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Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

(Submitted electronically to: waterloadings@epa.gov)

RE: EPA-821-F-10-004 – Discharge Monitoring Report Pollutant Loading Tool

Tri-TAC is pleased to submit input to the U.S. Environmental Protection Agency (USEPA) on the beta-version of the Discharge Monitoring Report Pollutant Loading Tool (Loading Tool) released November 2010. As background, Tri-TAC is a technical advisory group for publicly owned treatment works (POTWs) in California. It is jointly sponsored by the California Association of Sanitation Agencies, the California Water Environment Association, and the League of California Cities. The constituency base for Tri-TAC collects, treats, and reclaims more than two billion gallons of wastewater each day and serves most of the sewered population of California.

The Loading Tool release notice indicates USEPA is seeking comments on how to improve the tool and the accuracy of the discharge monitoring data supporting it. The USEPA specifies that the Loading Tool only includes data for point source discharges regulated under the National Pollutant Discharge Elimination System (NDPES) Permit Program. Furthermore, the monitoring data utilized is from Discharge Monitoring Reports (DMRs) for constituents that a facility is required by permit to monitor. The USEPA notes that the new web tool for assessing point source pollution data is part of the agency's Clean Water Act Action Plan, which seeks to improve transparency of information and public knowledge about pollutant releases that may cause water impairment.

Tri-TAC is in agreement with USEPA's goal to improve transparency and public knowledge and emphasizes that in order to achieve this goal, USEPA must elucidate that impairments are diverse and include various sources. Specifically, these include non-point sources such as agriculture, forestry, and urban dry weather and stormwater runoff, residential onsite sewage disposal systems, in addition to point sources such as industrial and municipal discharges. It is important that USEPA explain the vast sources of impairment on the Loading Tool website so web-users understand that the program does not provide a complete assessment of pollutant loadings. The ultimate goal is to improve transparency of information and public knowledge, and this cannot be achieved when the message is misleading and one sided since only source loadings that can be easily quantified are available for public review. Additionally, USEPA's goal of transparency cannot be met unless

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the information publicly available is based upon accurate and correct data. Therefore, USEPA needs to make data quality a top priority and should not release data that is incorrect or has known flaws.

Tri-TAC's specific comments on the improvement of the Loading Tool are detailed below. Tri-TAC would welcome the opportunity to work directly with USEPA on the next version of the Loading Tool to address our concerns regarding data release, data quality, program information and data, webpage functionality, calculation of annual loadings, and multiple outfall discharges.

Data Release

USEPA solicits comment on whether the agency should allow for a public review of each release of annual data to allow for error correction. Tri-TAC believes that a formal public comment period is warranted and necessary for dischargers to review their data prior to the formal release of the information. Moreover, Tri-TAC also cautions USEPA should not release the annual loadings until errors identified are removed or corrected. Similarly, USEPA should correct errors identified in the 2007 beta-testing period before releasing 2008-2010 data. Tri-TAC notes, however, that the burden of quality analysis and control should not solely be the responsibility of the discharger. USEPA should thoroughly review each data set beyond the Loading Tool beta-testing period for possible errors before the initial release for public comment.

Data Quality

USEPA's Permit Compliance System (PCS), Integrated Compliance Information System (ICIS-NDPES), and Enforcement and Compliance History Online (ECHO) databases comprise of monitoring data for dischargers nationwide. The Loading Tool takes flow and concentration data from these databases and converts the reported results into annual loadings. Given that PCS, ICIS-NPDES, and EHCO manage a significant amount of information, and periodically contain errors, it is imperative that dischargers have the means necessary to easily correct inaccurate information. The PCS, ICIS-NPDES, and ECHO systems have correction tools available on the websites, however, data changes can take months after the correction request is submitted. The process to fix incorrect discharger monitoring data must be simplified and streamlined, especially given that these results will now be used to calculate annual pollutant loadings with the Loading Tool. Additionally any streamlined data correction process needs to allow for multiple data points to be corrected as a set, at one time, instead of selecting an individual data point. Cyanide is an example of a pollutant that was found to be an artifact of the preservative from using an USEPA approved laboratory method. Most likely all of the 49 facilities shown with cyanide loads in California would need all the cyanide data removed, and it would be best if this could be done at one time, by each facility. There probably are other examples from across the United States where a complete data set is incorrect over an extended period of time and needs to be

removed from the Loading Tool and the underlying databases that the Loading Tool accesses.

The USEPA should develop and implement a streamlined correction procedure prior to releasing any further data. Also, as noted above, Tri-TAC recommends USEPA allow a public review period of annual pollutant loadings so dischargers that are not periodically verifying their data throughout the monitoring year have the opportunity to make corrections prior to public release.

