ESO-S0000340, Scientific Integrity Officer Report re: Ephemeral Data Collection leading to potential NRDAR case, Deep Fork River, Oklahoma, September-October 2011. Final 3/15/13

Note: This Scientific Integrity Review only addressed the scientific integrity issues of the ephemeral data collection study at the Kelco discharge site in the Deep Fork River, Oklahoma potentially leading to a NRDAR case. Other allegations regarding Summary of alleged misconduct (ESO-S0000340): Allegation 1: On October 18, 2011 Dr. Dixie Porter, Project Leader (PL) of the Oklahoma Ecological Services Field Office (OKESFO), violated the DOI Scientific Integrity Policy (305 DM 3) when she gave the order to her OKESFO staff to move a mussel monitoring cage placed at the Kelco discharge outlet, to a point approximately 30 feet further downstream. Porter's decision to move the mussel monitoring cage, "as soon as possible," was made contrary to the advice of: 1) the State of Oklahoma ("State") collaborating on the monitoring study and 3) advice from the familiar with the Consent Decree between the State and Kelco. Allegation 2: Mr. Bell, as the supervisor , did not pay attention to the scientific information provided by the and did not take action to protect the scientific and legal integrity of the mussel study (ephemeral data collection study at the Kelco discharge site in the Deep Fork River, Oklahoma). **Summary of fact finding activities of the SIO:** The Scientific Integrity Review was conducted by the FWS Scientific Integrity Officer (SIO). The FWS Chief, assisted the SIO with most of the interviews. On August 27-28, 2012, the SIO interviewed . The SIO also interviewed by phone The SIO reviewed pertinent records including emails, photographs, letters, reports, the Consent Order and Settlement Agreement between the State and Kelco, and evidence files and response documents related to in a matter related to this inquiry. From this information the SIO created a timeline of events (Appendix A) related to this matter. The SIO determined the following key facts related to this allegation: 1. C.P. Kelco (Kelco) produces xanthum gum, a product that is used as a food stabilizer. Their

- 2. Kelco effluent had caused a previous contaminant-related mussel kill in the Deep Fork River during a low flow period of August-October, 2005. It was later determined the cause of the kill was toxic levels of potassium (greater than 10 mg/l) in the Kelco discharge.

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| 3. | In 2005 Oklahoma Department CP Kelco, US Inc. (Kelco) relati Order (Appendix B), signed on Kelco agreed with the State to typically August-October, by s process. Kelco requested and (outlet) from the high bank of | ng to sludge in 7/24/08, to in reduce their witching from the State ago | release. The parti resolve certain en potassium disch n a potassium-ba reed that Kelco co | ies in this case nvironmental arge during p sed process to ould move the | e agreed to a Co compliance iss eriods of low ri o a sodium-bas eir discharge ou | onsent ues. iver flow, ed utlet |
|-----|--|---|---|--|--|---|
| | to as a diffuser, was reported | by | to | | EX7A | |
| | EX7A . The Consent Order | (paragraph 8 | 31) states: "Nothi | ing in this Cor | sent Order lim | its the |
| | DEQ's right to take enforceme | ent action for | violations occurr | ing after the | effective date c | of this |
| | Consent Order." | | | | | |
| 4. | On 9/15/11, OKESFO staff and | Luke Bell dis | covered a recent | mussel kill in | the Deep Fork | River, |
| | near the Kelco company disch | arge outlet. | | EX7A | | |
| | EX7A | | | | | |
| | | | | | | |
| 5. | On 9/16/11, | confirmed t | he mussel kill | E | X7A | |
| | | E | X7A | | | h. |
| 6. | OKESFO staff coordinated witl | n the Deep Fo | ork NWR | , Stat | te biologists an | d the |
| | State Attorney General's office | e(all are "co-ī | Trustees") to dete | ermine what | additional data | was |
| | required to determine if there | was a cause | to proceed with | a NRDAR. A | preliminary | |
| | investigation, such as the one collection." | initiated here | e, is referred to u | nder NRDAR | as "an epheme | ral data |
| 7. | Whether or not the State deci | des to pursue | e a NRDAR case, i | t also has ind | ependent auth | ority to |
| | investigate the mussel kill und | ler State Title | s 27 and 29. On 9 | 9/20/11, the S | State and FWS | |
| | implemented the ephemeral of | data collectio | n, | EX7A | 4 | |
| | | | EX7A | | | |
| 8. | The cages, owned by FWS, we | re placed ups | tream of the disc | charge outlet | , and directly | |
| | downstream at distances of a | pproximately | 5 feet, 100 feet a | and 150 feet f | rom the Kelco | outlet. |
| | discussed th | ne <i>in-situ</i> mus | sel cage placeme | ent with | | to make |
| | sure they would not be in con- | flict with the | Consent Order. | | | |
| 9. | On 9/26/11, Kelco discovered | the mussel c | ages and did not | know who ov | vned these cag | es. Kelco |
| | contacted State and FWS office | es to determ | ine who owned t | he cages but | was not able to | get a |
| | reply Kelco subsequently m | oved the cag | e nearest to their | outlet, to a l | ocation approx | imately |
| | 30 feet downstream from the | ir outlet and o | closer to the rive | r edge. | | |
| 10. | On 9/27/11, FWS and State co | ntacted Kelc | o and informed t | hem that: 1) | the cages were | FWS |

