

# NOTES

## Sniffing Out Clandestine Water Pollution in the Tijuana River Valley

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### ABSTRACT

*The United States and Mexico are fellow riparian states along the Tijuana River at different points in socio-economic development. Mexico's geographic position as the upper riparian state with insufficient wastewater disposal systems has, for decades, caused environmental harm to the United States. Like many developing countries, Mexico lacks proper wastewater disposal infrastructure, which has resulted in the bypassing of wastewater into the Tijuana River. This wastewater inevitably flows downstream to the United States, polluting the Tijuana River Valley, valley ecosystems, and California border cities and beaches. In a recent incident, over 230 million gallons of wastewater were bypassed into the Tijuana River, polluting U.S. cities, towns, and waterways. This incident was a massive violation of the 1944 U.S.-Mexico Treaty, demonstrating Mexico's failure to notify the United States of wastewater discharges from its ailing sewer infrastructure, an intentional bypassing of wastewater into the Tijuana River, and apparently deliberate efforts to conceal the true extent of wastewater discharges. The incident exposed Mexico's reluctance to notify the United States of its sewer infrastructure failures, as well as its failure to coordinate with the United States to help repair this infrastructure, even though the environmental consequences of Mexico's wastewater bypassing predominantly affects the United States.*

*This latest incident illustrates that the International Boundary and Water Commission's current binational emergency notification and response system—based on good faith reporting by Mexico—does not work well, if at all. Minute 320, promulgated by the International Boundary and Water Commission in 2015, is the first Commission agreement to address pollution in the Tijuana River Basin. This latest incident demonstrated Minute 320's failure to induce both countries to jointly implement concrete proposals to detect, report, and remedy instances of massive wastewater pollution, and to hold parties accountable for noncompliance.*

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*This Note proposes a Minute that would serve as an improved mechanism for binational monitoring and reporting of transboundary pollution in the Tijuana River. The proposed Minute addresses the glaring gap in Minute 320's capacity to implement measures to resolve the transboundary issues it set out to fix. The proposed Minute would establish a binational water quality monitoring and notification station along the Tijuana River that would rely on real-time water quality monitoring, analysis, and reporting to detect and report instances of wastewater spillage from Mexico. It would also hold both countries accountable for noncompliance. The benefits of the Minute to both States include public health notification, project and initiative validation, repair tracking, promotion of binational cooperation, and access to critical water quality information. The legal strategies of sunshine, incentives, and the threat of sanctions should be used if the new Minute encounters resistance by Mexico in adoption or noncompliance upon adoption.*

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#### INTRODUCTION

The Tijuana River Watershed lies between the United States and Mexico and is one of the fastest-growing regions along the border, with over 5 million people

living in the San Diego metropolitan area,<sup>1</sup> and over 1.5 million people living in the Tijuana metropolitan area.<sup>2</sup> The Tijuana River Watershed drains 1,750 square miles, three-quarters of which lies in Mexico, into the Pacific Beach, which is primarily on the U.S. side of the border.<sup>3</sup> Wastewater discharges into the Tijuana River from Mexico have been an issue since the early 20th century due to deficient sewer and wastewater disposal systems in Tijuana.<sup>4</sup> Pursuant to the 1944 Treaty between the United States and Mexico for the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande (“the 1944 Treaty”), the International Boundary and Water Commission, United States and Mexico (“the Water Commission”) has taken several measures over the years to ensure equitable and efficient distribution of border waters, flood control, channel stabilization, and border sanitation.<sup>5</sup>

The United States and Mexico, through the Commission, have made significant progress in stemming the flow of untreated wastewater into the United States through the Tijuana River. Some of the most notable accomplishments of the Water Commission have been the construction and operation of three international wastewater treatment plants on the border region to treat Mexican wastewater,<sup>6</sup> as well as the Minute 320 Water Commission agreement to jointly identify and implement structural and non-structural measures to improve sediment control, solid waste management and disposal, and water quality.

Unfortunately, the Tijuana sewer system is in dire straits due to significantly corroded pipes and overwhelming use by Tijuana’s rapidly growing population. The sewer system is regularly subject to collapsing pipes, sewer lines, and collectors, leading to the bypassing of hundreds of millions of gallons of wastewater into the Tijuana River. A recent incident in early 2017 demonstrated that sewer system failures are more common than once thought. Negligent, accidental, and intentional discharges of wastewater into the Tijuana River from Mexico, in violation of the 1944 Treaty, are often going unreported and undetected. Therefore, Minute 320 has failed to induce both countries to jointly implement concrete proposals to detect, report, and remedy instances of massive wastewater pollution, and to hold both countries accountable for noncompliance.

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1. *WATERSHED PRIORITIES: TIJUANA RIVER WATERSHED, BAJA CALIFORNIA & CA*, <https://perma.cc/ED3B-XTQV> (last visited Nov. 4, 2017).

2. *Sewage History of Tijuana*, SAN DIEGO MAGAZINE (Dec. 2007), <https://perma.cc/DF6R-HMVB>.

3. *WATERSHED PRIORITIES: TIJUANA RIVER WATERSHED, BAJA CALIFORNIA & CA*, *supra* note 1.

4. *Tijuana River Valley Border Pollution: Hearing Before the Assemb. Select Comm. on International Water Treatment and Reclamation* (Cal. 1984) (statement of Ladin Delaney, Executive Director of the Regional Water Quality Control Board), <https://perma.cc/H6PF-QEGJ>; Jeannette DeWyze, *Shocking Facts and Horrifying History of Tijuana Sewage*, SAN DIEGO READER (Nov. 23, 1988), <https://perma.cc/U7LA-CB8K>.

5. INTERNATIONAL BOUNDARY AND WATER COMMISSION, UNITED STATES AND MEXICO, UNITED STATES SECTION, STRATEGIC PLAN FY 2011 – FY 2016 3 (2011) [hereinafter WATER COMMISSION STRATEGIC PLAN].

6. *Id.* at 8.

This Note will recommend a new binding Water Commission agreement, in the form of a Minute, to establish a binational water quality monitoring and notification station along the Tijuana River. The station would rely on real-time water quality monitoring, analysis, and reporting to identify instances of wastewater spillage from Mexico and to hold both countries accountable for noncompliance.

The benefits to both countries include public health notification of hazardous water conditions, early and critical Tijuana sewer system failure detection, project and initiative validation, repair tracking, access to critical water quality information, and promotion of binational cooperation. Considering the myriad of benefits to both countries, the possibility that Mexico would be violating the U.S. rights to “joint use” through the 1944 Treaty, and the demonstrable failure of Minute 320 to address the transboundary issues, the new proposed Minute should not encounter much resistance, especially if the United States would be willing to shoulder the majority of the costs. If the new Minute does encounter resistance in adoption or noncompliance upon adoption, the legal strategies of sunshine, incentives, and the threat of sanctions may be necessary to induce compliance by Mexico.

#### I. THE INCIDENT: WATER ODORS AND THE THREAT OF LEGAL ACTION

Between February 6 and February 25, 2017, there were complaints of a significant transboundary sewage spill—estimated at between 143 and 250 million gallons—from Tijuana, Mexico into the Tijuana River Valley and adjoining California border cities via the Tijuana River.<sup>7</sup> The giant wastewater and sewage spill was brought to the attention of the authority on these matters, the United States Section of the International Boundary and Water Commission (“U.S. Section”),<sup>8</sup> not by the entity responsible for the spill, but by complaints from various entities in the United States, including: U.S. Customs and Border Protection, the City of Imperial Beach, the California Regional Water Quality Control Board, the San Diego Water Board, the San Diego County Air Pollution Control District, and local residents.<sup>9</sup> These U.S. entities complained of strong wastewater odors and water discoloration in the Tijuana River Valley, adjoining neighborhoods, and beach areas of Imperial Beach, CA.<sup>10</sup>

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7. MINUTE 320 BINATIONAL TECH. TEAM, WATER QUALITY WORKGROUP, INTERNATIONAL BOUNDARY AND WATER COMMISSION UNITED STATES AND MEXICO, REPORT OF TRANSBOUNDARY BYPASS FLOWS INTO THE TIJUANA RIVER 3 (2017) [hereinafter MINUTE 320 WORKGROUP REPORT]; Stephen Siciliano, *Sewage from Mexico Tests Binational Framework*, WATER L. & POL’Y MONITOR (BNA), March 16, 2017.