Program Information and Data

The Loading Tool has three search functions: EZ Search, Facility Search, and Advanced Search. Each of these search pages yield annual loading results by parameter for a particular discharger. Although this information is the basis of the USEPA's Loading Tool, more information should be displayed on the initial results page. A description to accompany the 4-digit SIC Code should be included since many users will not have the knowledge of the specific category the code represents. In addition, the results table should include total annual flow, which will help differentiate between high loadings due to large volume discharges or high loadings due to discharges with high concentrations of a particular constituent. Lastly, when using the search option for POTWs, the population served should be included in the initial results table. Understandably, the population served by a POTW will factor into the annual loadings so this information is important to display on the initial results page. Displaying these items will provide the web-user with imperative and complete information for each discharger.

Additionally, evaluation of the program also indicates that improper parameters are included in loading calculations. Specifically, the webpage notes that the Loading Tool data only includes pollutants that a facility is required by permit to monitor and that are measured in units of concentration or mass; therefore, parameters such as toxicity are excluded. However, although results for toxicity were not present, search results displayed annual pollutant loadings for total coliform, fecal coliform, and *E.coli*. Mathematically, it does not make sense to convert these parameters into annual loadings. The Loading Tool should be modified such that pollutants reported in units other than grams per liter are excluded in annual loading calculations and results. Additionally, parameters that do not make sense to convert, such as dissolved oxygen, should also be omitted.

Webpage Functionality

Review of the beta-version of the Loading Tool indicates there is a programming error, which occurs after a search is selected. Specifically, once search criteria are identified and the search button is clicked, results are displayed in two separate formats. First, some search results display a second screen that states "See Matching Facilities". Once this button is selected, a webpage displaying information regarding the discharger, top pollutants by pound, top pollutants by toxic-weighted

pounds, a map, receiving water information, and CWNS treatment information is displayed (Figure 1). Furthermore, the website user has the option to download all data associated with the pollutants by pound and by toxic-weighted pounds.
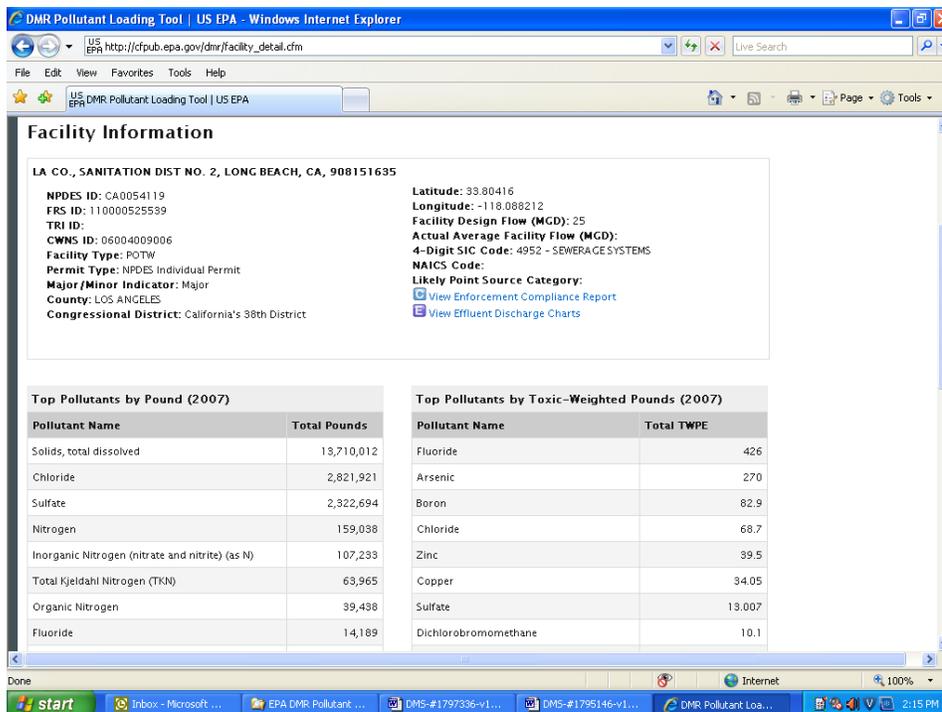

Figure 1: Screen shot of search criteria results.

However, in other instances, if different search criteria are selected the Loading Tool automatically generates an excel spreadsheet. This spreadsheet contains facility information including period, SIC code, name, type, parameter, pollutant load (kg/yr), wastewater flow (MMGal/Yr), average daily load (kg/day), and average concentration, among other information (Figure 2).

Figure 2: Screen shot of alternative search criteria results.

The Loading Tool should be modified so search results are only displayed in one format. The format shown in Figure 1 is preferred because the data is displayed in a fashion that is easy to read and understand. The excel spreadsheet display version is diluted with unnecessary information, including constituents with zero annual pollutant loadings. Furthermore, the excel spreadsheet version shows annual loadings in terms of kilograms per year as opposed to pounds per year, it is preferred to display loadings in terms of pounds per year because these units are consistent with DMR reporting requirements. The webpage shown in Figure 1 should be enhanced, nonetheless, to include flow and concentration data that was used to calculate the annual pollutant loadings. The flow and concentration data could easily be included with the "download all data" option associated with the pollutants by pound and by toxic-weighted pounds tables.

