



June 30, 2021

Walter Mobley
State Water Resources Control Board (State Water Board)
1001 I Street
Sacramento, California 95814
VIA EMAIL: Walter.Mobley@waterboards.ca.gov

Subject: February 2021 Informal Staff Draft of Statewide Sanitary Sewer System General Waste Discharge Requirements: Overview Comments and Redlines

Dear Ms. Mobley:

The Bay Area Clean Water Agencies ("BACWA"), the California Association of Sanitation Agencies ("CASA"), the Central Valley Clean Water Association ("CVCWA"), and the Southern California Alliance of Publicly Owned Treatment Works ("SCAP") appreciate the opportunity to provide feedback on the Informal Staff Draft of the Statewide Waste Discharge Requirements General Order for Sanitary Sewer System ("Informal Staff Draft"), which is proposed to replace the current order adopted in 2006 ("2006 Order"; WQO No. 2006-0003) as well as the accompanying Monitoring & Reporting Program adopted in 2013 ("2013 MRP"; Order No. WQ 2013-0058-EXEC). Collectively we represent the majority of sanitary sewer collection systems across the state, and descriptions of our organizations are available in Attachment 1. Additionally, a presentation we made to State Water Board staff in March about our concerns with the Informal Staff Draft is available in Attachment 2, and many of the concerns articulated therein are also contained in these comments.

Throughout 2021, we have been working collaboratively with representatives from across our sector to develop the enclosed redline markup of the Informal Staff Draft. We want to thank you, your team, and all the representatives from the Office of Enforcement and the Regional Water Quality Control Boards who met with us over the course of this year to share and discuss our concerns about the provisions in the Informal Staff Draft. Your willingness to engage our coalition is greatly appreciated. We are grateful for the opportunity to dialogue in search of appropriate, mutually agreeable revisions that achieve the Water Board's and enrolled agencies' shared underlying goals of water quality improvement and protection while not being prohibitively expensive, impractical, or creating unnecessary liability for local public agencies.

Recognizing the size and complexity of the markup, we also have prepared the following summary comments on key issues. We believe that the following "top ten" issues are the most important to address when revising the Informal Staff Draft. They are listed below generally in the order they appear in the Informal Staff Draft and are not in order of priority.

At a higher level, we have three overarching concerns with the Informal Staff Draft: (1) the expanded responsibilities placed on enrollees for certain activities not directly related to water quality improvements, (2) the extensive number of new prescriptive requirements contained in the Informal Staff Draft that deprive enrollees of flexibility in implementation, and (3) the use of a generalized approach that assumes all agencies have significant compliance problems rather than a targeted approach to assist certain systems that experience a high frequency of spills.

(1) The Substantive Expanded Burdens in the Informal Staff Draft are Not Tied to Water Quality Improvements and Fail to Recognize Improvements Made Since the 2006 Order Went Into Effect

The [2006 Order](#) rightfully requires enrollees to take a *proactive* approach to continue reducing the number and frequency of Sanitary Sewer Overflows (SSOs) within the state.¹ As evidenced by the information in the California Integrated Water Quality System (CIWQS) SSO database, enrollees' efforts continue to be successful, having **driven Category 1 spills down nearly two-thirds since 2008**. Through their discretionary adoption of proactive approaches, the predominant number of enrollees have ensured the reduction of the frequency of SSOs. Enrollees' commitments, investments, and planning also have steadily decreased the volume of spill incidents across the state. This is, in large part, attributable to agencies' commitments to fulfill their obligations under the 2006 Order to develop and implement prioritized rehabilitation of identified system deficiencies.²

Despite this meaningful progress, the [2021 Informal Staff Draft](#) imposes many new, unnecessary and prohibitively expensive obligations on all enrollees. The Informal Staff Draft does not attempt to distinguish between the limited number of unengaged or struggling systems/enrollees from whom more is justifiably expected after many years of the 2006 Order being in place, and the overwhelming majority of enrollees who are proactively working to reduce SSOs and comply with their obligations under the 2006 Order. Specifically, the new Informal Staff Draft establishes expanded expectations for all enrollees in Section 1, casting new obligations in terms of resiliency and further prevention of spills³, then in Section 3 describes the re-defined scope of proactive management compared to the 2006 iteration (§ 3.2.3, § 3.2.5, and § 3.2.7), and finally delineates in Section 5 and Attachment D hundreds of new detailed and extensive requirements for an enrollee's Sewer System Management Plan (SSMP) to address and implement, with the onus on the enrollee to explain why each specific requirement is not applicable to the enrollee.⁴

Our members *are* committed to the current requirements of proactive and prioritized sewer system management, as exhibited by the substantial reduction of Category 1 incidents over the last fourteen years and general improvements in compliance with various aspects of the 2006 Order. Unfortunately, the new requirements in the Informal Staff Draft are overly burdensome and simply not the appropriate regulatory means to reduce SSO incidents further. Rather, a more narrowly tailored approach would be more fitting so that enrollees who are not fulfilling the requirements under the 2006 Order improve their systems, while the rest of enrollees could maintain their effective plans in place to manage sewer systems and prioritize rehabilitation. Though there can and should be relatively minor modifications of the requirements for specific, discrete features the State Water Board feels are needed to improve specific performance-related causes of SSOs, the new burdens contained in the Informal Staff Draft are not honed in such a manner.

(2) The Sheer Volume of New Requirements in the Informal Staff Draft are Expansive, and Will be an Extensive Financial Burden on Smaller Systems in Particular

In addition to a dramatic substantive expansion of enrollees' obligations under the Informal Staff Draft, the sheer volume of increase in the overall number of requirements that would be imposed is problematic, and not necessary or supportable given the overwhelming improvements by enrollees under the 2006 Order. To illustrate this point, the 2006 Order uses the word "must" 38 times. However, in the Informal Staff Draft, there now are 125 instances of the word "must," tripling the programmatic requirements with which all enrollees must comply. Given the dramatic two-thirds decrease in Category

¹ **2006 Order, ¶ 3.** Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. **A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state.** This approach will in turn decrease the risk to human health and the environment caused by SSOs. (PDF p. 1 of 20; p. 1).

² **2006 Order, ¶ 13(iv)(c).** Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. (PDF p. 11 of 20; p. 11).

³ **2021 Informal Staff Draft, § 1 Introduction** – "Proactively operate and maintain sewer systems to ensure system resiliency and prevention of spills." (PDF p. 5 of 85; p. 5).

⁴ **2021 Informal Staff Draft, Attachment D – Introduction.** The Enrollee shall identify any required elements required in this Attachment that are not applicable to the Enrollee's system and shall provide justification in its Plan explaining why the element is not applicable. (PDF p. 41 of 85; p. D-3).

1 incidents since the 2006 Order, we do not feel such a requirement-heavy approach is appropriate to address the actual lingering challenges for enrollees with recurring high-volume spills under this mature regulatory program.

Similarly, the SSMP requirements in the 2006 Order are covered in five pages and eleven elements of plain language, and this framework of trust for enrollee's discretion has been very successful over the last decade. In contrast, in the Informal Staff Draft, the SSMP requirements now are spread out over 18 substantive pages and 16 elements of hundreds of detailed and complex provisions, which read more as though they are corrective actions that might be required of an enrollee that has not been proactive nor reduced its spill frequency under the 2006 Order. Imposing extensive and expanded elements upon all enrollees in an effort to address the under-performance of a small, non-representative set of enrollees who are not abiding by the existing requirements is inappropriate and an inefficient use of local agency resources.

Further, the brunt of the economic costs and obligations to become compliant with the Informal Staff Draft would be placed upon enrollees who are smaller in size and limited by available resources. As the State Water Board is aware, there are very distinct resource-levels across enrollees that correlate to the size of their system, the investments they feasibly can make to improve it, and the number of spill incidents.

From an analysis of the CIWQS databases, currently there are 1,182 enrollees under the 2006 Order. When cross referencing the Questionnaires and calculating their collection system miles, enrollees divide out into four broad categories of which nearly **80% are small or very small systems**: 40 Large, 226 Medium, 330 Small, 586 Very Small⁵. Instead of imposing such sweeping and steep new obligations upon all enrollees, it would be more effective and efficient to develop a more narrowly tailored approach that is focused on (a) ensuring resource-limited enrollees with a high frequency of Category 1 incidents meet their prioritization schedules, and (b) enforcing the current provisions about prioritization for those enrollees with resources yet a history of preventable Category 1 SSOs because they did not appropriately administer their SSMP. Such an approach is easily attainable at a fraction of the proposed new costs for compliance, and it is a more efficient use of public resources to concentrate on reducing preventable spills.

(3) The Informal Staff Draft Uses an Overly Broad Rather than a Nuanced Approach to Addressing Agencies That Continue to Have a High Number of Spills

As the State Water Board is aware, a principal driver of large volume SSO incidents is their inextricable linkage to storm events exceeding sewer system designs. When examining the CIWQS data, SSOs fluctuate annually according to wet weather, and there are significant volume spikes in SSOs to Waters of the US in wet years. Enrollees have acknowledged this and updated their SSMPs accordingly to minimize SSO incidents, particularly those tied to storm events. They also have sought training and professional development to respond when SSOs occur to minimize and mitigate any adverse impacts from an incident. By examining available data and information on spills, it is evident in the CIWQS database that SSOs during particularly wet years are decreasing over time, with significant drops from 2010 to 2017 and to 2019: 779 Cat. 1 spills in 2010 totaling 91 million gallons, 766 Cat. 1 spills in 2017 totaling 35 million gallons, and 644 Cat. 1 spills in 2019 totaling 13 million gallons. Thus, even in circumstances that are somewhat beyond a local agency's control (i.e. severity of wet weather events), there have been substantial improvements in both numbers and volumes under the existing Order.

Accordingly, we urge the State Water Board and Office of Enforcement to review the CIWQS database, identify systems with frequent Category 1 or high-volume Category 2 spills, and assist those systems to identify new approaches and utilize available resources to make improvements, rather than prescriptively requiring onerous and burdensome changes from all 1,182 enrollees to try and reduce a small subset of enrollees' high-volume spills. This would yield the direct results that the State Water Board has expressed it is seeking to achieve, and simultaneously would ensure the cost of compliance under the re-issued Order is only nominally more expensive for all. This alternative to a wholesale and substantial increase

⁵ Large: 500+ miles, Medium: 101 – 500 miles, Small: 21 – 100 miles, Very Small: 1 – 20 miles

of the obligations on all enrollees offers a more nuanced approach that appropriately distinguishes requirements for systems with repeated high-volume spills, and it would provide a more acute means to further reduce SSO incidents without disrupting the current efforts, investments, and firm plans enrollees have in place.

With these high-level comments in mind, below are our top 10 concerns with specific provisions in the Informal Staff Draft:

1. Exfiltration should not be grouped together with other types of spills for reporting (Table 1)

Table 1 on the first page of the Informal Staff Draft provides key definitions from Attachment A, which has created a new term, “spills,” that combines two types of events: (1) the traditional type of spills termed “Sanitary Sewer Overflows” (SSOs) in the 2006 WDR and (2) exfiltration. We object to the Informal Staff Draft’s presumption that a similar reporting framework would be appropriate for both exfiltration and traditional SSOs. Exfiltration from sanitary sewers to storm drain systems or groundwater is unlikely for numerous reasons. Attachment 3 illustrates some of the reasons why this is uncommon and not likely to occur for enrollees. The Informal Staff Draft should not presume that exfiltration is occurring, or that exfiltration is somehow akin to an SSO. If exfiltration is suspected, the next logical step for a collection system agency would be to conduct an investigation to confirm it using dye tests or other detection techniques, and, if exfiltration is confirmed, develop a strategy to repair pipe defects and eliminate the leakage. On a more practical level, spill reporting metrics like duration and location would be quite different between exfiltration and SSOs. We would be pleased to participate in an exfiltration task force with the State Water Board to develop resources for enrollees to determine leakage and repair defects. Until such sorts of guidance exist, it is neither practical nor appropriate at this time to combine exfiltration with SSOs.

Recommendation: Remove exfiltration from the definition of other types of spills. Instead, address exfiltration by requiring investigation and response to suspected exfiltration as an element of the SSMP condition assessment requirements and/or annual reporting.

2. The prohibition on “Any spill of sewage from a sanitary sewer system” should be removed (Section 4.1)

The Informal Staff Draft contains a new prohibition on “any spill of sewage from a sanitary sewer system,” even if it is not a nuisance or does not reach waters of the State. Whether the State Water Board possesses the authority to regulate such circumstances is unresolved, and the grounds for enforcement on spills of this type have not been established, nor a rationale or necessity for this new all-encompassing provision. This prohibition is not found in the 2006 WDR and does not belong in the proposed Informal Staff Draft. We anticipate that the inclusion of this prohibition, especially given the proposed definition of “spills,” would significantly and unreasonably increase the risk and liability for an enrollee from third-party or State Water Board enforcement, without the concurrent ability to feasibly address proactively such risk and avoid incurring such liability.

Recommendation: Remove Prohibition 4.1.

3. The requirement for Legally Responsible Officials to hold a PE License or CWEA Certification (Section 5.5) is not necessary.

We support CWEA certification as a tool for our members and encourage the State Water Board to confirm and encourage the certification process without making it a requirement to be the Legally Responsible Official within the Informal Staff Draft. Many talented collection system professionals are certified Professional Engineers and/or CWEA-certified Collection System Operators. However, these technical certifications should not be required to qualify as a Legally Responsible Official. Legally Responsible Officials typically hold management and decision-making authority, rather than a technical

reporting role. In fact, we are aware of small agencies with no employees – including the General Manager – holding the requested technical certifications. This would mean some small agencies may not be able to certify their own SSMP and spill reports, requiring unnecessary outsourcing of what should be, fundamentally, an internal task.

Recommendation: Remove the requirement for Legally Responsible Officials to be Professional Engineers or CWEA-certified Collection System Operators. Encourage certification through other means such as State Water Board annual agency recognition a few years after the Effective Date of the reissued Order.

4. Reporting of spills from privately owned sewer laterals should be voluntary, not mandatory (Section 5.15).

We understand that the State Water Board has made two major modifications to the 2006 order to increase reporting of spills from private systems: (1) private systems can be compelled to enroll in the Informal Staff Draft, and (2) public enrollees are required to report within 2 hours of becoming aware of spills from private systems, under Section 5.15. We support the first of these reforms, but not the latter. It is not appropriate to place a duty to report private spills on a public agency, and we think the differing provision in Table E2-4 making reporting voluntary should be reflected in Section 5.15.

Recommendation: Remove the requirement to report spills from privately owner sewer laterals. Encourage public enrollees to report private spills in their annual report, rather than within 2 hours of becoming aware of such spills.

5. All agencies should be allowed to report Category 4 SSOs in the Annual Report rather than CIWQS. (Section 5.20 and E1 Section 3.5)

The State Water Board's approach to allow some well-performing agencies to report spills less than 50 gallons (Category 4 SSOs) in annual reports, rather than via CIWQS, is an affirmation of the reduced risk of these events to public health and the environment. We believe that if Category 4 events are less of a threat, then no agencies should be required to prepare individual spill reports for submittal to CIWQS. Instead, enrollees should report these occurrences in the Annual Report, documenting the start date, confirming it did not reach a stormwater drainpipe, confirming it did not reach surface water, the location of the event (Address, City, Zip Code), the public enrollee notification date, the spill cause if known, and the spill location description. Such a change to the Informal Staff Draft would also reduce significantly the cost to comply with the overall changes in the reissued Order.

