

ATTACHMENT 3

Prosecution Team, Brief

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BEFORE THE CENTRAL COAST
REGIONAL WATER QUALITY CONTROL BOARD

In the Matter of:

CARPINTERIA SANITARY DISTRICT,

ACLC NO. R3-2015-0011

) PROSECUTION TEAM OPENING
) BRIEF

-) 1. Opening Brief
) 2. Evidentiary Stipulation
) 3. Evidence List
) 4. Witness List

) April 15, 2015

Consistent with the Hearing Procedures in this matter, the Prosecution Team for the Regional Water Quality Control Board, Central Coast Region (Prosecution Team) submits this Opening Brief. A number of issues have been resolved by stipulation between the Parties, including certain penalty factors, the volume of the October 2012 discharge, and the assessment of mandatory minimum penalties (MMPs). Therefore, those items will not be briefed, and additional evidence on those issues will not be submitted.

Carpinteria Sanitary District (Carpinteria or Discharger) is a well-run facility. It received the 2014 "Collection System of the Year" award from the Tri-Counties Section of the California Water Environment Association. However, neither the State Water Resources Control Board's Enforcement Policy (Enforcement Policy), nor the Central Coast Water Board's permit issued to Carpinteria¹, allow a "pass" for a significant violation based on a mostly positive compliance

¹ Carpinteria is authorized to discharge pursuant to Waste Discharge Requirements (WDRs) Order No. R3-2011-0003

[Footnote continued on next page.]

1 history. The Enforcement Policy does appropriately consider compliance history, and the
2 Prosecution Team has followed the Enforcement Policy in calculating the proposed liability based
3 on Carpinteria's compliance history and other factors related to the violation.

4 This matter involves a number of MMPs (which Carpinteria has stipulated to the imposition
5 of) involving maximum chlorine effluent limitations and settleable solids, as well as a discharge of
6 almost 300,000 gallons of non-chlorinated effluent to the Pacific Ocean on October 3, 2012. The
7 fundamental issue on which the Parties disagree is how to penalize this 300,000 gallon discharge.
8 The Prosecution Team's position is that given the volume of the discharge and potential harm to
9 beneficial uses, the discharge must be characterized as a violation that gives rise to discretionary
10 liability, rather than a violation for which only the "mandatory minimum penalty" amount is
11 imposed. This is an important, precedent setting decision. The Prosecution Team does not want to
12 set a precedent where large volume, partially-treated discharges are resolved through payment of
13 mandatory minimum penalties, which are typically \$3,000, or equivalent discretionary penalties, as
14 this would not serve as a sufficient deterrent. This is especially important in cases such as this,
15 where Carpinteria failed to have an alarm or backup system to eliminate or minimize the discharge
16 of partially-treated waste when a key pump failed. Characterizing this violation as a "minimum"
17 penalty violation is not consistent with the Enforcement Policy.

18 ARGUMENT

19 **I. The Prosecution Team's Penalty Recommendations are Fair and Appropriate**

20 **A. Stipulated Factors Will Not Be Briefed, Including Volume**

21 In addition to the five MMPs, Carpinteria stipulated to a number of other allegations in the
22 administrative civil liability complaint (ACLC), to narrow issues for hearing. Therefore, the
23 Prosecution Team will not brief the following issues:
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27 (NPDES No. CA-0047364). Exhibit 1. Related documents, such as the Central Coast Regional Board's Basin Plan
28 and the Ocean Plan are also referenced on the Prosecution Team's Exhibit List, as Exhibit 2.

- Volume of the October 3, 2012 discharge, which is 297,896 gallons, consistent with the available SCADA (Supervisory Control and Data Acquisition System) data;
- Susceptibility to cleanup and abatement (scored at a 1);
- The per gallon penalty, reduced from the maximum of \$10.00 per gallon to \$2.00 per gallon, taking into account the high volume discount, exercised in the Prosecution Team’s discretion;
- History of violations (scored at a 1);
- Carpinteria’s ability to pay the recommended penalty or a penalty adjusted by the Central Coast Water Board;
- The rate at which staff time will be calculated (\$125/hour).