Calculation of Annual Loadings

Three search methods are available for the Loading Tool: EZ Search, Facility Search, and Advanced Search. Improvements for the EZ Search and Advanced Search are noted below. The USEPA's website indicates that *The Technical Users Background Document for the DMR Pollutant Loading Tool* (Technical Users Document) describes the Loading Tool architecture and calculation methodologies in detail. The Technical Users Document, however, was unavailable for several weeks after the release of the Loading Tool. Since the document was made

available only a couple weeks before the Loading Tool comment deadline, a
complete assessment of the Advanced Search calculations could not be completed.

EZ Search

The Loading Tool calculates annual pollutant loadings by extracting DMR data from
ICIS-NPDES and PCS and applying specified calculation methodologies. For the
EZ Search option, one aspect of the calculation methodology that should be
modified is data with non-detected amounts of a constituent. The webpage notes
that if pollutant concentrations for all monitoring periods in a given year are reported
below the laboratory analytical method quantitation limit, then the annual load
calculated by EZ Search for that parameter is equal to zero. However, if at least
one monitoring period has a pollutant concentration that is above the laboratory
analytical method quantitation limit, the annual pollutant loading is calculated by
summing detected values multiplied by the monthly flow and one-half the detection
limit for non-detected results multiplied by monthly flow. This method requires
reporting of the laboratory analytical method quantitation limit and in cases where
there is not reported value, the program assumes zero. This calculation
methodology is biased since dischargers reporting the quantitation limit are shown
as discharging higher pollutant loads than dischargers not reporting the quantitation
limit. But more importantly, this assumption inappropriately over-estimates annual
pollutant loadings to a waterbody and provides inaccurate information to the public.
The EZ Search should set the default search results for non-detected and "detected
but not quantifiable" values as zero. The calculation methodology should not rely on
other results within the annual monitoring period since they are not related. This is
consistent with the intent of NDPES monitoring requirements, which interpret
monthly, quarterly, and semiannual monitoring results to be representative of
discharge only within the defined monitoring period.

Advanced Search

The Advanced Search has more search options available in contrast to the EZ
Search webpage. Additionally, the Advanced Search has loading calculation
options the web-user can define for non-detects, estimation function, parameter
grouping function, and nutrient aggregation function. The default search criteria are
set for non-detects equal to zero, estimation function- on, parameter grouping
function- off, and nutrient aggregation function- off. Tri-TAC recommends that the
Advanced Search default for the estimation function also be set to "off" like the other
functions. The estimation function estimates discharges for monitoring periods
where no pollutant quantities or concentrations were reported. It is inappropriate to
set the default to calculate a loading when pollutant quantities and concentrations
were not reported since this would assume discharge monitoring information. This
assumption will likely overestimate loadings since facilities often do not submit
DMRs when no discharge occurred. The estimation function is a valuable tool, but
due to the uncertainty with the calculation, the default should be set to "off" with the
choice of activating the option. Lastly, to help inform the web-user, the Advanced

Search webpage should include a short description at the bottom of the page that for each of the loading calculation options and assumptions.

Multiple Outfall Discharges

Another issue requiring further consideration is the calculation of annual loadings for dischargers with multiple outfalls. Even though a discharger is permitted under one NPDES permit, it is possible for the discharger to have multiple outfalls permitted. Under such circumstances, the permittee is required to submit DMRs with sampling results for every outfall. In addition, some facilities also have a summation DMR that adds the mass loadings at each individual discharge point in order to report the total mass loading. After evaluation of the Loading Tool, it is unclear if the system can handle calculating annual loadings for such situations properly. The Loading Tool should operate such that annual pollutant loadings are calculated according to the reported constituent concentration, discharge days per month, and outfall number. The program cannot simply assume that each outfall discharges 30 days per month, calculations with this assumption will inappropriately over estimate annual pollutant loadings. Moreover, the Loading Tool should use summation DMR data when available to exhibit a facilities total annual loading.

Lastly, Tri-TAC would encourage USEPA to work with state NPDES Programs to use this Loading Tool instead of developing a separate state electronic tool for estimating pollutant loads from point sources.

Thank you for the opportunity to provide input on the proposed Loading Tool. Tri-TAC is glad to assist you with this endeavor and would welcome the opportunity to work directly with the USEPA on the next version of the Loading Tool. If you have any questions or require additional information, please contact Ms. Shannon Grund by phone at (562) 908-4288, extension 2843, or by email at sgrund@lacsd.org.

Sincerely,

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