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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY
CAMDEN VICINAGE**

DELAWARE RIVERKEEPER NETWORK
and the DELAWARE RIVERKEEPER,

Plaintiffs,

v.

SOIL SAFE, INC.,

Defendant.

Civil No. 1:14-cv-01349-RMB-KMW

Electronically Filed

**STATEMENT OF UNDISPUTED MATERIAL FACTS IN SUPPORT OF
DEFENDANT SOIL SAFE, INC.'S MOTION FOR SUMMARY JUDGMENT**

Pursuant to Local Civil Rule 56.1(a), Defendant Soil Safe, Inc. (“Soil Safe”) submits the following Statement of Undisputed Material Facts in support of its motion for summary judgment as to all remaining claims of Plaintiff Delaware Riverkeeper Network and the Delaware Riverkeeper (collectively, “Plaintiffs”).

STATEMENT OF UNDISPUTED MATERIAL FACTS

Permitting and Operations of Soil Safe’s Logan Recycling Center

1. Soil Safe’s Logan Recycling Center is located in Logan Township, Gloucester County, New Jersey. [Dkt. No. 1 (“Compl.”) at ¶ 7]; (Declaration of Christopher R. Gibson, (“Gibson Decl.”), Ex. A at 2.)
2. The Logan Recycling Center is located on a portion of the approximately 165-acre Birch Creek property (“Birch Creek site”), which is owned by Soil Safe and is the subject of a remedial action. (Id.)
3. The Logan Recycling Center is a “recycling center for Class B recyclable materials” as defined in New Jersey’s Recycling Regulations. See N.J.A.C. 7:26A-1.3.
4. Soil Safe’s recycling operation is governed by multiple New Jersey Department of Environmental Protection (“NJDEP”) and local authority issued permits, including a Class B Recycling Permit issued by the NJDEP. (See Gibson Decl. Ex. A.)
5. The Class B Recycling Permit issued in December 2003, was modified on several occasions, and was renewed in April 2009, and again in January 2014. (See Compl. at ¶ 16; Gibson Decl. Ex. A at 1.)
6. The Logan Recycling Center operations are inspected by numerous regulatory agencies, including the NJDEP’s Water Quality, Air, Solid Waste, Land Use, and Site Remediation Program units, the United States Environmental Protection Agency (“USEPA”), the Gloucester County Health Department, and Logan Township. (See Affidavit of Albert P. Free,

P.E. (“Free Aff.”) at ¶ 10.)

7. Soil Safe recycles the petroleum impacted soil it accepts using a number of processes. (See Free Aff. at ¶¶ 9-15.)

8. Those processes include mixing the soil with cementitious additives (sometimes referred to as “pozzolanic” additives) such as cement kiln dust (“CKD”). (*Id.* at ¶ 9.)

9. Mixing with CKD increases the pH, improves geotechnical properties and handling characteristics, and produces a soil cement Product meeting end use specifications as capping material. (*Id.* at ¶¶ 9-11, 13.)

10. The other elements of the Soil Safe recycling process include blending of incoming soil with varying geotechnical properties to form a consistent feedstock, screening of oversized materials, and processing of the screened soil through a pugmill. (*Id.* at ¶ 9.)

11. This recycling process creates a Product that, when placed and compacted, has improved geotechnical strength and stability and low permeability to water. (*Id.* at ¶ 13.)

12. Those characteristics make it useful for both for remedial capping and as a base for future redevelopment. (*Id.*)

Use of Logan Recycling Center’s Product

13. The Class B Recycling Permit authorizes use of Soil Safe Product at three specified “End Markets Sites”: (1) the Birch Creek site, owned by Soil Safe; (2) the Logan Equine Park, owned by the Gloucester County Improvement Authority (“GCIA”); and (3) the Gloucester County Park site (“County Park”), owned by the GCIA. (Compl. at ¶¶ 22-25; Gibson Decl. Ex. A at 2.)

14. Soil Safe places the Product at the County Park in accordance with the Class B Recycling Permit and an NJDEP-approved Remedial Action Workplan (“RAWP”). (Compl. at

¶¶ 34, 37; Gibson Decl. Ex. A at 2.)

15. Soil Safe places the Product at the County Park under the supervision of a Licensed Site Remediation Professional (“LSRP”). (See Free Aff. at ¶ 3.)

16. The County Park was contaminated through decades of use as a depository for dredge spoils and from application of agricultural pesticides. (See Free Aff. at ¶ 16.)

17. The NJDEP approved the RAWP for the County Park in November 2008. (Compl. at ¶ 35; Gibson Decl. Ex. W.)

18. Approval of the RAWP was supported by a 14-month study and review, with permits and approvals for the project being obtained from the United States Army Corps of Engineers, several different units of the NJDEP (Site Remediation Program, Land Use, and the Historic Preservation Office), the Gloucester Soil Conservation District, the Gloucester County Health Department, the GCIA, the Gloucester County Board of Chosen Freeholders, and Logan Township. (See Free Aff. at ¶ 17.)

19. The review involved a range of technical studies, including a full ecological inventory, a comprehensive evaluation of the Product to be used at the site, and a baseline Ecological Evaluation that included a baseline ecological assessment, ecological modeling and a comprehensive evaluation of potential impacts to aquatic and terrestrial ecosystems. (Id.)

20. Shipment of Soil Safe Product and construction of the cap at the County Park began in March 2009. (Id. at ¶ 18.)

21. The RAWP employs a multilayer cap design. (See Gibson Dec. Ex. B at 10, Figure 2.3.) The cap design in the GCP RAW provides the geometric relief needed for stormwater management. (Affidavit of Dr. Craig H. Benson (“Benson Aff.”) at ¶ 29.)