B. Factors Remaining In Dispute

The Prosecution Team used the State Water Board’s Enforcement Policy methodology to arrive at the penalty recommended in the ACLC. The methodology uses factors that describe the discharge and the Discharger’s conduct. Refer to the Enforcement Policy and Attachment A of the Complaint.

(i) Harm.

The October 3, 2012 discharge consisted of undisinfected effluent to the Pacific Ocean. The outfall is located approximately 1,000 feet offshore at a depth of 25 feet. The Prosecution Team selected a factor of 2, “below moderate,” to reflect the harm or potential harm that may have resulted from exposure to the pollutants in the illegal discharge. The most sensitive beneficial uses for this discharge are Water Contact Recreation (REC-1) and Shellfish Harvesting (SHELL).²

No receiving water monitoring data were collected during and after the discharge even though the permit required monitoring for total coliform, fecal coliform and enterococcus for seven days after the loss of disinfection. Although a Water Board staff member erroneously told

² There is significant overlap between the beneficial uses of Commercial and Sport Fishing (COMM), Aquaculture (AQUA), Marine Habitat (MAR), and Shellfish Harvesting, but for brevity, we will refer to all four as Shellfish Harvesting.

1 Carpinteria it did not have to conduct the required sampling, the permit does not allow Carpinteria
2 or Water Board staff to make that determination. Conversations with Water Board staff do not
3 override permit requirements. Carpinteria knew of the permit requirements, and its decision to not
4 collect the required monitoring was a risk it took, and should not be rewarded by allowing the
5 subsequent lack of data to be interpreted as causing or threatening to cause “no harm,” especially in
6 an area with contact recreation and shellfish harvesting. Moreover, the presence or absence of such
7 monitoring data is not a primary determining factor regarding harm. In enforcement cases
8 regarding spills, there is usually a lack of such data, and a general qualitative assessment of
9 “potential” harm is applied. Even with comprehensive monitoring data, evidence of harm to a
10 degree of statistically significant certainty is extremely rare. However, Carpinteria did collect very
11 limited monitoring data in response to the Prosecution Team’s 13267 Order, and the Prosecution
12 Team used this information to determine potential harm.

13 Carpinteria analyzed one sample of undisinfected effluent. Total coliform and fecal
14 coliform in this sample was 160,000 MPN (most probable number) per 100 mL and 92,000 MPN
15 per 100 mL with 95% confidence intervals ranging from 40,000 to 460,000 and 22,000 to 260,000
16 MPN per 100 mL respectively. This result is within the range of expected values for secondary
17 treatment (*see* Exhibit 18) and well above the effluent limit of 2,300 MPN instantaneous maximum
18 for total coliform. (*see* Exhibit 1, pg. 10)

19 Two methods were used to estimate the indicator bacteria concentration in the ocean after
20 the initial zone of dilution at the outfall. The first method was to use the permit established
21 dilution factor of 93:1 and apply this dilution factor to the effluent sample above. This results in an
22 estimated ocean water concentration of 1,720 (430 – 4,950 (95% confidence interval)) MPN per
23 100 ml for total coliform and 989 (237 – 2,800) MPN per 100 ml for fecal coliform. The second
24 method was to spike a sample of secondary effluent with a 93:1 ratio dilution of ocean water.
25 Carpinteria also used this approach with a result of 490 (150 – 1,500) MPN per 100 mL for total
26 coliform and 330 (100 – 1,000) MPN per 100 mL for fecal coliform. This second method leads to
27 lower estimated concentrations than the first.

28 The relevant receiving water limitations for water contact recreation in the permit for this
discharge are 1,000 CFU per 100 mL for total coliform density when the fecal to total coliform

1 ratio exceeds 0.1 (which it would for this incident) and 400 CFU per 100 ml for fecal coliform for
2 the zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot
3 depth contour, whichever is further from the shoreline (*see* Exhibit 1, pg. 15). For all areas where
4 shellfish may be harvested for human consumption, the median total coliform density shall not
5 exceed 70 organisms per 100 mL and in not more than 10 percent of the samples shall not exceed
6 230 organisms per 100 mL (*see* Exhibit 1, pg. 16). The waters from Coal Oil Point to Rincon Point
7 have been designated as having existing uses for shellfish harvesting. Also noteworthy is that the
8 California Department of Public Health limit for commercial shellfish harvesting is 14 MPN per
9 100 mL (*see* Exhibit 4).