property, 2) they were placed there as part of a joint in-situ monitoring of the Kelco effluent and

3) the cage moved downstream by Kelco would be placed back to its original location, about 5

| | feet do | wnstream of the outlet.FWS moved the cage was moved back to its original location on |
|-----|----------|--|
| | 9/27 (se | ee photos of cage and outlet in the river, Appendix C). |
| 11. | On 10/3 | B/11, EX5(DPP) , |
| | | informed the OKESFO managers and staff at a staff |
| | meeting | g that if Kelco called about the contaminant monitoring near their outlet they should be |
| | redirec | ted to the State, the FWS's co-trustee in the ephemeral data collection. |
| | | and Bell were present at this meeting, but Porter was not. |
| 12. | On 10/4 | 4/11, during an ephemeral data collection site visit, was |
| | approa | ched by Kelco and they ask to move the mussel monitoring cage further away from |
| | their ou | told Kelco to discuss their concern with the State Attorney General's |
| | office. | |
| 13. | On 10/2 | 18/11 the following events occurred in the chronological order presented: |
| | a. | A Kelco attorney called DOI Solicitor re: mussel cage being too close to their |
| | | outlet. told Kelco to call Dixie Porter, PL OKESFO. |
| | b. | Kelco and Kelco Atty. called Porter re: mussel |
| | | cage too close to their outlet ("diffuser") and concerns about how the cage impacts |
| | | their compliance with a Consent Order. Porter reported that Kelco stated, "we |
| | | desperately need to get this resolved. This is super critical." They also warned her that it |
| | | they "could not have this interference stopped, they would have to elevate this issue |
| | | through appropriate legal channels." (Appendix D) |
| | C. | At 10 am, Porter met with to discuss the Kelco concern. |
| | | explained the ephemeral data collection, co-trustee State |
| | | involvement, and Kelco contaminant discharge history. |
| | | background information regarding Kelco's complaint to Porter, including: tabbed |
| | | highlights of the relevant Consent Order, a description of the ephemeral data collection |
| | | and the reason for the <i>in-situ</i> mussel monitoring cages, the co-trustee collaboration in |
| | | the ephemeral data collection, and discussed the diffuser/cage situation and how there |
| | | was no issue with the Consent Order. Porter told them that she did not want Kelco to |
| | | call the Regional Office, since her office had recently been under review by OSHA |
| | | (previous ES fieldwork-related drowning investigation) and Office of the Inspector |
| | | General audits (American Burying Beetle conservation fund use, and Partners for Fish |
| | | and Wildlife Program operations). |
| | d. | Porter and called State Attorney General's office and |
| | | discussed the Kelco concern. indicated that the State had the lead in the |
| | | ephemeral data collection and affirmed that the study should continue. |
| | | recommended that they (Porter/State) "defer to the biologists" on the question of the |
| | | mussel cage location. |

