



County of San Diego

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April 13, 2018

Roger Mitchell
California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, CA 92108-2700

Dear Mr. Mitchell:

656543: Comment – Administrative Draft of Tentative Investigative Order No. R9-2018-0021, *An Investigative Order Requiring the Submittal of Technical and Monitoring Reports to Quantify the Sources and Transport Pathways of Human Fecal Material to the San Diego River Watershed*

The County of San Diego ("County") and the San Diego County Sanitation District ("Sanitation District") appreciate the opportunity to provide comments on the Administrative Draft of Tentative Investigative Order No. R9-2018-0021 ("Administrative Draft"). We also appreciate the approach the Regional Water Quality Control Board ("Regional Water Board") has taken to first issue an Administrative Draft, then host a workshop with named entities and consider comments prior to releasing a Draft Tentative Order for public review and comment. Please note that the County does not own or operate any sanitary sewer facilities that are the subject of the Administrative Draft. Sewer facilities are owned and operated by the Sanitation District, an independent entity formed and operating under the County Sanitation District Act, Health & Safety Code § 4700, et seq. **The County and Sanitation District should be listed as separate entities in subsequent versions of this Investigative Order.**

The County and Sanitation District support the overall intent of the Administrative Draft, which is to identify and quantify sources of human fecal material within the San Diego

River Watershed. To that end, the County has been proactively taking steps to identify and eliminate, where possible, sources of human fecal contamination. For example, the County has intensified its efforts to identify and clean up waste created by outdoor encampments throughout the entire unincorporated area, including within the San Diego River Watershed. From late September 2017 through March 2018, the County has completed or facilitated more than 180 encampment cleanups on public and private properties, removing significant amounts of solid, hazardous, and bio-waste from the environment. More than 80 of these cleanups occurred within the San Diego River Watershed. **Finding 16 should be updated to acknowledge the significant County efforts to address homeless encampments.** We are committed to continuing with a sustained effort moving forward and have devoted additional budget and staffing resources to address unsanitary outdoor encampments.

To protect against sanitary sewer overflows and potential exfiltration of wastewater from the sewer system, the Sanitation District has initiated a comprehensive condition assessment program to evaluate the structural integrity of all sewer mains owned by the District, with a particular focus on sewer mains that cross or are located in close proximity to surface water bodies. The findings of the condition assessment are utilized in the risk-based analysis used to develop the District's prioritized infrastructure improvement program. Additionally, the Sanitation District has installed a network of in-line flow monitors at remote sewer locations to provide real-time notifications of potential sewer blockages or failures. The Sanitation District Board recently increased sewer service charges to provide additional funding for these efforts.

The County has also played a lead role in initiating and funding a number of investigations and studies that provide important new information to water quality managers and other decision makers. Much of the information used to support issuance of this Administrative Draft was in fact collected through studies initiated and funded voluntarily by the County and its partners. Examples include the Surfer Health Study¹ (conducted in winters of 2014 and 2015 with upstream sampling conducted in winter 2016), the Bacteria TMDL Cost-Benefit Analysis² (conducted in 2016 -2017) and bacteria source tracking studies in San Diego River³ (conducted winter 2017), Forrester Creek⁴ (conducted in fall 2017), and Los

¹ http://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/943_SurferHealthStudy.pdf

² https://www.waterboards.ca.gov/rwqcb9/water_issues/programs/basin_plan/docs/issue3/Final_CBA.pdf

³ ftp://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/1002_HumanMarkerTracking.pdf

⁴ Forester Creek Source Tracking Study. <http://www.projectcleanwater.org/download/san-diego-river-wqip-annual-report-2016-2017/>

Coches Creek⁵ (conducted in winters of 2017 and 2018). The County has also recently initiated and is funding a project as of October 2017 with the Southern California Coastal Water Research Project (SCCWRP) to test the feasibility of using biofilms as a new tool to identify sources of human waste within the MS4 network and in waterways. Additional studies to use human microbial source tracking methods to trace sources of dry weather flows from MS4 outfalls are scheduled for the summer of 2018. These studies represent a total County investment of \$5 million since 2013.