10 Considering the receiving water limitations and the estimated concentrations of the
11 discharge in the ocean, the discharge caused exceedances of receiving water limitations for
12 shellfish harvesting and likely caused exceedances of receiving water limitations for recreational
13 water use.

14 As noted above, the Prosecution Team selected a factor of 2, “below moderate.” “Below
15 moderate” is defined as: Less than moderate threat to beneficial uses (i.e., impacts are observed or
16 reasonably expected, harm to beneficial uses is minor). Sampling results, had *Carpinteria* collected
17 samples as its permit, would have likely pushed this score higher; any argument that the factor
18 should be reduced is based on *hypothetical* data. If sampling revealed that exceedances lasted for
19 several days, this factor easily could have been scored a 4 (above-moderate risk: impacts are
20 observed or likely substantial, temporary restrictions on beneficial uses (e.g., less than 5 days)).
21 However, neither the Prosecution Team nor *Carpinteria* should be allowed to rely on *hypothetical*
22 data. *Carpinteria*’s failure to sample and have this information should not allow it to argue that the
23 discharged waste was less harmful than what would otherwise be reasonably expected. The
24 Prosecution Team’s selection of a 2 is therefore fair based on *available* data.

25 In addition to selecting the appropriate harm factor based on available date, the Prosecution
26 Team asserts that the overall penalty is appropriate and no adjustment needs to be made under Step
27 7, “other factors as justice may require.” For example, a harm selection of 0, with no changes to
28 other selected factors, would result in a base liability of \$8,000 for the 300,000 gallon discharge. A
factor of 1, \$10,000. The Prosecution Team’s selected factor of 2 resulted in a penalty of \$60,000.

1 If the Prosecution Team had selected a factor of moderate (impacts are observed or reasonably
2 expected), the penalty would have increased to \$90,000. A factor of 4 would have increased the
3 penalty to \$120,000 and a factor of 5, to \$241,000. Not only was the harm factor appropriate in
4 considering that factor alone, but in considering the final recommended penalty for the discharge.

5 **(ii) Enforcement Has Been Taken for Similar Discharges**

6 It is important to keep in mind that the Prosecution Team is recommending an
7 approximately \$60,000 penalty for a discharge of approximately 300,000 gallons of partially-
8 treated effluent, exclusive of staff costs. Other dischargers have been penalized to a much greater
9 extent for similar discharges. The City of Redding was assessed penalties of more than \$1 million
10 when it discharged partially-treated effluent during rain events. (Exhibit 13) Napa Berryessa was
11 assessed over \$500,000 in penalties when it discharged secondarily-treated effluent from
12 overflowing ponds, but ultimately accepted \$190,000 in penalties when it agreed to an accelerated
13 Time Schedule Order pursuant to Water Code section 13308 to enlarge the ponds. (Exhibits 14 and
14 15)

15 In short, enforcement is not reserved for discharges of raw sewage.

16 **(iii) Physical, Chemical, Biological or Thermal Characteristics of the Discharge**

17 While Factor 1 (harm to beneficial uses) considers the environment where the discharge
18 occurred and the impacts or potential impacts to beneficial uses, Factor 2 considers the type of
19 waste or pollutant discharged. The Prosecution Team selected a 2 for Factor 2 (a score of
20 moderate) because undisinfected effluent contains elevated levels of pathogens.

21 Primary and secondary wastewater treatment processes reduce some pollutants in large
22 amounts (e.g., suspended solids, biological oxygen demand). However, as seen in Exhibit 18, these
23 processes only result in small reductions of biological pathogens (as indicated by bacteria such as
24 coliforms). This is the reason why disinfection is a key wastewater treatment process; to reduce the
25 levels of pathogens.

