



September 10, 2014

Mr. Bruce Wolfe  
CALIFORNIA REGIONAL WATER  
QUALITY CONTROL BOARD  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

PHONE: (925) 228-9500

FAX: (925) 228-4624

[www.centalsan.org](http://www.centalsan.org)

ROGER S. BAILEY  
General Manager

KENTON L. ALM  
Counsel for the District  
(510) 808-2000

ELAINE R. BOEHME  
Secretary of the District

## TENTATIVE ORDERS FOR SITE CLEANUP REQUIREMENTS FOR 1643 CONTRA COSTA BOULEVARD AND 1705 CONTRA COSTA BOULEVARD – PLEASANT HILL

Dear Mr. Wolfe:

On July 2, 2014, the San Francisco Bay Regional Water Quality Control Board (RWQCB) transmitted Tentative Site Cleanup Requirements for 1643 and 1705 Contra Costa Boulevard (Tentative Orders). The deadline for submitting written comments was August 4, 2014, and the Central Contra Costa Sanitary District (District) filed general comments on that date. On August 25, 2014, the RWQCB authorized a second written comment period to allow interested parties an opportunity to provide additional comments or to rebut any previously submitted comments by other parties. The District therefore submits this letter to rebut technical comments submitted by Gregory Village Partners, LP (GVP) on August 4, 2014. A separate letter from District Counsel is being submitted to rebut GVP's legal comments as well.

After more than one year of reviewing extensive documentation filed by both the District and GVP, the RWQCB staff determined that there is insufficient data to support naming the District as a discharger on the Tentative Orders. In its August 4, 2014 comments, GVP repeated old technical arguments in order to criticize the RWQCB staff's analysis in the Staff Report. Although the District believes the evidence it previously submitted to the Regional Board speaks for itself, the District finds it pertinent to correct and clarify these issues for the Regional Board prior to the hearing scheduled for November 11, 2014. As explained herein, the RWQCB staff's determination to forgo naming the District as a discharger was technically justified.

The RWQCB staff identified four criteria to consider whether to name the District in the two Tentative Orders and correctly found that the four criteria were not met when they decided not to name the District in the Orders at the two Sites. Firestone claims that all four criteria were met without providing any new information to base this claim. The four criteria are presented below.

**1) *There was a release from the sewer main that contributed to the plume.***

The records and data document that the sanitary sewer system serving the two Sites did not release any significant quantities of perchloroethylene (PCE) or other chlorinated volatile organic compounds (CVOCs) that substantially contributed to the plume. However, the data does document known releases from the dry cleaning operations at the two Sites; the off-site migration is consistent with these known release sources and the groundwater direction and rate. The District is not saying that sanitary sewer systems have never leaked, but the condition of the sewer system serving the two Sites is rated at good to excellent and there is no substantial evidence in the record that it contributed as a material factor to the releases causing the environmental contamination.

**2) *The sewer owner/operator knew of leaks and failed to repair them.***

The District responded to conditions observed within the sanitary sewer system in a timely manner. Furthermore, there is no evidence that the District had knowledge of leaks and failed to respond appropriately.

**3) *The sewers were in poor condition and/or were not maintained.***

No reliable evidence has been produced that the sewer system serving the two Sites were either in poor condition or not properly maintained. To the contrary, all reliable information suggests that during all relevant times, the sewers in question were at a minimum in good condition, if not in excellent condition. Furthermore, the Ten Year Progress Report summarizing the District's collection system maintenance practices for the period from 1973-1982 present in the RWQCB's files, documents a proactive collection system maintenance program with performance measures that exceed the current level of service for many sanitary sewer collection system operators. (Attachment 1)

**4) *The sewer owner/operator was aware of/or permitted discharges into a leaking sewer.***

There is no evidence that the District was aware of any discharges or permitted any discharges into leaking sewers. Since 1953, the District's ordinances established narrative and numeric limits to control discharges of significant concentrations of PCE and other CVOCs into its sanitary sewer system. The standard wastes generated by dry cleaning operations would significantly exceed the numeric discharge limits and violate the narrative limits as well. If the two dry cleaning operations at the two Sites discharged wastewater in compliance with the ordinance standards, any incidental releases of wastewater from the District's system could not have significantly contributed as a material factor to the releases to the environment.

