

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7

Tony L. Brown and)
Joshua A. Brown) Docket No. CWA-07-2016-0053
d/b/a Riverview Cattle)
Armstrong, Iowa)
) COMPLAINANT'S REPLY
) POST-HEARING BRIEF
Respondents)
)
_____)

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INTRODUCTION

Pursuant to 40 C.F.R. § 22.26, the U.S. Environmental Protection Agency Region 7 (“EPA”) submits the following Reply Post-Hearing Brief. For the reasons set out below, Respondents should be held liable for unauthorized discharges of pollutants into waters of the United States. EPA proposes that a \$96,000 penalty be assessed.

SUMMARY OF ARGUMENT

Respondents’ Initial Post-Hearing Brief submitted April 15, 2019 (“Respondents’ Brief”) fails to persuade that Complainant has not met its burden of proof by a preponderance of the evidence in demonstrating that Respondents discharged pollutants to the East Fork of the Des Moines River without a permit. Nor did Respondents’ Brief provide affirmative defenses or additional evidence that demonstrates that Respondents are not liable under the Clean Water Act (“CWA”) or that EPA’s proposed penalty should be reduced. Thus, the Presiding Officer should find for EPA and assess the proposed penalty.

ARGUMENT

I. RESPONDENTS MISSTATE THE EVIDENTIARY STANDARD AND DEFENSES TO LIABILITY FOR UNAUTHORIZED DISCHARGES UNDER THE CLEAN WATER ACT

A. The Clean Water Act does not recognize a good faith or a de minimis defense to liability and Respondents’ discharges are not de minimis

While Respondents assert that discharges from the facility are de minimis and therefore not a violation of the CWA, Respondents’ Brief at 3, 33-34, and that it was not their intent or plan to discharge or to place an opening in the manure pit for the purpose of overflow, *Id.* at 7-8, 14, 33, 35, “the Clean Water Act recognizes neither a good faith nor a de minimis defense.” *Int’l. Union v. Amerace Corp., Inc.*, 740 F. Supp. 1072, 1083 (D. N.J. 1990). Rather, the CWA is a strict liability statute. *Id.*; *See also Kelly v. U.S. Envtl. Prot. Agency*, 203 F.3d 519, 522 (7th Cir.

2000). And the CWA “does not distinguish between small discharges and large discharges.”
Conn. Fund for the Env’t, Inc. v. Upjohn Co., 660 F.Supp. 1397, 1418 (D. Conn. 1987).

The case cited in Respondents’ Brief at 3 and 34 for the proposition that it established “a standard of de minimis discharges,” *Hawaii Wildlife Fund v. County of Maui*, 886 F.3d 737 (9th Cir. 2018), does not establish a new defense to liability for unauthorized discharges under the CWA. At issue in that case was whether discharges of pollutants from injection wells should be considered point source or non-point source pollution under the CWA. *Id.* at 744-746. The court evaluated whether the wells conveyed the pollutants into the navigable waters and the connection of the point source to the navigable water. *Id.* at 746-749. In finding liability, in part because “the pollutant levels reaching navigable water are more than de minimis,” *Id.* at 749, the court was focused on the distinction in case law “between point source and nonpoint source pollution based on whether pollutants can be ‘traced’ or are ‘traceable’ back to the point source.” *Id.* at n. 3.¹ Here, there is no question that Respondents’ facility is a point source and its connection to the navigable waters in this case is not tenuous, as Respondents claim in Respondents’ Brief at 34, but rather through a man-made conveyance such that it fits squarely within the regulatory definition of a medium CAFO, explicitly included in the CWA’s definition of a point source. 33 U.S.C. § 1362(14); 40 C.F.R. § 122.23(b)(6). As such, the *Hawaii Wildlife Fund v. County of Maui* court’s decision regarding whether injection wells discharge point source pollution is simply inapplicable here.

¹ It should be noted that footnote 3, quoted here, from the court’s opinion in *Hawaii Wildlife Fund v. County of Maui*, 886 F.3d at 749, follows the phrase “de minimis” in the text. Contrary to Respondents’ Brief at 34, the text “[w]e leave for another day the task of determining when, if ever, the connection between a point source and a navigable water is too tenuous to support liability under the CWA” appears in the text of the opinion several lines below after a discussion of a tracer dye study showing that the pollutants emerged from discrete points into the ocean, and not in the footnote following “de minimis.” Nonetheless, this language does not put into question whether Respondents’ CAFO is a point source in this case, as suggested by Respondents’ Brief at 34; there is nothing tenuous here and no question here that Respondents’ discharges are point source pollution.

Further, the administrative law principle for de minimis matters noted by the court in *Kentucky Waterways Alliance v. Johnson*, 540 F.3d 466, 483 (6th Cir. 2008), does not support a de minimis defense to liability under the CWA as asserted in Respondents' Brief at 34. The court in that case was evaluating exemptions from anti-degradation review for effluent limits in National Pollutant Discharge Elimination System ("NPDES") permits, and not any excuses from liability for unpermitted discharges. Further, the court noted that even this authority to create exemptions in permitting is "narrow in reach and tightly bounded by the need to show that the situation is genuinely de minimis or one of administrative necessity." 540 F.3d at 483.

Given the pollutant levels detected in sampling collected by the EPA in 2014 and 2016, it is shocking that Respondents would argue that their unauthorized discharges are de minimis. *See* CX 1, at 11; CX-8 at 12; Complainant's Post-Hearing Brief submitted March 15, 2019 ("Complainant's Brief") at 20-24, 44-47. As Mr. Draper testified, the E. coli levels in the facility's process wastewater at the tile inlet in 2014, which included uncontrolled facility runoff and manure pit overflow, and the facility's process wastewater run-off from the feed alley and northern manure alley in 2016 cannot be considered to be "de minimis." TR 504:19-505:13. As discussed in Complainant's Brief at 46, those E. coli levels are magnitudes higher than the applicable water quality standard, representing the level at which it is safe to recreate in the river. In addition, there is no question that the facility was the source of such high levels of pollutants. Draper Test., TR 505:14-19. Furthermore, those pollutants would persist through the tile line to reach navigable waters, as Dr. Wang's calculations show, in quantities that are not de minimis. CX 20.1 at 3-4; *See* Complainant's Brief at 39, 40, 46. Contrary to the assertions in Respondents' Brief at 33 and 34, EPA is not arguing that "pollutants from tracks from feed wagons" are the only sources of pollutants in process wastewater runoff from the facility, nor is EPA arguing that

the feed alley is the only uncontrolled portion of the facility's production area. Rather, many uncontrolled areas of the facility contributed pollutants to the swale and into the tile line, including manure pit overflow and spillage, Pen 1, the northern manure alley, and the feedstock / bale storage area. Therefore, the pollutants in the process wastewater runoff from the entire production area of Respondents' facility are anything but de minimis.