26 The Prosecution Team could have easily chosen a value of 3; that is, the discharged material
27 poses an above-moderate risk or direct threat to potential receptors, consistent with sewage
28 discharges that contain a high level of pathogens. In general, even large sewage spills that have
been diluted by inflow and infiltration have been scored as a 3 due to the high levels of pathogens

1 (see recent settlement agreements in the region for Santa Cruz and Cambria, Exhibits 16 and 17).
2 The recommended base liability would have been \$90,000 for this discharge had the Prosecution
3 Team selected a 3, and kept all other factors the same.

4 **(iv) Deviation from Requirement³**

5 The Prosecution Team selected a “moderate” deviation from requirement, meaning that the
6 permit requirement has been partially compromised. Carpinteria’s permit prohibits impermissible
7 discharges, and therefore most discharges are considered a “major” deviation from this
8 requirement. The Prosecution Team chose the more conservative moderate. The permit
9 requirement to chlorinate was partially compromised for more than five and a half hours without
10 alarm systems in place to notify operators. Furthermore, Carpinteria failed to have safeguards (e.g.,
11 alarms) to ensure maximal compliance with the permit.

12 **(v) Culpability**

13 The Prosecution Team scored culpability as a 1.1, which serves to increase the penalty
14 slightly. Carpinteria failed to install a low- chlorine-dosage alarm system that would have
15 immediately notified plant operators of a chlorination failure, which would have minimized the
16 length of time and volume of the discharge. The State Water Resources Control Board’s Manual
17 for Wastewater Chlorination and De-Chlorination Practices provides a relevant industry standard
18 for alarms in this context:

19 Alarms – Every chlorination facility should have an alarm system that adequately alerts the
20 operators in the event of deficiencies, malfunctions, or hazardous situations related to
21 chlorine supply, chlorine metering equipment, chlorine leaks, and chlorine residual.

22 (Exhibit 6, p. 51) Carpinteria indicated in its Water Code section 13267 response that the discharge
23 commenced at approximately 4:08 a.m., and the discharge lasted for over 5 ½ hours because of the
24 lack of alarm. The operator only discovered the pump failure when doing rounds at 9:30 a.m. and

25
26 ³ Based on the Prosecution Team’s selection of a 2 for harm and a 2 for discharge characteristics, and the stipulated
27 factor of 1 for susceptibility of the discharge to cleanup or abatement, the sum of the initial step 1 factors is a total of 5
28 [2 + 2 + 1 = 5]. This score is used, with the deviation from requirement selection to determine the appropriate base
liability. See Enforcement Policy, p. 14. Using the chart on page 14, a score of moderate results in 10% of the
maximum penalty being applied to this discharge (0.100).

1 the pump began functioning with the new chlorine delivery. While the cause of the discharge was
2 never determined, the failure to install redundant detection equipment in order to minimize
3 discharges and potential water quality impacts warrants a score of 1.1 for culpability.

4 **(vi) Cleanup and Cooperation**

5 For this factor, the Prosecution Team selected 0.9, which serves to reduce the base liability.
6 After the discharge occurred, Carpinteria did install an alarm to notify staff in the event of a low
7 chlorine condition, consistent with the permit standard provisions cited in ACLC and Attachment
8 A. In addition, Carpinteria was cooperative with all Prosecution Team investigation requests for
9 information.

10 **(vii) Economic Benefit**

11 The two items included in Carpinteria's economic benefit are the failure to install a low
12 chlorine dosage alarm system and the failure to conduct water quality monitoring. The total cost
13 for sampling/analysis, equipment rental and labor was based on cost estimates provided by
14 Carpinteria's consultant Aquatic Bioassay & Consulting Laboratories Inc., and sampling was to
15 continue for seven days as expected by the permit.