Recommendation: Spills with a discharge volume of less than 50 gallons should be reported within Annual Reports for all agencies, rather than with individual spill reports.

6. SSMPs should be updated every 6 years, with audits after 2 and 4 years (Section 5.2 and 5.11)

The combination of a 2-year audit cycle and a 5-year SSMP cycle creates unnecessary logistical challenges, as audits are not performed at regular intervals between SSMP updates. We request that two audits be performed within a 6-year SSMP cycle: the first audit after two years and the second audit after four years. An audit-type analysis would also occur during the SSMP update in the sixth year, with findings going directly into the SSMP and the SSMP change log. We also request that the 6-year cycle restart any time there is a significant SSMP update, so that update schedules are no longer tied to the 2006 WDR or the original SSMP adoption date.

Recommendation: Allow synchronization of the audit and SSMP schedules.

7. The time window for reporting spills into CIWQS needs to be longer than 2 hours (Attachment E, Section 1.1)

Some of the items required for the CIWQS spill notification portal, such as property owner information, may not be known within 2 hours. It is an inappropriate use of public resources to enter non-critical information into CIWQS within 2 hours if such information can be included within the certified spill reports. We recommend a period of 24 or 48 hours as a more reasonable amount of time to gather and submit the necessary information, if a spill notification via the CIWQS portal is deemed critical by the State Water Board.

Recommendation: Allow agencies time to focus on spill response first – including coordination with OES – and not on gathering and entering data within a 2-hour window. Reporting to CIWQS is appropriate when the spill response phase has concluded.

8. Financial reporting requirements for SSMPs should be simplified (Attachment D, Section 2.5 and Section 11)

The SSMP requirements have been expanded from the 2006 Order to include numerous requirements related to budgeting and financing of sewer programs. Some of the requested information (e.g., agency's approved budget needs to address all system deficiencies, a 20-year budget forecast) is exceptionally broad and entirely unnecessary to demonstrate a financial commitment to properly maintaining an enrollee's collection system. The focus of the Informal Staff Draft should be on eliminating spills, not on financial accounting procedures and reports (e.g., CAFRs). We suggest requesting this detailed financial information from specific agencies if needed for a specific enforcement action, rather than requiring it be included in all SSMPs.

Recommendation: Remove detailed financial reporting requirements from the SSMP requirements.

9. SSMP Resiliency requirements should be streamlined (Attachment D, Section 7)

Attachment D contains a multiplicity of requirements related to system resiliency. However, as currently written, the requirements are duplicative with other requirements in the SSMP Elements. For example, Section 7.5.2 requires a capital improvement program to address system resiliency, while Section 9 of the SSMP contains separate requirements related to implementing the capital program. Most wastewater collection systems' capital projects promote resiliency in some form, so requirements related to condition assessment, capital planning, or operations and maintenance should be grouped together in the same Element of the SSMP. Also to note, based on our review, requirements related to Risk Assessment (Attachment D, Section 7.3) and Remediation Prioritization (Attachment D, Section 7.4) are completely new, and would not be as easily combined with the 11 Elements in the 2006 WDR.

Beyond the technical nature of this comment regarding the organization of duplicative provisions, we hold a broader concern that the requirements to prepare an SSMP that would be compliant with the resiliency provisions will be very expensive under the Informal Staff Draft. We previously estimated the cost of complying with resiliency planning requirements might be in the range of \$50 - \$100 million for all current enrollees, of which 80% are small or very small systems. Those cost estimates are displayed in the spreadsheet in Attachment 4, which was excerpted from an earlier version of the SSMP requirements that would further increase the costs of compliance estimated in the spreadsheet. (See Attachment 5 from 12/2020 with the provisions on which Attachment 4 computations are based.)⁶

⁶ Some of the further requirements in the Informal Staff Draft that were not in Attachment 5, include: [cont'd on next page]

Beyond the costs of preparing the resiliency plan under the Informal Staff Draft is the separate requirement that the capital projects identified within the plan be delivered.⁷ The above estimates do not include the subsequent extensive costs to fully implement an SSMP under the Informal Staff Draft requirements, as required by § 5.4.⁸ The Informal Staff Draft is written in such a way that if resiliency actions are not performed immediately after an enrollee updates their SSMP under this Order, an enrollee will be out of compliance with the Order. Given enrollees' successful efforts over the last 15 years, this compulsory approach is improper and unnecessary.⁹ This is one example of the need for a reasonable pathway for compliance with the new requirements in the Draft.

Recommendation: Integrate resiliency requirements into the existing SSMP elements rather than including duplicative, resiliency-specific requirements for condition assessment, capital planning, operations, and maintenance. Allow additional time for both small agencies and disadvantaged communities to incorporate resiliency-related elements into the SSMP.

10. The SSMP requirements should be re-organized to match, as closely as possible, the required elements from the 2006 WDR (Attachment D)

We look forward to working with the State Water Board on an effort to re-organize Attachment D to utilize the existing 11 elements in the 2006 WDR, as State Water Board staff have verbally expressed an intent to do. This will save unnecessary effort from enrollees and significantly reduce the cost to comply on the part of more than nearly 1,200 enrollees as they update their SSMPs to meet the new requirements. Attachment 6 is our preliminary suggested placement of the Informal Staff Draft requirements into the existing eleven 2006 SSMP Elements.

Recommendation: Work with CASA and other stakeholders in Summer 2021 to develop an outline for Attachment D that includes the mandatory elements of the 2006 WDR and clearly identifies new elements.

[Footnote 6 Cont'd]

- Detailed descriptions of information and data systems used for system resiliency planning of existing and future assets, system operations and maintenance, and remediation and capital improvement projects;
- Design criteria and standards that must be developed and updated to address underground and above-ground pipe in areas of potential flooding;
- Measuring risk for potential spills due to increased infiltration and inflow, bank erosion (in canyons and along coastal bluffs);
- Measuring inundation risk of low-lying pump stations;
- Measuring the severity of the consequences of the spills;
- Risk Assessment that must include a ranking system that categorizes all system components/segment areas, for subsequent prioritization of corrective actions. Risk measures and categorization must be based on the severity of the consequences of system spills. High-risk system components/areas must be further categorized as:
 - System or program areas to be addressed through short-term modifications to system operations and maintenance
 - System or program areas to be addressed through long-term operations and engineering mitigation.

⁷ **2021 Informal Staff Draft, Attachment D, § 7.4: Remediation Prioritization:** The Sewer System Management Plan must provide procedures for the prioritization of short-term operation and maintenance modifications, and long-term operations and engineering improvement projects that are the subject of the Enrollee's System Resilience Actions per section 7.5 below. Remediation prioritization must be based on the immediacy of remediation of higher risk system areas identified in the Enrollee's Risk Assessment. (PDF p. 50 of 85; p. D-12).

⁸ **2021 Informal Staff Draft, § 5.4:** The Enrollee's governing board shall approve the Sewer System Management Plan in its entirety (including change logs and other attachments and references made therein) and provide necessary staffing, contractor, and budget resources for full implementation of the approved Plan and full compliance with this General Order. The Enrollee's governing board shall allocate necessary resources for the planning, operation, maintenance, and repair of its sanitary sewer system. (PDF p. 16 of 85; p. 16).

⁹ **2021 Informal Staff Draft, Attachment D, § 7.5.2: System Resiliency Actions – Capital Improvement Component:** The Sewer System Management Plan must include System Resiliency Actions that address capital improvement projects necessary to address high-risk system deficiencies identified in the most updated condition assessment and capacity assessment, as follows...

§ 7.5.3: Implementation and Update of System Resiliency Actions: The Enrollee shall implement its System Resiliency Actions immediately after System Resiliency Actions are identified. (PDF p. 51 of 85; p. D-13).

Conclusion

The 2006 Order has established a straightforward, practical, and successful approach to regulation of collection systems in the state and is one of the State Water Board's flagship Orders because of the accomplishments it has produced. The progress made and achievements attained since the 2006 Order was adopted can be attributed to our members' proactive planning, improved operations and maintenance, and capital improvement project prioritization. The Informal Staff Draft deviates significantly from this approach and creates a more complex and compulsory regulatory framework that is not likely to produce commensurate improvements in water quality. The new requirements in the Informal Staff Draft simply are not appropriate in light of our members' track record and the overwhelming number of enrollees who have achieved and continue to achieve the ultimate objectives of the 2006 Order.

Changes to the 2006 Order have been characterized as an "update," but the reality is that the Informal Staff Draft represents a full-scale rewrite with significant increases in agency costs and operational implications for our members. We urge the State Water Board to critically examine the necessity of each one of these proposed new obligations, and instead limit new requirements to the modification and refinement of specific provisions in the 2006 Order that will effectuate enrollees prioritizing rehabilitation of system deficiencies in high-risk areas if they currently are not doing as much. This more nuanced approach will achieve greater success and enrolled-agency acceptance, without the attendant new burdens on the significant number of well-performing systems (80-90% of enrollees; see Attachment 7, PDF pp. 9 and 10).

In closing, we appreciate the opportunity to comment on the Informal Staff Draft and look forward to continuing to work with the State Water Board further as the public review draft is developed. We also want to reiterate our gratitude to you and everyone we met with over the last few months for your accessibility and in-depth discussions about the Informal Staff Draft. If there are any questions about our comments, please do not hesitate to contact Jared Voskuhl at (916) 694-9269 or jvoskuhl@casaweb.org.

Respectfully submitted,



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CVCWA



Steve Jepsen
Executive Director
SCAP

Attachment 1 – Organizational Background Statements

Attachment 2 – Presentation to SWB Staff on Concerns with Informal Staff Draft (3/26/21)

Attachment 3 – SCAP Exfiltration Handout

Attachment 4 – Resiliency Costs of Compliance Spreadsheet (based on provisions from Attachment 5)

Attachment 5 – December 2020 Excerpt of Draft SSMP Resiliency Requirements

Attachment 6 – Suggested Relocation of Requirements to the 2006 SSMP Elements

Attachment 7 – Michael Flores CIWQS Database Presentation on Enrollee Performance at CWEA Conference (06/2021)

Enclosed: Informal Staff Draft (with redline markup)

cc: Steve Cheung, State Water Board
Afrooz Farsimadan, State Water Board
Diana Messina, State Water Board

Attachment 1: Commenting Associations' Organizational Descriptions

BACWA

BACWA is a joint powers agency whose members own and operate publicly-owned treatment works (POTWs) and sanitary sewer systems that collectively provide sanitary services to over 7.1 million people in the nine-county San Francisco Bay Area. BACWA members are public agencies, governed by elected officials and managed by professionals who protect the environment and public health.

CASA

The California Association of Sanitation Agencies (CASA) represents more than 125 public agencies and municipalities that engage in wastewater collection, treatment, recycling, and resource recovery, and our mission is to provide trusted information and advocacy on behalf of California clean water agencies, and to be a leader in sustainability and utilization of renewable resources.

CVCWA

The Central Valley Clean Water Association (CVCWA) is a non-profit association of public agencies located within the Central Valley region that provide wastewater collection, treatment, and water recycling services to millions of Central Valley residents and businesses. CVCWA was primarily formed to concentrate resources to effect reasonable local, state and federal regulations impacting entities operating municipal wastewater treatment plants and wastewater and storm drain collections systems in the Central Valley. CVCWA is currently comprised of over 50 public wastewater collection and treatment member agencies, representing over 7 million people in the Central Valley. Additionally, CVCWA has over 20 associate members. Our members are public and private organizations charged with the responsibility for collecting, treating, recycling, and disposing of wastewater in a safe, responsible, and economical manner.

SCAP

The Southern California Alliance of POTWs (SCAP) is a non-profit association representing over 80 public water/wastewater agencies in southern California who provide essential water supply and wastewater treatment for approximately 20 million people in the counties of Los Angeles, Orange, San Diego, Santa Barbara, Riverside, San Bernardino and Ventura. SCAP's wastewater members provide environmentally sound, cost-effective management of more than two billion gallons of wastewater each day and, in the process of protecting public health and the environment, convert wastewater into resources for beneficial uses such as recycled water and renewable energy.

Informal Staff Draft SSS WDR Meeting

MARCH 26, 2021

INTRODUCTIONS

- ▶ Adam Link – Executive Director, California Association of Sanitation Agencies
- ▶ Andy Morrison – Principal: AMConsulting and former Collection System Manager, Union Sanitary District
- ▶ Carolyn Balazs – Legislative and Regulatory Specialist, Sacramento Regional County Sanitation District and Sacramento Area Sewer District
- ▶ Craig Murray, P.E. – General Manager, Carpinteria Sanitary District
- ▶ Debbie Webster, P.E. – Executive Officer, Central Valley Clean Water Association
- ▶ Jared Voskuhl – Manager of Regulatory Affairs, California Association of Sanitation Agencies
- ▶ Mary Cousins, Ph.D., P.E. – Regulatory Program Manager, Bay Area Clean Water Agencies
- ▶ Paul Causey, P.E. – Chair CASA Collections Workgroup and former Central San Board Member
- ▶ Rachél Lather – Chair CWEA Collections Committee
- ▶ Robin Morishita – Technical Services Manager, Leucadia Wastewater District
- ▶ Steve Jepsen – Executive Director, Southern California Alliance of POTWs



We are all
Environmentalists

We all want great
Water Quality

- ▶ SWRCB Staff
- ▶ RWQCBs
- ▶ NGOs
- ▶ Enrolled agencies and clean water organizations

We need to work collaboratively for improvements. The following are our comments and observations on the Informal Staff Draft WDR.