The good news is that, based on findings of the Surfer Health Study, conditions at San Diego County beaches, even during wet weather conditions, appear to be better than many people had anticipated. Gastrointestinal illness rates measured during the study were significantly below the illness thresholds USEPA uses to set its federal water quality criteria for indicator bacteria. **Finding 11 in the Administrative Draft should be updated to include information about how the illness rates measured during the Surfer Health Study compare to acceptable illness thresholds used by USEPA in its federal criteria.** This is a significant part of the “story” that is missing from the Administrative Draft’s narrative and is important to share with the public. Despite these encouraging findings, the County and Sanitation District recognize there is still much work to be done in pursuit of improved water quality and public health conditions in our coastal watersheds. The ubiquitous presence of human-specific biomarker, HF 183, detected in the San Diego River Watershed suggests a new focus is warranted in our strategy for reducing bacteria in local waterways. It should be noted that the presence of HF 183 is not unique to the San Diego River Watershed. In fact, recent studies conducted by SCCWRP produced similar results for many other coastal watersheds throughout Southern California⁶. **Finding 13 should be updated to acknowledge that the issue of contamination from human fecal material is not unique to the San Diego River Watershed.**

The County and Sanitation District strongly agree with a key finding from the Bacteria TMDL Cost-Benefit Analysis – that targeting reduction of human waste sources will be the most cost-effective strategy for reducing bacteria in a way that actually lowers public health risk and expands recreational opportunities. The issuance of this Administrative Draft indicates that the Regional Water Board, too, supports efforts to address these high risk sources. The County and Sanitation District suggest that identifying and reducing

⁵ San Diego River Watershed Wet Weather Microbial Source Tracking Study.

<http://www.projectcleanwater.org/download/san-diego-river-wqip-annual-report-2016-2017/>

⁶http://ftp.sccwrp.org/pub/download/DOCUMENTS/JournalArticles/999_RegionalAssessmentOfFecalContamination.pdf

