

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

**IN THE MATTER OF THE APPLICATION BY SCS CARBON TRANSPORT LLC FOR  
A PERMIT TO CONSTRUCT A CARBON DIOXIDE TRANSMISSION PIPELINE**

**DOCKET NO. HP22-001**

**Direct Testimony of Brian Sterner  
On Behalf of the Staff of the South Dakota Public Utilities Commission  
June 23, 2023**

1 **Q: Please state your name and business address.**

2

3 A: Brian Sterner, 2009 Mackenzie Way, Suite 100, Cranberry Township,  
4 Pennsylvania 16066

5

6 **Q: Describe your educational background.**

7

8 A: I have a Bachelor of Science in Biology from Grove City College. I also have  
9 professional trainings in wetland delineation, wetland mitigation, workplace safety  
10 and environmental impact studies.

11

12 **Q: By whom are you now employed?**

13

14 A: I have been employed by Environmental Resources Management, Inc. since  
15 November 2011.

16

17 **Q: What work experience have you had that is relevant to your involvement on  
18 this project?**

19

20 A: I have 33 years of experience as a biologist responsible for permitting and  
21 compliance under state and federal wetland and water quality laws and policy. I  
22 have extensive experience preparing National Environmental Policy Act (NEPA)  
23 environmental studies and documentation including Categorical Exclusions,  
24 Environmental Assessments, and Environmental Impact Statements. As an  
25 environmental consultant, I have been responsible for project compliance under  
26 the federal Clean Water Act requirements for waterbodies, the National Pollutant  
27 Discharge Elimination System (NPDES), and related studies and analyses for  
28 water quality of surface waters and groundwater. I have also conducted studies  
29 under the Migratory Bird Treaty Act (MBTA), including recent preparation of a Bald  
30 Eagle and Osprey Management Plan. I have training and experience in freshwater  
31 mussel identification and aquatic ecology, and I have also conducted numerous  
32 field studies for threatened and endangered species, including several species of  
33 bats and numerous species of vegetation. I am recognized as a Qualified Botanist  
34 by the Pennsylvania Department of Conservation & Natural Resources  
35 (PACDNR). I have extensive experience in remote land use reconnaissance and  
36 aerial interpretations, particularly as it relates to wetlands and forest ecosystems.  
37 I also have formal training by the Federal Energy Regulatory Commission for  
38 environmental review and compliance. I have applied my experience throughout  
39 the United States, working on transportation, energy production and pipeline  
40 networks, remediation, and other infrastructure projects.

41

42 **Q: What Professional Credentials do you hold?**

43

44 A: Professional Wetland Scientist (PWS) through the Society of Wetland Scientists,  
45  
46 Qualified Botanist by the PADCNR,

47  
48 Certified Pesticide/Herbicide Applicator by the PADCNR (for the purpose of  
49 invasive species control on mitigation projects).  
50

51 **Q: What is the purpose of your testimony?**  
52

53 A: To provide an assessment of the completeness and adequacy of the Hydrology  
54 section (5.2), Terrestrial Ecosystems section (5.3) and Water Quality and Uses  
55 section (5.6) of the Application. My testimony contains my professional opinion  
56 based on experience, review and comparison of other water-, land-, soil-, and  
57 ecosystems-related sections of the Application and Supplemental Application<sup>1</sup>,  
58 and includes statements and recommendations regarding additional review,  
59 assessments, and supplemental information that SCS Carbon Solutions may  
60 conduct and include in the Application so that the impact analysis may be  
61 considered complete.  
62

63 **Q: What methodology did you employ for your hydrologic and water quality  
64 review?**  
65

66 A: The methodology that I employed to review and assess Section 5.2.1 – Surface  
67 Water Drainage, was first based on a full review of all water-related sections of the  
68 Application, as well as Section 5.1 – Physical Environment. Also, I referenced my  
69 extensive wetland delineation and mitigation experience and understanding of  
70 groundwater and drainage patterns. I also utilized my experience in the permitting  
71 and construction oversight of large and small pipeline projects that involved a wide  
72 range of soil conditions, limitations, and topographic limitations. I reviewed the  
73 topographic maps, soils maps, list of soils crossed by the Project, and land use  
74 land cover maps provided in Appendix 6 of the Application. I also referenced soil  
75 characteristics online from the National Resource Conservation Service (NRCS).  
76