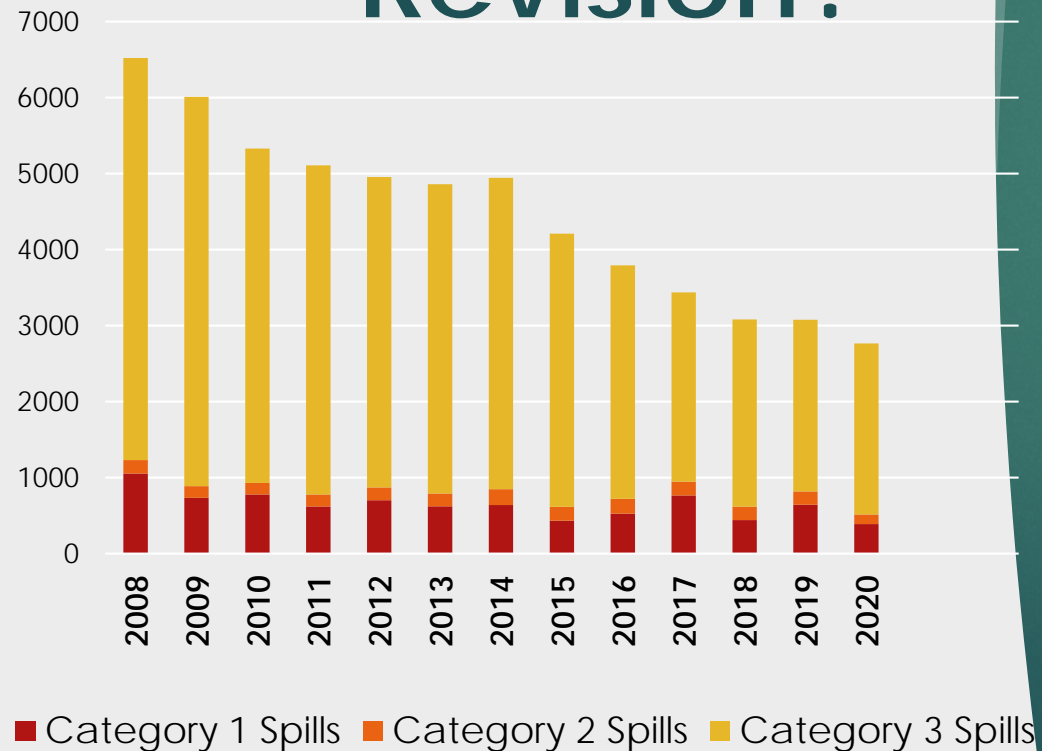
AREAS OF GENERAL AGREEMENT / ACCEPTANCE

- ✓ We appreciate the informal process to review and dialogue on different issues before the State Water Board releases draft
- ✓ System-specific reduced reporting concept
- ✓ Longer certification timelines for Category 2 SSOs
- ✓ Encouragement for operator certification
- ✓ Category 4 SSOs

INITIAL REACTIONS

- ▶ Significant additional burdens, uncertain water quality improvements
- ▶ Steep cost of compliance
- ▶ Requires change in direction for invested, well-performing agencies
- ▶ Substantially increases risk and liability
- ▶ Overly prescriptive, without a clear pathway to compliance
- ▶ Inequitable for small agencies and DACs
- ▶ Does not reflect operational understanding

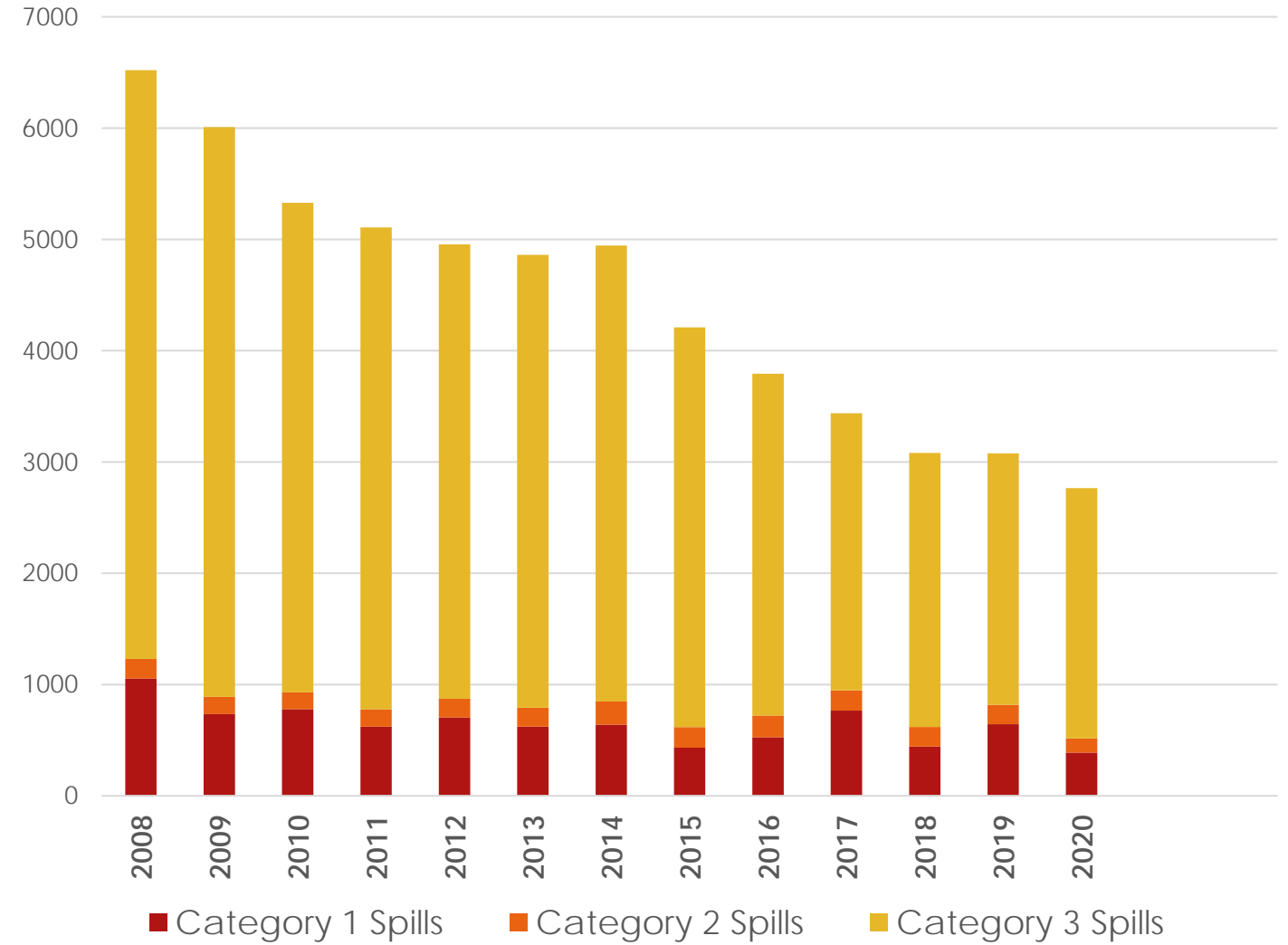
Why a Rewrite and Not a Revision?



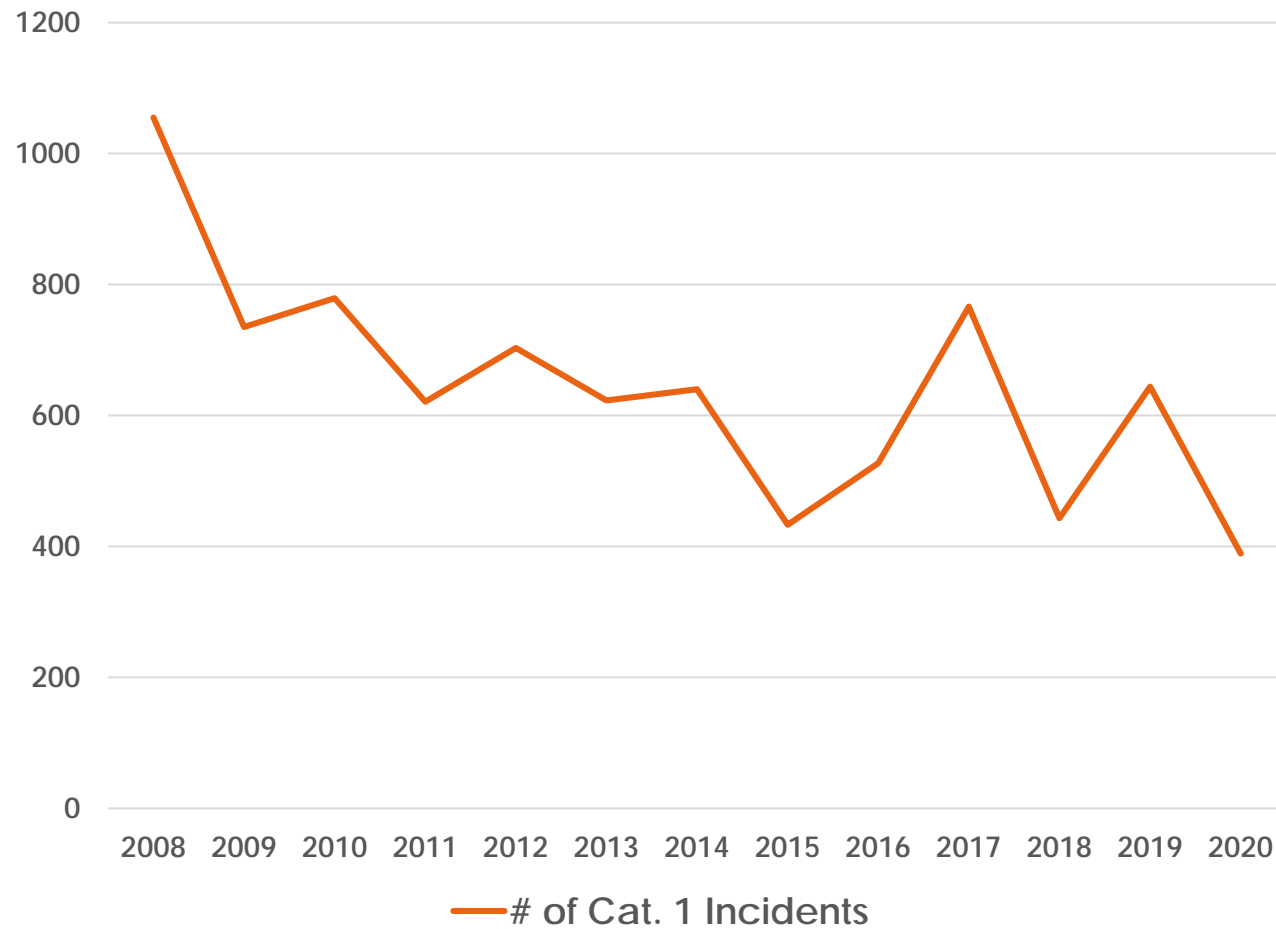
- ▶ Existing WDR has dramatically reduced spill frequency and volume
- ▶ Utilizing existing enforcement tools would further improve effectiveness
- ▶ Positive progress made on update through prior collaboration (Redline Drafts)
- ▶ What are the drivers for the significant expansion and rewrite?
- ▶ Revert to existing SSMP format and add new required information?