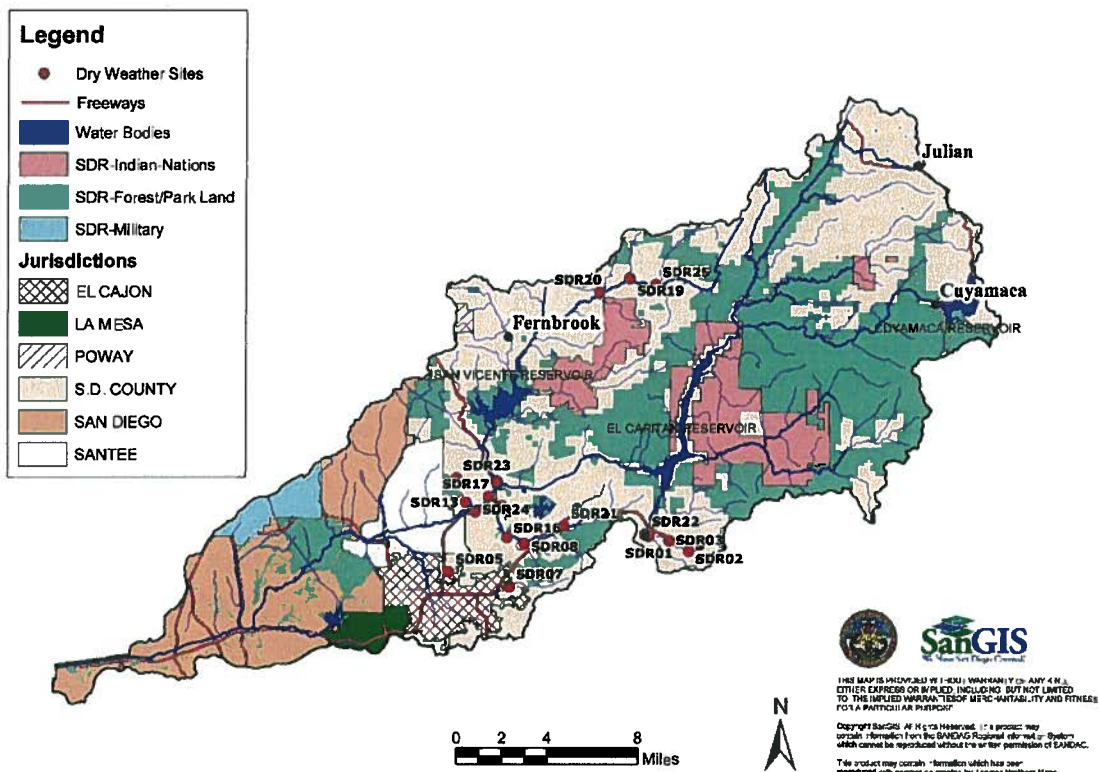
sources of human fecal waste should be a primary pathway through which regulated agencies demonstrate compliance with the Bacteria TMDL. This pathway does not exist as the Bacteria TMDL is now written. Unfortunately, the TMDL was written to mandate reduction of fecal indicator bacteria generally, without consideration of the variable risk posed by different sources of bacteria. Scientific papers published since adoption of the TMDL in 2010 demonstrate that non-human bacteria sources such as wildlife and pets do not pose as much risk to water recreators as human sources⁷. Therefore, the TMDL's emphasis on controlling bacteria within the stormwater conveyance system appears misguided. **Finding 62 should be modified to allow for near-term changes to the Bacteria TMDL and other permits based on the scientific work that has already been completed to date.** As written, the finding suggests that regulatory changes may be deferred until after work on the Investigative Order is completed (i.e., after 2022). In addition to reorienting the TMDL to focus compliance actions on addressing high risk human sources, the Regional Water Board must provide regulated parties additional time to comply. Extending compliance schedules is appropriate since, as this Administrative Draft acknowledges, there is a great deal of uncertainty about which source or sources of human fecal matter are most significant in this and other watersheds. Regulated parties will need time to retool their programs to focus on the highest risk sources identified by the studies required by this Order. Final compliance with the TMDL's dry weather numeric targets is due in 2021, which is prior to when the required studies are due to the Regional Water Board. The County and its partners laid out detailed recommendations for changes to the Bacteria TMDL and related provisions of the MS4 Permit as part of the Report of Waste Discharge, which was submitted to the Regional Water Board in December 2017. Please refer to that document for specific details on our recommendations.

The Regional Water Board should limit the geographic scope of the Administrative Draft to the portions of the San Diego River Watershed downstream of the impoundments (San Vicente and El Capitan Reservoirs). As noted in the Cost-Benefit Analysis, the City of San Diego Public Utilities Department indicates that these impoundments do not release water downstream. Furthermore, the Bacteria TMDL's footprint is based on the 303(d)-listed segments of San Diego River and Forrester Creek, both of which are located entirely downstream of the impoundments. Findings 12 and 13 cite evidence for the presence of human feces based on water quality results collected as part of the *Surfer Health Study* and subsequent *Upstream Source Tracking Study*. Water quality samples from the cited reports were all taken below the impoundments, as

⁷ Human Health Risk Implications of Multiple Sources of Faecal Indicator Bacteria in Recreational Waterbody. Soller, J., et al., 2014

shown in Figure 1 of the Administrative Draft. The County is not aware of any studies showing the presence of human fecal contamination in locations upstream of the impoundments. It is also worth noting that a majority of the land upstream of the impoundments is owned by federal, state, or tribal governments as shown in the Figure below. These parties are not named in the Administrative Draft. Such omissions would significantly limit the scope of activities that can be conducted in this area, particularly if the Regional Water Board chooses not to limit the geographic extent of the Order. Focusing resources on what matters most is consistent with the Regional Water Board's Practical Vision.