B. The absence of a sample at the tile outlet on June 17, 2014 does not affect the weight of the circumstantial evidence in this case

Respondents assert that "EPA must prove that Riverview Cattle actually discharged pollutants from their feedlot to waters of the U.S." Respondents' Brief, at 2.² The EPA agrees. The burden is on EPA to prove by a preponderance of the evidence that discharges occurred. However, the Environmental Appeals Board ("EAB") has clearly stated that "any kind of evidence, direct or inferential, can continue to be used to attempt to establish that an unlawful discharge occurred." *In Re Lowell Vos Feedlot*, 15 E.A.D. 314, 322 (EAB 2011) ("*Lowell Vos*"). In Respondents' Brief at 4, Respondents mischaracterize the EAB's sweeping willingness to consider any kind of evidence as restricting the consideration of circumstantial evidence if direct evidence is available. Specifically, Respondents assert that the circumstantial evidence in this case cannot be relied upon because EPA did not sample the tile outlet on June 17, 2014. Respondents are reading a new standard into a quotation from *Lowell Vos*, regarding permissible reliance on circumstantial evidence in the absence of direct evidence, by arguing for some type of evidence penalty. Respondents' Brief at 4, 12. There is no basis in the law to support

² While Respondents assert in Respondents' Brief at 2 that *Waterkeeper Alliance, Inc. v. U.S. Env'tl. Prot. Agency*, 399 F.3d 486, 504-505 (2d Cir. 2005) clarified this "legal standard," the Environmental Appeals Board held in *Lowell Vos*, 15 E.A.D. at 321, that the *Waterkeeper* decision "did not purport to create, nor did it incidentally create, a new evidentiary threshold EPA must satisfy to demonstrate that unlawful discharges have occurred. *Waterkeeper* has no discussion of evidentiary standards whatsoever, and never references the rules that govern administrative adjudications, which explicitly direct ALJs to: (1) admit 'all evidence [that] is not irrelevant, immaterial, unduly repetitious, unreliable, or of little probative value'; and (2) decide each matter of controversy 'upon a preponderance of the evidence.' 40 C.F.R. §§ 22.22(a), .24(b)."

Respondents' assertions that circumstantial evidence should not be considered or given any less weight in this case.

In fact, the court in *Lowell Vos* recognized the real-world difficulties faced by EPA inspectors in collecting samples. The court noted that EPA had a reasonable explanation for not gathering more direct sampling evidence, which was the distance in that case. 15 E.A.D. at 324. In this case, contrary to Respondents' claim that EPA had a "golden opportunity," Respondents' Brief at 4, EPA inspectors named many good reasons for their inability to collect a sample at the tile outlet, and their reasonable belief that they were unable to obtain that sample was not "unjustified," *Id.* at 12, nor one of EPA's "choosing," *Id.* at 4. Contrary to Respondents' characterization of this testimony, those reasons were not limited to the muddy field conditions.³ *Id.* at 9-11. Mr. Urban testified to the combination of field conditions and lack of legal access, TR 137:3-10, and explained that Respondents led him to believe that he would never find the outlets, let alone within the holding times of the samples that were taken:

During the course of the visual inspection, it was about four hours of walking around. You know, I'm asking multiple times, you know, where those tiles where it's entering there at Riverview, where it would come out at, and they said they did not know. They said they had never seen the discharge points at the Des Moines River. They said even when they were riding in the Des Moines River bed, when it was dry, during the dry years, they have never seen it. Q Riding what? A ATVs, all-terrain vehicles. Q All right. Did you ultimately end up taking samples at the outfall of this tile line at the Des Moines River, East Fork of the Des Moines River, excuse me? A No, I did not. Q All right. Can you tell us the reasons that you did not take samples? A Well, there were several reasons. Number one, with the amount of rainfall that occurred, Rickey nor I could traverse across the cornfield to get to the Des Moines River. It was very wet, we stick to, stuck to the roads, the main roads. They didn't have access to their property ended at the cornfield south of the Bacon Maker

³ Contrary to Respondents' characterization of the Presiding Officer's questions to Mr. Urban as relating to muddy conditions, Respondents' Brief at 9, Mr. Urban was describing that he did not have legal access to walk across the field to the river and the Presiding Officer asked a clarifying question regarding that location, TR 138:11-139:11.

Facility, and they, it was led me to believe, that I had to follow the water flow pathway, to get to the river, which based on even stepping out in the field a little bit to take some of the photos that I took, there was no way I could get there.

And I took them at their word. They didn't know where it was, and I would never find it. And that was part of it, I had a holding times that was part of it, because I have to make a sampling plan to take samples. And we're running out of daylight. Q Okay. A The main thing was, I was led to believe that I couldn't find it, they never found it. I took them at their word that I wasn't going to find it. Q But did they say it went to the river? A Yes. They said it's somewhere, it goes to the Des Moines River somewhere, but they had never seen where it discharges, even when it was dry, riding an ATV, they had never seen it.

TR 135:18-137:11. Despite Mr. Tony Brown's testimony that he could have requested access,

TR 862:8-22, Mr. Urban explained:

Q Regarding getting the permission, did you consider trying to get that permission? A Not when we couldn't get across the Browns' field and the combination of that and the fact that they had never seen the discharge point. They said that went to the East Fork of the Des Moines River. They had never seen it. Even when it was dry, they didn't know where it was. They didn't know where to begin to look. They even mentioned that it would be underwater anyway, so there was no way you're gonna -- they convinced me that I wasn't going to find it. And that coupled with the fact that I couldn't traverse the field because of the moisture content, it was just so muddy and the fact that, we have holding time issues and we were running out of daylight, all of those things co-mingled into, okay, we'll take these samples and we'll go with them.

TR 212:4-21. Further, all of the conditions that convinced the EPA inspectors that they could not obtain that sample were not going to improve if they returned the next day, as suggested in Respondents' Brief at 11, which Mr. Urban explained at the hearing in response to this very question from Respondents' counsel:

Q Did you consider when you were there in June of 2014 because of these issues with sample holding times, etc., did you consider coming back the next day and taking samples? A Well, we had three other inspections to do so we had to move to the next facility. But it

was forecasted for precipitation, so it wasn't going to get any better. So it wasn't really an option that week. We could come back another week maybe and take a sample, but the next day wasn't possible.

TR 213:3-12.

In any event, failure to sample at the tile outlet does not result, as Respondents argue, in a failure to prove the unauthorized discharge. Respondents' Brief, at 12. Respondents are attempting to relitigate theories already put to rest by the EAB in *Lowell Vos*, which rejected the argument that the government must present direct evidence consisting of sampling or direct visual observation in order to prove a CWA violation. 15 E.A.D. at 321. Similarly, the court in *In the Matter of Leed Foundry*, Docket Nos. RCRA 03-2004-0061, CWA-03-2004-0061, 2007 WL 2192945 (ALJ Moran, April 24, 2007) ("*Leed Foundry*"), rejected the argument "that no amount of circumstantial evidence can be sufficient and, as a corollary to that, only direct observation and sampling can establish the violation," *71, and held that EPA met its burden, using sampling at storm sewer inlets (not at the point of discharge to navigable waters) plus modeling and other circumstantial evidence, to prove unauthorized discharges, *69-73. In addition, the court in *Envtl. Prot. Info. Ctr. v. Pac. Lumber Co.*, 469 F. Supp.2d 803, 819 (N.D. Cal. 2007), rejected the argument that plaintiffs "must conduct sampling of the runoff before it reached the discharge locations to prove that the sediment was added at the [*sic*] that discharge location," and instead held that they "need not conduct sampling above the road prism in order to demonstrate a discharge." In this case, EPA has a significant amount of direct and other evidence in support of the discharge, including direct observations and sampling at the tile inlet, and the absence of a sample at the tile outlet does not render EPA's case infirm.⁴ As previously recognized by the

⁴ Further, neither Ms. Benson's testimony concerning Iowa Department of Natural Resources' management's position on enforcement of violations without sampling, nor Mr. Hentges' unsupported and unqualified opinion that the tile outlet should have been observed, change the evidentiary standard in this case. See Respondents' Brief at 12.

court in this case, even without direct evidence at the outlet on June 17, 2014, “Complainant’s exclusive reliance upon circumstantial evidence is not impermissible, as circumstantial evidence may be relied upon as evidence of a material fact.” *In the Matter of Tony L. Brown and Joshua A. Brown d/b/a Riverview Cattle*, Docket No. CWA-07-2016-0053, Order on Complainant’s Motion for Accelerated Decision as to Liability at 22 (ALJ Coughlin March 13, 2018), citing *In re BWX Techs., Inc.*, 9 E.A.D. 61, 78 (EAB 2000).