22. It also provides an aesthetically pleasing surface appropriate for a park. On top of

the contouring layer is a seeded layer of topsoil at least one foot thick. (Benson Aff. at ¶ 29.)

23. Soil Safe Product has been placed at the County Park and compacted in compliance with the grading plan and capping remedy requirements set forth in the RAWP. (Free Aff. at ¶ 18.)

24. The County Park capping project is approximately 85% complete. (*Id.*)

25. In many areas of the County Park, the cap has been fully constructed, including placement of the final 12-inch topsoil layer and seeding with grass seed, while in other areas, placement of Product continues. (*See* Benson Aff. Ex. B at Fig. 6.)

Sampling Performed on the Product Used at the County Park

26. The County Park RAWP requires that Soil Safe Product placed at the County Park site must meet New Jersey's Residential Direct Contact Soil Cleanup Criteria ("RDCSCC"). (*See* Gibson Decl. Exs. B, W.)

27. The soil shipped to the County Park for use in the cap is sampled and analyzed at least twice before shipment. (*See* Free Aff. at ¶¶ 19-25.)

28. In accordance with the Class B Recycling Permit, prior to acceptance at Soil Safe's Logan Recycling Facility the soil is tested for total petroleum hydrocarbons ("TPH"), as well as a variety of other constituents (volatile organic compounds ("VOCs"), metals, polychlorinated biphenyls ("PCBs"), semi-volatile organic compounds ("SVOCs"), polycyclic aromatic hydrocarbons ("PAHs")), and is subject to Toxicity Characteristic Leaching Procedure ("TCLP") testing to verify that the soil is non-hazardous. (*Id.* at ¶ 21.)

29. Only soil that meets the limits set forth in the Class B Recycling Permit is accepted at the Logan Recycling Facility. (*Id.* at ¶ 19.)

30. For the soil ultimately sent to the County Park after recycling, more than 16,600

samples were analyzed for TPH, and more than 8,500 samples were analyzed for the other permit parameters prior to acceptance by Soil Safe. (Free Aff. at ¶ 21.)

31. Soil Safe samples the Product created through the recycling process before it is shipped to the County Park. (See Free Aff. at ¶¶ 22-25.)

32. This occurs pursuant to a Sampling and Analysis Plan reviewed and approved by the NJDEP in 2008 as part of the NJDEP-approved RAWP for the County Park. (Id. at ¶ 22.)

33. In accordance with the Sampling and Analysis Plan, one grab sample is collected for every 200 cubic yards of engineered fill Product produced. (Id. at ¶ 24.)

34. Ten grab samples are blended, and a sample is taken from the composite for analysis by a certified independent laboratory (excluding VOC samples, which are not composited but analyzed separately). (Id.)

35. This sampling procedure results in an analysis of the Soil Safe Product of a rate of one sample per 2,000 cubic yards of Product. (Id.)

36. To date, more than 8,850 grab samples of the Soil Safe Product shipped for placement at the County Park have been collected. (Id. at ¶ 25.)

37. More than 885 composite samples have been analyzed for the Target Compound List and Target Analyte List (“TCL/TAL”) as well as TPH. (Id.)

38. Another 885 additional discrete samples have been analyzed for VOCs. (Id.)

39. The samples are analyzed by New Jersey Certified Analytical Laboratories. (Id. at ¶ 22.)

40. The data generated from the analyses is submitted to an independent New Jersey Professional Engineer to be certified and then sent to the LSRP for review and final approval. (Id. at ¶ 26.)

41. The data is then provided to the GCIA for review and approval, and reported to the NJDEP. (Id.)

42. None of the samples analyzed for Product placed at the County Park have exceeded the applicable RDCSCC for any of constituents that the NJDEP requires Soil Safe to sample for. (Id. at ¶¶ 27, 29.)

Involvement of Soil Safe Competitor Clean Earth, Inc. – Through its Paid Agent Andrew Voros – in Instigating This Action

43. Andrew Voros currently lives in North Brunswick, New Jersey. (See Gibson Decl. Ex. C at 6:20-21.)

44. His home town is Rahway, New Jersey. (Id. at 20:6-7.)

45. He is a member of the Rahway River Association, an association with no connection to the Delaware River or any of the End Market Sites at issue in this case. (Id. at 23:5-24:19.)

46. Mr. Voros testified at his deposition in this case that he began researching Soil Safe's Logan Township operation as part of his opposition to Soil Safe's proposed new operation in Carteret (the "Rahway Arch Project"). (Id. at 78:17-79:21; 167:3-8.)

47. Mr. Voros had a prior relationship with Clean Earth that dated back to 1995 with a project called the Bark Camp Demonstration Project ("the Bark Camp Project"). (Id. at 71:1-13.)

48. Clean Earth's current Executive Vice President Steve Sands worked with Mr. Voros on the Bark Camp Project. (Id. at 70:1-3.)

49. Clean Earth hired Mr. Voros as a consultant, whose task was to research Soil Safe's existing Logan Township operation to try to find information suggesting violations, improprieties, negative consequences, etc. (Id. at 68:21-69:7; 153:5-13.)

50. Mr. Voros's primary contact at Clean Earth for this consulting work relating to Soil Safe was Steve Sands. (Id. at 147:20-148:2; 154:23-156:7.)

