") would then consolidate all the sites from all the installations, resulting in a prioritized list statewide. In effect, then, an installation may have high -priority and low-priority sites in the master ranking.
8	Would closed ranges be exempted from this protocol?	<p>Non-operational ranges are covered under this protocol. DoD now refers to ranges as operational or non-operational, instead of open or closed. Non-operational ranges include the old definitions of closed, transferring, and transferred ranges and are to be addressed under the provisions of the protocol. This protocol does not apply to operational ranges. Operational ranges are addressed as part of a separate DoD program as referenced in the "DoD Sampling Policy" section of the protocol document. Although operational ranges may not be addressed under this protocol, activities that are not consistent with range activities, or activities that are not legally authorized, may warrant examination.</p> <p><i>Note:</i> Crucial to this discussion and appropriate implementation of the Protocol will be not only the definition of an operational range but also, and possibly more importantly, an identification of specific areas on installations that are designated as operational ranges. The military representatives on the CA PWG are working with service headquarters and installations to define this in more detail.</p>
9	Important statements in the policy such as "This focus is not intended to discount or dismiss other potential impacts or exposure pathways that may also pose a concern" should be underscored or typed in bold print.	Readers should note that it is very important to read the entire document.
10	What is the process for addressing any disagreements on protocol interpretation at specific sites? The policy needs a dispute resolution provision included in it. That process should be documented in the policy.	Through careful reading and application of the protocol, regulator and installation-level staff should be able to resolve any disputes. The protocol was crafted with the intention that regulator and installation-level staff would work together using their professional judgment to interpret it. The CA PWG encourages State and DoD project managers to pose questions to the CA PWG if such discussion helps to resolve any disagreement.

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11	How would one define a “likely perchlorate release area” in Table 2?	“Likely” is not listed as a category within Table 2. Rather, Table 2 categorizes “perchlorate release area” as either “yes,” “unknown,” or “no” for each site. The “unknown” category was designed to cover sites where perchlorate activities may have taken place but where no sampling data exist.
12	If you have a “yes” indicated on Table 1 but have not performed sampling to determine whether there was a release, should it be classified as “Unknown” in Table 2?	The activities identified in Table 1 are to be used solely as a guide to identify the types of activities where perchlorate may have been used and released. It is not an exhaustive list. In the event that an activity listed in Table 1 has occurred, unless there is evidence that a release occurred (e.g., sampling data or incontrovertible statements in the records indicating that a perchlorate release occurred at the site), it should fall in the “unknown” category in Table 2. These categories (yes, unknown, or no) in Table 2 simply serve as a means of prioritizing sites and were not meant to provide a definitive answer for any IRP decisions.
13	Table 2 is being used by some as a shield. If the facts of their site don’t fit in the Table, they say they are excluded from further analysis. The importance or lack of importance of Table 2 should be reemphasized (as in the footnote to Table 2).	This protocol is not meant to govern a RCRA or a CERCLA decision. The protocol is intended solely and exclusively as a means to prioritize efforts to identify or confirm suspected perchlorate releases. Decisions made based on the protocol are not equivalent to final regulatory decisions. This protocol does not trigger regulatory requirements that would not otherwise exist under existing laws and regulations. Additional efforts may or may not be necessary in order to provide the certainty that a RCRA or CERCLA decision requires.
14	The policy should define the phrase “Drinking Water Supply Impact” that is a column heading on Table 2. Is the drinking water supply defined as the well where the water is pulled from or is it the aquifer or both? This question stemmed from a base where they found perchlorate in monitoring wells. Perchlorate is present in the aquifer (but not the one used for drinking water), and the public supply wells haven’t been sampled.	For purposes of implementation of the protocol and the analysis of available information, the reference in Table 2 would be the well or surface water intake rather than the entire aquifer. Consistent with the DoD Perchlorate Sampling Policy, site-specific consideration may be given to monitoring well or surface water intake data. For example, when the drinking water supply is surface water intake from the Colorado River, perchlorate concentrations should be compared with background concentrations in Colorado River water. The “Distance Between Perchlorate Release Area and Drinking Water Supply Source” refers to the distance between the boundary of the potential release site and the drinking water well or surface water intake where the impact was assessed. In the example cited in the question, the “drinking water supply impact?” would have been categorized as “unknown” in Table 2.