## **Rebuttal to August 4, 2014 letter submitted on behalf of GVP by Edward Firestone**

Firestone and the GVP consultants continue to misrepresent the District's sanitary sewer maintenance and regulatory programs to characterize the District in unfavorable light. These efforts attempt to shift the cost burden of investigating and remediating the release of PCE from its property to the District's ratepayers.

Primarily, the additional information provided by GVP is the declaration by Bonneau Dickson, a Registered Professional Engineer, who identified that his opinions were based on reviewing specified documents provided by GVP. In general, Dickson uses generic statements about what could happen in a sanitary sewer collection system to implicate that it did happen in the District's sanitary sewers serving the two Sites. In essence this repeats the unsubstantiated claims previously made by GVP representatives in prior submittals.

In his declaration, Bonneau Dickson did not accurately identify the District staff who submitted the May 28, 2013 Response to 13267 Letter Questions. Mr. Dickson identifies the letter he reviewed was from Tim Potter, who was signatory to the letter, but he fails to identify that Curtis Swanson also signed and stamped the May 28, 2013 letter with his Professional Engineer stamp. Curt Swanson is a Registered Professional Engineer, who retired from the District in March 2014, with more than 33 years of experience with the District working on sanitary sewer collection system design, construction, maintenance and operations, as well as responsibility for the development of the District's Standard Specifications while serving in the Environmental Services Division. He worked for the State Water Resources Control Board for three years prior to joining the District. Curt Swanson is at least as experienced as Mr. Dickson; however his conclusions are decidedly different.

### ***Dickson Opinion #1 – Gravity sewers never were and still are not designed or constructed to be free of leaks.***

*To summarize Dickson's opinion, he focuses on the joints of vitrified clay pipe (VCP) and refers to an article discussing problems with VCP during the 1940s and 1950s. Dickson states that "little attention was paid to leakage in sewers until after World War II" and "that problems of infiltration is widespread." This argument seems to imply evidence that sewer systems made of VCP leaked and that infiltration equates to exfiltration of water and CVOCs.*

Properly installed sanitary sewer pipes using VCP create an effective gravity sanitary sewer system to convey wastewater to the treatment plant. Properly installed VCP joints establish a liquid tight seal to support this conveyance. The seal of the VCP joints is documented during the pressure testing of the system, before the District accepts the installation of new pipes into its system (addressed below). The District is not saying that VCP joints do not fail, but the available evidence demonstrates that the VCP pipes from the original installation, have not failed. The sewers serving the dry cleaning operations in the two Sites were not built before World War II therefor the referenced article is not relevant. The issue of infiltration versus exfiltration is addressed in response to Dickson Opinion #3 below.

***Dickson Opinion #2 – Immediately after the sewers were installed in the area of the Gregory Village site and the Chevron site (“sites”), it is likely that the sewer lines sagged and joints failed.***

*Dickson's opinion is based on three generic concepts. The first is that “it is well known in geotechnical engineering that most of the settlement of recompacted soil takes place in the first year after construction”; the second that “the type of joints used... during the era when the sewers were brittle and would crack and leak if there was the slightest movement of the pipes”; and third that “tree roots very rapidly search out sewer pipes as a source of water and nutrients.”*

Based on the District's extensive experience installing, maintaining and repairing sanitary sewer pipes, the District does not concur with Dickson's opinion that defects and failures that are currently present in a sewer system are likely to have occurred within one to three years after their original installation. As recorded in the District's prior submittals, more than sixty years after their installation, the sanitary sewer lines serving the two dry cleaning operations at the two Sites are currently rated as being in good to excellent condition with few minor defects. The recorded defects include two minor sags, hairline cracks, and only one failure that apparently occurred after a GVP contractor attempted to drill a bore hole in September 1997 that damaged the District's sanitary sewer pipe. The truism presented by the District in the 5/28/13 submittal that sanitary sewer are in the best condition when they are newer is important when considering the current good to excellent condition of the District's lines serving the dry cleaners.