C. Modeling is appropriate and probative circumstantial evidence to establish unauthorized discharges in a Clean Water Act enforcement case

Despite Respondents’ baseless assertions that EPA’s modeling was used for the wrong purpose in this enforcement action, Respondents’ Brief, at 20-25, there are numerous examples of modeling used as probative circumstantial evidence in CWA enforcement cases. For example, in *In re San Pedro Forklift, Inc.*, 15 E.A.D. 838, 2013 WL 1784788, at *30 (EAB 2013) (“*San Pedro Forklift*”), the EPA’s expert testified to modeling “that uses site topography, precipitation rates, flow path dynamics, and other variables to identify the volume of storm water runoff from paved areas into storm sewers” and the court found it persuasive to establish the amount of rainfall that would result in a discharge from the site. The court in *In re Service Oil, Inc.*, Docket No. CWA-08-2005-0010, 2007 WL 3138354 (ALJ Biro, August 3, 2007), *vacated and remanded on other grounds by Service Oil, Inc. v. U.S. Envtl. Prot. Agency*, 590 F.3d 545 (8th Cir. 2009), found expert testimony regarding modeling of stormwater runoff, including the use of the curve number model with similar sources for inputs as used here, *23-*25, to be persuasive and reliable evidence of a discharge, *41, *44. The court noted that the expert’s “opinion is supported by detailed mathematical calculations using empirical models relied upon professionals in the relevant field,” *41, and that “Respondent cannot overcome this careful scientific analysis merely by proffering broad generalizations and unsupported and illogical

presumptions,” *42. In *Leed Foundry*, EPA’s expert “used a standard hydrologic formula and rainfall data to establish the discharges of storm water,” 2007 WL 2192945 at *67, and the court found it persuasive to determine that “a rainfall of 0.6 inches over a 24 hour period would cause storm water to discharge to the outfalls for those areas and then to the municipal storm sewer,” *Id.* at *75. In *In the Matter of Special Interest Auto Works, Inc. and Troy Peterson*, Docket No. CWA 10-2013-0123, Order on Respondents’ Amended Motion for Accelerated Decision, at 23 (ALJ Coughlin, Oct. 13, 2015), the court noted that hydrologic modeling evidence that “purports to use local weather, topography, and soil data, as well as estimated land use conditions... to produce calculations ‘that quantify discharges from the Site during the four year period’” could serve as circumstantial evidence of discharges, even while the inputs, methodology, and conclusions were in dispute.⁵ In this case, as described in Dr. Wang’s testimony and CX-20, CX-20.1, CX-20.2, and CX-20.3, EPA’s expert similarly used hydrologic modeling to quantify process wastewater runoff to the swale and determine the number of days that wastewater entered the tile inlet to discharge into the East Fork of the Des Moines River. *See* Complainant’s Brief at 15-19, 28-32.

Despite the clear caselaw affirming the admissibility and probative value of modeling to establish unauthorized discharges, Respondents cite only to Mr. Hentges’ testimony to support their assertion that modeling is not appropriate or useful in enforcement cases. Respondents’ Brief, at 20-25. As previously pointed out in Complainant’s Post-Hearing Brief at 33, Mr. Hentges is a hydrogeologist and not an expert in modeling, and he is also not an expert in the

⁵ In addition, while Respondents assert that EPA’s modeling was done “to support its position of penalties and monetary fines for theoretical discharges of contaminated water,” Respondents’ Brief, at 21 (emphasis added), the court in *In the Matter of Special Interest Auto Works, Inc. and Troy Peterson*, Order at 22-23, noted that relying on modeling as circumstantial evidence does not make the alleged discharges theoretical. Similarly, in this case, EPA is alleging actual, not theoretical discharges, and modeling is circumstantial evidence of those actual discharges.

evidentiary standard in CWA enforcement cases, TR 1209:24-1211:2. Therefore, he does not have the qualifications or authority to declare that modeling is inappropriate evidence in CWA enforcement cases generally or in this case in particular, nor does he cite any authority for his opinions regarding EPA's modeling in this case. For example, Mr. Hentges report contains no citations to any authority. *See* RX-2; Hentges Test., TR 1212:5-1213:3. Incredibly, despite his willingness to criticize Dr. Wang's work, Mr. Hentges testified that, while he skimmed the reference section, he never even read any of the literature cited in Dr. Wang's report. TR 1213:11-1214:13. Further, in Respondents' Brief at 20-21, Respondents' discussion of Mr. Hentges' experience ignores the fact, as pointed out in Complainant's Brief at 33 n. 43, that not only does Mr. Hentges lack publications and grants related to modeling, but also he has never modeled runoff from feedlots, TR 1204:23-1205:6, and needs to read a NRCS paper every time he runs the curve number model, TR 1219:12-13. Mr. Hentges may not be "a captive expert for a government agency," Respondents' Brief at 20, but he does appear to be a captive expert for the clients of Respondents' counsel and his law firms. TR 1191:19-1192:9, TR 1200:19-1204:9. As discussed further below, regarding the specific models used in this case, Mr. Hentges' criticisms of Dr. Wang's work reveal Mr. Hentges' inexperience and lack of knowledge of the modeling work done in this case.

While Respondents question whether modeling alone can carry the burden of proof, asserting that neither *San Pedro Forklift* nor *Leed Foundry* addressed this question, Respondents' Brief, at 21, modeling is the same as any form of circumstantial evidence. Caselaw is clear that "it is beyond a doubt that circumstantial evidence alone may suffice to prove adjudicative facts." *Concerned Area Residents for the Env't v. Southview Farm*, 34 F.3d 114, 120 (2d Cir. 1994) (quoting *O'Brien v. Nat'l Gypsum Co.*, 944 F.2d 69, 72 (2d Cir. 1991))

(quotation marks omitted)); *See also In re BWX Techs., Inc.*, 9 E.A.D. at 78. Indeed, the court in *San Pedro Forklift* held that the weight of the evidence provided by modeling alone established a material fact – the number of storm events during the period of violations that would generate enough runoff to cause a discharge. 2013 WL 1784788, at *30.⁶ In any case, EPA is not relying on modeling alone in this case, but rather using it in conjunction with other direct and circumstantial evidence, similar to how modeling was used in the examples above.

II. RESPONDENTS FAILED TO SHOW THAT COMPLAINANT DID NOT MEET ITS BURDEN OR THAT THE FACILITY DID NOT DISCHARGE

Complainant met its burden to establish unauthorized discharges from Respondents' facility occurred on at least 42 days including June 17, 2014 and previous dates.⁷ As stated in Complainant's Brief at 1, the key issue in this case is whether what went into the tile line came out on June 17, 2014 and previous days with sufficient rainfall. Although Respondents attempt to obfuscate the issues in this case, making the evidence seem complicated and creating small issues of factual dispute, the evidence shows that runoff carries pollutants from the facility into the swale,⁸ that the huge amount of water and process wastewater received by the swale did not go anywhere else besides into the tile line, and that the tile line was functioning, as it was intended, to carry that water into the East Fork of the Des Moines River.

A. Evidence shows that pollutants from the facility flowed to the swale in process wastewater runoff

Although process wastewater is defined in federal regulations to include any water that comes into contact with manure, feed or bedding, 40 C.F.R. §122.23(b)(7), Respondents appear

⁶ The court in *San Pedro Forklift* nonetheless found that the Region did not carry its burden on another material fact, to establish that covered activities were occurring at the site during the same time. 2013 WL 1784788, at *30.

⁷ *See* Complainant's Brief at 31, n. 40 for a discussion of the number of days of discharge.

⁸ Respondents even admitted that, on June 17, 2014, "pit overflow would have been in water runoff that reached the swale." Respondents' Brief at 8.

to assert in Respondents' Brief at 25-33 that manure solids must be present and discharging from the facility to be a CWA violation and that anything else is "de minimis." Not only is that assertion false legally, but it also ignores the results of EPA's sampling confirming that pollutants from the facility flowed to the swale in process wastewater runoff. EPA previously discussed the evidence that runoff and overflow from Respondents' production area flowed to the swale and that it contained pollutants in Complainant's Brief at 7-24; nonetheless, Respondents' assertions about specific areas of the facility are addressed below.