| e. | Porter called to discuss the Kelco concern. indicated that preferred |
|----------|--|
| | to leave the cage in place as part of the ephemeral data collection. Porter said that |
| | since the cages were FWS property then she could move them. |
| f. | Porter called at Deep |
| | Fork NWR to discuss Kelco concern. (Note: Porter and |
| |) Porter indicated that she was |
| | worried about legal ramifications, saying to that it was "her cage, her |
| | responsibility." suggested to Porter |
| | later indicated to the SIO that |
| | |
| | |
| g. | At 2: 45 pm, Porter met with described her conversations earlier that day, and |
| 8. | told to move the mussel monitoring cage 30 feet away from the point of the |
| | (Kelco) diffuser outlet "as Kelco has requested", and move it "as soon as possible." |
| | Porter followed up this oral order with an email (3:08 pm) to |
| | (Appendix E) and indicated that if the State provided a letter or |
| | document stating that the "trap" (mussel monitoring cage) "does not compromise the |
| | terms of the consent decree, then we can consider moving the trap back to a closer |
| | proximity to the diffuser." |
| h. | Porter called Kelco to tell them that the mussel monitoring cage would be moved. |
| i. | |
| | |
| 44 0 404 | 40/44 the fellowing and the standard standard standard standard |
| | 19/11, the following events occurred in the chronological order presented: |
| a. | Porter called about moving the cage. told Porter that and |
| | (ODWC) were trying to get the letter from the State to leave the cage in place (per the Porter email of 10/18/11 at 3:08pm). |
| b. | Oklahoma) called Porter and expressed concern |
| D. | about the mussel cage being moved. |
| C. | (ODWC) called Porter, expressed concern about the cage being moved, |
| 0. | told her that the State wanted the cage to remain in place and that |
| | ODWC also requested a delay, giving time for |
| | the State to provide the letter that Porter requested. |
| d. | Porter sent an email to DOI Solicitor wherein she introduced herself, |
| | explained the Kelco concern, provided some of the facts of the issue, and requested |
| | legal advice.(Appendix F). |
| e. | replied to Porter by email and supported moving the cage, based on the |
| | information in Porter's email to (Appendix F). In response to SIO questioning, |

| | | | indicated th | hat ba | sed i | recommen | dation | solely or | the inf | ormation | |
|-----|----------|------------|----------------|------------|------------|---------------|----------|------------|--------------|--------------------------|---------|
| | | provided b | y Porter an | d did not | do any | additional | investi | gation of | the issu | ıe. | |
| | f. | mo | ved the mus | ssel cage | about 3 | 0 feet dow | /nstrea | m from t | he Kelco | outlet. | |
| | g. | Porter sen | t an email t | 0 | | (ODWC), | | and her | OKESFO | staff (Ap | pendix |
| | | G)informir | ng them tha | t based o | on the So | olicitors op | inion, t | he cage | near the | diffuser | needs |
| | | to be mov | ed. Porter a | also says | "if the P | artners in | this stu | ıdy was [| sic] to re | elocate th | ie trap |
| | | back near | the diffuser | , here is | what ne | eds to hap | pen: | | | | |
| | | 1. | Develop a w | vritten pr | otocol f | or this stud | dy with | citations | from s | cientific | |
| | | | literature de | emonstra | ating tha | t this study | y desig | n is base | d on str | ong scien | tific |
| | | ı | procedures | and met | hodolog | ies. This p | rotoco | l needs to | includ | e a justific | cation |
| | | f | for having tl | he musse | el trap lo | cated near | r the di | ffuser. | | | |
| | | 2. | Provide a le | tter or a | detailed | email stat | ing the | Service | is not in | terfering | with |
| | | I | Kelco's abili | ty to con | nply with | n the Conse | ent Ord | ler." | | | |
| | | Port | er also indic | cates in t | his emai | l that Kelco | o has d | ata they | would li | ke to sha | re with |
| | | | | | | | | | | | |
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| | h. | | | | | | | | | | |
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| 4- | | | L IZ L | | | | | | | | |
| 15. | | | l Kelco num | | _ | | | | | ld Porter | they |
| 4.6 | | to provide | | | | ovided thei | | | | | |
| | | • | nussel moni | _ | _ | | from t | ne river | | | _ |
| 1/. | On 2/1 | 5/12 | | sent an e | | | | | with | EX7A | _ |
| | | | | | EX | | 1: 11 | | | | |
| 4.0 | 0 0/0 | . /4.0 | EX7A | | | (Appen | ndix H). | | (7 A | | _ |
| 18. | On 2/2: | 1/12 | sent a | in email t | | equesting | | E | X7A | | |
| | | | | | | X7A | | | | | |
| | | | | | EX5 | (DPP) | | | | | |
| 10 | 0:- 4/2 | E /12 ODEO | | | - (: | .l Vl | ./. | £ 2/10 | :/43): | l: a : a l | 4 4 1 |
| 19. | | | sent a lette | | | | | | | | |
| | - | | nussel kill in | _ | | still open al | na tne | state did | not agi | ee with K | eico to |
| 20 | close th | | ab | | (DPP) | | DEC | | | | |
| 20. | On 6/18 | | | ed the FW | ιο τinai r | eport to O | | | equest, | on the | |
| | Septem | ber 2011 n | iussei Kill. | | | EX5 | (DPP) | | | | |
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| D | IS | С | u | S | SI | Ю | n |