Defects and failures of sanitary sewer pipes occur for a variety of reasons (e.g. environmental, chemical, anthropogenic); some are short-term in their formation while others take many years to form. Settlement of re-compacted native soil used as bedding material will occur but to assume that it does so in a manner that causes all VCP joints to fail within a year is unfounded and does not consider the current condition of the District's pipes serving the two dry cleaning operations at the two Sites. Finally, there is no evidence of root intrusion. In fact by looking at a map, it is clear that these sewer lines are predominantly in the street and parking areas, under impervious surfaces. Based on the current CCTV records, root penetrations into the VCP pipe is minimal or non-existent.

***Dickson Opinion #3 – The sewers in and around the sites are certain to have had significant infiltration of groundwater and exfiltration of waste from inside the sewers beginning from time they were built through this day.***

*Dickson's opinion is that the pipes were installed with a high leakage allowance due to the District's allowance for infiltration when designing the capacity of sanitary sewer lines. It also references many VCP joints, the nature of VCP as brittle, use of poor gasketing material, and unglazed VCP would allow vapors to pass through the pipe walls. The opinion also claims the slope of the sanitary sewer lines serving the Sites are flat resulting in build-up of solids damming the wastewater flow.*

The hydrostatic and air testing methods used by the District, and other wastewater collection system agencies, are pressure tests of new lines to ensure proper construction. The pressures created during these tests do not exceed the pressures occurring during operations of a gravity sewer system. Routine peak flows through sanitary sewers is approximately half the liquid

level used for the construction testing and exerts minimal pressure on the pipe walls. Even when a pipe is surcharging, it will not experience the same pressures used in the pressure tests because the lines will overflow through manholes and other outlets before the additional head used in hydrostatic testing is realized. In summary, to claim that the pressure tests' tolerance levels used by the industry to assess the integrity of new pipes represents a leakage rate during use misinterprets the application of the test procedure and is in error.

Early District Standard Specifications reference infiltration, although the allowance was for an inflow/infiltration (I&I) rate for the design of sanitary sewer collection system capacity. It is prudent engineering practice to allow for I&I and can be considered as a factor of safety in the sizing criteria and recognition that over time there will be I&I in the system. Allowing for infiltration in design capacity does not mean that infiltration will occur for all sanitary sewer pipes at that rate. Infiltration frequently occurs when pipes are below groundwater and where water percolates past the pipe and the seal of the pipes are significantly compromised (e.g. off-set joints, significant cracks/breaks). Industry estimates of 30-50% for I&I allowance is due to private laterals that are connected to the sewer collection system and for which the District is not responsible.

Equating infiltration to exfiltration oversimplifies the conditions present in sanitary sewer lines and is not accurate. Water flows in the path of least resistance. For example, when pipes experiencing infiltration are submerged under groundwater, pressure from outside the pipe forces water into the sanitary sewer pipe so the wastewater inside the pipes will typically not flow out of the pipes through these same openings. When these same pipes are not submerged in groundwater (e.g. lower water table during dry season), the previous pressures, present from the outside when they were submerged, do not exist with the wastewater flowing by gravity inside the pipes.

Medium to high volume and velocity in the collection system will affect the tendency for wastewater to leak through significant breaks in the seals of the collection system pipes (e.g. off-set joints, significant cracks). No such conditions are present in the line segments serving the two Sites.