8. *About Us*, INTERNATIONAL WATER AND BOUNDARY COMMISSION, UNITED STATES AND MEXICO, UNITED STATES SECTION, <https://perma.cc/TV56-C6UY> (last visited Nov. 4, 2017).

9. MINUTE 320 WORKGROUP REPORT, *supra* note 7, at 3.

10. *Id.*

The City of Imperial Beach was particularly affected by the massive discharge.<sup>11</sup> On March 1, 2017, California Representatives Scott Peters (D) and Juan Vargas (D) sent a letter asking the Secretary of State and the Environmental Protection Agency (“EPA”) Administrator to investigate the discharge, provide resources to the affected San Diego County municipalities, and prevent these communities from being compromised further.<sup>12</sup> The EPA responded by stating that the State Department had sole jurisdiction over the matter.<sup>13</sup> During the first week of August, elected officials of Imperial Beach disclosed that the city retained the law firm of Sher Edling to prepare the sixty-day notice required by law before it could sue the federal government for alleged violations of the U.S. Clean Water Act.<sup>14</sup>

City officials have claimed that the U.S. Section of the Water Commission has repeatedly failed to capture and treat sewage routinely flowing across the border through the Tijuana River.<sup>15</sup> Imperial Beach Mayor Dedina has long called for the resignation of the Commissioner of the U.S. Section, Edward Drusina, for failing to act despite the City’s many pleas.<sup>16</sup> National Border Patrol Council Local 1613, the regional U.S. Border Patrol Union,<sup>17</sup> came out in support of Imperial Beach and threatened to file a lawsuit of their own against the federal government. Border agents have also filed dozens of reports of hazardous work conditions documenting adverse reactions when they came into contact with sewage flows from culverts and canyons, including chemical burns, rashes, respiratory infections, and breathing problems.<sup>18</sup>

As of early 2019, despite the publicized environmental damage, complaints, and harm to citizens, the U.S. government has not taken any substantive actions to abate the harm caused by sewage spills from Mexico.<sup>19</sup> The U.S. Section, tasked with representing and protecting U.S. interests under the 1944 Treaty, has failed to do so and has actively avoided taking responsibility. Part II will give an

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11. As of Mar. 7, 2019, the City of Imperial Beach continues to be affected by border sewage spills flowing from crumbling sewer lines in Mexico. In fact, city councilwoman Paloma Aguirre said that Imperial Beach has been closed almost 30 days in 2019, almost twice the average number of closures. Jaime Chambers, *Imperial Beach Holds Meeting on Border Sewage Spills*, FOX 5 NEWS (Mar. 7, 2019), <https://perma.cc/J8HT-BZXG>; Siciliano, *supra* note 7.

12. Siciliano, *supra* note 7.

13. *Id.*

14. The U.S. Clean Water Act, 33 U.S.C.A. § 1251 (West, Westlaw through Pub. L. No. 115-68); Joshua Emerson Smith, *Imperial Beach Poised to Sue Feds Over Border Pollution*, THE MORNING CALL (Aug. 1, 2017), <https://perma.cc/59UX-Q2VF>.

15. Joshua Emerson Smith, *Imperial Beach Poised to Sue the Federal Government Over Border Pollution*, L.A. TIMES (Aug. 4, 2017), [perma.cc/3XTB-HEYB](https://perma.cc/3XTB-HEYB).

16. Marty Graham, *I.B. Ready to Sue: Decision Tonight?*, SAN DIEGO READER (June 21, 2017), <https://perma.cc/89WN-DLYC>.

17. *About Local 1613*, NATIONAL BORDER PATROL COUNCIL LOCAL 1613, <https://perma.cc/CX7N-6UUB> (last visited Oct. 28, 2017).

18. Graham, *supra* note 16. Border agents frequently have to track down illegal border crossers through mud contaminated with sewage. *Id.*

19. Chambers, *supra* note 11.

overview of the Water Commission, the scope of its mandate, and a detailed description from the public record of the Water Commission's inadequate response to the massive wastewater spillage incident reported in 2017.

## II. RESPONSE TO THE INCIDENT BY THE U.S. SECTION OF THE INTERNATIONAL BOUNDARY AND WATER COMMISSION

The Water Commission is a binational commission established by the 1944 Treaty between the U.S. and Mexico,<sup>20</sup> with the mission of “provid[ing] binational solutions to issues that arise during the application of United States – Mexico treaties regarding boundary demarcation, national ownership of waters, sanitation, water quality, and flood control in the border region.”<sup>21</sup> Pursuant to the 1944 Treaty, decisions of the Commission are recorded in the form of “Minutes” that, following approval by the U.S. and Mexican governments, serve as binding international agreements.<sup>22</sup> Minutes passed by both governments are necessary predicates to cooperative and equitable action and planning to achieve the goals set out in the 1944 Treaty.

On October 5, 2015, the Commission passed Minute 320, the “General Framework for Binational Cooperation on Transboundary Issues in the Tijuana River Basin.”<sup>23</sup> Minute 320 was passed primarily in response to transboundary issues regarding sediment and solid waste deposition, and to control wastewater discharges into transboundary channels of the Tijuana River Basin.<sup>24</sup> Consistent with Article 3 of the 1944 Treaty, the joint use of international waters “shall be subject to any sanitary measures or works which may be mutually agreed upon by the two Governments, which hereby agree to give preferential attention to the solution of all border sanitation problems.”<sup>25</sup> Minute 320 established a Binational Core Group (“BCG”), composed of representatives of the Water Commission; federal, state, and local governments; and nongovernmental organizations that have a stake in transboundary issues regarding the Tijuana River Basin. The BCG is tasked with appointing Binational Work Groups, such as the Minute 320 Water Quality Task Force, to assist with formulating cooperative measures to address transboundary issues in the Tijuana River Basin, taking into consideration the work and concerns of stakeholders from both countries.<sup>26</sup> Minute 320 stated that the Water Commission shall determine the “appropriateness of formalizing and

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20. Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, U.S.-Mex., Feb. 3, 1944, art. 2, T.S. No. 994 [hereinafter 1944 Water Treaty].

21. WATER COMMISSION STRATEGIC PLAN, *supra* note 4, at i.

22. *Id.* at 1.

23. International Boundary and Water Commission, United States and Mexico (“IBWC”), Minute No. 320, *General Framework for Binational Cooperation on Transboundary Issues in the Tijuana River Basin*, (Oct. 5, 2015), <https://perma.cc/E33L-FG4Z> [hereinafter Minute No. 320].

24. *Id.* at 2.

25. 1944 Water Treaty, *supra* note 20, art. 3.

26. Minute No. 320, *supra* note 23, at 4.

implement[ing]” any initiatives or projects recommended by the BCG, and may formalize their implementation in “subsequent specific Minutes.”<sup>27</sup>

In response to U.S. complaints about the transboundary discharges from Mexico, the U.S. Section requested information from its counterpart, the Mexican Section of the International Boundary and Water Commission (“Mexico Section”), on the possible source of the strong wastewater odors on February 7, 2017. When the Mexico Section was unresponsive, another request was sent on February 16, 2017.<sup>28</sup> On February 23, 2017, the Mexico Section finally informed the U.S. Section that Comisión Estatal de Servicios Públicos de Tijuana (“CESPT”)<sup>29</sup> had bypassed wastewater flows into the Tijuana River during the repairs of a wastewater line in central Tijuana. According to the Mexico Section, the collector had been damaged for some time, but repairs were completed on February 23, 2017, with pavement repairs and other civil work completed on February 25, 2017.<sup>30</sup> Based on this, the U.S. Section filed a spill report with the California Office of Emergency Services and the San Diego Water Board estimating the spill at 143 million gallons, based on spillage from February 6 through February 24, 2017, which flowed at a rate of 300 lps.<sup>31</sup>

The Mexico Section claimed that CESPT failed to notify it of the emergency work and bypassing of wastewater into the river, so the Mexico Section could not provide an estimate of the volume of bypassed wastewater.<sup>32</sup> CESPT said that the sewer line failure was due to aging infrastructure but did not address the decision to not notify the Mexico Section promptly. Conveniently, the Mexico Section did not address its failure to promptly respond to U.S. Section inquiries on February 7, 2017, which hindered the Commission’s ability to request diplomatic intervention from the U.S. Consulate for sixteen days. Such a coincidence raises questions of coordination between the Mexico Section and CESPT.