51. Mr. Voros testified at deposition that since 2010 or 2011 he has been paid over \$100,000 by Clean Earth in his consultant role investigating Soil Safe's operations. (Id. at 147:3-6.)

52. Mr. Voros took the information regarding Soil Safe he had collected for Clean Earth and brought it to the Delaware Riverkeeper Network ("DRN"). (See Gibson Decl. Ex. D at 19:22-20:1; 24:12-16.)

53. Through a contact at New Jersey Conservation Foundation, another environmental advocacy group that was working with Mr. Voros to oppose Soil Safe's Rahway Arch Project, Mr. Voros set up a meeting with DRN. (See Gibson Decl. Ex. C at 151:15-17; Gibson Decl. Exs. Y, Z.)

54. At that meeting, which occurred at the West Deptford Public Library in July 2012, Mr. Voros presented to DRN his allegations regarding Soil Safe's Logan Township operation. (See Gibson Decl. Ex. D at 17:1-18.)

55. On November 6, 2012, in the next written communication between Mr. Voros and DRN following the initial July 2012 meeting, DRN's Fred Stine wrote in an e-mail that DRN had nothing but "two copies of Soil Safe 'Overviews' and 'Background' as well as my notes from our West Deptford meeting." (See Gibson Decl. Ex. E.)

56. In that same e-mail, Mr. Stine wrote, "I think we [DRN] should . . . participate in this litigation." (Id.)

57. At the next meeting between Mr. Voros and DRN that occurred after the November 6, 2012 e-mail, multiple attorneys were in attendance. (Gibson Decl. Ex. D at 59:12-

60:3.) According to a post-meeting follow-up e-mail, litigation strategy was a main topic of discussion. (See Gibson Decl. Ex. F.)

58. Subsequently, Mr. Voros had multiple meetings, telephone conferences, and email exchanges with DRN personnel, including DRN in-house counsel Dan Mulvihill who drafted the Complaint and handled the early stages of litigation in the case, as well as DRN's environmental consultant for this case, Tom McKee. (See Gibson Decl. Ex. C at 105:10-12; 106:6-11; 126:6-7; 214:22-25; Ex. D at 90:16-92:2.)

Plaintiffs' Claim that Soil Safe Product is RCRA "Solid Waste"

59. Dr. Craig Benson, an expert on the beneficial reuse of materials in sustainable construction, described the Soil Safe Product as "a valuable construction material" that "replaces a virgin soil that would have to be purchased, excavated, and transported . . . at a considerably higher cost than is achieved with the Soil Safe material." (See Benson Aff. Ex. B at 15.)

61. Soil Safe's manufacturing process creates a Product that not only can be used in place of virgin soil in various filling and geotechnical stabilization applications, but actually has qualities that render it superior to virgin soil for such purposes. (Benson Aff. at ¶¶ 33, 35, 44.)

62. The Product resulting from Soil Safe's recycling process has a uniform appearance, and meets the AASHTO A-2-4 specification for fill material. (See Free Aff. at ¶ 10.)

63. New Jersey created a program to authorize and encourage the recycling and beneficial use of "source separated petroleum contaminated soil" and other Class B recyclable material. See N.J.A.C. 7:26A-1.3; see also N.J.A.C. 7:26A-1.4 (defining "beneficial use" of recycled material to include use as "fill material" or "as an effective substitute for a commercial product").

64. Class B recyclable materials (as well as any "beneficial use" materials) are not

“solid waste” under New Jersey regulations. See N.J.A.C. 7:26-1.6(a).

65. The Soil Safe Product was created, pursuant to NJDEP authorization, specifically for the purpose of use at the end market sites and, pursuant to the Class B Recycling Permit, placement at the end market sites is the only authorized use of the Product. (See Gibson Decl. Ex. A.)

66. Soil Safe does not need to use additives to encapsulate contaminants to prevent leaching, because Soil Safe only accepts incoming soil that has been tested and passes TCLP. (See Free Aff. at ¶ 21; Benson Aff. at ¶¶ 16-19.)

67. Although Soil Safe uses cementitious/pozzolanic additives (e.g., cement kiln dust) in its recycling process, it does so primarily for purposes of physical stabilization, to create an engineered fill with enhanced geotechnical properties (e.g., increased load-bearing stability and strength, decreased permeability to water) that make it well-suited for remedial capping and structural fill uses. (See Benson Aff. at ¶ 16.)

Plaintiffs’ Claim that Constituents Placed at the End Market Sites Exist at Levels That Present Human Health Risk

68. Plaintiffs’ contention that the Soil Safe’s Product is creating an “imminent and substantial endangerment” to human health at the County Park is based upon the opinion of their expert Dr. Mary Fox. (See Gibson Decl. Ex. G.)

69. Dr. Fox prepared a report in which she purported to calculate theoretical increased cancer risk associated with the presence of BaP in Soil Safe Product used at the County Park site. (Id.)

70. According to Dr. Fox, theoretical increased cancer risk greater than 1×10^{-6} (i.e., one excess cancer case per million people) is indicative of an unacceptable level of increased risk. (Id. at 8.)

71. Dr. Fox calculated a theoretical increased cancer risk of greater than 1×10^{-6} for children visitors and what she called “park construction workers”, leading her to conclude that “there may be a potential for imminent and substantial health risks” at the County Park for such persons. (Id. at 1, 5-6.)

72. The data Dr. Fox used in her report came from Appendix C of the County Park site RAWP. (Id. at 2, 5 n.1; Gibson Decl. Ex. H at 125-32.)