While there are cracks present in the sanitary sewer pipes serving the two Sites, they are hairline cracks located above the standard flow level of wastewater and they do not pose a threat to the structural integrity of the pipes. The presence of hairline cracks will not result in wastewater leaking out of the pipes under standard conditions. Even larger cracks located above the standard flow level in the pipe will not leak under standard conditions. A properly designed and maintained gravity system provides a path inside the pipe to enable wastewater to flow to the treatment plant and not leak to the environment. The path of least resistance is inside the pipe which is not under pressure to leak out of the pipe.

The experience of the District's Collection System Operations staff when responding to a repair of a significantly damaged sanitary sewer pipe, is that the soil around pipes being repaired is often dry, or moist for only several inches to feet around the pipe indicating that despite the need for an emergency repair the amount of sewage leaking from the damaged pipe is relatively minimal. This empirical observation is made when there's been a significant failure in the line prompting the emergency repair so to assert that properly functioning sanitary sewer lines routinely leak wastewater and wastes is without merit.

The opinion's claim that PCE vapors are prone to passing through the walls of vitrified clay pipes is theoretical and does not consider the conditions of a gravity sewer system. A gravity sewer system is open and has flowing liquid present during most of the day. In order for PCE vapors to pass through the pipe material, the pressure of the PCE vapors would need to build up so that pressure is created to force the PCE vapors to permeate the pipe material. As long as there is open space in a sanitary sewer collection system (as is the case with a properly functioning gravity sewer system), the PCE vapors will fill that space before enough pressure is built up to leak into the environment. The flow of water in the gravity sanitary sewer system also creates a draft of air that would evacuate any accumulated PCE vapors that were present, which would not allow the PCE vapors to accumulate and build up pressure.

If vapors passively pass one way through a pipe material, they would passively pass the other way through the pipe material. GVP's consultant's, (EKI) documents record the presence of PCE vapors in the environment near the sanitary sewers serving the two Sites which would result in the vapors passing through the pipe walls into the District's pipes if Dickson's opinion were valid. EKI conducted an assessment of the condition and operations of the District's sanitary sewer system in 2009. This assessment including measuring the atmosphere inside the manholes of the sanitary system serving the Sites and the nearby neighborhoods for CVOCs, including the areas subsequently documented to have soil vapors containing high levels of PCE. As recorded in the report filed by EKI, these atmospheric monitoring results were all non-detect indicating that the PCE vapors do not readily penetrate the walls of VCP of the District's sanitary sewer system serving the two Sites and the surrounding neighborhoods.

The claim that the slope of sanitary sewers serving the two Sites are flat which would result in accumulation of solids creating small dams in the system does not reflect the actual conditions in the District's collection system. The sewers serving the two Sites have slope and they function properly. As-built plans show half a percent slope for the sanitary sewer pipes in the area. Closed Circuit Television (CCTV) records show that wastewater flows unobstructed through the pipes serving the two sites. The maintenance frequency set for routine cleaning intervals for the lines serving the two Sites is scheduled at the least frequent cleaning interval which reflects standard operating conditions and not a buildup of solids or obstruction of these lines.

***Dickson Opinion #4 – The design and installation of the CCCSD sanitary system in the area of the two sites makes sewer maintenance and sewer cleaning difficult.***

*Dickson's opinion is the length and jog in the District's sanitary sewer segment between MH59 and MH46 is longer than current District standards and could hamper maintenance. The opinion also references a 1977 District maintenance record for the line segment in Linda Drive that was subsequently abandoned.*

This assertion is unfounded and there is no institutional history to support the claim. The District operates a high quality, effective sanitary sewer collection system operation and maintenance program. The program's performance exceeds most industry standards which is reflected in the extensive program and individual awards received over the past 26 years. The District's commitment to operating an excellent collection system maintenance program preceded the time period when the award processes were started.

Many older line segments of the District's sewer system do not meet all current standards (e.g. longer distances between manhole structures). While longer sewer lines are not desirable, our cleaning crews have not had problems cleaning this line by accessing from the upstream and downstream manholes. Such lines are periodically evaluated and scheduled for replacement or spot repair (e.g. installation of manhole structures) if there are any problems with operations or access to conduct routine maintenance. These lines serving the two dry cleaning operations including the line between MH59 and MH46, have not experienced operational problems nor posed problems with access to conduct routine maintenance so they have not needed replacement or spot repairs to install additional manholes.