16 The U.S. Environmental Protection Agency developed the BEN computer model to
17 calculate the economic benefit a discharger derives from delaying and/or avoiding compliance with
18 environmental regulations.⁴ The BEN model was used in calculating the economic benefit derived
19 by Carpinteria of not complying with existing environmental regulations and requirements. The
20 Enforcement Policy states (p. 21) that the total liability shall be at least 10% higher than the
21 economic benefit, "so that liabilities are not construed as the cost of doing business and the
22 assessed liability provides a meaningful deterrent to future violations." For this case, this would
23 result in a minimum liability of at least \$28,087.40 for the discretionary penalty attributed to the
24 October 3, 2012 discharge, since the economic benefit is \$25,534.

25 Based on the penalty factors selected by the Prosecution Team, all of which are reasonable

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27 ⁴ BEN Version 4.6.0 was developed under the direction of Jonathan Libber, BEN/ABEL Coordinator, Office of
28 Enforcement and Compliance Assurance, U.S. EPA. Technical assistance provided to EPA by Industrial Economics,
Incorporated (IEc), Cambridge, MA. <http://www.epa.gov/compliance/civil/econmodels/>

1 if not conservative, economic benefit is captured by the recommended penalty.

2 **II. Staff Costs Need to Be Included in the Penalty Award**

3 This is an enforcement action which has taken considerable effort. As is proper under
4 Water Code section 13385 and the Enforcement Policy, staff costs should be added to any
5 recommended penalty. “The costs of investigation and enforcement are ‘other factors as justice
6 may require’ and should be added to the liability amount.” Enforcement Policy, p. 19. The costs
7 include in this case investigating the violations, participating in settlement discussions, preparing
8 the ACLC and Attachment A, and preparing for the hearing. Staff costs were estimated at \$22,000
9 when the ACLC was issued, and will continue through hearing. Staff time is valued at \$125, as
10 stipulated by Carpinteria. Attachment A to the ACLC provides a summary of the staff costs the
11 Prosecution Team is seeking.⁵

12 It should be noted that the Prosecution Team did not seek to recover the staff costs of
13 Michael Thomas, Harvey Packard, Todd Stanley, Thea Tryon, Julie Macedo, or David Boyers. The
14 staff costs figure therefore underestimates the amount required to bring this matter to resolution.

15
16 **III. Conclusion**

17 Many issues in this matter are not in dispute. The Discharger has admitted that the
18 discharge occurred, has stipulated to its volume, and has cooperated in large part, which is reflected
19 in the recommended penalty. The key remaining issue is how to properly penalize a significant
20 discharge of almost 300,000 gallons. The Prosecution Team evaluated the discharged material, the
21 beneficial uses, and other factors as required by the Enforcement Policy, as well as other
22 enforcement matters taken in this region and around the state to determine what was appropriate.
23 The Prosecution Team requests that the Central Coast Water Board enter an Order consistent with
24 the recommended liability in the ACLC.

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26 _____
27 ⁵ All personnel who are seeking staff costs will be present at the hearing and subject to cross-examination. WRCE1 is
28 Leo Sarmiento, WRCE2 is Jim Fischer, and SR WRCE is Matthew Buffleben. Mr. Fischer is not listed as a witness
because cross-examination is not counted against a party’s 45-minute presentation total.

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April 15, 2015



Julie Macedo,
Senior Staff Counsel, Office of Enforcement
State Water Resources Control Board

Carpinteria Sanitary District
ACLCL No. R3-2015-0011
Prosecution Team Evidence List for May 29, 2015 Hearing
April 15, 2015

Exhibit 1: Carpinteria NPDES Permit

Provided by reference (specific citations are set forth in ACLC):

http://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2014/2011-0003_carpinteria_sd.pdf

Exhibit 2: Water Quality Control Plan for the Central Coastal Basin (June 2011) (aka Basin Plan/Ocean Plan)

Provided by reference (specific citations are set forth in ACLC):

http://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/docs/basin_plan_2011.pdf

Exhibit 3: Carpinteria Monitoring Report – October 2012

Exhibit 4: 2012 Management Plan for Commercial Shellfish Growing Area Lease M-653-02 in Santa Barbara, California

Exhibit 5: 2015 Management Plan for Commercial Shellfish Growing Area Lease M-653-02 in Santa Barbara, California

Exhibit 6: Manual for Wastewater Chlorination and Dechlorination Practices (Publication No. 53-A); California State Water Resources Control Board, March 1981; Cited Excerpt Provided

Provided by reference:

http://www.waterboards.ca.gov/publications_forms/publications/general/docs/manual_ww_chlorination.pdf

*Please note that this document scan appears to be internally corrupted (see for example the final page of the Table of Contents). We have provided the cover and page cited in the brief.