73. The data in Appendix C represents the results of Soil Safe’s “batch” testing of soil accepted for recycling at the Logan Recycling Center. (See Gibson Decl. Ex. B at Appendix C-1.)

74. The Appendix C data is for incoming materials not yet subject to Soil Safe’s recycling process, not the actual finished engineered fill Product placed at the end market sites. (Id.; id. at § 5.3.1.)

75. Dr. Fox testified that she was not aware of this when she prepared her report. (See Gibson Decl. Ex. H at 123-26.)

76. Dr. Fox testified that statements in her report suggesting that her calculations were based upon sampling of Soil Safe Product were “a discrepancy” and “a mistake”. (Id. at 124:10-15.)

77. The Appendix C data is for material accepted “[t]hrough the end of the third quarter of 2007”, i.e., September 2007. (See Gibson Decl. Ex. B at Appendix C-1.)

78. Soil Safe did not begin the placement of Product at the County Park site until March 2009 – one and a half years later. (See Free Aff. ¶ 18.)

79. None of the incoming soil associated with the Appendix C “batch” test results went to the County Park even after processing. (See Free Aff. at ¶¶ 31, 32; Gibson Decl. H at

129:9-13.)

80. Dr. Fox was not aware of this when she issued her expert report. (See Gibson Decl. Ex. H at 120:7-10.)

81. At Plaintiffs' request, Soil Safe provided official summaries of its Product compliance sampling data to Plaintiffs at the outset of discovery. (See Free Aff. at ¶ 26.)

82. Later, Soil Safe provided Plaintiffs with copies of the full laboratory reports from the independent, New Jersey-certified laboratories that had analyzed the compliance samples. (Id.)

83. Plaintiffs did not provide any of these sampling results for Product actually placed at the County Park to Dr. Fox – she was not even told that data existed. (See Gibson Decl. Ex. H at 130:25 – 131:5.)

84. Plaintiffs performed sampling on two Product stockpiles awaiting delivery to the County Park (the “DRN stockpile sampling”). (See Gibson Decl. Ex. I at 1.)

85. Although Dr. Fox was aware of the DRN stockpile sampling results, she did not use those results in her calculation of health risks for her report. (See Gibson Decl. Ex. G at 5 n.1.)

86. Dr. Fox merely placed a footnote stating that the DRN stockpile sampling results were “within the range reported in” the Appendix C data, and therefore she believed those results “would not substantially alter the risk estimates and conclusions from this report.” (Id.)

87. Soil Safe's expert Dr. Janet Kester performed calculations using (1) the sampling results for the Product actually placed at the County Park; and (2) the sampling results from the DRN stockpile sampling of material awaiting delivery to the County Park. (See Affidavit of Janet E. Kester, Ph.D., DABT (“Kester Aff.”) at ¶ 33; Ex. B to Kester Aff. at 26-27.)

88. Dr. Kester substituted the Product sampling results and the DRN stockpile sampling results into the same risk estimate formulas used in Dr. Fox's report. (Kester Aff. at ¶ 33; Ex. B to Kester Aff. at 26-27.)

89. The results show that plugging the Soil Safe Product sampling data into Dr. Fox's own calculations produces no theoretical increased cancer risk estimates for BaP above the 1×10^{-6} level that Dr. Fox used as her "target health goal" for identifying supposed "imminent and substantial" human health risks. (Kester Aff. at ¶ 33; Ex. B to Kester Aff. at 26-27.)

90. Likewise, plugging the DRN stockpile sampling data into Dr. Fox's calculations produces no theoretical increased cancer risk estimates for BaP above the 1×10^{-6} level. (Kester Aff. at ¶ 33; Ex. B to Kester Aff. at 26-27.)

91. Dr. Fox was unaware that the NJDEP has imposed different contaminant level limits for Product used at the County Park versus Product used at the Birch Creek property site. (See Gibson Decl. Ex. G at 133:1-13.)

92. Dr. Fox's report calculates theoretical increased cancer risks associated with BaP. (See Gibson Decl. Ex. G at 5-7.)

93. But that data she used is not data for BaP, it is data for total polycyclic aromatic hydrocarbons (total "PAHs") reported as BaP equivalents. (See Gibson Decl. Ex. B at C-14; Gibson Decl. Ex. H at 137:11 – 138:1.)

94. Total PAHs reflects the total concentration of seven different PAHs, of which BaP is only one. (See Kester Aff. at ¶ 16.)

95. Page C-16 of Appendix C contains a table reporting sampling results specifically for BaP, but Dr. Fox did not use that table. (See Gibson Decl. Ex. B at C-16; Ex. H at 152:20-24.)

96. Dr. Fox purported in her report to be calculating risk based upon BaP, but instead calculated risk based upon total PAHs, another error that she admitted during her deposition. (See Gibson Decl. Ex. H at 142:25–143:10.)

97. Dr. Fox asserted that the total PAH data provided a more accurate assessment of human health risks, because a visitor or worker at the County Park would be exposed to all most or all seven of the PAHs of concern, not just BaP. (See Gibson Decl. Ex. H at 142:15-24.)

98. Dr. Kester addressed this contention by performing additional calculations and substituting in the total PAH sampling results (as BaP equivalents) from the County Park Product sampling, as well as from the DRN stockpile sampling, replacing the Appendix C data that Dr. Fox erroneously used. (See Kester Aff. at ¶ 34.)

99. The results showed that even using data for total PAHs, instead of just BaP, if one uses data from actual County Park bound finished Product, there is no theoretical increased cancer risk estimate above the 1×10^{-6} level for any of the exposure scenario identified by Dr. Fox. (Id.; Kester Aff. at Figure.)