Land Use Authority in the San Diego River Watershed



The County and Sanitation District request at least six months from the date the final Order is adopted to develop and submit a Work Plan. Submittal of a Work Plan by the July 1, 2018, deadline is not feasible. A large number of agencies will be collaborating on this effort and Regional Water Board staff indicated at the March 28th Workshop that a final Order may not be issued until June 2018. As such, more time is necessary to secure funds from governing boards and councils, develop cost-sharing arrangements among the parties, and procure qualified technical consultants to assist with Work Plan development. A Work Plan coordinated among all of the agencies will be much more efficient than development of multiple individual work plans. This is consistent

with the preference for a comprehensive and detailed Work Plan as expressed by the Regional Water Board at the March 28th Workshop. Based on the current schedule, a 6-month deadline would still allow time to collect three years of wet weather samples without having to push back the Final Report due date of June 30, 2022. Ideally, wet weather sampling could begin during the latter half of the 2018-2019 wet season and be completed at the end of the 2021-2022 wet season. It should also be noted that some elements of this required work may be started prior to January 1, 2019. For example, the County has already initiated task orders with SCCWRP to begin assessing sewer exfiltration. This work is being vetted through the Regional Water Board and will be guided by an Advisory Committee on which Regional Water Board staff has been invited to participate.

Finding 46 must be modified or removed to avoid potential appeals of this Investigative Order based on an inappropriate definition of “MS4” that goes well beyond the definition in the federal Clean Water Act. Finding 46 states that homeless defecating outdoors results in a discharge of human fecal material to the San Diego River or its tributaries, and is an illicit discharge to the stormwater conveyance system. The County disagrees that discharges of human fecal material from homeless encampments directly into the main stem of the San Diego River or a tributary are necessarily subject to provisions of the Municipal Stormwater Permit. The Municipal Stormwater Permit only regulates MS4s, defined in the federal Clean Water Act regulations (40 CFR 122.26(B)(8)) as conveyances owned or operated by the municipality. Many segments of the San Diego River and its tributaries are not owned or operated by a public agency and, therefore, are not appropriately defined as MS4s. Maintaining such a statement as a factual basis for this Order introduces conflict that could delay commencement of important work.

Homeless encampment cleanups are ongoing throughout the watershed. Studying their relative contribution as a source of human fecal material to the San Diego River and its tributaries would best be conducted outside the scope of an investigative order. The issue of homelessness transcends the water quality arena, and is complicated by many difficult-to-solve social issues such as affordable housing and mental health. The County and Sanitation District recognize the impact outdoor defecation may have on water quality and we support efforts to identify and quantify this source relative to the magnitude of other sources. As noted above, the County has intensified its efforts to clean up waste created by outdoor encampments throughout the entire unincorporated area, including within the San Diego River Watershed. Prior to receiving the Administrative Draft, the County had initiated work with SCCWRP in Summer 2017 and other study partners to explore potential approaches to better understanding the impact of homeless encampments on water quality. The County acknowledges the Regional Water Board’s offer of \$50,000 in November 2017 to study

fecal contributions from the homeless. However, the Regional Water Board declined to join this SCCWRP study.

Preliminary analysis shows that identifying homeless encampments appropriate for such a study would be extremely challenging. First, encampments are being cleaned up frequently enough that it would be difficult to design a long-term study to assess their impact. SCCWRP has indicated that 30-60 wet weather samples would be required to determine whether encampments have a measurable impact on downstream water quality. To conduct such a study, an encampment or multiple encampments would likely have to remain in place over multiple wet weather seasons. Because some winters in San Diego are very dry, it may even be difficult to collect the required number of samples within the time frame of the Investigative Order. Other factors complicating such a study include ensuring access to encampments on private property as well as safety issues. **The County and Sanitation District request removal of the requirement to address outdoor defecation of homeless in this Administrative Draft but we encourage continued dialogue about ways to utilize data generated during ongoing cleanup efforts to help quantify the potential magnitude of this source.**

Studying the contribution of septic systems is more appropriately conducted outside the scope of this Investigative Order. Currently, the County regulates all septic systems with wastewater flows under 10,000 gallons per day. State Water Code Section 13282 allows the Regional Water Board to authorize a local agency to regulate and issue permits for septic systems "to ensure that systems are adequately designed, located, sized, spaced, constructed, and maintained". Through the adoption of the Local Agency Management Plan (LAMP), the Regional Water Board has authorized the County to issue septic permits in both incorporated and unincorporated areas of the County. The purpose of the LAMP is to allow continued use of septic systems in accordance with the state Onsite Wastewater Treatment System (OWTS) Policy and to expand the program to allow use of alternative septic systems, which provide advanced wastewater treatment prior to discharge in areas with limiting soil or groundwater conditions. The LAMP sets criteria for the design, installation, and permit requirements for all septic systems in the County.