| Pre-Assessment Screening S | tudy: |
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|----------------------------|-------|

| In response to their 9/15/11 discovery of a multiple fork NWR, the OKESFO quickly notified and consituation developed into a NRDA case) to acquire NRDA pre-assessment screen (see Appendix J | ollaborated with the State uire ephemeral data that | e of Oklahoma (co-trustees if |
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| In her interview with the BSIO (or DSIO), Porte Arizona included reviewing graduate study pro included water chemistry and other factors the that the Kelco monitoring study should have f | oposals related to playa was changed as the wetlar | wetlands in deserts. These studies nds evaporated. She indicated |
| proposals, including literature citations, etc. | E | X5(DPP) |
| Kelco: | | |
| EX | (5(DPP)/EX7A | |
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| EX5(DPP)/EX7A |
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| Communication: |
| Luke Bell, supervisor of the staff contaminant specialists, apparently did not communicate with his |
| supervisors, and Porter, regarding the ephemeral data collection at the Kelco discharge site, nor |
| the history of Kelco's recurring contaminant concern and the potential downstream impacts to a |
| National Wildlife Refuge ¹ . Despite his personal involvement in the 9/15/11 discovery of the mussel kill |
| at the Kelco discharge site and his earlier discussion that same day with the staff about the history of |
| Kelco's toxic discharges during low river flow periods, Bell's subsequent actions in the office and his comments to the SIO indicate he found the situation of little interest. On 4/21/11 Porter sent an email |
| to all the OKESFO staff (Appendix L) requesting that they do not send her emails as they had typically |
| done, since . Later she requested staff to follow |
| the chain of command and communicate through their immediate supervisor, Bell, for most of the staff |
| Staff did not send her many emails after that, relying on Bell to convey information to Porter. |
| provided Bell the required notices for field operations throughout the preliminary field work, so he |
| should have been aware of activities and the relevance to a potential NRDA. There is no indication |
| from the written record or from our interviews that Bell asked or other staff about the progres |
| of the work. |
| Contentious Nature of NRDAR Cases: |
| The following is an excerpt from an affidavit by |
| (Appendix M): " |
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 $^{^1}$ In response to questions from the SIO , both Luke and Dixie answered that Luke only mentioned to Dixie Porter that he held a "team building" session with staff on 9/15/11, never mentioning the mussel kill/Kelco situation.

| | | " (SIO Note: Kelco strongly i | nsisted that the <i>in situ</i> mussel |
|-----------------------|-----------------------------|---|--|
| monitoring cage be | e moved further away fro | om their discharge outlet, pres | umably because EX5(DPP) |
| EX5(DPP) |). | | |
| | | | |
| | | | |
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| | | | " SIO Note: in this matter, |
| Kelco contacted th | e DOI Solicitor | who directed them to | the Field Supervisor, Porter, |
| regarding their con | nplaints about the ES fiel | d staff and that the <i>in situ</i> mus | ssel monitoring cage was too |
| close to their diffus | ser. | | |
| NIDDAD Pogulation | os and DOI Policy Poquire | oments for Trustee Coordinati | oni |
| NNDAN Negulation | is and DOI Policy Require | ements for Trustee Coordinati | on. |
| The following is als | so an excerpt from an aff | idavit by | |
| (Appendix M): " | | | |
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| | " SIO No | te: the requirement to work w | ith co-Trustees as equal but |
| separate controllin | ng interests in NRDAR act | ivities is important to consider | in this Kelco matter, since the |
| Field Supervisor, P | orter, ordered that the ir | n situ mussel monitoring cage r | near the Kelco discharge outlet |
| be moved "as soon | n as possible" to a point 3 | 30 feet downstream of this out | let, "as Kelco has requested." |
| | | | = (0 |
| | on to move the cage, Port | | (State Attorney General's |
| office) and | to discuss her conc | ern. The co-trustees reported | |
| | | | |
| | | | . In |
| | | before Porter ordered moving | |
| | | uirement for the cage being cl | _ |
| - | _ | cage for a few days was not s | • |
| | - | ssible" has no basis, since that | |
| | | ys, when Kelco first called Port | er. Porter ordered the cage to |
| be moved about 5 | hours after receiving the | initial call from Kelco. | |