Exhibit 7: Central Coast Water Board Order Pursuant to CWC Section 13267

Exhibit 8: Carpinteria 13267 Response (also includes a CD with oversize/technical data)

Exhibit 9: Central Coast Water Board follow up questions and Carpinteria Response

Exhibit 10: Declaration of Bryan Elder regarding Economic Benefit

Exhibit 11: February 16, 2012 PG Environmental, LLC NPDES Compliance Evaluation Inspection Reports

Exhibit 12: CEDEN Data for Carpinteria State Beach for September/October 2012

Exhibit 13: City of Redding Settlement Agreement

Exhibit 14: Napa Berryessa Settlement Agreement

Exhibit 15: Napa Berryessa Time Schedule Order

Exhibit 16: Santa Cruz Settlement Agreement

Exhibit 17: Cambria Settlement Agreement

Exhibit 18: *Wastewater Engineering: Treatment and Reuse* (4th Ed.); George Tchobanoglous, et al. (2003).

Please note that certain documents are provided by reference only, pursuant to California Code of Regulations, Title 23, § 648.3, which provides:

Evidence by Reference. Public records of the Board that are relevant to the subject of the hearing, and books, reports, and other evidence that have been prepared and published by a public agency, if otherwise admissible, may in the discretion of the Board be received in evidence as exhibits by reference without the necessity of supplying copies to the Board and other parties, provided the original or a copy is in the possession of the Board and the specific file folder or other exact location where it can be found is identified. The party offering an exhibit by reference shall designate the particular portions on which the party relies. Each exhibit shall be appropriately identified and designated in the record as an exhibit of the party offering the exhibit or an exhibit of Board staff.

Documents provided by reference are due to the length of such documents; if the Board or the Discharger wishes for the Prosecution Team to provide paper or electronic copies of such documents, they will be furnished upon request.

Carpinteria Sanitary District
ACLCL No. R3-2015-0011
Prosecution Team Witness List for May 29, 2015 Hearing

Pursuant to the Final Hearing Procedure, each party has been granted 45 minutes of time for use at hearing.

a. Matthew Buffleben, Ph.D (10 minutes)

Senior Water Resource Control Engineer, Supervisor of the Special Investigation Unit, Office of Enforcement, State Water Resources Control Board

Dr. Buffleben's testimony will cover previous regulatory actions against other dischargers and the Prosecution Team's selection of factors under the Enforcement Policy.

b. Leo Sarmiento (10 minutes)

Water Resource Control Engineer, Special Investigation Unit, Office of Enforcement, State Water Resources Control Board

Mr. Sarmiento will testify regarding the Prosecution Team's enforcement efforts against Carpinteria, including inspecting the facility, issuing a Water Code section 13267 order and seeking a complete response and determining the cause of the discharge. He will also be prepared to testify regarding permit requirements, including alarm notifications.

c. Harvey Packard (10 minutes)

Supervising Engineer, Former Enforcement Coordinator for Central Coast Regional Water Quality Control Board

Mr. Packard will testify regarding the Central Coast's enforcement efforts for discharges from similar facilities to the extent it is raised by the Discharger. The Prosecution Team believes that the adjustment factors selected in this matter are appropriate for the region's enforcement goals and consistent with other actions taken in the region, and his testimony will reflect that.

d. Bryan Elder (5 minutes)

Water Resource Control Engineer, Special Investigation Unit, Office of Enforcement, State Water Resources Control Board

Mr. Elder will testify as to the economic benefit of the October 2012 discharge.

The Prosecution Team reserves the right to call Rebuttal Witnesses to address legal argument or testimony by the Discharger. Testimony descriptions reflect the evidentiary stipulations reached in this matter.