100. Dr. Fox was unaware when she prepared her report about the difference between the Logan Equine Park site and the County Park site. (See Gibson Decl. Ex. H at 158:6-10.)

101. The Logan Equine Park is the portion of the DREAM Park where the buildings, parking areas, arenas, stables and paddocks are located, and where the vast majority of human activity takes place. (See Gibson Decl. Ex. B at 5.)

102. Construction of the Logan Equine Park was completed years ago, with only a relatively small amount of Soil Safe Product involved (approximately 240,000 tons). (See Free Aff. at ¶ 12; Gibson Decl. Ex. B at 41.)

103. Most of the Soil Safe Product used at the Logan Equine Park is located under

roadways, berms, or buildings, such that there is little if any human exposure. (See Gibson Decl. Ex. B at 5; Kester Aff. Ex. B at 6.)

104. The County Park portion of the DREAM Park, where the vast majority of the Product sent to the DREAM Park has been placed, will be used for riding trails and so there will be much less human activity in that area. (Gibson Decl. Ex. B at 10.)

105. Dr. Fox was also unaware that the RAWP for the County Park site requires that the top one-foot layer of the remedial cap be comprised of topsoil, which is a different material with different chemical constituents levels from the Soil Safe Product. (See Gibson Decl. Ex. H at 167:25-168:2; Gibson Decl. Ex. B at § 4.4.1 at 36.)

106. Dr. Fox did not perform any risk estimation calculations for the topsoil, nor did she figure the presence of the one-foot topsoil layer into her calculations in any way. (See Gibson Decl. Ex. G.)

107. Dr. Fox further was unaware that when completed, the remedial cap at the County Park site will be covered in grass (and those areas already completed are already covered in grass). (See Gibson Decl. Ex. H at 168:10-13.)

108. This vegetative layer further reduces the likelihood of humans coming into contact with chemical constituents in the Soil Safe Product used in the remedial capping. (See Benson Aff. at ¶¶ 27-29.)

109. Dr. Fox did not figure the presence of the vegetation into her risk calculations. (See Gibson Decl. Ex. H at 167:20-24, 168: 10-13.)

Plaintiffs' Claim that Soil Safe Product Used at the End Market Sites is Causing an Imminent and Substantial Endangerment to the Environment

110. Plaintiffs' contention that the Soil Safe's Product is creating an "imminent and substantial endangerment" to the environment is based upon the opinion of their experts Dr.

Angela Cristini and Dr. Robert Tucker. (See Gibson Decl. Ex. J at 4.)

111. At deposition, Drs. Cristini and Tucker testified that they performed no research or investigation at all other than to review a few items of literature regarding various contaminants and to look at the Soil Safe and DREAM Park websites. (See Gibson Decl. Ex. K at 14:4-16:2, 76:6-20, 123:16-19; Ex. L at 43:1-14, 97: 6-18, 99:13-18.)

112. Drs. Cristini and Tucker testified that their assignment from Plaintiffs' counsel was limited to reviewing the results of three sediments samples collected by Plaintiffs and then expressing their personal opinion as to whether any chemical constituents found in the samples may present an "imminent and substantial endangerment." (See Gibson Decl. Ex. K at 36:5-10, 129:23-130:12; Ex. L at 43:15-19.)

113. Drs. Cristini and Tucker's report consists of a four pages, with no citation to any scientific studies or technical guidance. (See Gibson Decl. Ex. J.)

114. Drs. Cristini and Tucker's report makes no attempt to quantify risks associated for any particular contaminants and biological receptors. (Id.)

115. The NJDEP has issued a document entitled "Ecological Evaluation Technical Guidance" ("the NJDEP Guidance"), the purpose of which is to "provide efficient and streamlined tiered guidance for the evaluation of ecological risk in aquatic and terrestrial habitats associated with contaminated sites." (See Gibson Decl. Ex. M at 7.)

116. The NJDEP Guidance is based upon, and consistent with, EPA's ecological risk assessment technical guidance entitled "Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments". (Id.)

117. LSRPs, NJDEP personnel, and other environmental professionals responsible for evaluating ecological risk associated with particular sites are required to follow the NJDEP

Guidance. (Id.)

118. Drs. Cristini and Tucker did not follow the NJDEP Guidance in preparing their report in this case. (See Kester Aff. Ex. B at 28-32.)

119. Nor did they follow EPA guidance. (Id.)

120. Drs. Cristini and Tucker testified that neither of them had ever performed an Ecological Evaluation or an Ecological Risk Assessment. (See Gibson Decl. Ex. K at 107:12-14, 176:22-24; Ex. L at 24:21-23.)

121. The NJDEP Guidance stresses that in evaluating ecological risk “[i]t is important to establish background contaminant levels in sediment, surface water, and soil on or near the site, but not influenced by the site”. (See Gibson Decl. Ex. M at 26.)

122. The NJDEP Guidance recommends collection of a minimum of three to five sediment samples from areas believed not to be impacted by suspected contamination from the site in question to help establish background contaminant levels. (Id.)

123. Neither Dr. Cristini nor Dr. Tucker performed any investigation to determine background levels of contaminants for Birch Creek or Raccoon Creek. (See Gibson Decl. Ex. K at 39:19-40:11; Ex. L at 107:15-108:5, 168:4-9.)

124. The NJDEP Guidance also describes the need for investigators to collect and evaluate multiple sediment and surface water samples, including both upstream and downstream samples when dealing with tidally influenced waters (both Birch Creek and Raccoon Creek are tidally influenced). (See Gibson Decl. Ex. M at 25, 26.)