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Legal liability concerns:

| In the oral and written record Porter indicates that she had concerns about legal liability of the Service. |
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| Porter said that Kelco's lawyer told her that they "would have to elevate this issue through appropriate |
| legal channels" during their phone call to Porter on 10/18/11. However, since told |
| Porter that |
| |
| Porter had received relevant confirmation from the State |
| that Kelco's stated legal concerns were not warranted. |
| |
| |
| Solicitor's Advice: |
| The SIO asked Porter, "Did you rely on the Solicitor's advice when you made the decision to move the |
| mussel monitoring cage?" Porter replied, "Yes." However the record indicates that at about 2:45pm on |
| 10/18/11, Porter ordered to move the mussel monitoring cage 30 feet from the Kelco outlet |
| "as soon as possible." At that time Porter had not communicated with Solicitor or any other |
| DOI Solicitor, regarding this matter. Her first email to was not sent to until 1:21pm the |
| following day (10/19/11). email reply to her initial email was sent at 3:27pm on 10/19/11. |
| told the SIO that Porter could not |
| have considered the Solicitor's advice when she made the decision to move the cage, nor when she |
| discussed the matter with State co-trustees on either 10/18/11 or 10/19/11. However, in her email to |
| the State ODWC and ODEQ at 5:02pm on 10/19/11, Porter clearly states that the decision to move the |
| mussel "trap" is based on the advice of Attorney for the Department of |
| Interior Solicitor's Office " |
| interior solicitor's office |
| The Solicitor response to Porter's email request for advice, was simply a response to what |
| she had stated in her email to (Appendix F); that "staff in my office, in conjunction with others from |
| the(ODWC and ODEQ)are conducting a study with live mussels in traps at 5 feet from the diffuser |
| and further down the river at 2 additional locations." She also says: "I am uncomfortable leaving the trap |
| in place given that Kelco has stated that the Service is directly interfering with their ability to comply |
| with the consent order. Also, we do not have anything in writing from DEQ or ODWC addressing this |
| study or situation." email response (Appendix F), posted two hours after she sent her email to |
| EX5(ACP)/EX6/EX7C |
| EX5(ACP)/EX6/EX7C |
| EX5(ACP)/EX6/EX7C |
| EX5(ACP)/EX6/EX7C Porter failed to provide key additional information to Solicitor |
| and what she did provide nearly guaranteed getting the response she likely wanted from In her |
| 10/19/11 email to Porter failed to include the following information which she should have |
| known (per her staff briefing on 10/18/11) at the time of sending her email: |

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- 1) the "study with live mussels in traps" was actually an *in situ* monitoring of the suspected contamination concern and would be needed data if a NRDA would be pursued;
- 2) the study was initiated by the "co-trustees" (as required by DOI policy and NRDAR) in response to a recently discovered mussel kill at the Kelco discharge site;
- 3) the State had the lead in this work and they had independent authority to conduct the work under State Titles 27 & 29;
- 4) there was another previous extensive mussel kill in 2005 at the Kelco discharge that led to the Consent Order with many other requirements to avoid future mussel kills including reducing potassium concentrations in their discharge during low river flow periods;
- 5) the Deep Fork NWR was ½ mile downstream from the Kelco discharge outlet, and the trust resources of the refuge (mussels in the refuge portion of the river) were severely affected during the 2005 Kelco mussel kill, and now potentially faced additional threats;