Annual Number of SSOs by Category

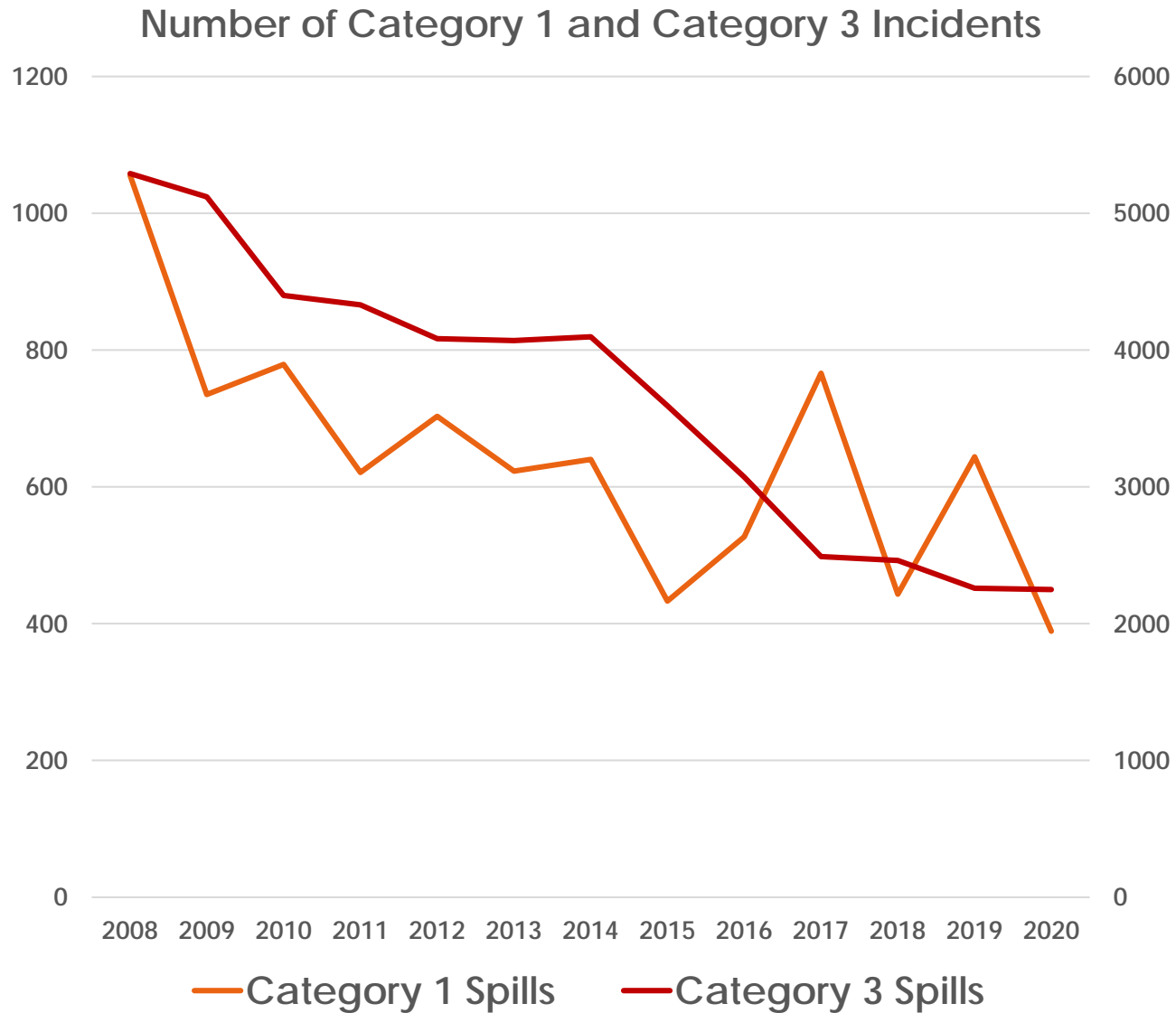
Annual Number of SSOs by Category



Annual Number of Category 1 Incidents

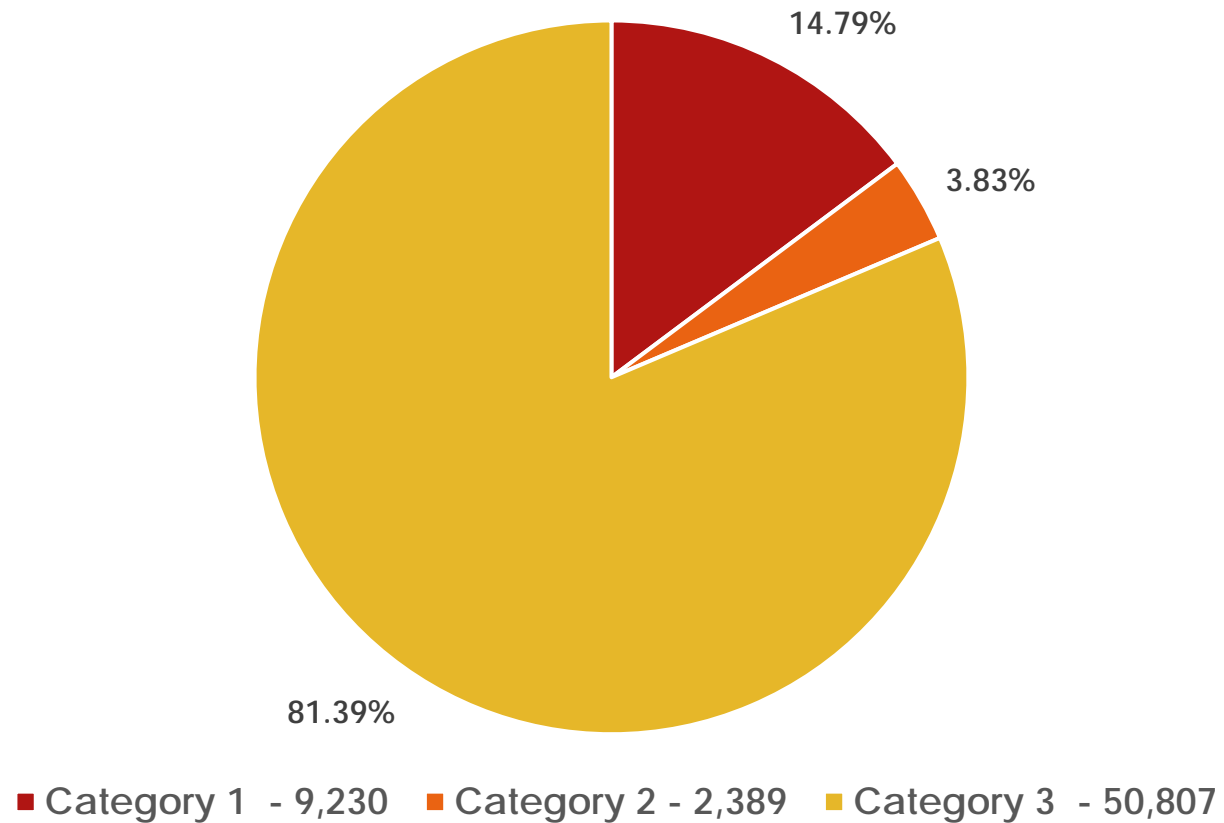


Annual Number of Category 1 Incidents



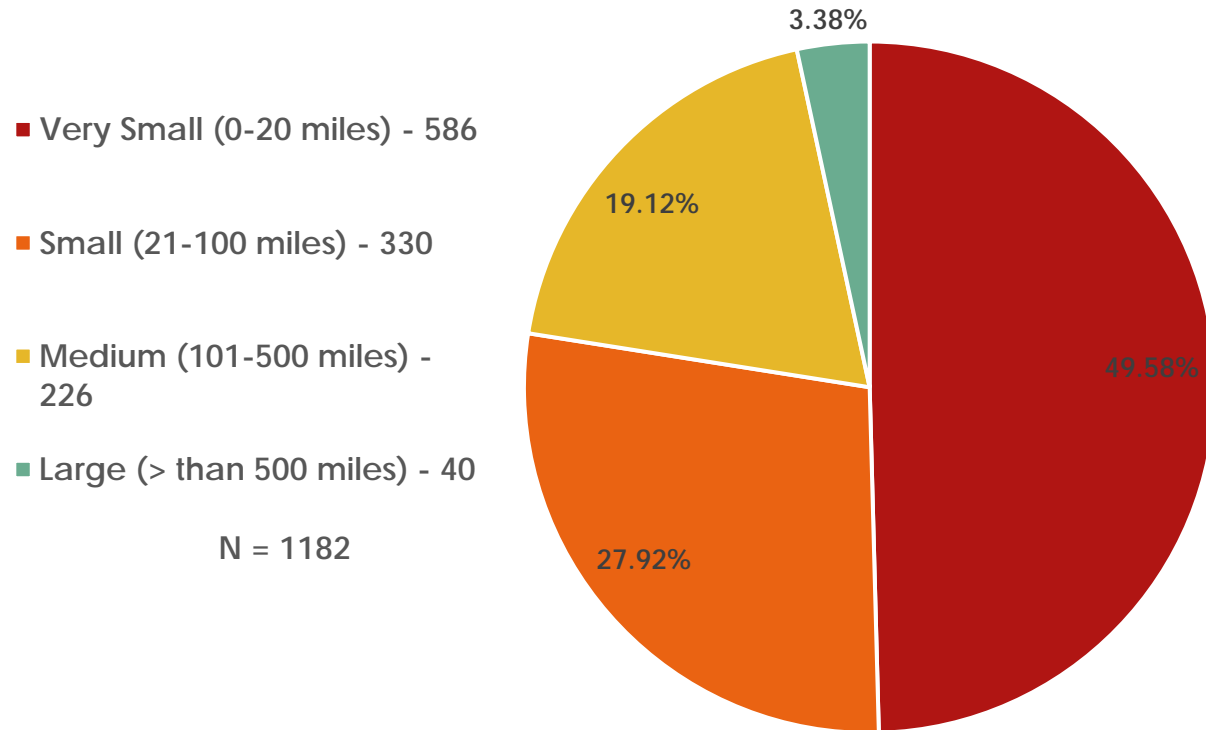
Annual Number of Cat. 1 & 3 Incidents

% of Incidents by Category 2007 - 2021



% of
Incidents by
Category
2007 - 2021

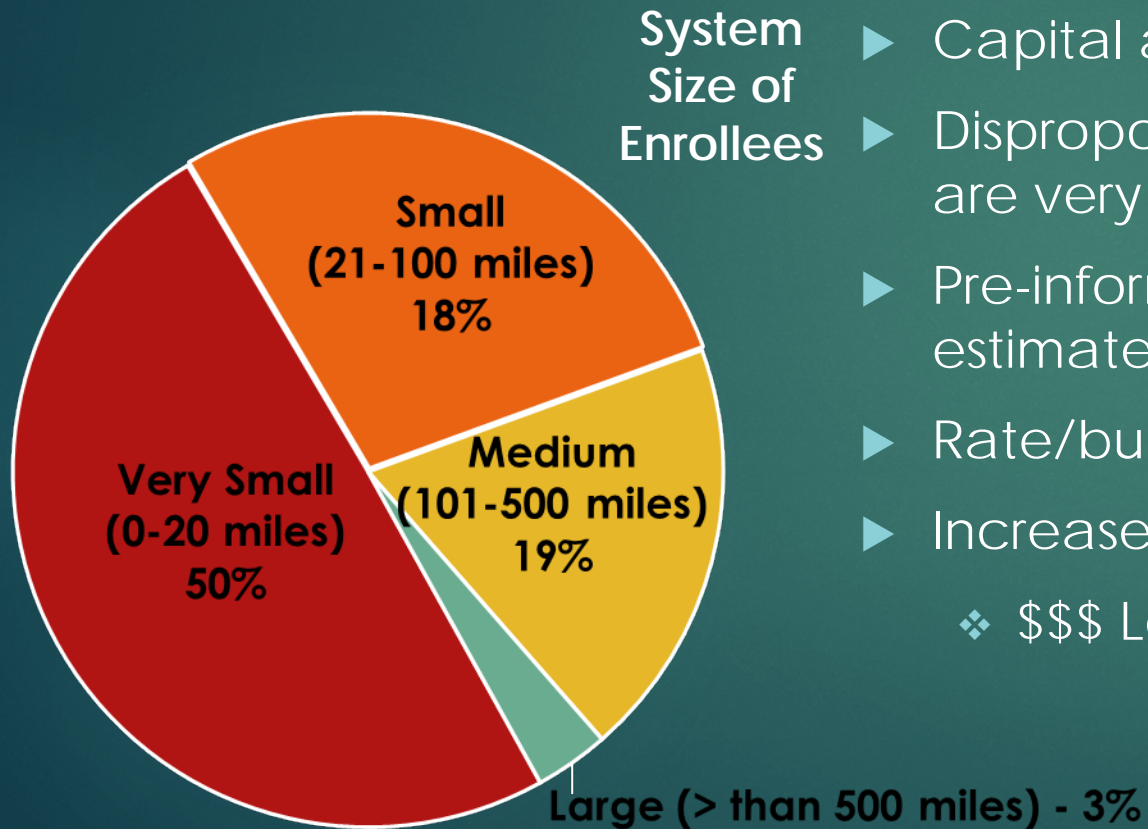
Number of Enrollees by Size



Number of Enrollees by System Size

COST OF COMPLIANCE

Value Added?



- ▶ Administrative compliance costs affect ~1,200 agencies
- ▶ Most agencies currently dealing with COVID revenue loss
- ▶ Capital and operational cost impacts = \$\$\$ Billions
- ▶ Disproportionate cost impacts to small enrollees (over 900 are very small or small agencies)
- ▶ Pre-informal staff draft SSMP resiliency requirements estimated between \$40-\$80 Million, conservatively
- ▶ Rate/budget setting mandates are impractical
- ▶ Increased risk of third-party lawsuits
 - ❖ \$\$\$ Less For Operations/Maintenance/ Replacement

MORE ENFORCEABLE, OR LESS?

- ▶ What are enforcement challenges with existing WDR?
- ▶ How does the Informal Staff Draft WDR language improve/enhance enforceability?
- ▶ Adds administrative burden for all parties
- ▶ What is purpose of prohibition on “any spill” and does it come from Porter-Cologne or CWA?”
- ▶ How will Informal Staff Draft WDR interact with the enforcement policy and penalty calculator?
- ▶ Third party civil suit should NOT be primary enforcement tool

ISSUES of GREATEST CONCERN

- ▶ Exfiltration
- ▶ Requires authority over other agencies
- ▶ Unreasonable spill reporting timelines (2-hours for ALL spills)
- ▶ Increased spill reporting requirements
- ▶ Blanket sampling / monitoring requirements inappropriate
- ▶ Private lateral / satellite system obligations and reporting requirements
- ▶ 20-year budgets and CAFR requirements
- ▶ LRO qualifications – PE or CWEA grade 3
- ▶ No compliance pathway for new requirements
- ▶ Prescriptive system resiliency requirements



SUGGESTIONS and NEXT STEPS

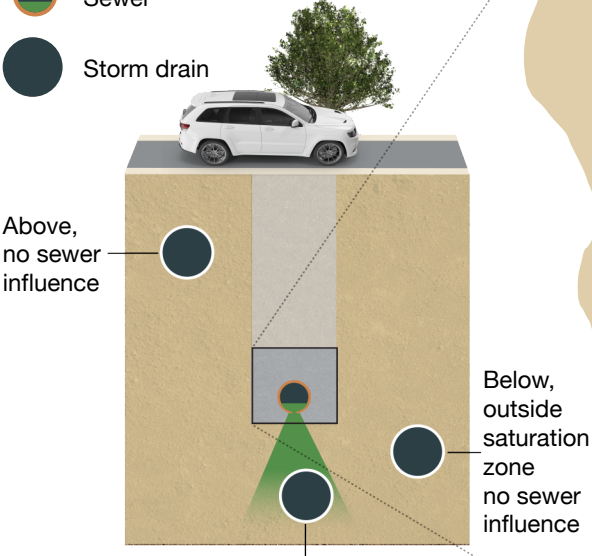
- ❖ Convene modest-sized working group of all stakeholders
 - ❖ SWRCB, RWQCB, Enrollees, NGOs, Etc.
- ❖ Need clear language for Enrollees to implement
- ❖ Make it simpler and less prescriptive
- ❖ Conform SSMP Element changes into 11 current Elements (see previous redline as an example for how this may work)
- ❖ Consider cost impacts of new features and benefits of requirements

Questions / Discussion

Sewer exfiltration to storm drain?

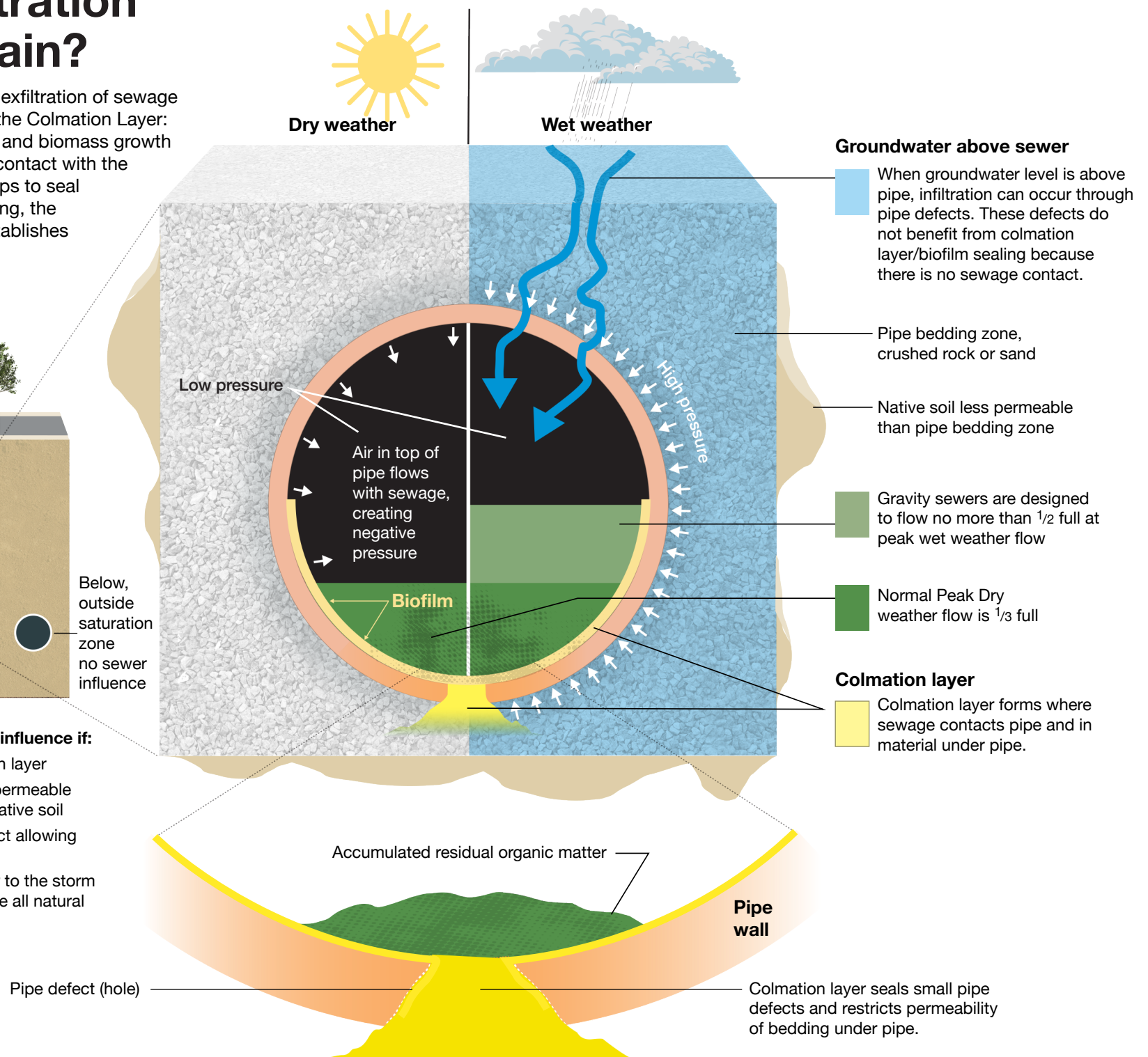
One of the primary barriers to exfiltration of sewage through small pipe defects is the Colmation Layer: a mixture of grease, sediment and biomass growth that form where sewage is in contact with the pipe. The Colmation Layer helps to seal pipe defects. After pipe cleaning, the Colmation Layer mostly re-establishes within three days.