1. Process wastewater from Pen 1

Despite Respondents' claim that process wastewater did not leave Pen 1 in Respondents' Brief at 25-30, EPA has established that it is reasonable to assume that process wastewater runoff, whether from the central alley or created by rainfall in Pen 1 itself, would exit Pen 1 through its open slotted gate. *See* Complainant's Brief at 11-12. Contrary to Respondents' Brief at 27, Mr. Draper's testimony is correct that darker areas of Pen 1 in CX-28.5⁹ are "water¹⁰ or saturated ground," TR 368:7-16, and Mr. Draper explained that he used the term "saturated ground" wherever the concrete of the facility does not appear white but rather appears covered by manure or process wastewater, TR 364:23-365:4, TR 367:11-18. In addition, CX-20.3 is consistent with CX-55.3, as the arrow pointing southeast in CX-55.3, which Respondents describe in Respondents' Brief at 28 as being located "at the north gate of Pen 1," is actually located outside the gate in the feedstock storage area and shows that, after the construction of the manure pit, the pit captured some of the runoff from this area as well as from Pen 1. Prior to the

⁹ As cited in Complainant's Brief at 12, Mr. Draper was referencing CX-28.5, not CX-28.3 as stated in Respondents' Brief at 27. In any case, both CX-28.3 and CX-28.5 were taken the same day, April 17, 2011.

¹⁰ EPA does not agree that the word "water" used here should be "waterer" as asserted in Respondents' Brief at 27, n. 9, and further notes that the opportunity for correcting transcript errors has passed since the parties' Joint Motion to Conform the Transcript was filed on March 7, 2019.

construction of the manure pit, however, Pen 1 was completely uncontrolled and outside its open, northern gate there was nothing to capture or prevent runoff from flowing east to the swale.

It is improbable that the central manure alley could retain all of the runoff generated from the pens. Contrary to the accusation in Respondents' Brief at 28, Complainant's Brief at 12 did not mischaracterize Mr. Tony Brown's testimony when he stated:

I believe it was the next year, maybe the year after, when you realize much water can fall on an area like that. That's when we decided to pour the pit. Q And, again, that was for -- A The rain water, the runoff that comes off the pens that you can kind of see in the Central Manure Alley on the north side now.

TR 805:19-21. In fact, Respondents' Brief at 28 is mischaracterizing this testimony as Mr. Tony Brown did not say anything here about hauling "sloppier manure." Further, in the other portion of Mr. Tony Brown's testimony cited by Respondents' Brief at 28, while he states that "we knew there was sloppier manure some days and drier manure some days," TR 831:4-5, he otherwise repeats that the pit was installed to capture the large amounts of runoff from rainfall:

But, as we get these rain events that, you know, if-- and I think Steve said, you know, when he started farming, we had half inch rains, things like that. Now we have rainfall that comes in inches at a time. So it's -- as we fed day by day, year by year the need for a pit was there, so we put one in. I mean, I would have much rather had an area that we could just scrape and haul with the equipment that we already had, but now we have to hire out the pumping out of that pit for the liquid. So I honestly never planned to have a pit up there, but, obviously, we found the need for one, so we put it in.

TR 831:16-832:2. The point for which Complainant cited this testimony in Complainant's Brief at 12, and which is supported by this testimony, is the fact that large amounts of runoff were generated in the pens before the pit was constructed; from that premise, it is reasonable to conclude it could not all have been contained in the central manure alley. Further, Respondents'

Brief ignores EPA's modeling results that quantified the amount of runoff from the facility's pens that would have exceeded the accumulation capacity of the central manure alley. *See* Complainant's Brief at 18-19. Ms. Benson's testimony about the amount of runoff later flowing into the pit from the central manure alley, TR 1051:18-1052:13, excerpted in Respondents' Brief at 30, provides further support that large amounts of runoff come from the pens. It is also important to note that before the pit was installed, regardless of how wastewater moved from the central manure alley and Pen 1, there were many other uncontrolled areas of the facility contributing pollutants to the swale and into the tile line to the East Fork of the Des Moines River.

2. Process wastewater from the northern manure alley

Contrary to Respondents' Brief at 31, it is *not* "reasonable to conclude that because only solid manure was stored in the northern manure alley, no manure left the alley through the openings in the northern wall." Not only could solid manure escape through those openings, but also rainfall generated process wastewater that exited the production area through those openings or through the wide-open eastern side of that alley. Contrary to Respondents' assertion that "[t]he extreme rainfall and the pit overflow on June 17, 2014 were not normal operating conditions," but rather caused the overflow to overcome the gradual westward slope of the northern manure alley to flow east, Respondents' Brief at 8, EPA observed and sampled runoff from the northern manure alley flowing east during the 2016 inspection after just 0.7 inches of rainfall. CX-8 at 3, 12. Further, the results of that runoff confirmed it was process wastewater with high levels of pollutants. *Id.* In addition, as noted above, there were many other uncontrolled areas of the facility contributing pollutants to the swale and into the tile line to the East Fork of the Des Moines River.

3. Process wastewater from the feed alley and feed wagon

Despite Respondents' assertion in Respondents' Brief at 32-33 that there is no manure in the feed alley and the feed wagon does not drive through manure, the tracks establish that either the feed wagon or another vehicle did drive through process wastewater and track it into uncontrolled areas of the facility. Further, Respondents are ignoring the fact, as noted in Complainant's Brief at 23, n. 35, that EPA inspectors observed the feed wagon tracking out manure and spilling feed in uncontrolled areas of the facility during the 2016 inspection, and the sampling results showed pollutants in runoff from these areas. CX-8 at 12. Moreover, as noted above, the feed alley and feed wagon tracks are just some of the sources of pollutants in process wastewater runoff from the facility, which flowed to the swale and into the tile line to the East Fork of the Des Moines River.

B. Modeling in this case is accurate and reliable evidence of the facility's process wastewater runoff and discharges through the tile line

1. Modeling used accurate rainfall data

Despite the assertion in Respondents' Brief at 7 that Mr. Tony Brown's testimony shows that the NOAA-certified rainfall data measured at the Swea City station 5 miles from the facility cannot be relied upon for modeling conditions at the facility, that testimony does not establish that the data is not accurate to the site nor does it undermine the reliability of EPA's modeling results. Mr. Tony Brown offered only anecdotes regarding rainfall variability generally, TR 839:1-15, TR 840:12-15, and on June 14, 2014, TR 839:16-840:12. However, the model accurately predicted the discharge on June 17, 2014 and the facility runoff on March 30, 2016 using Swea City data. *See* Complainant's Brief at 30-31; Wang Test., TR 677:23-25; TR 623:5-15. Further, Respondents' testimony that the facility received six inches of rainfall leading up to EPA's inspection on June 17, 2014, Respondents' Brief at 5-6, is undermined by their own

exhibits RX-6, RX-7 and RX-8.¹¹ In addition, Respondents' claim about the rainfall amount on June 17, 2014 does not undermine EPA's modeling results for that day, as higher rainfall input would only increase the model's runoff calculation for that date.¹² Respondents did not provide any other rainfall data measured at the facility to compare to the Swea City data to prove it is not accurate to the site or to use in the model in its place.¹³ Therefore, Dr. Wang used the best available rainfall data to model runoff at the facility, following the standard practice used by experts in his field. Wang Test., TR 584:21-24.