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15	A timeline should be included in the policy as to when prioritization, investigation, and sampling should be conducted.	To date, there has been no timeline established. The timing for the prioritization is addressed in the Action Plan. According to the protocol, sampling plan and schedule development for each installation or FUDS will be coordinated with the appropriate state agencies.
16	Include a statement on the use of certified labs to do the sample analysis. Also, include how one goes about decertifying labs.	The state has always required the use of CA-certified labs. "Decertification" of labs is outside of the scope of this protocol. Any questions about the California certification of laboratories or whether a laboratory is certified in California should be referred to the DHS Environmental Laboratory Accreditation Program (http://www.dhs.ca.gov/ps/ls/ELAP/default.htm).
17	The policy should include a discussion on when, if ever, a facility can cease being under the purview of this policy. If you have conducted sampling and everything is clean to a certain level, when does one get away from the protocol? How much information is enough?	Refer to 13.
18	The policy should include a "Force Majeure" clause to establish what should be done under the protocol.	This is not a policy; it's a guideline.
19	Off-site data may not be directly comparable to on-site data. Installations will have to look for data that are relevant and comparable to drinking water data.	All sources of data should be considered and evaluated in making installation and site-by-site assessments.
20	The GIS presentation at the workshop did not lend itself to illustrate that these sites are priority sites. Perhaps the data should be presented by the state instead of DoD at future workshops.	We agree that aspects of the presentation could have been interpreted as dismissing of possible concerns. The presentation should not be used as a substitute for base-specific discussions between project managers to evaluate potential release sites or the potential impacts to drinking water sources.
21	How does the protocol apply to a facility without local drinking water supply sources?	The protocol applies to all facilities with potential releases of perchlorate and where a human exposure pathway may exist, which is determined by measuring proximity to a drinking water supply. If the distance from the site to a drinking water supply is greater than 5 miles, no action will be required under this protocol. Although sampling may not be required under this protocol, this is not equivalent to a State agency regulatory decision of "No Further Action."
22	How will the prioritization be used (e.g., on a regional basis, state-wide, across DoD)?	Refer to 7.
23	How will the prioritization affect the funding pool?	Refer to 6.

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24	The protocol should include clarification on the range issue.	This protocol does not apply to operational ranges. Ranges are addressed as part of a separate DoD program as referenced in the "DoD Sampling Policy" section of the protocol document. (Refer to 8 for additional information).
25	Table 1 lists activities that are exclusive to ranges. That adds to the confusion. There should be a footnote indicating that these range-exclusive activities are relevant only when they occur off-range.	These activities may have been conducted on non-operational ranges; therefore, Table 1 is appropriate within the context of the protocol. (Also refer to 8).
26	The protocol should reference the CERCLA definition of release.	Since the protocol is being implemented by state and installation IRP project managers who are familiar with DERP and BRAC Programs, it was intended that the term "release" as used in the protocol be understood in terms of its CERCLA and State Superfund definition. For reference, release is defined in Section 9601(22) Title 42 United States Code, as well as in Section 25320, Chapter 6.8, California Health and Safety Code.
27	Drinking water wells threatened by a release should be included as a high priority.	We agree. The relative priority of different sets of circumstances in Table 2 assigns a higher priority to sites in close proximity to drinking water supply wells.
28	Under the Task a responsibility listed for state agencies in the Investigation/Sampling Section, the word "advice" should be replaced with "guidance." Furthermore, Tasks a and b could be merged.	The protocol has been modified to substitute "information" for "advice." The protocol is intended to represent a collaborative working relationship between DoD and the State in assessing sites for potential perchlorate impacts, and so the difference between the terms "information," "advice," and "guidance" as used in the protocol should not pose a problem. The State and DoD project managers that use this protocol should make every attempt to work together to reach consensus on how the protocol is implemented, so as to avoid circumstances where disagreements could give rise to more formal recourse.
29	The last paragraph of the Reporting section lists 4 ppb as the reporting limit, but the wording is confusing. This paragraph should be rewritten for clarity.	This section requires that concentrations of perchlorate below the detection limit of 4 ppb should be reported as "< 4ppb." This requirement is included so that sample results will not be reported as "non-detect." If there is a requirement for better accuracy, use the more accurate detection methods such as LC/MS/MS for concentrations below 4 ppb.