| 6) Porter had talked with | State Atty. General's office, wh | o was familiar with the Kelco |
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| situation and the ephemeral data collection | , and that had told Porter to | o leave the cages in place, per |
| the State and FWS biologists. had | also checked and confirmed th | at the cages were not in |
| conflict with the Consent Order, and ODWC | was not restricted by the Cons | sent Order to conduct this |
| work including the <i>in situ</i> cage monitoring; | and | |
| 7) Porter had talked with the ODWO | |) and they told her that |
| the State did not want the cage moved; | told Porter that | |
| | | |
| Porter was briefed on this information (lister on 10/18/11. If she had included this addition of this action, (3) there was a documented production of the downstream Trust resources of the Madditional information provided to the Solic in response to contaminant violation similar the the interest of the Madditional information similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation similar the the interest of the Madditional information discharge proprior contaminant violation di | onal important information in hormed that (1) the <i>in situ</i> monicedure in potential NRDAR conned responsive monitoring efforevious contaminant spill violational Wildlife Refuge were a sitor would indicate a coordinate of tentially affecting Trust resour | itoring was a normal early neerns, (2) the State legal and fort and confirmed the legality ation at the same location, and a concern. In summary, this ted scientific monitoring effort rees, and known to have a |
| | | |
| | | |
| | " Porter | r failed to recognize that her |
| staff, in cooperation with the State, had me | t this standard suggested by | (see Pre-Assessment |

Screening Study, above and Appendices J & K).

| State Requests Support from FWS on Kelco investiga |
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| State DEQ requested expert advice from OKESFO regarding their on-going investigation of the Kelco |
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| mussel kill discovered by FWS on 9/15/11 and confirmed by ODWC on 9/16/11. (ODEQ) |
| emailed EX7A |
| sent the requested final report to ODEQ on 6/18/12, EX5(DPP)/EX7A |
| Conclusion |
| The Department's policy on integrity of scientific and scholarly activities (305 DM 3) defines misconduct to include: |
| $\S 3.5(M)(1)$ "Misconduct also includes: (a) intentionally circumventing policy that ensures the integrity of science and scholarship, and (b) actions that compromise scientific and scholarly integrity." |
| §3.5(M)(3) "A finding of scientific and scholarly misconduct requires that: |
| (a) There be a significant departure from accepted practices of the relevant scientific and scholarly community. |
| (b) The misconduct be committed intentionally, knowingly, or recklessly. |
| (c) The allegation be proven by a preponderance of evidence." |
| Luke Bell: |
| Despite his personal involvement in that initial discovery on 9/15/11, Luke Bell failed to effectively communicate with his supervisors, and Dixie Porter, regarding the September 2011 mussel kill at the Kelco outlet site and the monitoring actions that followed. It is not clear why Bell paid so little or no attention to this matter. As supervisor of the contaminants section, Bell had a duty to convey to Porter and the concern of his technical staff and inform them that initial sampling of this ephemeral data was being conducted jointly with the State. With this awareness, FWS management could have explored any concerns they may have had concerning the nature and quality of this initial work, including the <i>in situ</i> mussel monitoring cages and their location. This initial briefing with the top level supervisors also would have provided an opportunity to discuss the history of Kelco's contaminant discharges and the concerns that the State and the Refuge had with regard to these matters. Failing that communication, the subsequent Kelco phone call to Porter on 10/18/11 was a complete surprise to |

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Porter. This surprise most likely compounded her reaction to the situation. Bell was not in the office on 10/18-10/19, and was not directly involved in Porter's decision to move the monitoring cage, but his lack of communication on this matter prior to 10/18/11, led to a loss of scientific integrity contributing to Porter's decision. The preponderance of evidence indicates that Bell's persistent lack of communication in this matter was intentional and he failed to "communicate the results of scientific and scholarly activities clearly, honestly, objectively, thoroughly, accurately, and in a timely manner" (305 DM 3.7 A (2)), and as a decision maker, he failed to "support the scientific and scholarly activities of others and will not engage in dishonesty, fraud, misrepresentation, coercive manipulation, censorship, or other misconduct that alters the content, veracity, or meaning or that may affect the planning, conduct, reporting, or application of scientific and scholarly activities" (305 DM 3.7 C (1)).