Contrary to the assertion in Respondents' Brief at 22, Dr. Wang's use of radar data for the HEC-RAS model is not inconsistent and did not result in any discrepancies. If anything, using a different, accurate rainfall data set than that used in the curve number model bolsters the verification function performed by the HEC-RAS model, which Dr. Wang used to confirm the accuracy of the watershed area and determine the infiltration rate. Wang Test., TR 572:15-573:12. Dr. Wang used hourly radar data from the North American Land Data Assimilation

¹¹ It should be noted that Respondents' Brief and Respondents' testimony is unclear as to whether six inches of rainfall fell within 48 hours or the night before June 17, 2014. *See* Respondents' Brief at 5 ("in the 48 hours before), *Id.* at 6 ("immediately before"); T. Brown Test. TR 837:10 ("that night"); J. Brown Test., TR 993:18-19 ("dumped six inches out of my rain gauge in the morning"). In any case, in the 48 hours prior to June 17, 2014, RX-6 shows that approximately 2-2.5 inches were received somewhere near the facility (*see* note 13, below, regarding the location and source of RX-6), and RX-7 and RX-8 show that approximately 3.9 inches were received in Esterville.

¹² While Respondents' Brief at 22 asserts that "[t]he failure to have site specific data renders the conclusions suspect in that, if rainfall estimates are higher, runoff is increased," this would only result in more days of discharge for Respondents. In addition, contrary to the suggestion in Respondents' Brief at 5-6, the amount of rainfall that fell on June 17, 2014 is not an excuse for the manure pit overflow or the fact that an illegal discharge occurred that day. For example, despite Respondent's statement that "there was only so much rain we could hold," T. Brown Test., TR 980:23-24, without a permit, the facility cannot lawfully discharge regardless of how much rain fell. *See* Draper Test. TR 468:19-469:5.

¹³ As previously noted in Complainants' Brief at 17, there was no rainfall data measured at the facility submitted into evidence despite Respondents' testimony for the first time at hearing that a common plastic rain gauge was present on site. Respondents also submitted RX-6 into evidence, which shows rainfall totals for June 1 through June 17, 2014 from an unknown source and unknown methodology, although Mr. Josh Brown testified it may have been from a service to which Mr. Tony Brown subscribes called "climate" and/or from an application downloaded to his phone, TR 1020:4-1022:2. Respondents did not submit any further information about this source or additional data available from this service for other dates.

Systems (“NLDAS”), managed by the National Aeronautics and Space Administration (“NASA”), in the HEC-RAS model because it requires hourly data and he did not use the hourly radar data in the curve number model because the curve number model requires daily data and also because violations of the CWA are based on daily discharges. Wang Test., TR 586:13-19, TR 582:22-583:1; *see also* CX-20 at 9.¹⁴

2. Modeling shows prior manure pit overflows

Contrary to Respondent’s Brief at 7, EPA is not relying on the fact that the manure pit had an opening in its southeast corner to allege that the pit overflowed other times as well. Respondents completely ignore EPA’s modeling showing previous manure pit overflows. *See* Complainant’s Brief at 18-19. In addition, the purpose of the opening as described in Mr. Tony Brown’s testimony is irrelevant to the fact that other overflows exited the pit through the same opening and flowed to the swale.¹⁵

3. Modeling used the correct infiltration rate

While Respondents’ Brief at 22, criticizes the curve number model for grouping soil types into four groups, the United States Department of Agriculture (“USDA”) Natural Resources Conservation Service (“NRCS”) groups soils into four groups using site-specific and detailed soil data because the soils with each group have similar infiltration rates. TR 593:7-599:1. NRCS then assigns curve numbers to soil groups based on 20 years of field data and

¹⁴ Dr. Wang included Figure 11 in CX-20 at 27, to provide information to the reader on the spatial variability between the daily measured rainfall data and the hourly radar data. Wang Test., TR 645:21-647:8. Dr. Wang testified that, for his curiosity, he ran the hourly radar data through the curve number model and the resulting number of days of discharge increased as compared to the results using the daily Swea City data. TR 647:12-21, TR 676:3-24.

¹⁵ Indeed, contrary to Respondents’ Brief at 7, EPA argued in the brief under section I.A.1.a, entitled “Before and after construction of the manure pit, facility runoff and overflow flowed to the swale,” that any other overflow would behave similarly and flow to the swale, not that the opening proved that the other overflow events occurred. *See* Complainant’s Brief at 14 (“It is reasonable to conclude that manure pit overflow prior to June 17, 2014 exited the pit through the same southeast opening, which was original to the pit wall just as it did on June 17, 2014.”).

observation of the relationship between soils and runoff, making it an empirical model, such that site conditions and any variability are already taken into account during development of the curve numbers themselves. TR 531:18-21, TR 562:19-564:5, TR 567:20-568:20. Therefore, the curve number model does not “ignore local conditions” or use “generic soil data” as asserted in Respondents’ Brief at 22, and, as previously stated in Complainant’s Brief at 34, it would be wholly unnecessary for Dr. Wang to collect soil borings.

Furthermore, Mr. Hentges’ opinion regarding infiltration rate, Respondents’ Brief at 22, TR 1175:2-16, is unsupported by any evidence in the record and is irrelevant to how Dr. Wang calculated run-off, not to mention simply incorrect. Despite having over a year to supplement his short expert report, Mr. Hentges did not do so, and he testified that he did not see anything he needed to respond to in Dr. Wang’s report and addendums. TR 1194:11-1195:4. Yet Mr. Hentges asserted, for the first time at hearing, TR 1229:10-1230:4, his opinion that Dr. Wang used an incorrect infiltration value in his model for the Canisteo soil type. TR 1175:2-16 (referencing CX-20 at 15, Tbl. 1).¹⁶ Although Mr. Hentges could not identify how Dr. Wang accounted for infiltration in the model, TR 1238:16-18, Mr. Hentges asserted, incorrectly, that infiltration rate is “a very sensitive input parameter” to the model, TR 1175:19-21. However, infiltration rate is not an input to the curve number model at all, Wang Test., TR 561:20-562:5, and, therefore, Mr. Hentges is incorrect that a higher infiltration rate “would decrease the runoff and affect the output of the model,” TR 1175:15-16. Rather, the hydrologic soil groups determine the range of appropriate curve numbers, and the curve number itself accounts for infiltration. Wang Test., TR 617:24; *see also* CX-20.2 at 1 (“To account for the infiltration characteristics of soils, hydrologic

¹⁶ As noted in Complainant’s Brief at 15 n. 20, and 33 n. 43, Dr. Wang has significant modeling expertise compared to Mr. Hentges, particularly with the curve number model. Dr. Wang also has significant soil science background and experience. Wang Test., TR 536:25-537:6.

soils groups were used in the SCS-CN model.”) Canisteo soil is assigned a hydrologic group of C/D by the NRCS. CX-20.2, at 2. Mr. Hentges completely undercut his argument when he testified: “I believe the C or D group is probably right.” TR 1227:7.

Dr. Wang used the infiltration rate not to calculate runoff in the curve number model, but to calculate the daily volume of water that would be lost to infiltration from water ponded in the swale to determine the number of days of discharge. Wang Test., TR 576:15-19, TR 649:25-650:3, TR 650:11-13; CX-20.2 at 65. Dr. Wang determined the infiltration rate using the HEC-RAS model, then he selected a more conservative value than the one calculated by the model, and he compared it to the range of infiltration rates that NRCS recommends for D group soils. TR 650:5-21. Dr. Wang then verified the HEC-RAS model by comparing the model results for June 16-17, 2014 to EPA’s observations during the 2014 inspection, confirming that the infiltration rate was correct. Wang Test., TR 575:10-576:19 (referencing CX-20 at 29, Fig. 14); *see also* CX-20 at 10. The swale would not pond water as observed on June 17, 2014 if it had as high of an infiltration rate as Mr. Hentges claims, and even Mr. Hentges admitted “I think two inches per hour is high.” TR 1227:22. Mr. Hentges also contradicted himself when he testified that rainfall in this area would not infiltrate quickly. TR 1272:1-4 (“rainfall infiltration... takes quite amount of time to reach these high lines. Clay loam soils like this, it may be several days to weeks.”). Further, if the swale had as high of an infiltration rate as Mr. Hentges claims, it would not always be wet or take 30-45 days to drain as Mr. Tony Brown described. T. Brown Test., TR 858:4-24; Draper Test., TR 428:8-9, 500:23-25.