On March 2, 2017, the U.S. Section received an informational paper on the discharge issued by the CESPT dated February 27, 2017, indicating that the line had initially collapsed on January 1, 2017, but that no bypass flows to the river had occurred until hydraulic repair work was performed between February 1 and February 4, 2017. The informational paper stated that the hydraulic repair work necessitated the diversion of 300 lps of wastewater into the Tijuana River, amounting to twenty-eight million gallons of wastewater, and that repair work was completed on February 23, 2017.<sup>33</sup> It is highly unlikely that CESPT’s claim

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27. *Id.*

28. MINUTE 320 WORKGROUP REPORT, *supra* note 7, at 3.

29. The Comisión Estatal de Servicios Públicos de Tijuana (“CESPT”) is a decentralized public body that administers the treatment of sewage and the supply of drinking water to the cities of Tijuana and Playas de Rosarito, as well as the treatment of wastewater to avoid pollution at sea. *Fundación de CESPT*, CESPT, <https://www.cespt.gob.mx/organismo/antecedentes.html> (last visited Oct. 28, 2017).

30. MINUTE 320 WORKGROUP REPORT, *supra* note 7, at 3.

31. *Id.*

32. *Id.* at 6.

33. *Id.* at 6–7.

that no wastewater bypass occurred when the line collapsed on January 1, 2017 is accurate. CESPT gave no explanation for how the wastewater from the January 1, 2017 breach was diverted. This omission was glossed over and went uncontested by the U.S. Section and the U.S. Consulate.

The informational paper also directly contradicted statements made to the U.S. Consulate on February 28, 2017 by the Resident Engineer of the Mexico Section, Tijuana, Roberto Espinosa, and the General Manager of CESPT, Miguel Lemus, who said that the collapse of the collector took place on the evening of February 1, 2017.<sup>34</sup> The informational paper also contradicted further statements made by Espinosa to the U.S. Section on March 1, 2017 following the U.S. Consulate meeting but before the CESPT informational paper was received, indicating that the line collapsed on February 1, 2017.<sup>35</sup> The EPA, in estimating the volume of the spill, paid no heed to the Mexico Section and CESPT claims of only ninety-six-hour diversion of wastewater into the Tijuana River from February 1 to February 4, 2017.<sup>36</sup> Using January 1, 2017 as the onset of spillage, the EPA estimated that 230 million gallons of wastewater bypassed into the river based on the CESPTA informational paper.<sup>37</sup>

The inconsistent statements, omissions, and delay by the responsible Mexican entities are alarming, as is the U.S. Section's failure to act when alerted. The U.S. Section should have confirmed the wastewater discharge through a local agency and immediately sought diplomatic intervention without delay. The wastewater spillage incident in 2017 demonstrates it is fair to assume that no disclosure or report would have been made by Mexico if not for the U.S. complaints.

There are three significant implications surrounding this incident. First, the actual volume of wastewater discharged from Mexico during the 2017 incident may be even higher than the EPA estimates because the EPA estimates are based on Mexican reports of when the Tijuana sewer system was breached and what the estimated flow rates were. As this Note will demonstrate in Part III, the bypass from the massive discharge reported in 2017 likely began in mid-December of 2016. Second, the average annual wastewater discharges from breaches in Tijuana's sewer systems are probably much higher than conventional estimates because consistent pollution of smaller magnitude would avoid detection, particularly if the only means of detection and reporting are individual reports of pollution. Third, the Water Commission has no reliable means (other than self-reporting obligations) to detect, report, and remedy wastewater breaches of Mexican sewer infrastructure that flow downstream into the United States.

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34. *Id.* at 6.

35. *Id.*

36. *Id.*

37. *Id.* at 7.



### III. REPORT OF THE INTERNATIONAL BOUNDARY AND WATER COMMISSION'S MINUTE 320 BINATIONAL WATER QUALITY TASK FORCE

On March 2, 2017, the Water Commission sent a Minute 320 Binational Water Quality Task Force, consisting of members of the Water Commission's Minute 320 BCG, to investigate the spill.<sup>38</sup> At the binational meeting following the investigation, the Task Force presented its findings: In mid-December 2016, due to heavy rain, stormwater flow caused wastewater system overflows in many areas, which flowed into the Tijuana River.<sup>39</sup> Therefore, the wastewater bypasses that led to the malodors across the border began in mid-December 2016, not February 1, 2017, as was first reported,<sup>40</sup> nor January 1, 2017, as was subsequently reported in the informational paper.<sup>41</sup>

CESPT identified seven areas in the wastewater collection system that sustained damage. Six of these areas were repaired and allegedly caused no discharge of wastewater. However, the seventh area, the sewer line in contention, collapsed around January 1, 2017, creating a sinkhole which caused a significant amount of wastewater to be discharged, wastewater that the CESPT and Mexico Section were allegedly unable to quantify.<sup>42</sup> Yet, the CESPT and Mexico Section held steadfast to the patently false and illogical position that the only significant wastewater discharged was approximately twenty-eight million gallons between February 1 and 4, 2017, when the alleged substantive repairs took place.<sup>43</sup> The CEST began work on the broken collector—the Insurgentes/Oriente collector—on January 2, 2017.<sup>44</sup> According to the CESPT, the goal was to investigate the damage and to divert 100% of the wastewater flowing to the Insurgentes/Oriente collector to prevent discharges into the Tijuana River during the repair stage.<sup>45</sup> CESPT said that the rest of January was spent preparing for the repair, which included drafting a contract to have the site and line fixed.<sup>46</sup>

Here, by the CESPT's own admission, nothing was done about the overflowing sewer systems in December, 2016, not even notification to the U.S. stakeholders to warn them of this concern, a concern which primarily implicates U.S. interests.<sup>47</sup> CESPT also said that the entire month of January 2017 was spent preparing for the repairs and drafting a contract and that the broken collector did not have an inflatable plug put in until February 1, 2017 to divert the waters to other

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38. *Id.*

39. *Id.* at 12.

40. *Id.* at 6

41. *Id.*

42. *Id.* at 12–13.

43. *Id.* at 6–7.

44. *Id.* at 13.

45. *Id.*

46. *Id.*

47. *Id.* at 6–7, 54.

collectors.<sup>48</sup> This diversion to other collectors undoubtedly caused overflows in other parts of the sewer system, further destabilizing other lines. If CESPT's claim that substantive repairs were completed on February 4, 2017 is true, then wastewater would have been flowing into the U.S. virtually unchecked for over a month and a half. If the reality is that the U.S. Section was not notified until February 23, 2017, because that was actually how long the repairs took, then wastewater would have been flowing into the United States virtually unchecked for over two months. Mexico's response to this self-perpetuated crisis that almost exclusively affected its neighbor is wholly inadequate.

On February 1, 2017, CESPT began repair of the Insurgentes/Oriente collector. By CESPT's own admission, it bypassed wastewater flow into the Alamar and Tijuana Rivers, as opposed to another collector, because CESPT lacked pumping equipment of sufficient capacity to handle the flow.<sup>49</sup> CESPT preferred to pollute the Tijuana River rather than contact the U.S. Section to seek assistance in procuring the requisite pumps. CESPT cannot argue that delay associated with seeking assistance in procuring pumps would have caused more wastewater to enter the Tijuana River than the proclaimed 28 million gallons that was bypassed into the river between February 1 and 4, as CESPT claimed that no bypasses occurred outside of that four-day period. Therefore, CESPT had no excuse to not seek assistance from the U.S. Section. As such, CESPT's actions appear to be a deliberate attempt to prevent U.S. involvement. It is also plausible that CESPT notified the Mexico Section, which then made the deliberate decision to keep the U.S. Section out of the loop.<sup>50</sup>

CESPT's failure to procure the requisite equipment to prevent the spill demonstrates a failure to follow its own "Standard Practices."<sup>51</sup> Furthermore, CESPT also failed to follow its own Standard Practices when it did not attempt to divert the flow to a sanitary sewer structure as a first measure to avoid, as much as possible, above-ground discharges that would impact the environment.<sup>52</sup> The CESPT and Mexico Section's actions, and inaction, in response to the spill, violated Article 3 of the 1944 Treaty, which includes an agreement by the two governments to "give preferential attention to the solution of all border sanitation problems."<sup>53</sup> This violation occurred when millions of gallons of wastewater were bypassed into the joint international waters of the Tijuana River; when no notification was made to the U.S. Section of a massive spill that went on to affect U.S.