Dixie Porter:

| Porter's decision on 10/18/11, to move the <i>in situ</i> mussel monitoring cage further away from the Kelco |
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| outlet, was a response to Kelco's phone call that morning, requesting that action. Although Porter |
| consulted with her staff following the Kelco phone call, EX5(DPP) |
| EX5(DPP) In those |
| initial meetings with staff, Porter revealed her concern from the beginning, saying she did not want |
| Kelco to call the Regional Office to discuss the issue since the OKESFO had already had: (1) an OSHA |
| investigation (for a drowning incident) and (2)the |
| Inspector General's Office had conducted two recent audits of office activities. The SIO was told that in |
| Porter's subsequent phone calls with the State |
| although each of these State partners indicated to Porter that they did not |
| support moving the cage. |
| to discuss this matter."), but there is no evidence they spoke or communicated in any way on 10/18/11. Thus, when she ordered to move the cage as soon as possible at about 2:45pm on 10/18/11, and quickly followed that up with an email to some staff, to affirm her oral decision, she had NOT had any contact with the SOL. The day after making her decision, Porter sent an email to Solicitor seeking recommendation on the issue. Porter's email is noteworthy with regard to the information that was not included in her summary of the facts. Not surprisingly, the Solicitor's email response essentially 'rubber stamped' the decision she had already made. In future discussions of this issue, Porter states that the primary justification for her actions in this matter was |
| because she was following "the advice of the Solicitor" (SIO interview and Appendix G). To apparently further justify her decision, Porter dictates specific conditions the State must meet if they want to return the cage to its original location: 1) documentation from the State that the cage location does not interfere with Kelco's ability to comply with the Consent Order and, 2) a lengthy written protocol for the study, with citations, etc. Both of these conditions had been ostensibly met and communicated to Porter on 10/18/11 by her staff and State officials and it is the opinion of the SIO that |
| EX5(DPP) |

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Since the mussel monitoring cages had been in place for 26 days prior to Kelco's complaint call to the Field Supervisor, it could have been reasonable and prudent for the Field Supervisor to: take more time to consider the Kelco concern, have more substantial discussions with the State, the Regional office and the Solicitor, request discussions between the State Attorney General's Office and the Solicitor, and better understand and acknowledge the experience and knowledge of the staff biologists and their joint work with their State counterparts as "co-trustees."

| Porter's intentional actions and quick decision on 10/18/11 to move the cage from directly in front of the Kelco outlet to a new location approximately 30 feet further downstream, |
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| EX7A |
| As a decision maker, Porter failed to "support the scientific and scholarly activities of others and will not engage in other misconduct that alters the content, veracity, or meaning or that may affect the planning, conduct, reporting, or application of scientific and scholarly activities" (305 DM 3.7 C (1)) Porter's intentional actions were a significant departure from acceptable practices of a Field Supervisor in carrying out the Regional Director's NRDAR science responsibilities. |
| Restoring Scientific Integrity: |
| The BSIO recommends that EX5(DPP) |
| EX5(DPP) |
| EX5(DPP) |

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| A – Timeline for Deep Fork River NRDAR investigation – Scientific Integrity Inquiry |
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| B – Consent Order, ODEQ and CP Kelco US, Inc., July 24, 2008. (23 pages) |
| C – Photos of Deep Fork River, 9/27/11 showing Kelco outlet, mussel monitoring cage and Kelco effluent plume. |
| D – Porter: "Dixie's accounting" Rec'd 11/2/11 |
| E – Porter email to OKESFO staff on $10/18/11$ re: ordering the cage to be moved further away from outlet. |
| F – Porter email to Solicitor on 10/19/11 and reply to Porter on 10/19/11 |
| G – Porter email to State ODWC and ODEQ on 10/19/11 re: decision to move cage |
| H- |
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| I - Final FWS Report: Mussel Kill near CP Kelco Discharge into Deep Fork River |
| J - Statement by |
| K – Regulation on NRDAR work, 43 CFR – 11.23 (g)(1)(iii) |
| L – Porter email to OKESFO staff on 4/21/11 re: requests staff limit their emails to her, etc. |
| M – Affidavit by |
| 1/9/12 |
| N – Affidavit by |
| , 1/11/12 |
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P – ODEQ reply letter (3/26/12) to Kelco refusing to drop the ODEQ investigation on the 9/15/11 mussel kill at the Kelco site, and requesting FWS final report on same.