4. Modeling results were verified and accurate

The claims made in Respondents’ Brief at 22-25 that Dr. Wang did not appropriately verify the model, used inaccurate inputs or assumptions, and failed to “use absolute care” completely ignore the fact that he followed standard and adequate verification methods, had his

modeling work peer-reviewed, and not only used site-specific and accurate inputs and assumptions, he also used conservative inputs and assumptions, giving Respondents the benefit of the doubt at every turn. *See* Complainants' Brief at 16-18, 28-30. While Respondents' Brief at 23 asserts that the results were manipulated, the only manipulation of the model was to the benefit of Respondents. The information presented in CX-20.3 is a perfect example of this. Dr. Wang supplemented his expert report after Respondents raised the argument that process wastewater is retained by the central manure alley in order to determine whether any of the days of discharge were affected if Respondents' assertions were true. As CX-20.3 shows, this effort resulted in only changing one day of discharge under the field condition because there are so many other portions of the facility's production area that contribute uncontrolled process wastewater to the swale regardless of how much water flows from the central manure alley and Pen 1.

Finally, contrary to Respondents' Brief at 25, Dr. Wang did not change his testimony regarding calibration of the model or whether a discharge occurred on June 17, 2014, nor does that testimony highlight variability in modeling. As previously explained in Complainant's Brief at 32, Dr. Wang testified that he calibrated the model based on observations on June 17, 2014, which is an appropriate and necessary step in validating the model and ensuring the results are accurate, TR 542:5-22, and he explained which assumptions in the model do and do not lead to the result of a discharge to the East Fork of the Des Moines River on June 17, 2014. *See, e.g.*, TR 668:2-16 (explaining the amount of the water "input to the inlet" is an assumption that affects discharge) and TR 677:9-679:14 (explaining manure pit overflow is not an assumption that affects discharge).

C. Evidence shows that process wastewater in the swale entered the tile line and flowed to the East Fork of the Des Moines River

Complainant met its burden to establish that process wastewater in the swale exceeding the swale's capacity entered the tile line and flowed to the East Fork of the Des Moines River, as set forth in Complainant's Brief at 24-40, by relying on both circumstantial and direct evidence as discussed above. EPA inspectors' observations and samples taken on June 17, 2014 are evidence of a discharge even without going to observe the outlet at the river that day. Mr. Urban explained that he took the sample at the tile inlet because the process wastewater was flowing into the line that Respondents admitted flowed to the river; therefore, it was a sample of the process wastewater that was reaching the navigable waters. TR 224:11-21; TR 227:1-2. Contrary to Respondents' Brief at 5, Mr. Urban also explained that the violation at Riverview Cattle was so apparent it did not require more explanation in CX-1.¹⁷ TR 199:10-200:10; TR 206:5-207:2.

Further, Respondents' Brief ignores the many admissions made by Respondents and other evidence that the process wastewater entered the tile line. For example, Respondents' Brief at 8-9 ignores the admissions in the Complaint, ¶¶ 23, 28, and elsewhere, *see* Complainant's Brief at 26-27, that process wastewater entered the tile inlet on June 17, 2014. Moreover, Ms. Benson's testimony excerpted in Respondents' Brief at 14, TR 1043:8-1044:6, is consistent with Mr. Draper's testimony of the circumstances surrounding Mr. Tony Brown's admission of the

¹⁷ Further, Respondents' assertion that "the Riverview Cattle operation did not garner the attention of EPA until after the inspection," Respondents' Brief at 5, is contrary to Mr. Urban's testimony that, during the June 17, 2014 inspection, he informed Respondents repeatedly of the unauthorized discharge into the tile line at Riverview Cattle, TR 143:20-145:4, left a Notice of Potential Violation ("NOPV") for that unauthorized discharge at Riverview Cattle as well as other unauthorized discharges at Bacon Maker, and made compliance recommendations for Riverview Cattle, TR 146:3-148:3. *See* CX-1 at 7 (referencing violation at Riverview Cattle as "NOPV #1"); *See also* CX-1.4 (copy of the NOPV given at the inspection and attached to the inspection report). Respondents' assertion is also contrary to the evidence in the record that the facility followed up on Mr. Urban's compliance recommendations with evidence of actions taken at Riverview Cattle to address the problems identified during the inspection. CX-2 at 3, 8-9.

June 17, 2014 discharge. Draper Test., TR 428:1-17 (testifying that Ms. Benson was not present for that portion of the discussion). Ms. Benson’s testimony also demonstrates that Mr. Tony Brown did in fact understand the significance of the word “discharge.” In addition, other evidence, including modeling and aerial images, shows that process wastewater entered the tile inlet that day and on previous dates, as discussed in Complainant’s Brief at 24-25 and 28-35, which bolsters the EPA inspectors’ observations.¹⁸ Finally, Respondents confirmed in Respondents’ Brief at 14 that they are “not claiming the tile line was plugged,” and there is no persuasive evidence, as discussed below, that anything prevented the discharge of pollutants to the East Fork of the Des Moines River.

D. Respondents did not provide persuasive evidence that a tile line restriction or submerged tile outlet would prevent the discharge of pollutants to the East Fork of the Des Moines River

Respondents have presented no evidence in this case besides Mr. Hentges’ speculations in testimony at the hearing and blurry photographs, RX-32 and RX-33, to show that a “restriction” in the tile line even existed, let alone that it had any impact whatsoever on the ability of pollutants to discharge through the tile line and into the East Fork of the Des Moines River. *See* Respondents’ Brief at 14-16. For the first time at hearing¹⁹ Mr. Hentges expressed his opinion that the tile line was plugged at some point. TR 1141:6-9, TR 1144:3-1145:24. Mr. Hentges is not an expert in tile drainage systems.²⁰ Mr. Hentges’ opinions are completely

¹⁸ It should be noted that Respondents’ selective discussion of evidence in Respondents’ Brief at 12-19 is not a complete list of the evidence of a discharge presented in this case.

¹⁹ Mr. Hentges did not mention any restriction in the tile line in his report, RX-2, yet Respondents took RX-32 and RX-33 in 2016, well before Mr. Hentges submitted his report into evidence in February 2017; although Mr. Hentges testified that he did not see the photographs until after he submitted his report, he still did not amend his report. TR 1211:20-1212:4; TR 1256:6-10.

²⁰ Although Mr. Hentges testified that he considers himself an expert in tile lines, TR 1257:2-4, for the purposes of this hearing, he was admitted as an expert in hydrogeology, TR 1198:1-1199:24. Further, Mr. Hentges experience with tile lines comes from designing french drains around parking garages and digging up old lines in wetland restoration projects. TR 1144:16-24, TR 1257:5-13.

unsupported by any evidence in the record, as Mr. Hentges could not point to any evidence that the line is restricted besides RX-32 and RX-33 and general information that the tile has been in place for a long time, speculating that it is a clay tile while admitting that he could not tell its composition from the photograph, TR 1144:12-1145:24. Mr. Hentges admitted that he could not say with any certainty whether the tile line was actually plugged at any location. TR 1256:21-24.