Records show the number of properties served by septic systems in the San Diego River Watershed is minimal compared to the number of properties served by public sanitary sewer systems. Approximately 3.5% of the wastewater flow volume within the San Diego

River Watershed is attributable to properties served by septic systems⁸. Properties served by septic systems are generally located on larger parcels in lower density areas, compared with properties served by sewer. Due to the limited contribution to overall wastewater flow from septic systems within this watershed, resources would be better spent focusing the initial phases of investigation on publicly owned sewer collection systems and private sewer laterals. This risk-based approach would still target the majority of wastewater flows within the San Diego River Watershed. Unlike the public sanitary sewer collection systems and the stormwater conveyance systems, septic systems are almost entirely owned and operated on private properties by people and entities not named in this Order. Gaining access to these systems would be very challenging for the responsible parties and may limit the representativeness of study findings. Furthermore, the County is limited under the scope of the LAMP and lacks the regulatory authority to compel private owners to take corrective action for existing systems that are not "failing" (i.e. meet the criteria of Tier 4 of the State's OWTS Policy) or that are otherwise covered by the conditional waiver of discharge afforded by the Policy.

There is no existing data showing that septic systems are a contributing source to human fecal contamination within the San Diego River Watershed. If the Regional Water Board considers septic systems to be a contributor to impaired water quality, this should be addressed through the State OWTS Policy and LAMP requirements rather than through an Investigative Order such as the Administrative Draft, which is being issued to responsible parties that neither own nor operate septic systems.

Although the County disagrees that septic systems should be included within this Administrative Draft and requests that this element be removed from the Administrative Draft, the County is committed to understanding whether septic systems have the potential to contribute human fecal contamination to waterways. To this end, the County is currently working with SCCWRP on a study in the Eucalyptus Hills drainage area within the San Diego River Watershed. Understanding this drainage area, which has minimal homeless activity and is primarily composed of septic systems rather than sanitary sewer, should help us better understand whether septic systems are a significant potential source of human fecal material to waterways. Depending on the results of the study, further actions or studies may be warranted. The County is happy to discuss the ongoing study in detail with Regional Water Board staff and other interested parties.

⁸ Statistic based on population and septic system data from the Bacteria TMDL Cost-Benefit Analysis, using 2.87 individuals per household (2016 County of San Diego US Census Bureau).

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Finally, provision 1.D on page 21 of the Administrative Draft requires the Final Report to include "How the data obtained in this Investigation will be used to assess the effectiveness of the Discharger's programs in preventing discharges of human fecal material into the San Diego River, its tributaries, and downstream beaches." While we agree this is a critical step following collection of the required data, we are concerned about how the requirement is phrased. Many existing plans, such as Sanitary Sewer Management Plans (SSMPs), Water Quality Improvement Plans (WQIPs), Local Agency Management Plans (LAMPs), and others are already in place. Each responsible party will evaluate the results of these studies to inform changes necessary to their agency's plans. As such, there is limited value in requiring this information to be presented in a joint work product. **Rather than creating a new deliverable that will exist apart from these already established plans, the Administrative Draft should be amended to require each responsible party to use data obtained from the required studies to update those plans at the appropriate time.**

If you have any questions or comments, please contact Todd Snyder, Program Manager, at (858) 694-3672 or by e-mail at Todd.Snyder@sdcounty.ca.gov.

Sincerely,



RICHARD E. CROMPTON, Director
Department of Public Works

cc: Todd Snyder - Department of Public Works