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30	The protocol should clarify which sites should not be included in the prioritization (e.g., sites with on-going perchlorate investigations) within the Purpose and Scope Section. A bulleted list of which sites should be included verses which sites should not be included is suggested.	The protocol already states that it “is not intended to delay or replace perchlorate sampling and response actions associated with ongoing regulatory activities being overseen and directed by [federal or] state agencies where DoD Services and installations have already budgeted resources and scheduled activities.” A listing of sites would be difficult to create, and would limit the use of the protocol. The protocol was designed to represent considerations that can be applied to any site, but defers site-specific determinations to site-specific evaluations.
31	The protocol states that releases will be addressed under DoD’s existing environmental response programs including DERP, BRAC. If a site were funded out of base O&M funds, would that site fall out of the protocol?	RCRA-funded activities are also specifically listed in the Protocol. There certainly was no intent to exclude O&M funded activities. (Refer to 6 for additional information.)

* *These questions and comments originated from the Regional Breakout Sessions at Perchlorate Workshop held on 01 July 2004*

**Additional Clarifications
Perchlorate Prioritization Protocol
30 June – 1 July 2004 Perchlorate Workshop**

Question		Answer
1	What will be the timeframe for testing drinking water sources (supply wells) that have not yet been sampled?	It will be an iterative process. The first step of the process will be to identify public supply wells that have not been tested. The State will contact the water purveyors to get appropriate wells tested.
2	Why does the protocol reference a one to five mile radius of influence?	These distances are not referenced in statute or regulation, but were selected by the CA PWG as representative of proximities where a higher likelihood of impact might be expected. These distances are not intended to supercede site-specific information, sound science, or professional judgment.
3	The Relative Priorities Table doesn’t differentiate between one and five miles. Is there really a difference?	The table prioritizes a well that is less than one mile away as a higher priority than a well that is five miles away. In terms of a particular installation, there may be no substantial difference, but in terms of a statewide prioritization, all

Question	Answer	
	sites less than a mile distance would have a higher priority than those more than one but less than five miles.	
4	Will we ultimately look at data from monitoring wells?	If data from monitoring wells are available it may help to better assess sites and their impacts. If no monitoring well information is available, the Protocol is designed to first look at what information is already available.
5	Per the service sampling policies, what exactly requires higher-level approval?	Please refer to your respective service policy. For Air Force, if there is a need to sample that is agreed upon by Base RPMs and regulators, they will take it up the chain. Now that the protocol is being finalized, it's probably going to be a simple verbal approval just to let them know what is being done. The Army Corps has to go to the CX, but it can be expedited depending on the situation. The Navy has to go to CNO and coordinate.
6	Were all data used to create maps generated using EPA Method 314 for perchlorate?	That is the standard method that purveyors are required to use when conducting Source Water Assessment Testing under the State's UCMR.
7	Does the protocol recognize the shortcomings of EPA Method 314, and will those shortcomings get filtered down to decision makers?	As with any laboratory method, interferences and other issues should be taken into account by the laboratories conducting the analyses. Additional laboratory methods are available if interferences in the sample prevent the laboratory from achieving detection limits within acceptable ranges.
8	How will new analytical methods get incorporated into the protocol?	The Protocol does not list specific analytical methods, so it does not need to incorporate any changes in analytical methods as they are developed. The Protocol does call for a sampling plan to be developed for those sites where it is appropriate, and in that context analytical methods should be specified.
9	There are a few manufacturing facilities that were included in the maps. Does the state feel we have a complete picture of other potential sources?	The State and EPA's investigation efforts are not limited to DoD installations and sites. As additional information becomes available on other potential sources of perchlorate contamination that information will be factored into its efforts.
10	When sampling drinking water, does the state recommend sampling at the tap, or sampling the raw water?	Both, although sampling at the tap may not provide useful information, since many public water supply systems blend water from many sources prior to delivery to their customers.
11	How are you defining the limits of a range, and what is on-range and off-range?	Military representatives are working with service headquarters and installations to define this in greater detail. Immediately available is the FY03 366 Report that was submitted to Congress as a result of the National Defense Authorization Act. This report provides an inventory of ranges.
12	The water boards have requested installations to sample discharges from GW treatment systems. Will that be required?	In many instances groundwater treatment system effluent may be a cost effective way to gather qualitative information on whether perchlorate is present. It should be considered as project managers contemplate data gaps and ways to fill those gaps.