-  Sewer
-  Storm drain



Inside saturation zone, potential influence if:

- Sewer leak overcomes colmation layer
- and sewer migrates from more permeable trench zone to less permeable native soil
- and storm drain pipe has a defect allowing sewage into the pipe
- and the distance from the sewer to the storm drain is short enough to eliminate all natural treatment



Groundwater above sewer

When groundwater level is above pipe, infiltration can occur through pipe defects. These defects do not benefit from colmation layer/biofilm sealing because there is no sewage contact.

Pipe bedding zone, crushed rock or sand

Native soil less permeable than pipe bedding zone

Gravity sewers are designed to flow no more than 1/2 full at peak wet weather flow

Normal Peak Dry weather flow is 1/3 full

Colmation layer

Colmation layer forms where sewage contacts pipe and in material under pipe.

Colmation layer seals small pipe defects and restricts permeability of bedding under pipe.

ATTACHMENT 3 - ESTIMATE OF LABOR COSTS FOR IMPLEMENTATION OF PROPOSED SSMP RESILIENCY ELEMENTS

Type	Pipe Miles	Number of Enrolled Agencies	7.3 Risk Analysis	7.4 Remediation Prioritization	7.5 System Resiliency Actions	Sub-Total	TOTAL (BY TYPE)	Miles* from CIWQS	Average Pipe Miles per Type	Population from CIWQS
Very Small	0-5	247	\$ 4,000	\$ 3,000	\$ 3,000	\$ 10,000	\$ 2,470,000	676	2.74	1,010,385
Small	>5 - 100	614	\$ 15,000	\$ 10,000	\$ 10,000	\$ 35,000	\$ 21,490,000	18,942	30.85	17,971,371
Medium	>100 -500	225	\$ 25,000	\$ 10,000	\$ 15,000	\$ 50,000	\$ 11,250,000	48,956	217.58	21,700,364
Large	>500	37	\$ 100,000	\$ 25,000	\$ 35,000	\$ 160,000	\$ 5,920,000	48,315	1,305.80	22,873,505
	Total:	1123								
TOTAL OVERALL (LOW):							\$ 41,130,000	116,889		63,555,625
Very Small	0-5	247	\$ 6,000	\$ 5,000	\$ 5,000	\$ 16,000	\$ 3,952,000	676	2.74	1,010,385
Small	>5 - 100	614	\$ 25,000	\$ 15,000	\$ 15,000	\$ 55,000	\$ 33,770,000	18,942	30.85	17,971,371
Medium	>100 -500	225	\$ 75,000	\$ 30,000	\$ 30,000	\$ 135,000	\$ 30,375,000	48,956	217.58	21,700,364
Large	>500	37	\$ 250,000	\$ 50,000	\$ 100,000	\$ 400,000	\$ 14,800,000	48,315	1,305.80	22,873,505
	Total:	1123								
TOTAL OVERALL (HIGH):							\$ 82,897,000	116,889		63,555,625
Notes:										
Based on an unofficial version of the SSS WDR Resiliency elements provide for cost estimation purposes on 12/10/20										
Based on an assumption that final WDR text is intended to prioritize O&M and capital activities not increase them										
Based on the interpretation that System Resiliency requirements are not stand alone documets, but part of a SSMP										
Based on the assumption that additional analysis and documentation required by 7.3, 7.4 and 7.5 is above and beyond current SSMP requirements										
*Total miles includes the sum of gravity sewers, forcemains and laterals for those agencies responsible for laterals taken from the CIWQS database										

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ORDER

1. INTRODUCTION

This General Order serves as statewide waste discharge requirements. All sections, attachments and appendices of this General Order are enforceable by the State Water Resources Control Board and/or a Regional Water Quality Control Boards. Through this General Order, the State Water Board requires Enrollees to:

(among other non-planning related bulleted items)

- Proactively operate and maintain sewer systems to ensure system resiliency and prevention of spills.

3. FINDING

3.2.3. Proactive Sanitary Sewer System Management to Eliminate Spill Causes

Many *spills* are preventable through proactive *sanitary sewer system* management using *best practices and available technologies* to address the major causes of *spills*, including but not limited to:

- Blockages including but not limited to the following causes:
 - Grease, oils and fats;
 - Tree roots;
 - Rags, flushable wipes and other paper products; and
 - Debris.
- Sewer system damage from identified system-specific climate and climate change impacts; examples include but are not limited to:
 - Sea level rise
 - Flooding;
 - Landslides; and
 - Subsidence.
- Infrastructure deficiencies and failures; examples include but are not limited to:
 - Pump station mechanical failures;
 - System age;
 - Construction material failures; and
 - Lack of proper operation and maintenance.

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- Insufficient system capacity (temporary or sustained), including but not limited to:
 - Excessive storm or ground water inflow/infiltration; and
 - Population increase.
- Community impacts, including but not limited to:
 - Power outages;
 - Vandalism; and
 - Contractor caused damages.

5. SPECIFICATIONS

5. SPECIFICATIONS

5.1. Sewer System Management Plan Development and Implementation

The *Enrollee* shall develop, maintain, and fully implement an updated comprehensive *Sewer System Management Plan*, as defined in Attachment A of this General Order (Definitions) to proactively prevent, contain, reduce, and eliminate *spills* from its system(s). The *Sewer System Management Plan* must address, at minimum, all required Plan elements in Attachment D of this General Order (Sewer System Management Plan – Required Elements). The Sewer System Management Plan must address the implementation of current standard industry practices through available equipment, technologies and strategies for operating and maintaining sewer systems and managing local sanitary sewer programs.

Between official local board approval of Sewer System Management Plan updates, the Enrollee must document changes and updates to its Sewer System Management Plan, in a change log attached to the Plan.

5.1.1. Proactive System Resiliency Requirement

The Enrollee shall develop and implement ongoing system resiliency efforts, as specified in Attachment D of this General Order (Sewer System Management Plan – Required Elements) to address high-risk and high-priority sewer/program areas that are contributing, or potentially contributing to system spills. The Enrollee shall include an updated risk analysis and remediation prioritization elements in each 5-year Sewer System Management Plan update. The Enrollee shall implement (and update as necessary) the system resiliency elements in its Sewer System Management Plan to ensure the prevention of future spills.

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If an Enrollee's next Sewer System Management Plan update is within four (4) years of the effective date of this General Order, the system resiliency requirements must be included in the subsequent Plan update.

5.1.2. Proactive System Resiliency Requirement for Disadvantaged Communities

In recognition of lack of local resources available for disadvantaged communities, the Risk Analysis and Remediation Prioritization requirements specified in section 5.1.1. and Attachment D of this General Order, are reduced to a one-time requirement for small *disadvantaged communities*. Small *disadvantaged communities* are required to conduct a one-time Risk Analysis and Remediation Prioritization as detailed in Attachment D of this General Order, and must include the one-time Risk Analysis and Remediation Prioritization in the next update of its Sewer System Management Plan.

If a *disadvantaged community's* next Sewer System Management Plan update is within four (4) years of the effective date of this General Order, the one-time system risk analysis and remediation prioritization requirements must be included in the subsequent Plan update.

6.1.5. Indirect Discharges

In the event that a *spill* enters into a *drainage conveyance system*, the *Enrollee* shall take all feasible steps to prevent *waste* from entering into *flood control channels* or waters of the State by blocking the *drainage conveyance system*, removing the *waste* from the *drainage conveyance system*, and sanitizing the system in a manner that does not inadvertently impact *beneficial uses* in the downstream *receiving water* body.

ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS

A Sewer System Management Plan (Plan) is a living planning document that must capture ongoing local sewer management program elements, procedures, and decision-making to assure short-term and long-term sewer system resiliency. The *Enrollee* must implement a Sewer System Management Plan that ensure system resiliency through:

- Proactive planning and decision making.
- Strategic routine operations and maintenance.
- Adaptable focus on high-risk system *spill* areas.
- Effective capital improvement projects.

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- Necessary staff resources and equipment.
- Necessary local program resources from sewer rates and other local resources to support necessary staffing, contractors, equipment, and *training*.
- Updated *training* of staff and contractors.

Compliance with the Sewer System Management Plan, as provided in this Attachment, is an enforceable component of this General Order. As specified in Provision 7.1. of this Order, consistent with the California Water Code and the State Water Board Enforcement Policy, the State Water Board or a Regional Water Quality Control Board may consider the *Enrollee's* efforts in implementing an effective sewer system management plan to prevent, contain, control, and mitigate *spills* and *discharges* when considering California Water Code section 13327 factors to determine necessary enforcement of this General Order.

This Attachment includes all elements that an *Enrollee* shall include and address in its Sewer System Management Plan. The *Enrollee* shall identify any required elements provided in this Attachment that are not applicable to the *Enrollee's* system and shall provide justification in its Plan explaining why the element is not applicable.

7. SEWER SYSTEM RESILIENCY

The *Enrollee* must incorporate system resiliency planning into its Sewer System Management Plan to assure its system is resilient to system-specific impacts due to:

- Impacts due to local and regional climate change;
- Population change;
- Pandemics and local area health concerns;
- Customer use of household and commercial products; and
- Other current and forecasted system-specific impacts that threatens the system, local sewer system program, and/or its staff resources.

The *Enrollee* shall implement proactive system planning, operations, maintenance, repair, rehabilitation and capital improvements to significantly reduce *spills* and eliminate *discharges* to waters of the State.

The Sewer System Management Plan must provide planning procedures to assure system resiliency through the identification, prioritization and remediation of:

- Short-term system problems to be addressed through a modified operation and maintenance program, and

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- High-priority long-term infrastructure problem areas to be addressed through its updated capital improvement program.

Sewer system resiliency must be addressed in the Sewer System Management Plan through the implementation of the following elements, at minimum:

[NOTE – GRAY FONT TEXT REPRESENTS CLARIFIED EXISTING REQUIREMENTS IN EXISTING ORDER]

7.1. Condition Assessment

The Sewer System Management Plan must provide procedures for ongoing inspection, data collection, and assessment of the existing system condition through infrastructure inspection and documentation that:

- Assesses the condition of all sewer system assets utilizing best available technologies and practices;
- Prioritizes assessment of infrastructure located in or within the vicinity of surface waters, steep terrain, high ground water elevations, and *environmentally sensitive areas*;
- Identifies system assets and locations that hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies;
- Assesses high-risk system areas as a priority, through regular visual and video surveillance or through the use of other effective inspection methods;
- Documents inspections through Condition Assessment Inspection report that, at minimum, include:
 - The name of the agency/company,
 - The name of the inspector(s),
 - The inspection start and end dates,
 - The inspection start and end times,
 - The reason for the inspection,
 - The system asset(s) inspected,
 - Location of potential system problems,
 - The inspection findings and summary,
 - Reference to corresponding videos and data, and
 - Recommended response actions.

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7.2. Capacity Assessment

The Sewer System Management Plan must include steps to determine the need for short-term (less than two years) operational or program modifications, and long-term capital improvement project(s), to enhance hydraulic capacity in hydraulic deficient system areas.

The Sewer System Management Plan must provide procedures for an ongoing system capacity assessment of the existing system in its entirety and per system segments/components priorities. The capacity assessment must evaluate and identify hydraulically-deficient system areas or components that are contributing or have the potential to contribute to *spills*, based on information that includes, but is not limited to, spill history, infrastructure inspections, and operation and maintenance logs.

The Capacity Assessment procedures must address:

- Technical analysis of data from existing system condition assessments, system inspections, system audits, spill history, and other available information;
- Capacity evaluations of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather event, including:
 - Peak flows associated with conditions that have historically caused, or have the potential to cause, *spill* events (including flows from *spills*);
- Inflow and infiltration reduction programs;
- Necessary redundancy in pumping and storage capacities;
- Non-stormwater sources that contribute to peak flows associated with *spill* events;

The Capacity Assessment Plan must include evaluation standards to assess existing system components including, at minimum:

- Pump stations;
- Private *lateral* connections;
- Gravity pipelines and manholes; and
- Pressure (force) mains.

The findings of the Capacity Assessment must be further analyzed for risk, prioritized, and implemented through the Capital Improvement Plan component of the System Resiliency Action Plan, as specified in section 7.5.2. of this Attachment.

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7.2.1. Updated Design and Construction Standards and Specifications

The Sewer System Management Plan must identify and reference updated design and construction standards and specifications for the installation, repair, and rehabilitation of existing and proposed system infrastructure, including pipelines, pump stations, and other system appurtenances.

7.2.2. Procedures, Protocols and Standards

The Sewer System Management Plan must include procedures, protocols, and standards for the inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances.

7.2.3. Component-specific Design Criteria

If design criteria and standards for system construction and installation, repair and rehabilitation do not exist, or if existing design criteria and standards are deficient to address necessary capacity determinations, a system condition assessment must include component-specific evaluation to appropriately assess design criteria and/or existing conditions.

existing conditions.

7.3. Risk Analysis

The Sewer System Management Plan must provide procedures for analyzing risk of the identified potential system deficiencies that compromise the integrity of the sewer system and local sewer management program(s). The Risk Analysis procedures must incorporate Condition Assessment and Capacity Assessment information conducted on different components/segments of the current system infrastructure. The Risk Analysis must measure risk of potential system *spills* and *discharges*, the severity of the consequences of the *spills* and *discharges*.

The Risk Analysis must include a ranking system that categorizes all system components/segment areas, for subsequent prioritization of corrective actions. Risk measures and categorization must be based on the severity of the consequences of a system *spill* and *net discharge* into a *water of the State*. High-risk system components/areas must be further categorized as:

- System or program areas to be addressed through short-term operations and maintenance mitigation; and
- System or program areas to be addressed through long-term operations and engineering mitigation.

7.4. Remediation Prioritization

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The Sewer System Management Plan must provide procedures for the prioritization of short-term operation and maintenance modifications, and long-term operations and engineering improvement projects, to be included in the Enrollee's System Resiliency Action Plan per section 7.5 below. Remediation prioritization must be based on the immediacy of remediation of higher risk system areas identified in the Enrollee's Risk Analysis.

7.5. System Resiliency Actions

The Sewer System Management Plan must include specific actions, and corresponding schedule to immediately address necessary system resiliency for the identified high-risk portions of the sewer system and local sewer management program deficiencies that contribute to, or have the potential to contribute to *spills*. The System Resiliency Actions must include and propose implementation of the following elements to address ongoing system resiliency:

- Action schedule including interim milestones and feasible interim milestone completion dates of operation and maintenance program modifications and capital improvement projects;
- Local budgeting, fee rate structure modifications and local resources to support interim milestones;
- Schedule for pursuing and acquiring external planning, design and construction funding, as necessary; and
- Action resources, including interim milestones and schedule, for acquiring necessary staff resources (including consulting and contracting services), equipment, data systems and other non-monetary resources.

System Resiliency Actions must address Operation and Maintenance components and Capital Improvement components to efficiently eliminate system *spills*.