125. Drs. Cristini and Tucker evaluated just one sediment sample (and no surface water samples) from Birch Creek, and just two sediment samples (and no surface water samples) of sediment near Raccoon Creek. (See Gibson Decl. Ex. K at 19:1-4, 156:20-22; Ex. L at

116:11-15, 125:24-126:2.)

126. None of these were upstream samples. (See Gibson Decl. Ex. K at 76:24-77:1.)

127. Drs. Cristini and Tucker acknowledged during their depositions that they had not conducted an Ecological Evaluation in connection with their report. (See Gibson Decl. Ex. K at 176:23-177:3; Ex. L at 162:3-6.)

128. Ecological Evaluations are for screening purposes only – resulting in two possible outcomes: (1) a determination ruling out the existence of unacceptable ecological risk such that no further investigation is necessary, or (2) a determination that a more detailed and thorough investigation in the form of an Ecological Risk Assessment is necessary. (See Gibson Decl. Ex. M at 30-31 (“If the findings of the EE indicate that further ecological evaluation . . . is warranted, additional ecological evaluation is required in the form of an ERA.”))

129. An Ecological Risk Assessment “is a quantitative assessment of the actual or potential impacts of [contaminants] from a contaminated site on plants and animals.” (Gibson Decl. Ex. M at 31.)

130. Ecological Risk Assessments are performed to: (1) determine whether actual or potential ecological risks exist at a site; [and] (2) identify those constituents that pose the adverse ecological risks”. (Id.)

131. “Toxicity reference values (TRV) are literature-based levels defined as a dose above which ecologically relevant effects might occur in wildlife species following chronic dietary exposure and below which it is reasonably expected that such effects will not occur. TRVs provide a basis for estimating whether the exposure to [contaminants] at a site is likely to result in adverse ecological effects (e.g., survival, growth, and reproduction of wildlife species).” (Id. at 48.)

132. Drs. Cristini and Tucker did not investigate or determine TRVs for any of the contaminants discussed in their report. (See Gibson Decl. Ex. J.)

133. The NJDEP Guidance instructs that TRVs used in an Ecological Risk Assessment “are based on LOAELs and/or NOAELs from laboratory and/or field-based studies reported in the scientific literature.” (See Gibson Decl. Ex. M at 48.)

134. “LOAEL” is an acronym for “Lowest Observed Adverse Effect Level”, which is “the lowest level of exposure of an organism, found by experiment or observation, at which there is a biologically or statistically significant increase in the frequency or severity of any adverse effects in the exposed population when compared to its appropriate control”. (Id. at 14.)

135. “NOAEL” is an acronym for “No Observed Adverse Effect Level”, which is “the level of exposure of an organism, found by experiment or observation, at which there is no biologically or statistically significant increase in the frequency or severity of any adverse effects in the exposed population when compared to its appropriate control.” (Id.)

136. Drs. Cristini and Tucker did not investigate, determine or identify LOAELs or NOAELs as to any contaminants for any organisms living in or near Birch Creek or Raccoon Creek. (See Gibson Decl. Ex. J; Gibson Decl. Ex. K at 151:14 – 152:3, 216:3-14.)

137. Dr. Cristini testified that when retained to provide an expert opinion she requested Plaintiffs’ consultant to collect at least 10 to 12 sediment samples from each sampling location, as well as upstream samples to establish background levels and samples of aquatic organisms. (See Gibson Decl. Ex. L at 104:5-108:10.)

138. Drs. Cristini and Tucker did not analyze any surface water samples. (See Gibson Decl. Ex. K at 36:14-24; Ex. L 155:5-9.)

139. They did not analyze any groundwater samples. (See Gibson Decl. Ex. K at 19:1-

4, 156:20-22; Ex. L 155:5-9.)

140. They did not analyze any tissue samples from any animals or plants in or around Birch Creek. (See Gibson Decl. Ex. K at 19:1-4, 156:20-22; Ex. L at 116:11-15, 125:24-126:2.)

141. They did not conduct any food web modeling or any other kind of modeling. (See Gibson Decl. Ex. J.)

142. NJDEP Guidance, describes ecological screening criteria as “conservative screening values”, and indicates that “[i]f site contaminant levels are less than or equal to the ESC [ecological screening criteria] for all samples, then no further ecological evaluation may be appropriate; however, if any of the site contaminants are above the ESC, then further evaluation will be required”. (See Gibson Decl. Ex. M at 9; Kester Aff. at ¶ 53.)

143. The presence of constituents above an ecological screening criteria simply means that the investigator must proceed through the Ecological Risk Assessment process to determine whether conditions indicative of actual harm to organisms are present. (See Gibson Decl. Ex. M at 9; Kester Aff. at ¶ 53.)

144. Drs. Cristini and Tucker did not do so. (See Gibson Decl. Ex. J.)

145. Drs. Cristini and Tucker made no effort to identify and rule out other potential sources of contamination to Birch Creek and Raccoon Creek. (See Gibson Decl. Ex. K at 153:17-154:6, 185:25-186:2, 158:19-159:4, 187:4-16; Ex. L at 93:25-94:3, 120:17-21.)

146. Drs. Cristini and Tucker acknowledged that they were **not** presenting any opinion that Soil Safe was the source of the chemical constituents detected in the Birch Creek and Raccoon Creek sediment samples. (See Gibson Decl. Ex. K at 119:10-16; Ex. L at 93:25-94:2, 101:16-19.)