All the other evidence in this case indicates that the tile line was fully functional and not “restricted” in any significant way throughout the period of violations. *See* Complainant’s Brief at 37-39. Mr. Hentges testified that the fields surrounding the facility have been pattern tiled over the years in order to facilitate drainage, TR 1141:17-20, and his opinions that a “restriction” in the main line would cause water to sit in the line, TR 1148:13-23, or that “these systems are notorious for having dead spots,” TR 1283:19-22, are unsupported and contrary to all of the evidence that the tile drainage system was in fact functioning. For example, as discussed in Complainant’s Brief at 37-38, there is no evidence of crop distress or erosion in the fields underlying the tile lines in any aerial images throughout the period of violations. As discussed in Complainant’s Brief at 39, EPA’s observations and photographs of the tile outlet on March 29, 2016 confirmed the tile line was functioning to discharge water, as even Mr. Tony Brown and Mr. Hentges agreed. It is unclear what point Respondents are trying to make in Respondents’ Brief at 15 or in Mr. Hentges testimony, TR 1278:5-7, regarding the significance of when the photographs in RX-32 and RX-33 were taken in relation to when CX-8.6 at 39 was taken during EPA’s 2016 inspection.²¹ Nonetheless, if Respondents had dug up the tile line prior to EPA’s

²¹ Respondents are the only ones who would have the information about the exact date that RX-32 and RX-33 were taken. Yet they have only made confusing and conflicting references to the date these photographs were taken. For example, while Respondents’ Supplemental Prehearing Exchange submitted October 12, 2018 stated that RX-32 and RX-33 were taken on July 16, 2016, Mr. Tony Brown testified that the date in the prehearing exchange came from the bill they received from Anderson Tiling to show both the work done north of the driveway in spring 2016 as well as pattern tiling at some unknown date, TR 906:9-907:4, suggesting the photographs could have been

2016 inspection and it was restricted or had somehow affected the flow out of the outlet on March 29, 2016, they surely would have presented that information to EPA inspectors in 2016. Instead, Respondents waited to submit RX-32 and RX-33 into evidence for over two years until October 12, 2018, the last day of the deadline for prehearing exchanges.

Respondents also failed to establish another premise of Mr. Hentges' theory, that water was only trickling into the tile line on June 17, 2014. Mr. Hentges' speculation that water was trickling into the pipe, TR 1272:22-23,²² is unsupported as Mr. Hentges was not present during EPA's inspection on June 17, 2014, TR 1255:18-23, and neither Mr. Tony Brown nor Mr. Josh Brown testified to hearing trickling water. It is also contrary to Mr. Urban's testimony regarding the amount of water flowing into the inlet on June 17, 2014 and contrary to the amount of water flowing out of the outlet on March 29, 2016 shown in CX-8.6 at 39. Therefore, contrary to Mr. Hentges' assertions, TR 1271:7-8, TR 1274:3, we do have evidence that there was a difference of head pressure, with greater pressure inside the line on June 17, 2014, such that the tile line would have discharged even if submerged, and no evidence to the contrary.

Similarly, Respondents have presented no evidence in this case besides Mr. Hentges' speculations and assumptions that the outlet was even submerged on June 17, 2014. Mr. Hentges testified for the first time at hearing, TR 1258:13-24, about his assumption it was submerged based on his unqualified opinion of a photograph taken that day compared to one taken on a later date when Respondents observed the submerged outlet, TR 1154:18-1160:22. *See also*

taken earlier in the spring and not in July. In addition, during that testimony, Respondents' counsel mistakenly referenced July 5, 2016 as the date in the prehearing exchange. TR 906:11-13. Now Respondents assert in Respondents' Brief at 15 that "[a]lthough we don't know an exact date, we do know it was done in the spring of 2016 which was about the same time, and could well have been before CX-8.6, p. 39 was taken." However, not only is it still less than clear what date RX-32 and RX-33 were taken, Respondents now seek to benefit from the uncertainty they created.

²² Contrary to Respondents' Brief at 15-16, Mr. Hentges did not testify that tile line restriction could result in "flow reversal" at TR 1272:19-23.

Respondents' Brief at 11. Respondents' Brief does not mention that Mr. Hentges also made incorrect assumptions regarding the location and accuracy of the City of Armstrong wastewater treatment plant's gauge without attempting any calculations to determine whether the tile outlet was actually submerged. TR 1258:25-1260:20 (referencing RX-3 at 2). In contrast, Dr. Wang calculated the river level at that location and concluded the outlet was not submerged on June 17, 2014, TR 629:22-630:23, TR 636:6-17, and EPA submitted the calculations supporting Dr. Wang's opinion, CX-44.²³

Regardless of whether and when the outlet was submerged, Mr. Hentges' theory that the submerged outlet would not discharge is unsupported and improbable. The single sentence Mr. Hentges devotes to this idea in his report claims, without citation, that "a discharge would not occur due to the head pressure of water in the river pushing back on the water in the tile line." RX-2 at 3. When asked for a scientific basis for that statement, Mr. Hentges testified: "it's common sense." TR 1267:22. Yet, Respondents' Brief at 19 stated that it "may seem to be counter intuitive." In addition, if Mr. Hentges' theory "is a critical issue in this case," as asserted by Respondents' Brief at 19, then Respondents should have submitted citations or evidence in support of the theory or, at a minimum, Mr. Hentges should have been able to give a clear explanation in his testimony. Instead, Mr. Hentges raised the "flow reversal" theory for the first time on cross-examination. TR 1275:10-14 ("Q And then when the river goes down the pipe will discharge. A Well, it could. I mean, there is another phenomenon here that we see a lot, and

²³ Using two gauges maintained by the United States Geological Survey ("USGS"), Dr. Wang calculated the flow of the East Fork of the Des Moines River at the location of the tile outlet on June 17, 2014 and the flow of the river at that location during a 2-year flood, which would submerge the outlets. Dr. Wang testified that he used a standard method used by USGS and other hydrologists based on the ratio of the size of the watershed of the gauge and the size of the watershed at the outlet location. TR 637:7-13; *see also* CX-44. He found that the flow of the East Fork of the Des Moines River at the tile outlet on June 17, 2014 was 814 cubic feet per second (cfs) in the afternoon, TR 635:7-14 (referencing CX-44 at 1), while the flow during a 2-year flood is greater than 1270 cfs, CX-44 at 3-5, and the flow on October 11, 2018 when RX-36 shows the outlet submerged was 1145 cfs, TR 635:23-636:17.

that's flow reversal.”). Moreover, Mr. Hentges could not clearly state in what circumstances the outlet would and would not discharge. TR 1272:24-1276:25. Further, Mr. Hentges' theory that trickling water, even assuming that factual premise, cannot discharge from a submerged pipe is contrary to the logic that even trickling water would eventually build up enough head pressure to discharge, TR 1272:19-23, or would discharge later in time, as previously noted in Complainants' Brief at 40.²⁴ Mr. Hentges' testimony that greater head pressure in the river at the outlet, assuming that factual premise, could possibly cause water in the tile line to flow upgradient in order “to flow into the pattern tile system” and “because it's perforated it just infiltrates into the ground,”²⁵ TR 1271:21-1272:7, is unsupported and contrary not only to common sense but also to his testimony that the purpose of perforated pattern tiles is to facilitate drainage, TR 1143:8-20, and that “tiles always slope downhill” and water flows downhill because of gravity, TR 1269:2-9. Indeed, to say that that Mr. Hentges' opinions “may seem counter intuitive,” Respondents' Brief at 19, is an understatement. The court should apply a measure of common sense to this testimony and reject Mr. Hentges' unsupported theories. *See Leed Foundry* 2007 WL 2192945, at *13 (noting “a measure of common sense may also be applied to the other evidence”).

²⁴ To be clear, EPA is alleging that process wastewater discharged whether or not the outlet was submerged. Complainant's Brief at 40 simply noted that, in the alternative, even if water in the pipe was prevented from discharging, it could discharge later when the river level goes back down, which Mr. Hentges admitted. The citations in Complainant's Brief at 40 to Mr. Hentges' testimony on this topic were not misleading as suggested by Respondents' Brief at 18, n. 4 and 19, n. 5, because the citations were limited to the portions of Mr. Hentges' testimony where he answered the questions presented.