Although Dickson's reference to the 1977 maintenance record is not related to the opinion's content on the design and installation of the District's sanitary sewer system, it illustrates the District responsiveness to repairs based on site conditions. The 1977 maintenance record assigned a construction crew to install a "T" to allow a customer from across Linda Drive to connect to the District system running along the western edge of the Chevron property. The work order notes the condition of pipe and records the repair of six feet of pipe as part of the job. It is the District's routine practice when conducting spot construction to existing lines is to chase up the line until good pipe is reached to ensure the work performed was connecting to good pipe. Based on the record's dimensions, work would have been under the sidewalk where the old sewer line was located. It is not clear when the damage to the pipe noted in 1977 occurred. This repair does not represent substantial evidence that the condition of the pipe was a material factor causing release to the environment.

***Dickson Opinion #5 – The sanitary sewer industry generally accepts as true the mechanisms described in Izzo report relating to release of PCE from sewer lines.***

*Dickson's opinion is not clearly established. The opinion cites the five mechanisms for potential releases of PCE from sanitary sewers presented in the Izzo report and quotes a phrase from the report regarding the author's assessment regarding infiltration in sanitary sewer pipes can result in exfiltration.*

The sanitary sewer industry does not accept as true the five mechanisms for PCE to release from sanitary sewers identified in the Izzo report. Such blanket acceptance would result in sanitary sewer collection system operators being liable for cleaning up all PCE releases from sites that have a connection to a sanitary sewer system, as GVP is attempting to do in this case. The Izzo report was useful in describing situations in a few Central Valley communities to respond at that time to relatively recently discovered PCE releases that were impacting critical drinking water wells for the communities. Although the Izzo report identified that PCE could be released from sanitary sewers via five mechanisms, this does not demonstrate a PCE release from sanitary sewers, absent the conditions present in the communities evaluated as part of the study. The condition of the District's sanitary sewer system serving the two dry cleaning operations at the two Sites does not have the same structural defects found in the systems evaluated in the Izzo report. In addition, the District's maintenance program was significantly more prophylactic than those operated by the Central Valley communities evaluated in the Izzo report.

***Dickson Opinion #6 – The CCCSD operations and maintenance (“O&M”) program always was and still is designed to keep the wastewater flowing through the sewers but not to prevent leaks from the sewer system, unless the leaks are significant or catastrophic.***

*Dickson’s opinion claims that a maintenance program that strives to keep wastewater flowing through the pipes is not oriented toward fixing leaks in sewers, claiming that defects in the system equate to blockages. The opinion goes further to claim that the District allowed PCE from dry cleaners to be discharged that could account for concentrations of PCE in the environment.*

This opinion misses the point regarding the purpose of a repair and maintenance program, Keeping the sewers flowing through the system to the treatment plant by correcting defects and cleaning pipes results in elimination of conditions that may lead to the greater opportunity for leakage. A proper operating sewer system minimizes the potential for blockages resulting in overflows of untreated sewage that can pose a public health threat or result in property damage claims. As previously noted, a sewer system with flowing wastewater is not prone to leaking, absent major structural defects, which are not present in the sanitary sewer lines serving the two Sites. The District’s collection system maintenance program historically conducted prophylactic cleaning procedures to ensure wastewater flows through the sewer pipes without obstruction, as much as possible and continues with this emphasis. The District would be remiss if it did not operate its collection system maintenance program in this manner.

Dickson’s opinion does not accurately reflect the CCCSD maintenance records on file. Conditions that result in defects that could leak wastewater from the pipe segments are addressed in a timely manner. The District has used CCTV, since it was available for use by the sewer industry in the early 1970s, to assess the condition of potential problem lines. The District responded to identified problems by either conducting spot repairs using the Collection System Operations’ crews or scheduling the lines for replacement or upgrade through the District’s Capital Project program. Using the Ten Year Progress Report data, the District regularly completed spot and structural repairs to ensure the system continued functioning properly.