Plaintiffs’ Sampling Event

147. Plaintiffs' environmental consultants, Uhl & Associates, Inc., performed off-site sampling on Plaintiffs' behalf. (Gibson Decl. Ex. BB at 1.)

148. Uhl & Associates' off-site sampling consisted of collecting one sediment sample from Birch Creek, and two sediment samples from "drainage pathways" between the County Park and Raccoon Creek. (Id. at 1-2.)

149. The results of Uhl & Associates off-site sampling are summarized in a report by Uhl & Associates dated January 2016 and entitled: "Sampling Report: Offsite Locations Gloucester County Park (Drainage Pathways to Raccoon Creek), and Birch Creek Logan Township, New Jersey". (Gibson Decl. Ex. BB.)

150. Two of the three off-site samples (designated by Uhl & Associates as BC-SED-1 and RC-SED-2) showed **no** constituents above the RDCSCC (the residential soil cleanup criteria). (Id. at Table 3.)

151. The other off-site sample (RC-SED-1) showed just **one** constituent (arsenic) above the RDCSCC (at a level of 26.4 mg/kg compared to the RDCSCC of 19 mg/kg). (Id.)

152. Arsenic was identified as a contaminant existing at elevated levels in the dredge material present at the Birch Creek and County Park sites (at levels higher than the RC-SED-1 sample) before Soil Safe began its operations. (Kester Aff. Ex. B at 5.)

153. Plaintiffs and their consultants/experts did not perform any investigation to determine background levels of arsenic (or any other contaminant) in the area of Birch Creek or Raccoon Creek. (See Gibson Decl. Ex. K at 39:19-40:11; Ex. L at 107:15-108:5, 168:4-9.)

154. Vince Uhl of Uhl & Associates testified that he and his colleagues did no investigation to determine background levels of contaminants in or around Birch Creek or Raccoon Creek. (See Gibson Decl. Ex. N at 229:7-13, 233:7-16.)

155. Mr. Uhl could not say whether the level of any particular constituent detected in the single Birch Creek sediment sample or the two Raccoon Creek sediment samples was elevated above background. (Id. at 234:6-23.)

156. With respect to Birch Creek, Mr. Uhl testified:

Q. Sitting here today, can you say that any of the sampling data associated with BC-1 [the Birch Creek sediment sample] definitively came from Soil Safe' operations, sampling results?

A. Definitely, no. A possibility, yes, but definitely, no.

Q. But there is a possibility?

A. It's in the watershed.

(Id. at 154:11-18.)

157. Mr. Uhl acknowledged that he had not conducted any investigation to rule out other potential point source, non-point source, agricultural or industrial sources of pollution to Birch Creek. (Id. at 147:15-18, 154:19–155:4.)

158. As to Raccoon Creek sediments, the basis for Mr. Uhl's opinion that constituents detected in the Raccoon Creek sediments samples came from Soil Safe Product placed at the County Park site was that the sediment samples were taken near the end of drainage culverts leading off of the County Park property. (Id. at 166:25-167:4, 171:6-8, 222:21-23.)

159. Mr. Uhl never observed rainwater runoff flowing into the drainage pathways. (Id. at 84:18-85:1, 164:5-11.)

160. He never tested any such rainwater runoff. (Id.)

161. He did not undertake any kind of scientific analysis of the collected sediments to identify the source of any contaminants those sediments contained. (Id. at 139:24-140:12, 141:5-7.)

162. Mr. Uhl never compared his Raccoon Creek sediment sample results to sampling

results for Soil Safe Product delivered to the County Park. (Id. 205:11-33.)

163. Mr. Uhl did not compare his Raccoon Creek sediment sample results to the results from his own testing of Soil Safe Product stockpiled for delivery to the County Park. (Id.)

164. Mr. Uhl also undertook no study or investigation to rule out other potential sources impacting the locations where the two Raccoon Creek sediment samples were collected. (Id. at 229:14-230:12.)

165. Mr. Uhl acknowledged that both of those sample locations are under water in Raccoon Creek twice per day at high tide. (Id. at 192:1-10.)

166. Mr. Uhl acknowledged that the area in and around the County Park (and the Birch Creek site as well) historically was filled with dredge spoils from the Delaware River. (Id. at 4-11.)

167. Mr. Uhl did not know the concentrations of any contaminants contained in the dredge spoils deposited in and around the County Park. (Id. at 217:12-218:19.)

168. Thus, he could not say whether the level of any particular constituent found in the Raccoon Creek samples was higher, lower, or the same as in the dredge spoils. (Id. at 229:7-13.)

169. Mr. Uhl further acknowledged that he had not performed any analysis to determine how long the sediments collected in Raccoon Creek sampling had been present, and that he could not answer whether they had been present for just a short time or as long as 20 years. (Id. at 146:24-147:18.)

Plaintiffs' Claim under New Jersey's Environmental Rights Act

170. Remedial caps must be constructed to facilitate drainage of rain water off of the cap so as to prevent “ponding”, i.e., accumulation of standing water that can then infiltrate down under the cap to the contaminated soil that was covered. (See Benson Aff. at ¶ 36.)

171. This requires the cap to be constructed with a certain grade (i.e., slope) to allow the water to run off. (Id.)

172. To have at a minimum five-foot cap thickness at the bottom of the slope requires the cap's thickness to be progressively greater than five feet up slope from the bottom. (Id. at ¶¶ 34, 35.)

173. The Birch Creek cap was to be constructed with Soil Safe Product, with the uppermost one foot constructed of Product meeting the New Jersey residential clean up criteria. (Id. at ¶ 34.)