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48. *Id.*

49. *Id.* at 15.

50. Analyses of action by either Section of the Water Commission must be mindful that, while the Commission is officially binational, "the parallel national actions undertaken by the [Water Commission] fall considerably short of true binationalism." See Helen Ingram & David R. White, *International Boundary and Water Commission: An Institutional Mismatch for Resolving Transboundary Water Problems*, 33 NAT. RESOURCES J. 153 (1993).

51. MINUTE 320 WORKGROUP REPORT, *supra* note 7, at 14.

52. *Id.*

53. 1944 Water Treaty, *supra* note 20, art. 3.

lands and waters, and posed a risk to U.S. citizens; and when the CESPT and the Mexico Section appeared to try to conceal the true magnitude of the harm done.

The Insurgentes/Oriente incident would likely never have come to the attention of the U.S. Section if not for reports of malodors and discoloration by U.S. entities. The most concerning aspect of the events as they unfolded is that, if the CESPT and Mexico Section concealed that a major environmental incident occurred and subsequently attempted to obfuscate the extent of harm after it was discovered, then how many other incidents are going unreported? How much wastewater is actually being discharged from Mexico into the United States?

It is worth noting that wastewater lines around the Insurgentes/Oriente convey flow to Pump Station No. 1, half of which is then conveyed to South Bay International Wastewater Treatment Plant (“SBIWTP”), operated by the U.S. Section in San Diego.<sup>54</sup> The other half is pumped to San Antonio de los Buenos (“SADLB”) treatment plant in Tijuana.<sup>55</sup> The U.S. Section noted that during the last week of December 2016, flows to SBIWTP were significantly below average.<sup>56</sup> The U.S. Section representative at SBIWTP received several requests from CESPT personnel at Pump Station No. 1 to send more flow to Mexico, as they were not receiving sufficient flow.<sup>57</sup> It may also be telling that during times of heavy rain, the wastewater lines would not operate properly and would lead to spillage out of the wastewater system and into the Tijuana River.<sup>58</sup> The Mexico Section said that it is difficult to determine the exact flow because it is not directly measured at Pump Station No. 1. However, according to the SBIWTP’s flow records, *E. coli* concentrations recorded by the Water Commission and data from CESPT indicate that approximately 256 million gallons of wastewater was not pumped to the SBIWTP between January and February, gallons that may have been diverted into the Tijuana River.<sup>59</sup> The U.S. Section noted that under the permit for SBIWTP, CESPT was required to notify the San Diego Water Board of spill events. This lends further support to the assertion that there is a large volume of wastewater originating in Mexico that is infiltrating the Tijuana River from point and non-point sources and is going unreported by the Mexico Section and

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54. MINUTE 320 WORKGROUP REPORT, *supra* note 7, at 15.

55. *Id.*

56. *Id.*

57. *Id.*

58. *Id.* at 6.

59. Storm weather conditions often lead to higher *E. coli* concentrations than dry-weather conditions. See STEPHEN J. LAWRENCE, *ESCHERICHIA COLI* BACTERIA DENSITY IN RELATION TO TURBIDITY, STREAMFLOW CHARACTERISTICS, AND SEASON IN THE CHATTAHOOCHEE RIVER NEAR ATLANTA, GEORGIA, OCTOBER 2000 THROUGH SEPTEMBER 2008—DESCRIPTION, STATISTICAL ANALYSIS, AND PREDICTIVE MODELING 54-55 (2012). Excessive *E. coli* concentrations in the Tijuana River may be an indicator of excessive stormwater overflows into the Tijuana River.

unaddressed by both sections of the Water Commission.<sup>60</sup>

In summary, the report by the Water Commission's Minute 320 Water Quality Task Force failed to definitively identify the total amount of wastewater spilled, failed to identify the individual flows and point sources of spillage besides the twenty-eight million gallons of wastewater for which CESPT claimed responsibility, and failed to definitively identify the source of the strong odors in the Tijuana River Valley from the February 6 to February 17, 2017 period.<sup>61</sup> However, the Task Force report did suggest a number of recommendations:<sup>62</sup> (1) that the CESPT have on-hand necessary equipment to address emergency situations;<sup>63</sup> (2) that the CESPT include in its emergency protocols notification to U.S. stakeholders of spillage into shared waterways;<sup>64</sup> (3) a binational protocol for notification in the event of spills to encourage communication between governmental agencies of the United States and Mexico when an incident occurs;<sup>65</sup> (4) an infrastructure assessment to encourage Mexico and CESPT to address their aging infrastructure and investigate the possibility of adding infrastructure on the U.S. side to deal with wastewater flows coming in from Mexico;<sup>66</sup> and (5) a study to determine a baseline water condition for water quality in the Tijuana River.<sup>67</sup>

#### IV. INTERNATIONAL WATER AND BOUNDARY COMMISSION ACTION IN RESPONSE TO THE MINUTE 320 WATER QUALITY TASK FORCE REPORT

Following the report by the Water Commission's Minute 320 Water Quality Task Force, the U.S. Section issued a press release on August 9, 2017, identifying the actions it has undertaken to address the Task Force's recommendations, which include:<sup>68</sup>

- A revised and more detailed binational spill notification protocol between the United States and Mexico, which includes prompt notification to U.S. stakeholders.<sup>69</sup>
- A Scope of Work for a contractor to develop a diagnostic for the existing binational diversion and pumping systems that are bypassing wastewater

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60. Besides stormwater infiltration, a common non-point source of wastewater pollution in Tijuana is drainage from manholes opened by people wanting to drain water near their residences. MINUTE 320 WORKGROUP REPORT, *supra* note 7, at 12.

61. *Id.* at 25.

62. *Id.*

63. *Id.*

64. *Id.* at 26.

65. *Id.* at 25.

66. *Id.* at 26.

67. *Id.* at 27.

68. Press Release, International Boundary and Water Commission United States Section, International Boundary and Water Commission Undertakes Actions to Address Sanitation Concerns at San Diego-Tijuana Border (Aug. 9, 2017) (on file with U.S. IBWC).

69. *Id.*

into the Tijuana River and to develop additional infrastructure on both sides of the border to reduce the impact of transboundary flows.<sup>70</sup>

- A more comprehensive plan for water quality monitoring in the Tijuana River Basin.<sup>71</sup>
- An agreement to install three flow meters to provide information about conditions of the Tijuana River.<sup>72</sup>
- A plan to conduct binational inspections every other month at key transboundary wastewater flow sites.<sup>73</sup>
- Facilitating the donation of a Vactor truck to Mexico by the City of Imperial Beach.<sup>74</sup>

Most of the actions being taken by the Water Commission are insufficient because they do not address the underlying issue, which is Mexico's reluctance to notify the United States when wastewater spills occur. The actions taken by the U.S. Section that relate to communication and notification of wastewater spills effectively amount to good faith promises by Mexico to notify it of spills. These promises are unenforceable in the absence of a binding obligation to notify and procedures to monitor for and detect notification failures by Mexico. This is particularly true when prior failures to notify have likely been deliberate to avoid diplomatic engagement with the United States.

The first action, a detailed binational spill notification protocol, is procedure devoid of substance; it is unenforceable and practically ineffective if the United States is ignorant of a spill's occurrence. First, massive wastewater polluting could be occurring at any point in time, and U.S. stakeholders would be unable to sniff it out—both literally and figuratively—unless the volume of bypasses is especially egregious, as was evident in the Insurgentes/Oriente incident, or dry-weather conditions make the water flowing through the Tijuana River insufficient to wash away wastewater odors or colors. Second, developing a diagnostic for pumping stations ensures that the relevant wastewater treatment plants' pumping stations are functional, but a diagnostic would not address the actual bypass of Mexico's wastewater into the Tijuana River due to Mexico's failing sewer infrastructure. Third, the water quality monitoring plan is theoretical and is not "action" yet, but announcing that plan in the press release was likely intended to appease U.S. complainants by giving them the illusion of action, thereby preventing them from proceeding with planned lawsuits. Fourth, a binational inspection every other month would be wholly inadequate for a flowing transboundary river prone to indiscriminate and intermittent large-scale pollution. Mexico is able to

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70. *Id.*

71. *Id.*

72. *Id.*

73. *Id.*

74. *Id.*

pollute with reckless disregard because the flowing river washes away the evidence of pollution.<sup>75</sup>

The underlying problem of the Minute 320 Task Force's recommendations and the actions being taken is if it is impossible for the United States to detect a wastewater spill on its own, Mexico will be unlikely to notify the United States of the discharges, even if it has all the means necessary to contact the United States when incidents occur. Ultimately, if, in Mexico's cost-benefit analysis, the diplomatic costs of notifying the United States outweigh the benefits (environmental or otherwise) of notification, then Mexico will continue to pollute with reckless disregard for environmental consequences.