7.5.1. System Resiliency Actions – Operation and Maintenance Component

System Resiliency Actions included in the Sewer System Management Plan must include necessary modifications to routine system preventative operation and maintenance activities through, at minimum:

- Updated system for the scheduling of regular system maintenance and cleaning;
- Enhanced inspections, video surveillance, and maintenance in high risk system areas;
- Immediate actions to address roots, fats, oils and grease potentially resulting in system blockages and failures;

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- Higher frequency system maintenance of high-risk system or program areas;
- Increased data collection of infrastructure condition of high-risk system or program areas;
- Placement of engineering mitigation projects in capital improvement program; and
- Joint coordination between operational functions with proposed engineered capital improvements.

7.5.2. System Resiliency Actions – Capital Improvement Component

System Resiliency Actions included in the Sewer System Management Plan must provide capital improvement actions to address high-risk system deficiencies identified in the most updated condition assessment and capacity assessment as follows:

- Identification of high-risk, high-priority capital improvement projects;
- Project action schedules including interim milestones and feasible interim project milestone completion dates;
- Local budgeting, fee rate structure modifications and local resources to support interim milestones;
- Identification of internal and external sources of funding;
- Identification of internal and external sources of funding;
- Schedule for pursuing and acquiring external planning, design and construction funding, as necessary; and
- Action resources, including interim milestones and schedule, for acquiring necessary staff resources (including consulting and contracting services), equipment, data systems and other non-monetary resources.

7.5.3. Implementation and Update of System Resiliency Actions

An *Enrollee* that is not *disadvantaged community* shall:

- Incorporate its System Resiliency Actions into its Sewer System Management Plan during each 5-year Sewer System Management Plan update, and
- Immediately implement the System Resiliency Actions as appropriate.

The System Resiliency Actions incorporated into the Sewer System Management Plan must be reviewed by operation and maintenance personnel prior to the local governing board approval and *Legally Responsible Official* certification of the corresponding Sewer System Management Plan update.

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As specified in section 6.1.2. of this General Order, an *Enrollee* that is a *disadvantaged community* shall incorporate and implement its identified System Resiliency Actions in a one-time Sewer System Management Plan update within the next 6 years of the Effective Date of this General Order.

16. SEWER SYSTEM MANAGEMENT PLAN ADAPTIVE MANAGEMENT

The Sewer System Management Plan must include an Adaptive Management Section to address the system(s) program modifications discovered from internal, state, and Regional Water Board audit findings, and detail all system and program modifications and implementations that are planned and have been completed within the Sewer System Management Plan. The Adaptive Management Section must provide a detailed narrative of what the *Enrollee* has learned through conducting planning, system modifications, program modifications, and corrective actions needed to prevent *spills* and eliminate *discharges*.

**SWRCB WDR for Sanitary Sewers
 Informal Staff Draft
 Suggested Relocation of Requirements to 2006 SSMP Elements
 July 2021**

2006 WDR Element No.	2006 WDR Element Title	2021 Informal Staff Draft Section	Comments
0	Introduction	1.1. Regulatory Context 1.3. Sewer System Asset Overview 4.1. Description of Service Area Utilities	Okay to keep as Element 0
1	Goals	1.2. Sewer System Management Plan Update Schedule 5.3 Proactive System Resiliency	or Element 11 At least a goal for this requirement
2	Organization	2.1. Minimum Sewer System Management Program Resources 2.3. Organizational Staffing Plan and Organizational Chart 2.4 Chain of Communication 5.5 Designation of Legally Responsible Official.	This belongs in Element 6 move there
3	Legal Authority	3. LEGAL AUTHORITY	
4	Operations and Maintenance Program	5. SEWER SYSTEM PLANNING, OPERATIONS AND MAINTENANCE INFORMATION / DATA SYSTEMS 7.2.2 Procedures, Protocols and Standards 7.5.1 System Resiliency Actions 8. IMPLEMENTATION OF UPDATED OPERATION AND MAINTENANCE PROGRAM 8.1. Routine Operation and Maintenance 8.2. Modified Operation and Maintenance 8.3. Operations and Maintenance Priorities 10. Record Keeping 14. REQUIRED TRAINING	for O&M O&M training only SSO training in Element 6
5	Design and Performance Provisions	7.2.1. Updated Design and Construction Standards and Specifications 7.2.2. Procedures, Protocols and Standards	

**SWRCB WDR for Sanitary Sewers
Informal Staff Draft
Suggested Relocation of Requirements to 2006 SSMP Elements
July 2021**

			7.2.3. Component-specific Design Criteria	
6	Overflow Emergency Response Plan		12. SPILL EMERGENCY RESPONSE PLAN	
			2.4. Chain of Communication for Reporting Spills	
			E1 2.1.2 Environmental Laboratory Accreditation Program	
			10. REQUIRED TRAINING	OERP training not O&M training in Element 4 - they are different
			5.12 Spill Response and Remedial Actions	
			5.15. Required Notification of Spills from Privately-Owned Sewer Laterals and/or Sanitary Sewer Systems to Regional Water Board	
			5.16. Voluntary Notification of Spills from Privately-Owned Laterals and/or Systems to the California Office of Emergency Services	
			E1 2.5.2 Water Quality Sampling	
			E1 Notification, Monitoring	Generally belongs in Element 6
7	FOG Control Program		13. SEWER PIPE BLOCKAGE CONTROL PROGRAM	
8	System Evaluation and Capacity Assurance Plan - should be renamed as Capital Planning and Development		5.9 System Capacity	
			7. SEWER SYSTEM RESILENCY	Remove (iv)(c) from Element 4 to Element 8
			7.2. Capacity Assessment	
			7.3. Risk Assessment	
			7.4. Remediation Prioritization	
			7.5.3. Implementation and Update of System Resiliency Actions	
			8.4. Rehabilitation and Replacement	
			9. IMPLEMENTATION OF CAPITAL IMPROVEMENT PROGRAM	
			10. Record Keeping	for capital program
9	Monitoring, Measurement and Program Modification		5.2 Five-Year SSMP Update	
			5.17 Annual Report	

**SWRCB WDR for Sanitary Sewers
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 July 2021**

10	SSMP Program Audits	6. INCORPORATION OF LOCAL PROGRAM AUDIT FINDINGS INTO SEWER SYSTEM MANAGEMENT PLAN UPDATES	
		5.11. Internal Program Audits	
		4.0 Incorporation of Audit Findings	
11	Communications Program	4.2. Sewer Service Area Inter-Agency Coordination and Collaboration	
		6.4 SSMP Availability Provisions	
		15. LOCAL COMMUNITY AND INTERAGENCY COMMUNICATION	
		1.2. Sewer System Management Plan Update Schedule	
IFD Sections Suggested for Complete Elimination			
		5.7 Cerrtification of SSMP	Duplicative with 5.2
		5.10. System Performance Analysis	
		5.20. System-specific Reduced Reporting	
		Best Industry Practics and Available Technology	
		D 2.1 Minimum SSMP Resources	
		D 7.1Condition Assessment	In Paragraph D 8
		D 7.2.2 Component Specific Design Criteria	With Desin and construction standards
		D 7.5.1 and 7.5.2. System Resiliency Actions – Capital Improvement Component	Merged with D 9.
		D 8.5 Stormwater Management and Erosion Control Plan	
		D 9.1 and 9.2 CIP Implementation and Schedules	Duplicative with D 9.0
		11. LOCAL SEWER SYSTEM PROGRAM BUDGET AND RESOURCES	Merged into 2.4
		16. SEWER SYSTEM MANAGEMENT PLAN ADAPTIVE MANAGEMENT	Drop 16 or include in 10
		E1-1.1 Water Board Notification	Needs to be more than 2 hours