174. The plan described in the RAWP satisfied the need for a barrier providing physical separation, but did not provide a surface suitable for reuse of the restored land, stormwater management, or erosion control. (Id.)

175. As a result, as part of the Class B Permit application process, a design was developed that consisted of the requisite five-foot cap at the downgradient end and then sloped up at a one percent grade (i.e., increased the cap thickness) to provide drainage. (Id. at ¶ 35.)

176. Before the NJDEP issued the Class B Permit, the NJDEP reviewed and approved a Site Plan incorporating this new design, which was prepared by Soil Safe's engineering consultant, Kernan Consulting Engineers. (Free Aff. at ¶ 5.)

177. That Site Plan was expressly incorporated into the Class B Permit. (See Gibson Decl. Ex. B at 3.)

178. The Site Plan showed the anticipated final cap thickness of 21 feet at the top of the slope (reflected as the difference between existing and planned final site elevation). (See Gibson Decl. Ex. O.)

179. Soil Safe has provided Biennial Reports to NJDEP. (See Compl. at ¶ 29.)

180. Those reports refer to the “minimum” five-foot cap requirement for the Logan Recycling Center site. (Gibson Decl. Exs. P, Q, S.)

181. Those reports were approved by NJDEP after receipt and review. (Gibson Decl. Exs. R, T.)

182. In a letter to NJDEP last year urging NJDEP to deny a Soil Safe application for modification of the Class B Permit, Plaintiffs repeated their contention that Soil Safe has exceeded the NJDEP authorized cap thickness at the Birch Creek site. (See Gibson Decl. Ex. U at 1-3.)

183. NJDEP responded to Plaintiffs in a letter dated March 15, 2016, confirming that the placement of Product to a thickness of greater than five feet “in order to achieve a one percent grade over the cap’s surface area in accordance with the specifications of the remedial design” is authorized and approved by the NJDEP. (See Gibson Decl. Ex. W at 2.)

184. The NJDEP further noted that it had “also reviewed the most recent topographic survey dated December 4, 2015, compared it against the final grade approved by Gloucester County Soil Erosion District dated December 14, 2007, and has determined that the facility has not exceeded the final approved grade.” (Id.)

185. The County Park site RAWP expressly contemplated a three-layer cap: (1) a “[t]wo foot thick, reduced permeability cap layer”; (2) a “[v]arying thickness contouring layer” ranging from 3 to 15 feet thick to allow for proper drainage; and (3) a “[m]inimum 12 inch thick topsoil layer”. (See Gibson Dec. Ex. B at 10, Figure 2.3.)

186. The RAWP also provided that both “[t]he capping and contouring material will be manufactured by Soil Safe at its Class B recycling facility.” (Id. at § 5.1 at 37.)

187. Section 5 of the RAWP went on to describe that material (and to present data

concerning the levels of constituents), showing that both the reduced permeability cap layer and the contouring layer were intended to be comprised of exactly the same Soil Safe Product with the same properties. (Id. at §5.)

188. The RAWP was reviewed and approved by the NJDEP in 2008, before any Soil Safe Product was placed at the County Park. (See Gibson Decl. Ex. W; Free Aff. at ¶16.)

189. When the new, lower BaP standard was adopted as part of regulations effective June 2008, those regulations contained a provision allowing for use of the former standard with respect to a particular contaminant at a site if: (1) a RAWP (or remedial action report) for the site was submitted to NJDEP before December 2, 2008; (2) the RAWP (or remedial action report) was deemed technically complete or was approved; and (3) the change in the standard for the contaminant was not greater than an order of magnitude. N.J.A.C. 7:26E-1.5(c)2.

190. The County Park RAWP was both submitted to, and approved by, NJDEP before December 2, 2008. (Gibson Decl. Ex. B.)

191. NJDEP's November 2008 letter approving the County Park RAWP referred to a "2 foot thick cap" and stated that "[a]ny additional Soil Safe material distributed at the site in excess of the 2-foot cap will be viewed as construction or redevelopment based, rather than a remediation requirement." (See Gibson Decl. Ex. W at 1-2.)

192. Albert Free, a Professional Engineer who serves as the GCIA's LSRP for the County Park remediation, testified that that statement was included in the NJDEP letter because it related to the ability of the GCIA, as owner of the property and the party responsible for the remediation project, to seek reimbursement from the NJDEP's Hazardous Discharge Site Remediation Fund ("HDSRF") for costs related to construction of the remedial cap. (See Gibson Decl. Ex. DD at 20:19 - 22:16.)

193. NJDEP chose to limit the amount of money that the GCIA could seek reimbursement for from the HDSRF by stating that only the first two feet of the cap would count as remediation. (Id.)

194. A March 17, 2008 letter to George Strachan of the GCIA from Atwood Davis, the NJDEP case manager for the County Park remediation project, directs the GCIA to expressly acknowledge that “any Soil Safe product in excess of the 2-foot cap would not be considered part of the remediation. As such, any product in excess of the cap would not be eligible for HDSRF Funding. This will also include moneys spent for shipping/application of the excess Soil Safe Product. (See Gibson Decl. Ex. X at 5, cmt. 11.)

195. Nothing in either the March 2008 letter to Mr. Strachan or the November 2008 RAWP approval letter indicated that the NJDEP intended this as a substantive change to the proposed remediation, or that the NJDEP intended it to alter either the amount or characteristics of the Product to be placed at the County Park. (See Gibson Decl. Exs. W, X.)

Respectfully Submitted,

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