Part VI will trace the problem of enacting meaningful measures to address transboundary pollution to substantive and procedural deficiencies in Minute 320. It will also recommend a new Minute as a catalyst for action. But first, in lieu of the insufficient actions taken by the Water Commission pursuant to the U.S. Section's press release on August 9, 2017, Part V will discuss meaningful actions that the United States could potentially take without having to negotiate a new Minute, such as building a water quality monitoring and reporting station.

#### V. WHAT THE U.S. SECTION CAN DO TO MEANINGFULLY AFFECT CHANGE

The U.S. Section press release did have the right idea by reaching an agreement to install three new flow meters to provide real time information about the conditions in the Tijuana River and diversions from it.<sup>76</sup> This could be effective to determine the water quality of downstream river flows that, in conjunction with measurements of total volume of flows minus diversions,<sup>77</sup> could serve to notify the United States of excessive wastewater discharges from Mexico when compared with the baseline conditions of quality and volume. This would not be effective at establishing a more specific determination of the source of flow. However, it would at least serve to place the U.S. Section on notice of excessive wastewater being bypassed into the Tijuana River without having to rely on Mexico's good faith notifications that spillage has occurred. A big flaw in this action is that, if the Commission does not implement the Minute 320 Water Quality Task Force's recommendation of a proposal for a study to determine a baseline water condition for water quality in the Tijuana River,<sup>78</sup> then the

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75. *Factors Affecting Water and Sediment Quality: Pollution*, REGIONAL AQUATICS MONITORING PROGRAM, <https://perma.cc/U4QT-97FV> (last visited Oct. 28, 2017).

76. Continuous real-time water quality measurements are now possible, in time intervals as small as 5 minutes, due to improvements in sensor and data recording technology. *What is Continuous Real-time Water Quality (RTWQ)?*, UNITED STATES GEOLOGICAL SURVEY ("USGS"), WATERQUALITYWATCH, <https://perma.cc/L29D-RZNL> (last visited Oct. 28, 2017); IBWC PRESS RELEASE ACTIONS, *supra* note 68.

77. *How Streamflow is Measured: Part 2: The Discharge Measurement*, USGS, WATER SCIENCE SCHOOL, <https://perma.cc/6QDR-2KQ3> (last visited Oct. 28, 2017).

78. MINUTE 320 WORKGROUP REPORT, *supra* note 7, at 27.

information from the meters will be useless for the purposes of wastewater discharge notification, because there will be no baseline data to which to compare the information. In addition, because flow meters simply collect data, there is a need for operational supervision to put the collected data through real-time analysis and reporting.

Flow meters alone would be insufficient to analyze the data coming in and to notify the relevant stakeholders of wastewater spillage incidents. A water quality monitoring and reporting station needs to be set up to achieve that end.

#### A. HOW TO ESTABLISH A TIJUANA RIVER MONITORING STATION WITH THE HELP OF NAWQA

A feasible way to effectuate the Task Force's recommendation of a proposal for a study to determine a baseline water condition for water quality in the Tijuana River and to set up a monitoring station is through the National Water-Quality Assessment ("NAWQA") Program.<sup>79</sup> The NAWQA Program was implemented by the U.S. Geological Survey ("USGS") in 1991 to develop "long-term consistent and comparable information on streams, rivers, ground water, and aquatic systems" to support "national, regional, State, and local information needs and decisions related to water-quality management and policy."<sup>80</sup> From 1991 to 2001, NAWQA conducted interdisciplinary assessments and established baseline water quality conditions in fifty-one of the nation's river basins and aquifers using monitoring stations known as "Study Units."<sup>81</sup> Unfortunately, the Tijuana River Basin is not one of the studied sites.<sup>82</sup> From 2001 to 2012, the second cycle of NAWQA studies, the number of Study Units was reduced to forty-two due to budget cuts.<sup>83</sup> Nonetheless, NAWQA is undeterred, despite its years of flat funding combined with increased monitoring costs.<sup>84</sup> In its third study cycle, from 2013 to 2023, NAWQA intends to move away from its "Current Fixed-Site Network," which has been eroded over the years, resulting in reduced monitoring capacity due to budget constraints.<sup>85</sup> Instead, NAWQA plans to capitalize on sensor and data-transmission technology advances in the last decade that include real-time water quality monitoring in its design.<sup>86</sup>

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79. *About the Program*, USGS, NATIONAL WATER QUALITY ASSESSMENT ("NAWQA") PROGRAM, <https://perma.cc/42L8-864G> (last visited Oct. 28, 2017).

80. *Id.*

81. *Id.*

82. *See Complete Listing of NAWQA's Study Units and Summary Reports*, USGS, NAWQA, <https://perma.cc/DX22-ZQY5> (last visited Oct. 28, 2017).

83. *The National Water-Quality Assessment Program—Entering a New Decade of Investigations*, USGS, <https://perma.cc/HH5D-PX5Y> (last visited Oct. 28, 2017).

84. *Planning the Third Decade (Cycle 3) of the National Water-Quality Assessment (NAWQA) Program: An update presented to the NAWQA National Liaison Committee, March 26, 2010*, USGS, <https://perma.cc/U8GX-6FF3> (last visited Oct. 28, 2017).

85. *Id.*

86. *Id.*

The U.S. Section should consult with NAWQA to establish a monitoring station for the Tijuana River Basin in order to establish baseline water quality conditions and detect real-time significant changes in water quality that would be indicative of excessive wastewater discharges from Mexico. NAWQA would be invaluable as a partner in this venture, particularly if setting up the monitoring station on the U.S. side of the border would be technically sufficient to identify worrisome transboundary wastewater flows. Even if NAWQA is not a partner in the venture, the benefit of NAWQA's experience would be invaluable for setting up a real-time monitoring station. Resounding issues that the U.S. Section would have to address to attempt to implement such a plan would be: (1) where the monitoring station would be located; (2) who would run the monitoring station; and (3) who would bear the costs of constructing and operating the monitoring station.

### 1. Where the Monitoring Station Would be Located

The location of the monitoring station is a prerequisite to determine who will pay the costs of the monitoring station and who will operate it. Ideally, the monitoring station would be in the United States. However, that is a technical determination, which would have to be made by the U.S. Section and NAWQA. They would need to determine whether establishing a baseline condition for the Tijuana River and making real-time determinations of whether wastewater discharge levels from Mexico are excessive can be done on the U.S. side of the border or whether these tasks would necessarily have to be done on the Mexican side of the international boundary line. If the answer to the latter is yes, then this raises the question of who would operate the monitoring station.

### 2. Who Should Operate the Monitoring Station

Because the purpose of the monitoring and reporting station is to remove reliance on good faith notifications from Mexico of significant transboundary sewage discharges, it is essential that the station be primarily under U.S. control. There would be few concerns if the monitoring station were constructed on the U.S. side of the border. If the water station must be located on the Mexican side of the border, the biggest concern would be the potential for freeze out of U.S. representatives at the monitoring station.