The opinion makes a simple claim that defects noted in the GVP July 3, 2012 letter resulted in blockages of the system causing leakages without any data to support the opinion. The GVP letter was based evaluation of the District’s maintenance records and there were no defects recorded that resulted in blockages of the lines serving the two Sites in these maintenance records. The incident involving the line under Doray Drive occurred many years after the dry cleaners at the two Sites ceased on-site dry cleaning operations and was apparently caused by GVP’s contractor (see response to opinion # 2 above). None of the other defects referenced in the maintenance records for the lines serving the two dry cleaners at the two Sites would result in blockages.

The District acknowledges that the numeric discharge limits present in the different ordinances from 1953 to present do allow very low concentrations of PCE and other CVOCs to be present in wastewater discharged to the District’s system. The discharge limits were set at such low levels that a discharger would have to treat the wastewater (e.g. activated carbon) to meet them or the source would have to from an incidental exposure of the wastewater to the CVOC. The District has consistently identified that the concentration of PCE present in all wastes and



wastewaters generated by dry cleaning operations would exceed all the discharge limits and violate all the narrative prohibitions present in all the District ordinances beginning in 1953.

Dickson correctly identifies the solubility constant for PCE to be 150,000 ug/L (ppb or 150 ppm) and he also correctly identifies that this concentration would likely be present in the separator water generated by dry cleaners which would be the least contaminated waste generated. Using the highest discharge limit in effect during the dry cleaners operations at the two Sites (0.5 ppm PCE), a discharge of separator water with a concentration of 150 ppm PCE would exceed by more than 150 times the District's discharge limit. Using the more conservative discharge limit in effect during 1974 (0.002 ppm), the separator water would exceed the limit by 75,000 times. Discharging pure PCE would exceed the discharge limits by even more orders of magnitude.

In addition, District ordinances required dischargers, of such pollutants as CVOCs, to obtain wastewater discharge permits to authorize the discharge of process wastewater to the sewer system. No dry cleaners, including the two dry cleaning operations at the two Sites, applied for, nor were issued, such permits. Because the discharge of all dry cleaning wastes would have been illegal under the District's ordinances, the District has used the term "prohibited" to describe the regulatory standards in place to control discharges of CVOCs during the time period the two dry cleaning operations at the two Sites were open for business.

The opinion hypothesizes a scenario of dry cleaners discharging illegal concentrations of PCE from the two Sites to the District's system and then using the hydrostatic pressure test's tolerance rate (addressed in response to opinion #3 above) to assume a leakage rate for all these solvent discharges to release from the sewer pipes to opine that the District's sanitary sewer pipes could be responsible for the environmental concentrations identified to date. The opinion does not evaluate any specific data available for the two Sites when offering this hypothesis. Keith O'Brien, a Registered Geologist with extensive experience investigating and remediating groundwater contamination incidents, provided a comprehensive assessment of the environmental contamination at the two Sites which was included in the District's May 28, 2013 letter as Attachment A. O'Brien concludes that all the environmental data is consistent with the off-site migration of contaminated plumes from the known releases of the two dry cleaning operations. O'Brien further concludes that the available environmental data does not demonstrate the District's sanitary sewer collection system contributed to the release of PCE and other CVOCs analyzed.

Moreover, Opinion 6 contradicts Dickson Opinions 1 and 3 which claim sewers are designed to leak. If sewers were actually designed to leak and a sewer maintenance program was supposed to prioritize repairing leaks, then sewer maintenance programs would need to replace sewer lines as soon as they were installed. In fact, none of these opinions are accurate with regards to sewer collection systems generally and the District's collection system design, construction, and maintenance standards and programs specifically.