77 For reviewing and assessing Section 5.2.2 - Groundwater, was primarily the  
78 groundwater investigations that I conducted throughout my career during the  
79 preparation of hundreds of NEPA environmental documents, each having to  
80 address potential groundwater resources and impacts. Also, I recently conducted  
81 air quality and hydrogeological impact assessments for natural gas wells, and I am  
82 currently involved in assessing potential groundwater impacts and wetland  
83 dewatering from a stream relocation project at the Perry Nuclear Power Plant in  
84 Perry, Ohio. I also referenced my experience relating to groundwater conditions in  
85 wetlands and wetland mitigation, and construction oversight of large capital  
86 projects, including pipelines. I also reviewed the South Dakota Department of  
87 Agriculture and Natural Resources (DANR) requirements, resources, and related  
88 Codified Law to compare to the Application.  
89

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<sup>1</sup> For purposes of this testimony, I will hereafter refer to the Supplemental Application filed on October 13, 2022 as “the Application”, as it is the most current version on file and was therefore the focus of my review.

90 The methodology that I employed to review and assess Section 5.2.3 - Water Use  
91 and Sources, referenced the DANR Water Quality requirements and related  
92 Codified Law to compare to the Application. Also, I used my experience with state  
93 level existing and designated water use classifications, experience related to  
94 permitting and construction oversight of Horizontal Hydraulic Drilling (HDD)  
95 operations.  
96

97 **Q: Did you review Sections 1.8, 5.2, 5.3, and 5.6 of Summit's Application?**  
98

99 A: Yes, all four sections were reviewed. Table 1: Anticipated Permits or Reviews for  
100 the Project in South Dakota identifies the permits and approvals that I anticipated  
101 to find listed. I did note, however, that the Section 401 Water Quality Certification  
102 was not listed on Table 1. This certification is required to be issued by DANR. Also,  
103 Table 1 indicates that the correct General Permits required for surface water  
104 discharges for stormwater associated with construction activities, as well as  
105 temporary discharges of hydrostatic test water, but the Table should also have  
106 referenced that these permits are part of the NPDES Program.  
107

108 **Q: In your opinion, did Summit's Application adequately identify all required**  
109 **permits and approvals applicable to protecting water resources? Please**  
110 **explain.**  
111

112 A: Based on the project description and the information provided throughout the  
113 Application, the anticipated permits, consultations, and approvals were included in  
114 the Application and listed in Table 1. However, the Section 401 Water Quality  
115 Certification was not discussed in Section 1.8 - Other Required Permits and  
116 Approvals or listed on Table 1. Section 5.6 – Water Quality and Uses does include  
117 a brief discussion on the need to adhere to Sections 401 and 402 of the Clean  
118 Water Act (CWA).  
119

120 **Q: In your opinion, did Summit's Application adequately address ARSD**  
121 **20:10:22:15 (Hydrology)? Please explain.**  
122

123 A: No, the Application did not fully address ARSD 20:10:22:15 since there are several  
124 missing maps and drawings that would be used to identify and illustrate hydrologic  
125 features such as watersheds, drainage patterns before and after construction,  
126 planned water uses, groundwater sources, particularly the Spring Creek Aquifer  
127 that contains water wells from 20 – 200 feet deep. Also, there was no indication in  
128 the Application that the Applicant filed plans with any local, state, or federal  
129 agencies, any scale maps to indicate the current planned water uses by  
130 communities, agriculture, recreation, fish, and wildlife which may be affected by  
131 the location of the proposed Project and a summary of those effects. The items  
132 identified to be on the referenced maps and drawings are discussed in the  
133 Application, but they are not shown on maps and scale drawings.  
134

135 Section 5.2.2 – Groundwater states that the Spring Creek Aquifer in northern South  
136 Dakota has an approximate well depth ranging from 20-200 feet. Section 1.2 -  
137 Project Overview and General Site Description states that the pipeline will be  
138 installed to a minimum depth of four feet (top of pipe). The Environmental  
139 Construction Plan (ECP) does not discuss the presence of aquifers near the  
140 ground surface. The location of near ground surface aquifers should be noted in  
141 the ECP and specific limitations should be included in the ECP and Spill Prevention  
142 Control and Countermeasure (SPCC Plan) Plan to avoid any chances of  
143 contamination or degradation of water quality.