Article 2 of the 1944 Treaty states that "each Section of the Commission retain[s] jurisdiction over that part of the works located within the limits of its own country" and that "[n]either Section shall assume jurisdiction or control over works located within the limits of the country of the other without the express consent of the government of the latter."<sup>87</sup> Mexico may argue that the definition of "works" includes a monitoring station, and that this provision of Article 2

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87. 1944 Water Treaty, *supra* note 20, art. 2.



effectively bars the U.S. Section from construction and operation of a monitoring station on the Mexico side of the border without the Mexican government's consent. The United States may argue that "works" as used in Articles 5, 6, 7, 9, 12, 13, 16, 20, 24, and 27 consistently refers to dams and other flood control and diversion works, but bears no mention of a monitoring station. The United States may further argue that a monitoring station falls under the definition of "observations, studies, and field work," which the Water Commission and its personnel may freely carry out in the territory of either county, according to Article 2.<sup>88</sup>

Mexico, on the other hand, may rely on the "Protocol"<sup>89</sup> of the 1944 Treaty, which says that any provision of the treaty relating to the utilization of the waters of the Tijuana River that imposes exclusive jurisdiction on either Section involving "the construction or use of works for storage or conveyance of water, flood control, stream gaging, or for any other purpose" that are situated wholly within the territory of the country of that Section and which are only to be used partly to perform treaty provisions, shall be exercised by the federal agencies of that country.<sup>90</sup> On the other hand, the "works to be constructed or used on or along the boundary" exclusively for the discharge of treaty stipulations, "shall be under the jurisdiction of the Commission or of the respective Section, in accordance with the provisions of the Treaty."<sup>91</sup>

Here, Mexico may argue, the "Protocol" of the 1944 Treaty seems to clarify ambiguities about the meaning of "works" in the context of the 1944 Treaty. "Works" include "stream gauging" works, which would be infrastructure that provides streamflow information for a wide range of uses, including "flood prediction, water management and allocation, engineering design, research, operation of locks and dams, and recreational safety and enjoyment."<sup>92</sup> A monitoring station would likely fall into this category of "works." If the hypothetical monitoring station must be located in Mexico for technical reasons, the U.S. Section would have to ensure that the monitoring station is used exclusively for the discharge of treaty stipulations to prevent it from coming under the exclusive control of a Mexican federal agency, which would defeat the purpose of the initiative.<sup>93</sup>

Nonetheless, even if the monitoring station is used exclusively for the discharge of Treaty stipulations and is therefore under the joint control of the Commission or of a respective Section of the Commission, "in accordance with the Provisions of the Treaty,"<sup>94</sup> the Mexico Section could, under Article 2, limit

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88. *Id.* at art. 2.

89. *Id.* at 50–51.

90. *Id.* at 50.

91. *Id.* at 51.

92. *How Streamflow is Measured*, USGS, WATER SCIENCE SCHOOL, <https://perma.cc/5ZE7-BDBM> (last visited Oct. 28, 2017).

93. If the monitoring station is used only partly to perform treaty provisions, then the monitoring station would fall under the jurisdiction of a Mexican federal agency. 1944 Water Treaty, *supra* note 20, at 50.

94. *Id.* at 51.

U.S. Section control over the monitoring station, because it would be in sovereign Mexican territory. In addition, there is the looming threat of Mexico assuming de facto control over a binational monitoring station located in its territory, considering the inherent socio-political dynamics of having a facility also governed by a foreign nation located on domestic soil. The threat of usurpation of control over an established binational monitoring station in Mexico would defeat the underlying purpose of the initiative, which is to shift notification entitlements away from Mexico and towards the United States.

If the U.S. Section and NAWQA, for technical reasons, determine that the monitoring station would have to be located in Mexico, then it is imperative that the United States bargain for greater (or at least equitable) control over the monitoring station in Mexico by using assumption of cost as a bargaining chip, or the threat of sanctions, if necessary. However, there is the looming concern that Mexico could unilaterally take control of the monitoring station at any time. Therefore, it is essential that any Minute drafted to implement the monitoring and notification system have a provision that creates significant penalties for interfering with the neutrality of the monitoring station. However, ultimately, the United States' path of least resistance would be to have a viable and effective monitoring station in U.S. sovereign territory to bypass the representation and control problems a monitoring and reporting station in Mexico presents.

### 3. Who Should Assume the Cost of Building and Operating the Monitoring Station

The third issue is determining who would assume the cost of building and operating the monitoring station. The countries would have to look to Article 16 of the 1944 Treaty, which considers assumption and allocation of costs for works relating to "feasible uses" of the waters of the Tijuana River.<sup>95</sup> A monitoring station would be a "work" along the Tijuana River to be used exclusively to further the Commission's binational notification and monitoring efforts relating to transboundary wastewater spills. Article 16 says that the cost of construction of such works should be divided between the two governments, and the two governments agree to pay in equal shares the costs of joint operation and maintenance of the works.<sup>96</sup>

Notwithstanding Article 16, in practice, the division of construction costs for joint measures has never been completely equitable. This has historically been the case with the financing of binational sewage facilities because there is "little basis upon which to expect Mexican authorities to treat waste bound for the United States to a higher degree than waste which remains in the[ir] country."<sup>97</sup>

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95. *Id.* at art. 16.

96. *Id.*

97. Nick Johnstone, *International Trade, Transfrontier Pollution, and Environmental Cooperation: A Case Study of the Mexican-American Border Region*, 35 NAT. RESOURCES J. 33, 46 (1995).

Similarly, albeit indirectly, the monitoring and notification protocols that would necessitate implementing a monitoring station would also require Mexico to prioritize wastewater bound for the United States to a higher degree than waste remaining in the country. This effect would be indirect because protocols that shed sunshine on perpetual transboundary pollution coming in from Mexico would invariably deter the polluting itself, and any limitation on the dumping of wastewater into the United States is a prioritization of U.S. interests over Mexican interests. Therefore, it is given that the United States would bear the brunt of the construction and operation costs of a new “work” to remedy the polluting of the Tijuana River Basin.

The United States could stipulate having greater control over a monitoring station in either jurisdiction by assuming a greater proportion of operation and maintenance costs of the monitoring station, particularly where the U.S. Section is the Section of the Commission that would be the primary driver of the initiative.

#### B. EFFECTS OF A MONITORING AND REPORTING STATION

Assuming a monitoring station is constructed, a baseline water condition is determined, and real-time water quality monitoring is in place, the limitation of measuring excessive wastewater in the Tijuana River is such that, even if the U.S. Section is made aware of excessive wastewater discharges into the Tijuana River and notifies its counterpart, the Mexico Section, there is no guarantee that the U.S. Section will not once again fall into the trap of delay, obstruction, and stalling by the Mexico Section and the CESPT.<sup>98</sup>

The detection of excessive wastewater discharges by the monitoring station would occur sooner than it would by relying on U.S. entity reports of visual and olfactory indicators of water pollution. Also, failure to repair or delayed repairs of failed sewer lines by Mexico would be detected by the monitoring station. In the absence of a monitoring station, repair updates would otherwise have to rely on unreliable progress reports from Mexico. Wastewater discharge not massive enough to produce readily apparent odor or color, but that is excessive nonetheless, would be detected when it would otherwise have gone undetected and unreported by the Mexico Section and CESPT.<sup>99</sup>

In this case, what you cannot see or smell may hurt you. Therefore, it is this writer’s opinion that the increased frequency of notifications to the Mexico Section—because there will no doubt be discoveries of numerous wastewater spillage incidents of a smaller magnitude than that of the Insurgentes/Oriente incident that are significant nonetheless—would compel the U.S. Department of State to intervene, particularly if the spill quantities and ill-equipped or delayed

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98. MINUTE 320 WORKGROUP REPORT, *supra* note 7, at 3.

99. Serge Dedina, *Imperial Beach Cannot Keep Surfing in Sewage-Polluted Water*, SAN DIEGO UNION-TRIBUNE (Apr. 6, 2017), <https://perma.cc/A8QB-M3PX>.

Mexican responses are publicized by the media.<sup>100</sup>

### C. SUBSTANTIVE BENEFITS OF A MONITORING AND REPORTING STATION

The benefits of establishing a monitoring station for the Tijuana River serves more than just the purposes of establishing a baseline condition for water quality and notifying the U.S. Section of excessive wastewater discharges from Mexico that could be indicative of a Tijuana sewer system failure. There are a multitude of substantive advantages of this initiative that could benefit both countries. According to the EPA, common objectives of establishing monitoring can include the: (1) characterization of conditions and trends; (2) protection of human health by advising the public of hazardous conditions; (3) identification of specific water quality problems; (4) design of pollution prevention or remediation programs; (5) assessment of program goals and effectiveness; and (6) response to emergencies.<sup>101</sup>

The first objective relates to an express purpose of the monitoring station, which is to mine and monitor water quality data on a regular basis to quantify a baseline condition for water quality and describe ecological characteristics within the Tijuana River.<sup>102</sup> The monitoring and analysis of past and present data enables trend analysis that can be used as a barometer to estimate the effectiveness of future policy initiatives, wastewater treatment projects, and other infrastructure projects on the quality of water in the Tijuana River. It can also serve to target certain areas for improvement and narrow the focus of initiatives on certain commercial activities of inordinate detriment to the river.<sup>103</sup> This is effective for both Sections of the Water Commission.