***Dickson Opinion #7 – Varying flows of waste due to minor or major blockages in the CCCSD sewer system could have forced chlorinated volatile organic compounds (CVOCs), either in pure or dissolved state, upstream into other branches of sewer system.***

Dickson's opinion is based on hypothetical conditions qualified by the use of "likely" and "could have" in the discussion. It is overly simplistic and not based on the actual conditions present in the sewer system. In order for a blockage in the pipes to result in a backup of wastewater from the two Sites into the northern neighborhoods, the blockage would have to be either, the relatively short length of 15 inch pipe downstream of the pipe coming from Shirley Drive before it enters the larger pipe in Contra Costa Boulevard, or a blockage in the pipe in Contra Costa Boulevard downstream of the 15 inch pipe serving the two Sites and the surrounding neighborhoods. Blockages in pipes 15 inch and larger is rare and considered major events, since the volume of wastewater and the number of customers involved is significant. There are no records or historic knowledge of such backups occurring in these lines.

Even if such blockages did occur, the speculation that CVOCs would be transported into the northern neighborhoods would require conditions to exist that contradict the specific site conditions present in the CCCSD collection system serving the area. The line serving the northern neighborhood enters the 15 inch line well above the level of standard flow (approximately 4-6 inches from the standard wastewater flow level). Any pure CVOC product will be heavier than water and remain in the bottom of the pipe while the pipe would fill due to blockage downstream. This drop would preclude pure product from reaching the level of the pipe coming in under Shirley Drive. Additionally if pure product were present in the 15 inch line under a blockage condition, it would start to back up in the bottom of the 15 inch line putting the neighborhoods to the west at risk of a release, before it could start flowing into the sanitary sewer lines serving the northern neighborhoods. There is no existing environmental data identified of such a release in the western neighborhoods.

Dissolved CVOCs could theoretically be present in liquid that would back up into the northern neighborhoods causing the liquid level to rise in the 15 inch pipe above the level of the pipe entering from Shirley Drive. This concentration would be very dilute, as a result of mixing with uncontaminated wastewater from all upstream sources of the northern and western neighborhoods. Therefore, the same theoretical contaminated wastewater could fill the pipes throughout most of the northern and western neighborhoods, creating the same risk of leakage throughout the area. Again, existing environmental data does not identify any leakage occurring.

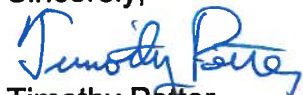
***Dickson Opinion #8 – Vapor in the sewer lines, including PCE vapor, can move preferentially upstream in sewers and/or in the backfill around the sewers.***

This opinion identifies a condition that can exist in sewer systems generally but does not identify the specific conditions of the sanitary sewers serving the two Sites. The physical conditions associated with the presence and movement of PCE vapors in sewer pipes is identified in the response to Opinion #3 above. The opinion does not consider the GVP consultant findings in 2009 that no CVOCs were detected in the manholes assessed throughout the area, including areas near where high soil vapor concentrations were subsequently recorded. The opinion does not consider that the presence of detected soil vapor

results are all within the contaminated plume migrating from the known dry cleaning operations' releases as reported by Keith O'Brien.

In conclusion, the District has always and continues to take its responsibility seriously to operate a highly quality, effective sanitary sewer collection system and treatment plant that meets or exceeds industry standards. There is no substantial evidence in the record that demonstrates the District's operation and maintenance of the sanitary sewer system was a material factor for releases from the two Sites. Even under the most extreme hypothetical circumstances regarding significant leakage from the District's collection system, the levels of contamination present at the two Sites could not have been caused from the District's system if all discharges complied with the District's strict ordinance requirements. The RWQCB staff affirmed this position when they determined that there is insufficient data to support naming the District as a discharger on the Tentative Orders. The District appreciates the sound professional judgment by the RWQCB staff in assessing this complicated issue. Please contact Danae Gemmell at (925) 229-7118 or Tim Potter at (925) 229-7380 if you have any questions or would like more information on this case.