²⁵ Furthermore, to be clear, EPA is alleging that surface water containing pollutants from Respondents' facility flowed through the underground tile line to discharge into the East Fork of the Des Moines River, and not that pollutants flowed through groundwater to the river, making it inapposite to the court's decision in *Hawaii Wildlife Fund v. County of Maui*, 886 F.3d 737 (9th 2018). Despite Mr. Hentges' theories and Respondents' efforts to confuse the issue, Respondents' Brief at 19 and n. 6, there is no issue raised in this case concerning CWA jurisdiction over groundwater.

Contrary to Respondents' Brief at 17, Dr. Wang did testify, unequivocally, that the tile outlet in this case, whether or not submerged, will discharge, TR 624:23-626:21, and EPA's questioning of Mr. Hentges as to whether water would discharge when the river level subsided was a hypothetical under Mr. Hentges' theory that water could be stopped in the pipe by head pressure, which Dr. Wang had already rejected as impossible, TR 624:23-625:2. In contrast to Dr. Wang's testimony, Mr. Hentges was equivocal as to whether the submerge pipe would or would not discharge. TR 1270:19-1276:25. Dr. Wang testified that he confirmed with other experts that the submerged pipe would in fact discharge, TR 625:22-626:13, TR 637:15-638:19, and researched the literature and could not find anything to support Mr. Hentges' claims, TR 627:12-18, and that in fact, both the siphon theory and basic physics prove that submerged pipes will discharge, TR 627:21-628:22. *See also* CX-45, CX-45.1, CX-45.2, CX-45.3.

Furthermore, as stated in Complainant's Brief at 39-40, EPA's unequivocal position that the outlet in this case discharged even when submerged is supported by Dr. Wang's and Mr. Draper's observations of the submerged outlet in April 2018. Respondents' descriptions of the submerged outlet on other dates in 2018, that grass placed on the top of the surface did not move, T. Brown Test., TR 920:9-16 and J. Brown Test., 1010:10-19, and that Mr. Hentges "could not see any movement on the surface," Hentges Test., TR 1152:1-2, are consistent with the testimony of Mr. Draper that the surface remained still while the submerged outlet was discharging. Draper Test., TR 426:25-427:10. Contrary to Respondents' Brief at 17, Respondents' testimony that they could not feel flow when they placed a hand in front of the outlet on May 22, 2018, as shown in RX-26, J. Brown Test., TR 1009:21-1010:9, or on October 11, 2018, as shown in RX-41, T. Brown Test., TR 923:12-24, is not documented by any video or clear photographic evidence, which Mr. Tony Brown and Mr. Hentges testified would be

necessary to prove the existence of flow. T. Brown Test., TR 928:9-24, TR 974:22-975:23; Hentges Test., TR 1140:5-13, TR 1151:21-23, TR 1258:1-12. Although Mr. Hentges testified that he took notes showing the photographs were taken every few minutes, TR 1151:23-1152:2, 1257:17-24, those notes were not submitted into evidence nor are there time stamps on the photographs. Further, the dates of these observations were all after EPA's April 25, 2018 visit when Mr. Draper and Dr. Wang observed flow from the submerged outlet; as such, they are clearly self-serving statements and less likely to be true than the testimony of EPA's witnesses.

Finally, it must be stressed that this entire argument that the tile line did not discharge water into the river as designed has been manufactured by Respondents as a defense against the overwhelming evidence of an unauthorized discharge on June 17, 2014. Even assuming this unsupported and improbable theory is correct, Dr. Wang's calculations show that the outlet was not submerged on June 17, 2014 and, therefore, that day of discharge was not impacted; furthermore, Dr. Wang's calculations show that the outlet was submerged on only three other days out of the 42 total days of discharge, which is a small impact on the overall number of violations in this case.²⁶

III. COMPLAINANT'S PROPOSED PENALTY IS JUSTIFIED

While Respondents assert that the penalty should be reduced "due to Respondent's history of no previous violations and Respondent's good faith actions as evidenced at the hearing," Respondents only cite vaguely to testimony by Ms. Benson without any citation to the transcript and cite to Mr. Tony Brown's testimony that it was not his intent to violate the CWA. Respondents' Brief at 35. However, when considering any good-faith efforts to comply with the

²⁶ Dr. Wang testified that he used the same methodology shown in CX-44 to calculate that the outlet was not submerged on June 17, 2014, *see* note 23, above, and to calculate that it was submerged on June 22 and 23, 2011 and June 18, 2014, TR 631:18-633:2, TR 636:18-637:13, which are the 3 other dates included within the 42 total days of discharge calculated under the road condition scenario and alleged by EPA in this case.

applicable requirements as a mitigating factor in the penalty calculation, the court “evaluates the evidence to determine whether the permittee took any actions to reduce the number of violations or attempted to lessen the impact of their discharges on the environment” and looks to see if those actions occurred “during the relevant period.” *United States v. Smithfield Foods*, 191 F.3d 516, 531-532 (4th Cir. 1999), *cert. denied*, 531 U.S. 813 (2000). As noted in Complainant’s Brief at 52, no regulatory agency was aware this facility existed during the period of violations, and Ms. Benson testified that she did not inspect Riverview Cattle or speak to Respondents prior to EPA’s 2014 inspection. TR 37:25-38:4, TR 40:12-14. Therefore, her testimony as to Respondents’ good faith efforts is only relevant to the time after the period of violations in this case. Likewise, Mr. Tony Brown’s testimony at TR 979:9-981:6 relates to what he has learned in the years after the period of violations in this case, not to any good faith efforts to lessen the impact of Respondents’ discharges on the environment during the relevant period. Further, he admits “[t]hese pictures from 2014 don’t reflect a good job,” TR 980:18-19, and that “[k]nowing now, yeah, a phone call to Dallas, making that pit bigger, whether the banker will let me make it bigger, I don’t know, but I didn’t ask,” TR 980:24-981:2.

Although Respondents assert that they were “prejudiced by EPA’s relaxed demeanor during the June 17, 2014 inspection,” Respondents’ Brief at 35, contrary to Respondents’ assertions, as discussed above, Respondents were on notice that there was an apparent CWA violation that day. Also contrary to Respondents’ assertions in Respondents’ Brief at 1, as discussed above, EPA inspectors did make an effort to locate the tile outlet by asking Respondents where it was located, and it was Respondents’ answers that convinced the EPA inspectors they would not be able to locate it in time. While Respondents argue that “Riverview Cattle should not be penalized any more than they have been for EPA’s failure to conduct a

proper inspection on June 17, 2014,” Respondents’ Brief at 2, Respondents have not yet been penalized for their violations. In *Friends of the Earth, Inc. v. Laidlaw Envtl. Serv., Inc.*, 528 U.S. 167, 185-186 (2000), the Supreme Court recognized the importance of penalties in CWA cases:

Congress has found that civil penalties in Clean Water Act cases do more than promote immediate compliance by limiting the defendant's economic incentive to delay its attainment of permit limits; they also deter future violations. This congressional determination warrants judicial attention and respect... To the extent that they encourage defendants to discontinue current violations and deter them from committing future ones, they afford redress to citizen plaintiffs who are injured or threatened with injury as a consequence of ongoing unlawful conduct.

In this case, asserting that prejudice to Respondents, if any, in defending themselves against this enforcement action is the equivalent to a civil penalty misunderstands the fundamental purpose of civil penalties in the enforcement of the CWA.

Therefore, Respondents have not provided any evidence that EPA’s proposed penalty is unjust or should be reduced.

CONCLUSION

EPA proves herein by a preponderance of the evidence that Respondents discharged pollutants from a point source into waters of the United States without obtaining a NPDES permit. EPA also demonstrates that the Respondents’ violations of the CWA warrant the assessment of the proposed penalty of \$96,000.

RESPECTFULLY SUBMITTED this 29th day of April, 2019.



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CERTIFICATE OF SERVICE

I hereby certify that on this 29th day of April 2019, I filed via the E-filing system the original of this Post-Hearing Brief to the Office of Administrative Law Judges Hearing Clerk, and sent by email to Mr. Eldon McAfee, counsel for Respondents:

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