The second objective relates to notifying the American and Mexican public of hazardous conditions in the Tijuana River and connecting beaches. The U.S. Section would no longer have to rely on the Mexico Section and CESPT promises of prompt notification in order for the U.S. Section to inform the American public to stay clear of the Tijuana River Basin and connecting beaches when wastewater discharges detected by the monitoring station are particularly egregious. Similarly, notification to the Mexican public would occur faster through monitoring station detection than it would by waiting for reports from people suffering the consequences of pollution. The ability to notify the American public

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100. In "Environment and the Media," Luedecke and Boykoff suggested that new media and social media has a "democratizing influence" that has the potential to "shape the public agenda." These media effects can have far-reaching consequences for policymaker perceptions, understanding, and potential decision-making. Gesa Luedecke & Maxwell T. Boykoff, *Environment and the Media*, INT'L ENCYCLOPEDIA OF GEOGRAPHY 1, 7 (2017).

101. UNITED STATES ENVIRONMENTAL PROTECTIONS AGENCY (EPA), OVERVIEW OF WATERSHED MONITORING: EPA WATERSHED ACADEMY TRAINING MODULE 4-7 (2017), <https://perma.cc/WF9S-FFVS>.

102. *See id.* at 4.

103. *See id.*

promptly, enabled by the monitoring station, will also serve as a warning to border patrol, beachgoers, surfers, and seafood consumers.<sup>104</sup>

The third objective of a monitoring station produces the benefit of identification of specific problems with the water. The station can help determine whether the majority of pollution in the Tijuana River comes from point or nonpoint sources because the composition of pollutants in the water would vary accordingly.<sup>105</sup> For example, if the monitoring station detects substantial quantities of nitrites, phosphorus, and potassium in the water, that would indicate potential nonpoint agricultural run-off. Furthermore, availability of information on water quality is particularly useful for Mexico because it would aid Mexico in making its case to international development banks when seeking funding and initiative assistance to fix Tijuana's rapidly failing sewer infrastructure. This objective informs the fourth objective.

The fourth objective of a monitoring station is to support the design of pollution prevention and remediation programs by conducting risk assessments to determine the extent of the water pollution and how to best employ resources, techniques, and targeted efforts.<sup>106</sup> This objective would be particularly helpful to Mexican environmental initiatives and programs by helping them track the effectiveness of their efforts and be more efficient in achieving their goals.

The fifth objective is compliance monitoring. The monitoring station could be used to determine whether treated wastewater discharged from wastewater treatment plants complies with federal regulations such as the U.S. Clean Water Act, which is a necessary predicate to maintaining permits. In addition, validation monitoring is effective for determining whether initiatives are achieving desired results.<sup>107</sup>

The sixth objective is effective emergency response. This comports with the primary objective of this article, which is notification of the U.S. Section of wastewater emergencies across the border. The station also monitors during and after repairs to determine whether those repairs have held, which benefits the Mexico Section and the CESPT.<sup>108</sup>

#### VI. INADEQUACY OF MINUTE 320 AND NEED FOR A NEW MINUTE TO ENACT THE MONITORING AND REPORTING STATION PROPOSAL

Minute 320 succeeds as an inclusive initiative, which has brought together numerous stakeholders from both countries to establish a binational dialogue in order to identify joint cooperative opportunities through the establishment of the BCG to address the transboundary water quality problems in the Tijuana

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104. *See id.* at 5.

105. *See id.*

106. *See id.*

107. *See id.* at 6.

108. *See id.* at 7.

River.<sup>109</sup> However, it fails as a mechanism to enact concrete policies and procedures needed to properly address the transboundary water quality issues. It fails in this regard because the BCG's recommendations are restricted to the framework of Minute 320, and Minute 320 does not contemplate the reporting of instances of significant harm by one country to another. In addition, the BCG is a group composed of representatives of both parties with equal bargaining power. Therefore, no measure may be recommended to the Water Commission, unless both parties agree. This arrangement is too far removed from the political reality, which is that the United States holds the greater bargaining power, and the United States is being disproportionately and significantly harmed. Considering the unrealistic nature of power dynamics of American and Mexican representation within the BCG, it is unlikely that a "fair" agreement would be recommended to the Commission by the BCG that would involve the construction and operation of a monitoring station. Minute 320 is an utter failure in this regard.

This failure of Minute 320 is most evident when looking at the actions taken by the U.S. Section in its August 9, 2017 press release in response to the recommendations in the report issued by the Minute 320 Water Quality Task Force's investigation into the Insurgentes/Oriente incident, which were not formalized in "subsequent specific Minutes."<sup>110</sup> The actions in the press release lacked the binding force of a Treaty.<sup>111</sup> This is primarily because the August 9 "press release actions" were not significant enough to warrant a Minute. The "press release actions" were cosmetic and did not address the issue of notification to the United States of wastewater discharges that may cause significant harm, a matter arguably outside of the purview of Minute 320 and the BCG.

The 1944 Treaty itself does not contain any obligations to report instances of significant harm by one country to the other. It is unlikely that Mexico would agree to an amendment of the 1944 Treaty to include this obligation because it would be too broad. Even creating a new Minute with the binding force of a treaty that is narrowly tailored to create the obligation to report significant pollution in the Tijuana River Basin may not be agreeable to Mexico. However, it would be possible to get Mexico to agree to a proposed monitoring and reporting station in a mutually beneficial Minute that does not place a grand obligation on Mexico to report wastewater spillage incidents, but that allows the United States to detect spillage that would cause it harm and to report the spillage to Mexico.

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109. Minute No. 320, *supra* note 23, at 4.

110. *Id.*

111. Binding agreements are not always preferable to nonbinding ones to compel compliance. See Edith Brown Weiss, *Understanding Compliance with International Environmental Agreements: The Baker's Dozen Myths*, 32 U. RICH. L. REV. 1555, 1570 (1999). However, in relation to the Commission's activities in furtherance of the 1944 Treaty and Minute 320, further nonbinding action, such as the August 9, 2017 press release, is unlikely to illicit a greater response from Mexico, particularly where there is a palpable lack of intent to comply on their part.

The benefits to Mexico, as indicated above, would be numerous, including public health notifications, immediate access to American resources when needed, progress reports, tracking of repairs, monitoring initiatives and projects, and most importantly, information on the quality of water in the Tijuana River that can be used to get international funding for much needed infrastructure repairs for the failing Tijuana sewer system. The United States is not the only party being harmed by the failure to monitor and report. Mexico is suffering a great opportunity cost in failing to capitalize on international funding and goodwill through the deliberate obfuscation of the true extent of their sewer infrastructure damage, thereby causing public health problems in its own country. Considering the wide range of benefits available to Mexico in agreeing to the Minute that it could not reap through Minute 320, the likelihood of assent to the Minute is great.

#### VII. HOW TO ENCOURAGE MEXICO'S COMPLIANCE WITH THE PROPOSED MINUTE

It is always possible that despite the wide range of benefits, Mexico would need more persuasion to overcome any lingering reluctance to engage in the proposed Minute to establish a monitoring station. It should be noted that Mexico's refusal would only be substantively concerning in the event that the U.S. Section, in consultation with technical experts, determines that the monitoring station would necessarily have to be built in Mexico to achieve its ends of detecting excessive wastewater discharges from Mexico. Otherwise, their refusal could be circumvented; the U.S. Section, along with NAWQA, local governments, and interest groups, could establish a monitoring station in the United States independently to detect excessive wastewater discharges. The Water Commission's new binational spill notification protocol from the U.S. Section's August 9, 2017 press release<sup>112</sup> could then be used to notify Mexico and spur action, including diplomatic action, if the discharge levels are not brought down to baseline within a reasonable time.

However, if the U.S. Section, in consultation with technical experts, determines that the monitoring station would necessarily have to be built in Mexico, then Mexico, through the Mexico Section, may be reluctant to adopt the Minute. The United States could argue that the refusal to adopt the Minute amounts to noncompliance with the 1944 Treaty. This is because failure to implement the proposed Minute is akin to affirmative intent by Mexico to give no heed to America's right to the "joint use" of Tijuana River, as agreed upon in the 1944 Treaty.<sup>113</sup>

Strategies are available to prompt the Mexico Section to adopt the proposed Minute and comply once adopted. Professor Edith Brown Weiss identified three

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112. IBWC PRESS RELEASE ACTIONS, *supra* note 68.