144  
145 Section 5.2.2 – Groundwater states that the majority of the route is not susceptible  
146 to groundwater contamination from fuel leaks during pipeline repairs or  
147 maintenance due to the depths of most aquifers and presence of confining  
148 materials. There's no further discussion about other areas of the pipeline route and  
149 presence of aquifers. This implies that there are some areas that are susceptible  
150 to groundwater contamination.

151  
152 Section 5.2.2 – Groundwater states if there is a temporary release of carbon  
153 dioxide (CO<sub>2</sub>), there will be minor impacts to groundwater quality. Other than a  
154 reference to occurrences of naturally CO<sub>2</sub>-charged potable water that shows the  
155 common chemical reaction products from dissolution of CO<sub>2</sub> into freshwater  
156 include rapid buffering of acidity, no other information is provided about the  
157 referenced minor impacts to groundwater quality. The Application and Emergency  
158 Response Plan do not discuss water quality impacts if there is a release of CO<sub>2</sub> to  
159 a waterbody and CO<sub>2</sub> is known to rapidly dissolve in water.

160  
161 Section 5.2.3 – Water Use and Sources states that the baseline centerline  
162 crossed/clipped seven Wellhead Protection areas and that the Applicant is working  
163 with municipal and rural water system districts to identify any well or surface water  
164 protection conflicts. The Application does not discuss if there were previous efforts  
165 to avoid these Wellhead Protection areas or if the pipeline route will be adjusted to  
166 avoid them. Wellhead Protection areas would be a feature to be shown on  
167 hydrology maps.

168  
169 Hydrology and hydrologic features typically include watersheds, waterbodies,  
170 wetlands, aquifers, springs, seeps, general groundwater elevations and flow  
171 direction. The Application does not discuss springs, seeps, nor groundwater flow  
172 directions. Section 5.3.3.3 - Sensitive Aquatic Species states that the Topeka  
173 Shiner, listed as endangered by the U.S. Fish and Wildlife Service (USFWS),  
174 generally occupies small, prairie streams with groundwater inputs (springs). Thus,  
175 without knowing the location of springs and seeps, I cannot determine whether the  
176 Project could have an adverse effect on the habitat of the Topeka Shiner or other  
177 species that rely on similar sources of water.

178  
179 Section 5.2.3 – Water Use and Sources – Construction Impacts discusses using  
180 the One-Call system to locate public water lines. The location of other public

181 utilities in the construction right-of-way (ROW), such as natural gas lines, fuel lines,  
182 and buried electric lines, is not discussed in the Application. In addition, the  
183 Application does not discuss the location of private utilities and underground  
184 hazards within the construction ROW using techniques such as ground penetrating  
185 radar or electromagnetic detectors. Privately owned underground utilities and  
186 hazards such as water lines, electric lines, fuel and home heating tanks are  
187 common around farmsteads and remote residential areas.

188  
189 Section 5.2.3 – Water Use and Sources – Operation Impacts states that the Project  
190 would have minor impacts on water supply, but it doesn't discuss what those  
191 impacts would be, the extent of impacts, nor what water supplies would be  
192 impacted. This section also states that a temporary release of CO<sub>2</sub> could result in  
193 a temporary increase of CO<sub>2</sub> within a waterbody, but it will dissipate through mixing  
194 within the waterbody. It further states that CO<sub>2</sub> is a naturally occurring compound  
195 in the environment and will have no permanent impacts. Based on my knowledge  
196 and experience of aquatic resources, I conducted some research regarding the  
197 specific effect of CO<sub>2</sub> in water to obtain current sourcing. According to the United  
198 Nations Food and Agriculture Organization (FAO), CO<sub>2</sub> is highly soluble in water  
199 and one volume of CO<sub>2</sub> dissolves in an equal volume of water. The source further  
200 states that high levels of CO<sub>2</sub> interfere with the binding capacity of hemoglobin  
201 with oxygen. CO<sub>2</sub> dissolved in water depresses the ability of hemoglobin to bind  
202 with oxygen. Although shellfish use hemocyanin to transport oxygen instead of  
203 hemoglobin, the effect of high levels of CO<sub>2</sub> is the same. High pressure CO<sub>2</sub>  
204 reduces maximum blood oxygen capacity. Also, according to the National Oceanic  
205 and Atmospheric Administration (NOAA), CO<sub>2</sub> dissolves in water as carbonic acid,  
206 which lowers the pH. All of these factors adversely affect aquatic organisms and  
207 can potentially result in their death.