Sincerely,



Timothy Potter  
Environmental Compliance Superintendent



Danae Gemmell, P.E.  
Environmental Services Division Manager



Roger S. Bailey, P.E.  
General Manager



Attachment – CCCSD Ten Year Progress Report to RWQCB

cc: Kent Alm, District Counsel  
Kevin Brown, RWQCB

**CENTRAL CONTRA COSTA SANITARY DISTRICT**

**Collection System Operations  
Reference Material For  
California Regional Water Quality Control Board**

**April 1983**



Ten Year Progress Report

1973 - 1982

SEWER SERVICE CALLS	1973	1974	1975	1976	June, 1977	June, 1978	June, 1979	June, 1980
Special	136	120	184	191	186	192	169	14
Plug Sewer Calls	405	372	466	488	480	400	306	31
Plugged Sewers	303	223	177	255	275	233	180	21
TOTAL:	842	715	827	934	941	825	655	68
SEWER CLEANING FOOTAGE								
Hand Rod Footage	98,411	182,090	75,727	52,316	99,181	161,233	97,524	109,175
Sewer Rodder Footage	400,555	546,354	488,888	501,390	529,179	710,149	542,131	930,928
Bucket Footage	12,197	59,738	17,423		58,573	2,011		
Root Line (Hand)	160,622	115,313	117,114	75,871	110,250	86,550	61,003	71,116
Root Line (Rod)	419,077	359,438	608,729	676,763	576,217	627,837	505,887	537,999
Hydroflush	692,970	973,248	906,882	1,039,314	808,610	918,849	961,177	917,024
Balling		901						
Vapo-root Footage	11,981				2,695		33,579	62,067
TOTAL:	1,795,813	2,237,082	2,214,763	2,346,654	2,104,705	2,506,629	2,201,301	2,628,309
REPAIRS & REHABILITATION								
Structure Repairs	214	264	325	417	415	370	378	477
Line Repairs	127	145	162	159	169	116	106	63
New Structures	20	22	14	20	17	9	16	4
Sewer Connections	325	306	274	351	370	307	328	251
Utility Repairs	86	53	99	74	65	90	80	56
MONITORING AND TESTING								
TV Inspection (Exist.)	70,609	62,311	158,793	293,205	211,823	105,625	207,186	113,540
TV Inspection (New)						194,019	164,535	211,850
Smoke Testing	205,490	139,136	156,398	213,459	234,723			

Ten Year Progress Report

1973 - 1982

	1976	June, 1977	June, 1978	June, 1979	June, 1980	June, 1981	June, 1982	TOTAL
	191	186	192	169	147	108	95	1,526
	488	480	400	306	319	393	534	4,163
	255	275	233	180	217	212	294	2,369
	934	941	825	655	683	713	923	8,058
	52,316	99,181	161,233	97,524	109,175	161,012	227,881	1,265,050
	501,390	529,179	710,149	542,131	930,928	1,261,665	1,047,135	6,958,874
		58,573	2,011			8,803	7,471	166,216
	75,871	110,250	86,550	61,003	71,116	63,433	141,239	1,002,511
	676,763	576,217	627,837	505,887	537,999	436,084	583,001	5,331,032
	1,039,314	808,610	918,849	961,177	917,024	1,079,518	1,071,813	9,369,405
								901
		2,695		33,579	62,067	17,650	25,261	153,233
	2,346,654	2,104,705	2,506,629	2,201,301	2,628,309	3,028,165	3,103,801	24,247,222
	417	415	370	378	477	711	222	3,793
	159	169	116	106	63	81	130	1,258
	20	17	9	16	4	4	3	129
	351	370	307	328	251	225	176	2,913
	74	65	90	80	56	51	61	715
	293,205	211,823	105,625	207,186	113,540	50,661	47,682	1,321,435
			194,019	164,535	211,850	180,634	142,229	893,267
	213,459	234,723					57,514	1,006,720