AC21 VIRTUAL CONFERENCE AND EXPO JUNE 7-10



CWEA

PROTECTING CALIFORNIA'S MOST
CRITICAL RESOURCE



What CIWQS Data is Telling Us About How We Are Doing



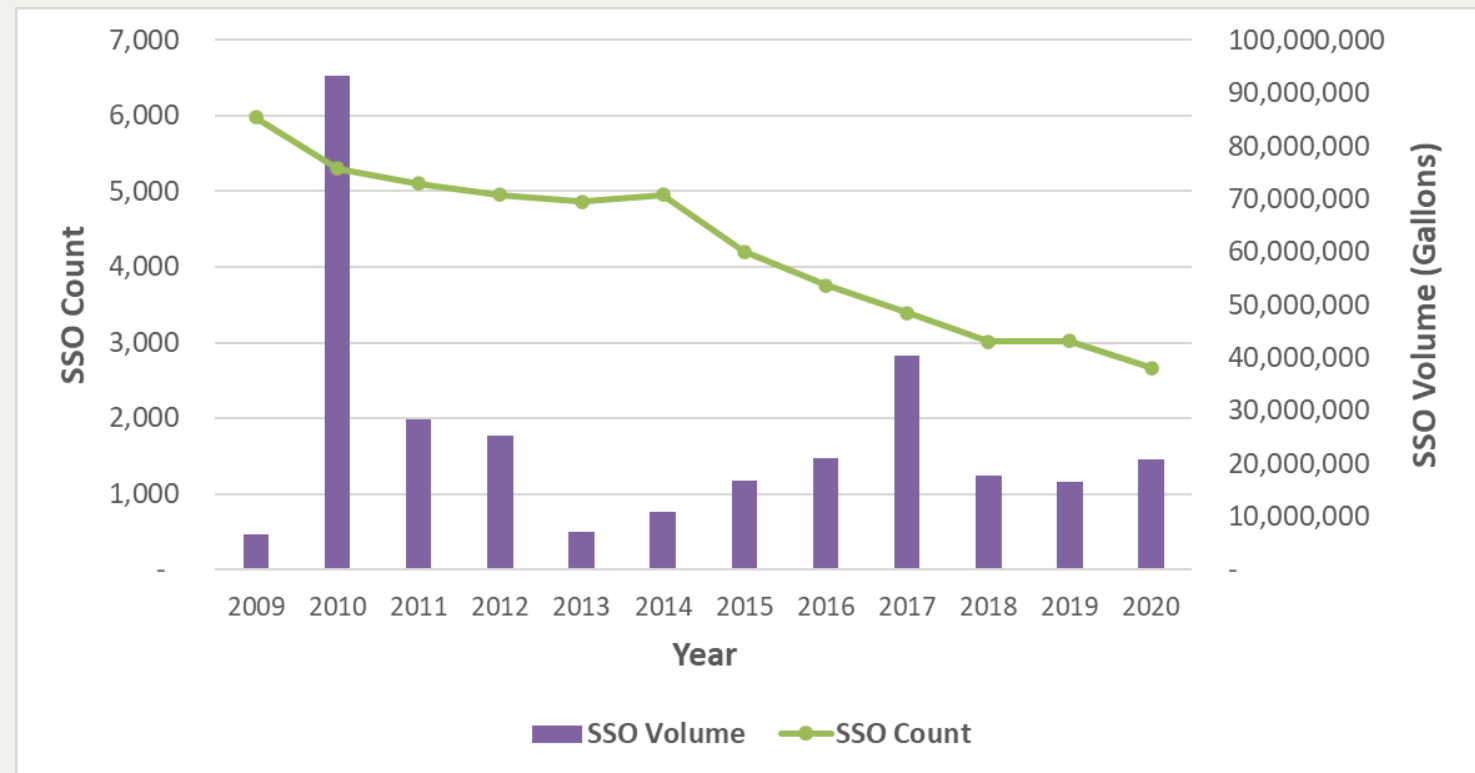
AC21 VIRTUAL CONFERENCE & EXPO

Why Our Work is Important



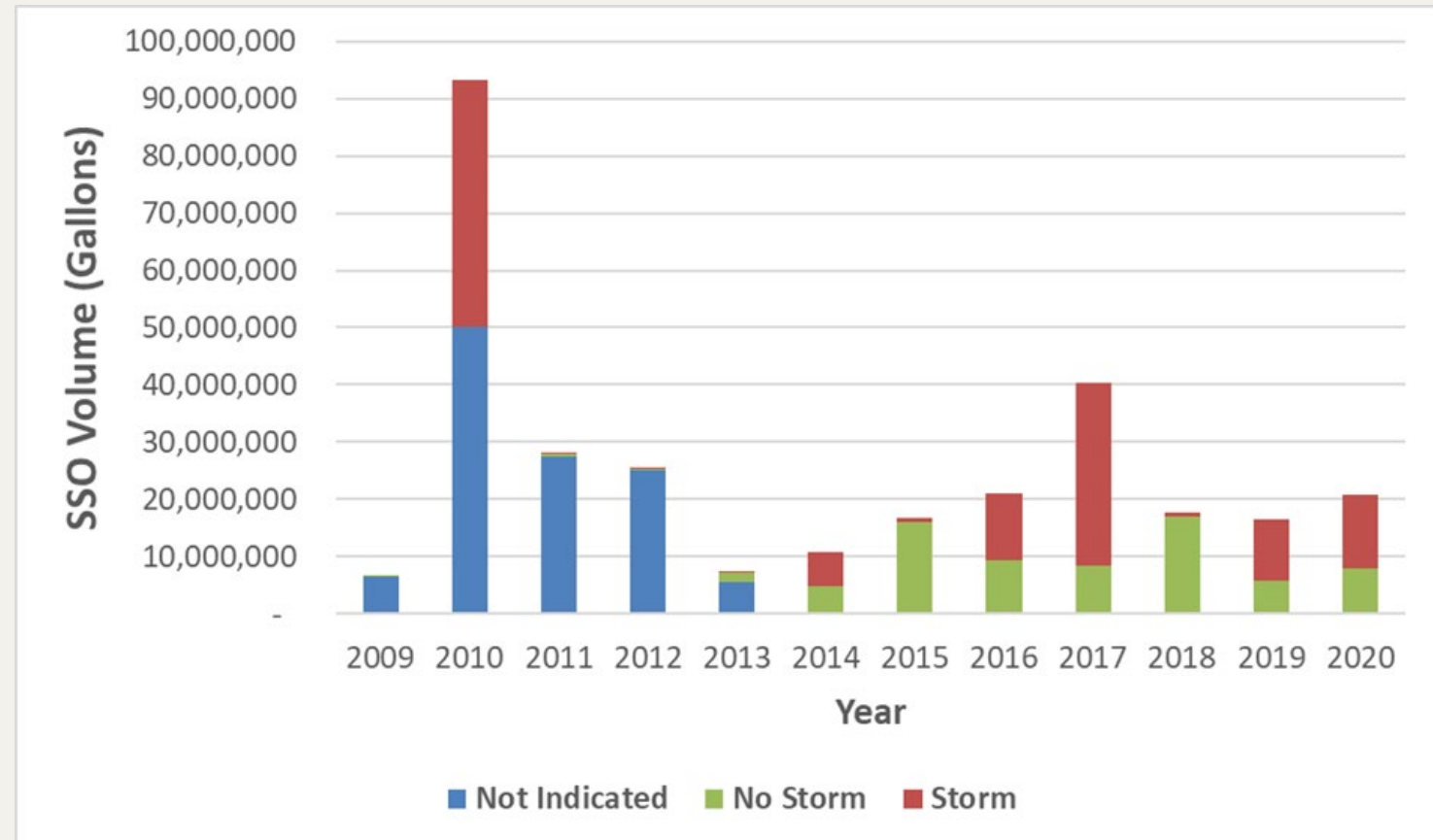
SSO Performance Over Last 10 Years

- Dramatic reduction in rate
- Fluctuation in volume

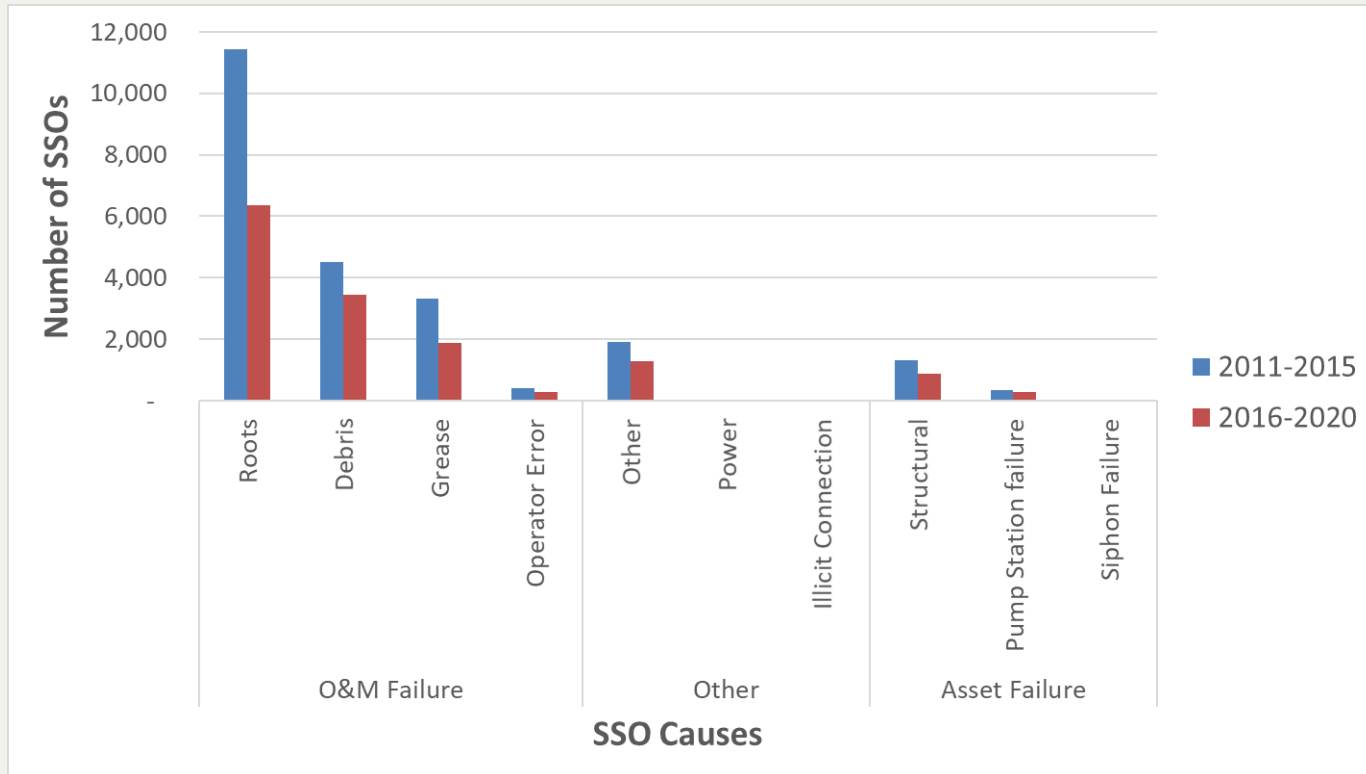


SSO Performance Over Last 10 Years

- Dramatic reduction in rate
- Fluctuation in volume



Where We are Winning



- **O&M Failures**
 - **Roots**
 - **Grease**
 - **Debris**
 - **Operator Error**
- **Pipe Condition**
- **Pump Station**

How We are Winning

Strategy Category	Strategies
Capacity Management	Capacity assessment and remediation planning I/I characterization and detection I/I conveyance planning I/I reduction planning
Integrity	Force main condition assessment and remediation Gravity pipeline condition assessment and remediation Lift station condition assessment and remediation
Preparedness	SSO contingency planning and response preparedness SSO response plan
Preventive	Flow level monitoring Focused public outreach FOG source control FOG source investigation Post-construction cleaning Sewer mainline PM cleaning Sewer manhole PM cleaning
Procedure Modification	Procedures review, update & training
Resilience	Resilience assessment and planning
Risk Assessment	Risk assessment
Source Control	Property owner outreach Targeted public outreach
Third Party Oversight	Construction inspection and coordination Utility locating protocols

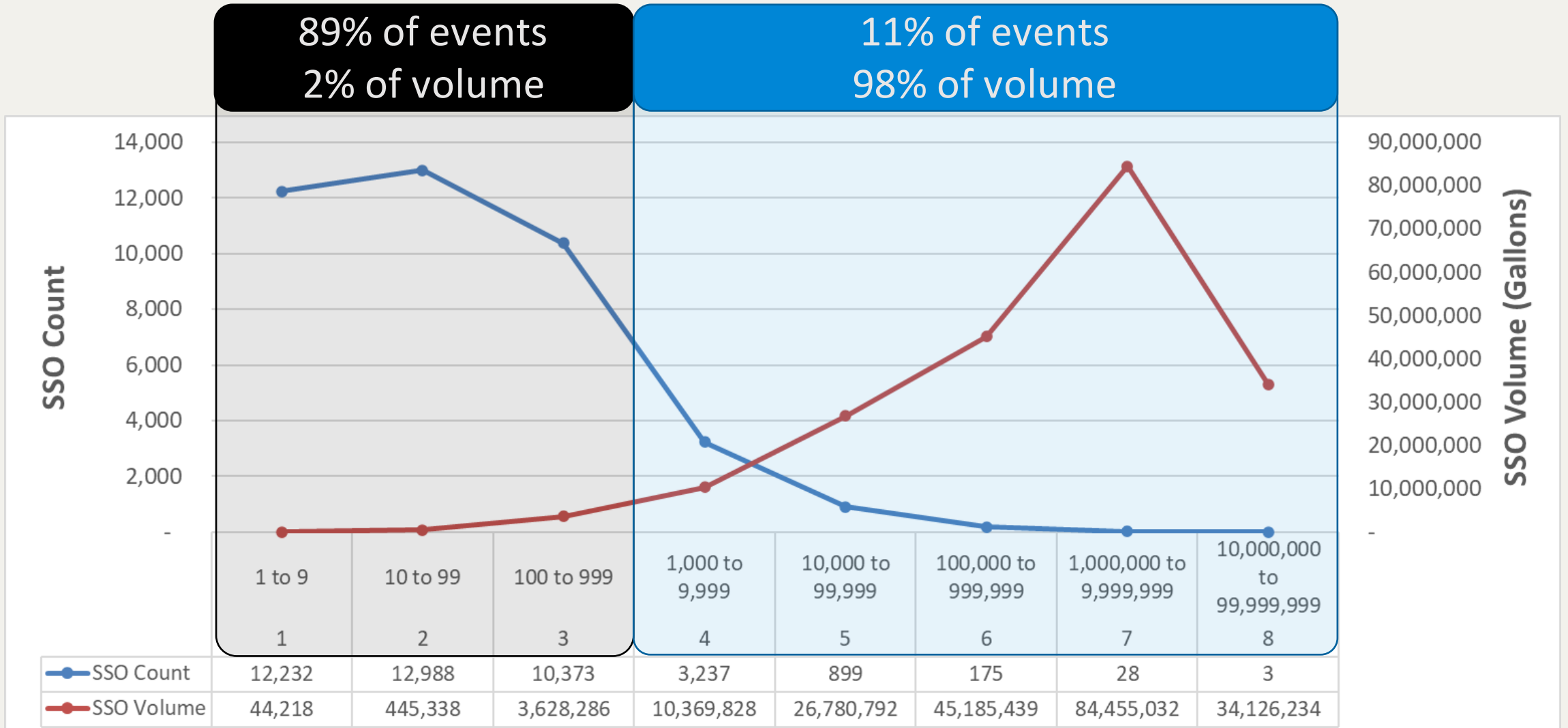
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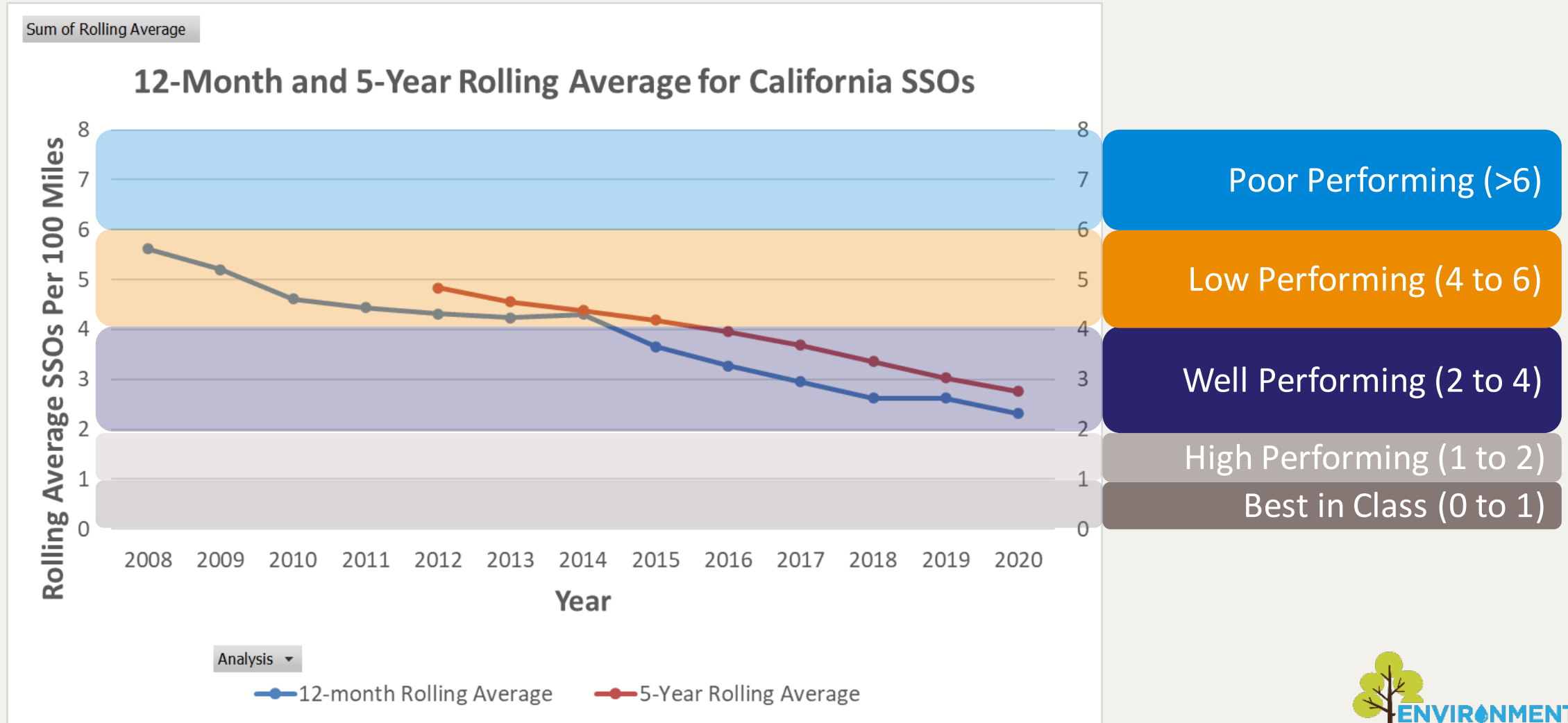


Most Volume is from a Few Large Events

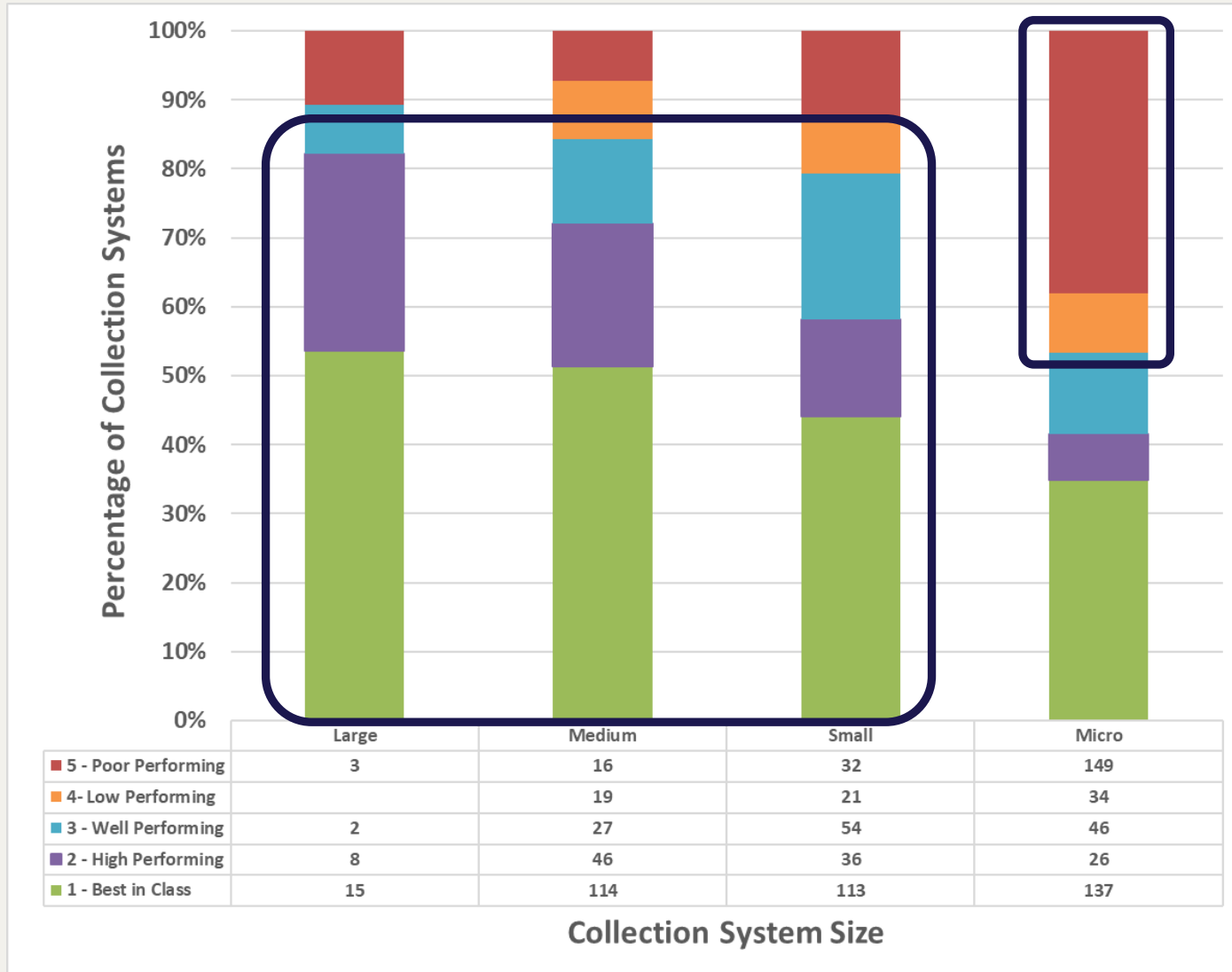


10-year period (2011-2020)