113. See 1944 Water Treaty, *supra* note 20, art. 3.

international legal strategies available to encourage compliance with international environmental treaties:<sup>114</sup> (1) incentives,<sup>115</sup> (2) the sunshine strategy,<sup>116</sup> and (3) sanctions.<sup>117</sup> Deploying compliance strategies effectively depends on reconciling a state's intent to comply with its capacity to comply.<sup>118</sup>

Here, Mexico's behavior includes failure to report to the U.S. Section the stormwater overflows and failed sewer pipelines in December, delays in repairing a major pipeline breach, not seeking U.S. assistance when it was needed, purposely bypassing wastewater into the Tijuana River, providing incorrect reports and figures of wastewater discharge, and obfuscation of incident timelines and pollution figures. This behavior demonstrates a drastic lack of intent to comply with the 1944 Treaty. The reasons for the lack of intent are not clear. One reason as to why countries may not comply with treaty obligations is that countries may have the intent to comply at the time they join the agreement, but capacity or internal divisions regarding compliance intent sabotage efforts.<sup>119</sup> In other cases, countries do not intend to comply, but join agreements due to international pressure, whereas other countries join agreements only intending to fulfill some of their obligations.<sup>120</sup> Nalven has suggested that lack of intent for cooperative action, and therefore compliance, may also be a result of Mexico's desire to demonstrate independence of action, which is to some extent informed by cross-cultural attitudinal differences between the United States and Mexico when it comes to compliance.<sup>121</sup> Mexico does not have the same capacity to comply, which is why it often relies on the United States to bear the greater burden of measures adopted under the 1944 Treaty. Whatever the explanation, Mexico has demonstrated a lack of intent to comply.

Where a country is lacking in both intent and capacity to comply, Brown Weiss suggested that use of all three international legal strategies to encourage compliance may be essential.<sup>122</sup> Here, incentives to compel Mexico to comply with the 1944 Treaty by assenting to the proposed Minute include access to information regarding the effectiveness of its own sewer infrastructure system; a means for tracking the success of CESPT projects and repairs; identification of sewer line failures; and prompt notification to the Tijuana public of contaminated

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114. Edith Brown Weiss, *Strengthening National Compliance with International Environmental Agreements*, 27 ENVTL. POL'Y & L. 297, 298 (1997).

115. *Id.* at 301-02.

116. The sunshine strategy relies on bringing to light State compliance, or in this case, noncompliance, with the rationale being that such exposure would compel compliance for reputational protection. *Id.* at 299-301.

117. *Id.* at 298-99.

118. *See id.* at 302-03.

119. *Id.* at 298.

120. *Id.*

121. Joseph Nalven, *Social and Cultural Aspects of Transborder Environmental Cooperation*, 2 MEX. STUD. 107, 119-22, 124 (1986).

122. Edith Brown Weiss, *supra* note 114, at 302-03.



lakes and streams. In addition, Mexico would not have to ask for U.S. assistance, because U.S. assistance would likely be offered whenever an incident occurs that would be detected by the monitoring station. Finally, and most importantly, sharing of data on Tijuana River water quality would open doors for Mexico to benefit from international funding and initiatives to alleviate the public health concern of Tijuana's failing sewer infrastructure.

The sunshine strategy itself is a method of compliance that Mexico has been thwarting and may continue to attempt to thwart by opposing the institution of the proposed Minute. Thus far, the language of the report issued by the Minute 320 Water Quality Task Force following the Insurgentes/Oriente incident was protective and complicated enough that it evaded any investigative journalism into Mexico's actions, or lack of action. This is likely a consequence of the Minute 320 Water Quality Task Force being composed of representatives from both countries. To use the sunshine strategy to compel Mexico to agree to the proposed Minute will require a more aggressive stance by the U.S. Section. The U.S. Section should be cognizant that bringing to light Mexico's misconduct and contravention of the 1944 Treaty, rather than shielding it from sunshine, will compel compliance, and that the U.S. Section's primary responsibility is to the American people, not to diplomatic maintenance. Therefore, the sunshine strategy will only be effective if the U.S. Section stops shielding its counterpart in Mexico and addresses noncompliance by the Mexico Section head-on.

Finally, there is the most scarcely resorted-to compliance method in international environmental law—sanctions.<sup>123</sup> In the context of the 1944 Treaty, implementing sanctions themselves would have dire consequences for both countries, particularly where penalties for noncompliance are not addressed in the treaty itself. A sanction might take the form of refusing to treat Mexican wastewater at SBIWTP or economic sanctions. Both examples would have dire consequences for both countries, because refusing to treat Mexican wastewater means more bypasses into the Tijuana River, and economic sanctions would involve NAFTA and would have reciprocal implications for American maquiladoras in Mexico.<sup>124</sup> Rather, the threat of sanctions should be used to convey the urgency of a resolution to Mexico's river pollution.

#### CONCLUSION

Promoting transboundary cooperation is very difficult. The U.S. Section does not have an easy job. A Minute proposal to implement a monitoring station is the most feasible and diplomatic solution, and it should be considered, given Minute

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123. *Id.* at 298–99.

124. "Maquiladoras" are relocated U.S. and foreign corporation factories operating across the border in Mexico and benefitting from NAFTA policies. See James A. Funt, *The North American Free Trade Agreement and the Integrated Environmental Border Plan: Feasible Solutions to U.S.-Mexico Border Pollution*, 12 TEMP. ENVTL. L. & TECH. J. 77–78 (1993).

320's demonstrable failure to counteract Mexico's polluting of the Tijuana River that flows downstream into the United States. That millions of gallons of wastewater are being bypassed into the Tijuana River every year and are going unreported and unaddressed is alarming, and it makes the monitoring of the Tijuana River that much more important. Entities in Mexico treat the discharge of sewage into the Tijuana River with substantial disregard. Failing to challenge the lack of compliance in Mexico with binding, jointly identified, and agreed-upon initiatives will only encourage the environmental and public health malaise. A monitoring station would provide tangible evidence of pollution in real time that both countries could rely on to take preventative actions. This would be more effective than waiting until the pollution is so substantial that not even the Pacific Ocean currents can wash away the odors, letting the odors from such pollution serve as the countries' primary notification mechanism.

The Minute proposal provides a way for the United States to protect its sovereignty and border residents by collecting data about transboundary pollution that cannot be denied or downplayed by Mexico. A monitoring and reporting station is a critical way for the United States to protect its borders through the policing effect that bringing to light serial violations of the 1944 Treaty would have on Mexico's willingness to comply with the Treaty. However, getting Mexico to assent to the proposed Minute will be a challenge, and getting Mexico to comply with the proposed Minute if adopted will create an additional challenge. Mexico's unwillingness to comply stems both from a lack of intent to comply and a lack of capacity to comply. As a result, the strategies of incentives, threat of sanctions, and sunshine must be used to ensure that Mexico both consents to adopt the Minute and complies with the objectives of the Minute once adopted. In addition, U.S. willingness to shoulder the greater burden of the costs of a monitoring and reporting station would go a long way toward overcoming Mexico's lack of capacity to comply.

The multitude of benefits that Mexico will share with the United States through the proposed Minute should incentivize it to overcome its reluctance or lack of intent to cooperate. These benefits include: (1) access to information regarding the health of its sewer infrastructure; (2) a means of tracking success of projects and repairs; (3) identification of sewer line failures; (4) prompt notification to the public of hazardous water conditions; (5) prompt assistance from the United States in the event of sewer infrastructure failures; and (6) enhanced ability to secure international funding and assistance once the public health concern is quantified.

The threat of sanctions would be justified because Mexico's failure to assent to the proposed Minute would be akin to noncompliance with the 1944 Treaty because the continued transboundary polluting infringes on America's right to "joint use" under the 1944 Treaty. However, threat of sanctions should be used sparingly, and only to convey the urgency of a resolution to the pollution. Although the threat of sanctions might be effective in compelling assent to the

proposal, it may be too aggressive as a means of regularly compelling compliance once the proposed Minute is adopted.

Ultimately, it is the sunshine strategy that will be most effective at getting Mexico to both assent to the proposed Minute and to comply with it once it is adopted. The sunshine strategy should be effectuated through substantial and sustained media exposure via traditional outlets and social media. Social media will be most effective on this front, because it has the potential to shape the public agenda. This strategy will shed sunshine on the extent of Mexico's pollution, as well as its obfuscation of joint remedial efforts, and should push transboundary pollution of the Tijuana River to the forefront of the public agenda.