Let's Talk About Performance Bands



Performance by Collection System Size



• Size Classification

- Large: 500+ miles
- Medium: 100 to 499 miles
- Small: 25 to 99 miles
- Micro: < 25 miles

• **80-90% of small to large systems are well performing or better**

• **Significant number of Micro systems still under-performing**



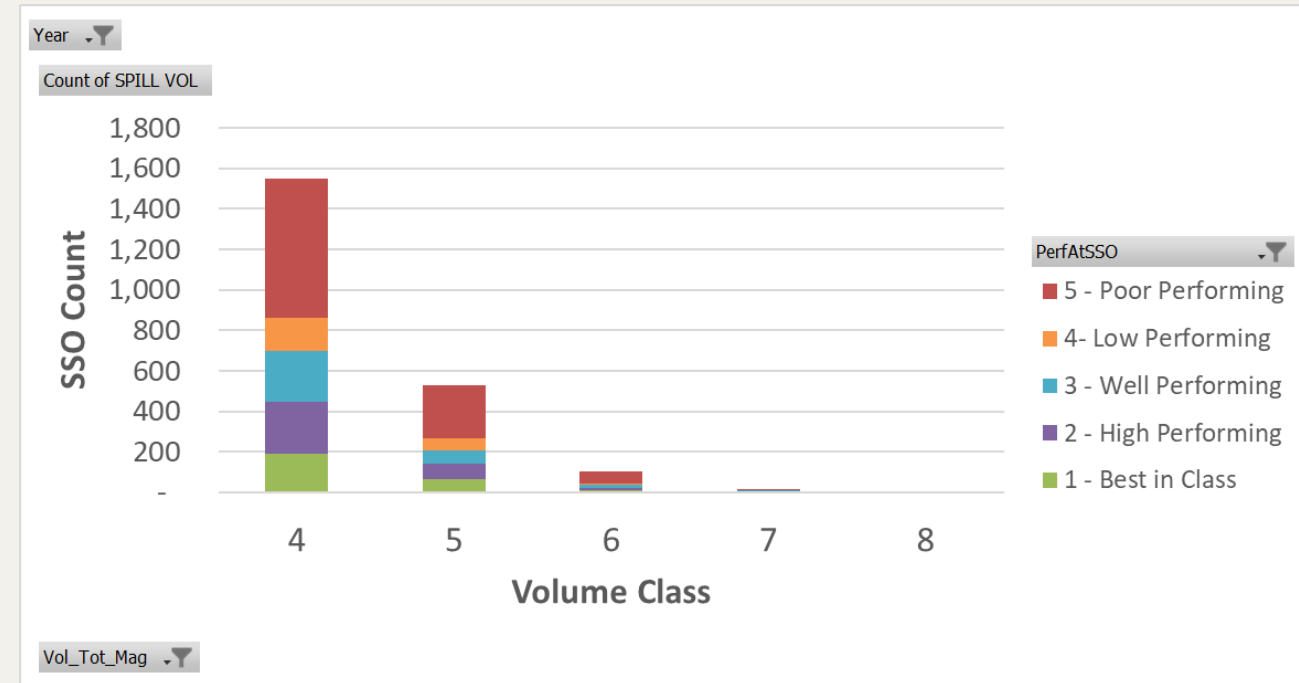
**Based on December 2020 5-year rolling average*

Other Important Indicators of Performance



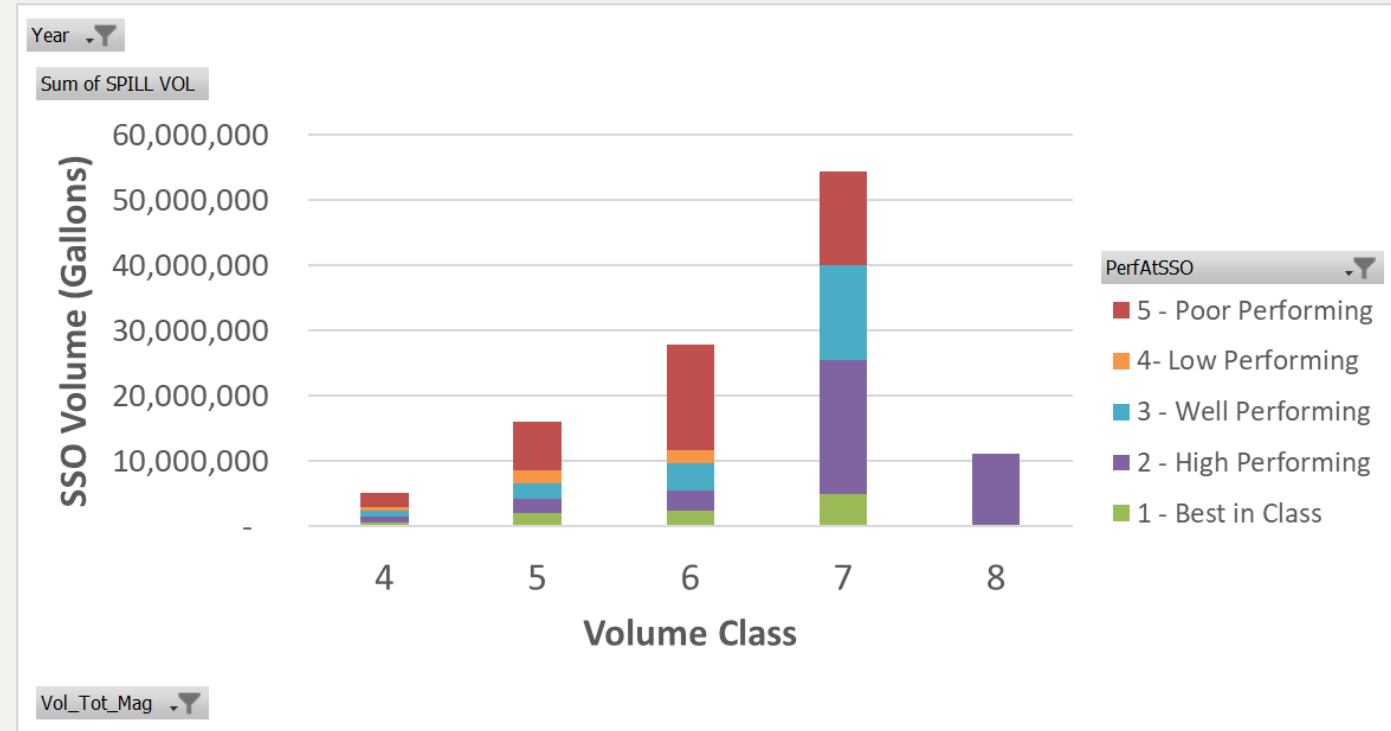
Large SSOs over the past 5 years

Majority of large events were caused by poor and low performing systems



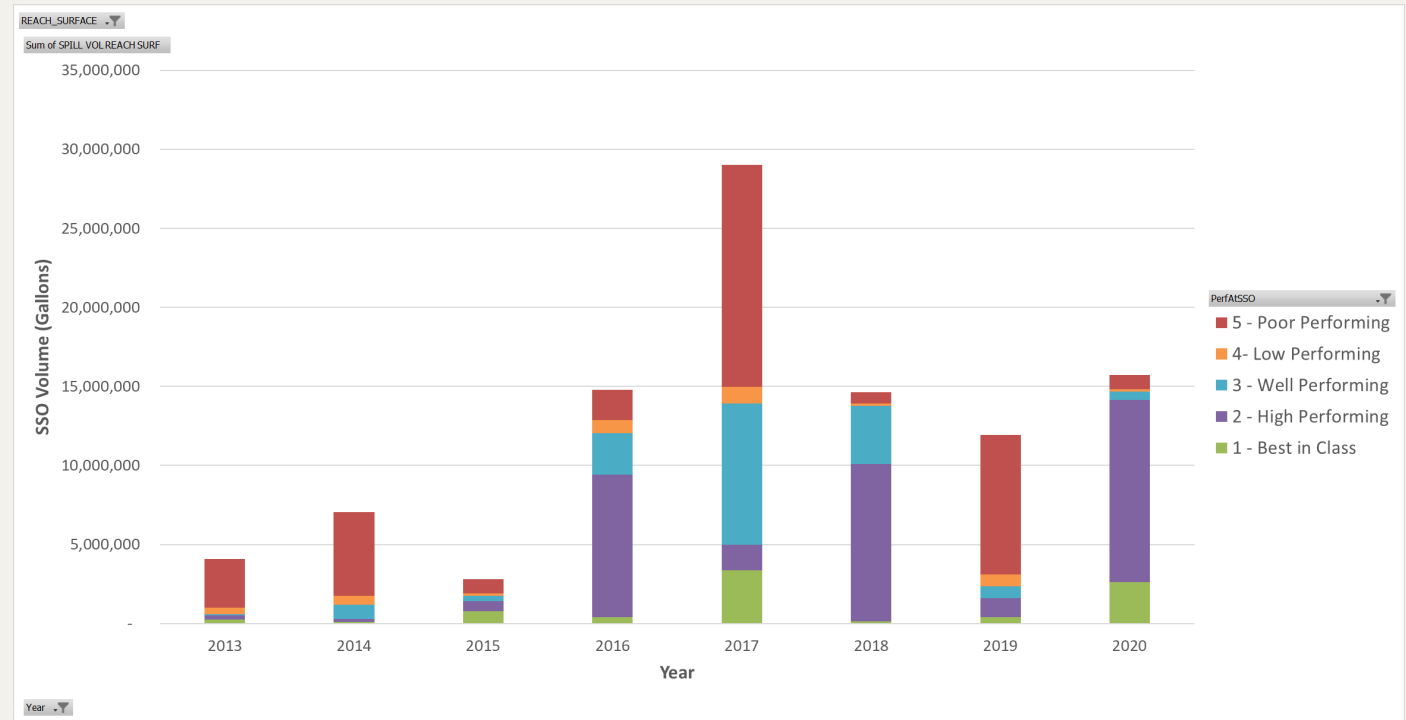
Large SSOs over the past 5 years

But...the majority of volume was discharged by well and high performing systems



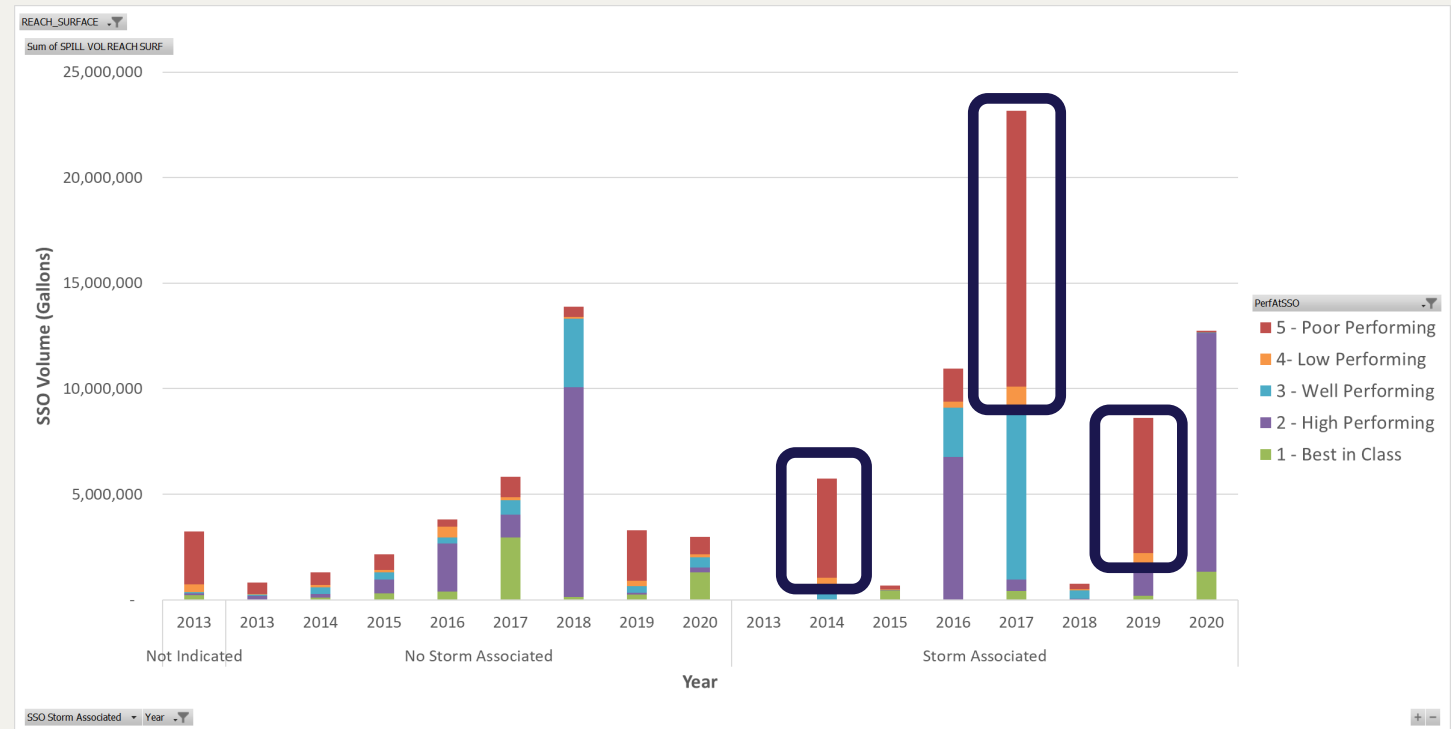
Spills to Surface Waters over the Past 5 years

- Volume spilled has increased
- Significant portion spilled by well and high performing systems



Spills to Surface Waters over the Past 5 years

- Volume spilled has increased
- Significant portion spilled by well and high performing systems
- Poor performing systems acutely affected by storms



Where is our Focus?



Takeaways for Small to Large Agencies

Agency Size Category	Number of Agencies	Miles Managed	Volume Spilled to Surface Waters	Percentage of Total Volume Spilled to Surface	Average Volume Spilled to Surface Waters per
Large	24	39,021	37,140,719	43%	1,547,530
Medium	149	37,538	24,870,251	29%	166,914
Small	126	7,522	18,633,881	22%	147,888
Micro	98	1,391	5,415,277	6%	55,258
Grand Total	397	85,472	86,060,128	100%	216,776

- Fundamentals in place
- High likelihood, lower impact spills being managed

Moving forward...

focus on reducing lower likelihood, higher volume spill events

Takeaways for Micro Agencies

Agency Size Category	Number of Agencies	Miles Managed	Volume Spilled to Surface Waters	Percentage of Total Volume Spilled to Surface	Average Volume Spilled to Surface Waters per
Large	24	39,021	37,140,719	43%	1,547,530
Medium	149	37,538	24,870,251	29%	166,914
Small	126	7,522	18,633,881	22%	147,888
Micro	98	1,391	5,415,277	6%	55,258
Grand Total	397	85,472	86,060,128	100%	216,776

- Still need to work on fundamentals
- Managing smaller flows, so they don't have the "big spills"

Moving forward...

focus on fundamentals (cleaning, inspection, condition, capacity)

Our Work is Important



THANK YOU

Michael Flores, HDR

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