208  
209 Section 5.2.3 – Water Use and Sources – Operation Impacts states that minor  
210 surface disturbance activities within waterbodies from pipeline inspection and  
211 maintenance may occur infrequently and at widely spaced locations. The  
212 Application does not state how inspections and maintenance activities would  
213 impact waterbodies or if it would affect water quality.

214  
215 Section 5.4.2.1 Potential Impacts to Fisheries – Construction Impacts discusses  
216 the potential for inadvertent returns to occur during HDD. This section discusses  
217 the use of non-toxic drilling fluids as a way to minimize impacts to fisheries. Summit  
218 provided an HDD Inadvertent Return Plan as part of their response to Data  
219 Request #5. This Plan was reviewed and it discusses measures to mitigate  
220 impacts from inadvertent returns, but it does not discuss methods to avoid or  
221 minimize inadvertent returns in the first place (i.e. site-specific geologic information  
222 to avoid fractured rock or soft soils, or increase thickness of drilling mud).

223  
224 **Q: In your opinion, did SCS's Application adequately address ARSD**  
225 **20:10:22:20 (Water Quality)? Please explain.**  
226

227 A: The Application did not fully address ARSD 20:10:22:20 Water Quality. Section 5.6  
228 – Water Quality and Uses states that based on the Project’s proposed construction  
229 activities, permits or certifications may be required to adhere to Sections 401 and  
230 402 of the CWA. The CWA requires DANR to certify there are no adverse water  
231 quality impacts or impairments based on the state designated water quality  
232 designations. Thus Section 401 WQC and Section 402 NPDES Permits will be  
233 required prior construction of the Project. The Application states that SWPPP plans  
234 will be prepared for the Project, but they were not available for review prior to  
235 preparing this testimony.

236  
237 **Q: Does Summit correctly identify the permits required for hydrostatic test**  
238 **water withdrawal and discharge?**

239  
240 A: Yes. Table 1 correctly identifies that a General Permit SDR070000 Authorizing  
241 Temporary Discharges Activities under the South Dakota Surface Water  
242 Discharge System would be needed to address the discharge of hydrostatic test  
243 water. Table 1 also identifies that the issuance of a Permit to Appropriate water  
244 would be needed for water withdrawal for temporary use. Although Table 1  
245 identifies the correct General Permit for the discharge of hydrostatic discharge  
246 water, it does not mention that it is part of the NPDES program. It does correctly  
247 identify DANR as the issuing agency through the Water Rights Program.

248  
249 **Q: Do you have any additional recommendations regarding either hydrostatic**  
250 **test water withdrawal or discharge?**

251  
252 A: Yes, I have a recommendation regarding hydrostatic water discharge. Hydrostatic  
253 testing utilizes high pressure water to test the integrity of the piping system and  
254 connected facilities. The pressurization of this water generates heat so an  
255 immediate discharge to the ground, surface water, or groundwater can have  
256 adverse thermal impacts. A hydrostatic testing plan should address the  
257 depressurization of the pipeline and facilities, as well as maintaining that water  
258 within that system until the temperature of the testing water achieves a minimum  
259 of ambient air temperature and is safe for discharge to avoid thermal impacts.

260  
261 **Q: Did you review Stormwater Pollution Prevention Plan (SWPPP) for the**  
262 **Project?**

263  
264 A: No. The Application stated that SWPPP plans will be prepared but they were not  
265 available to review prior to preparing this testimony. While reading through the  
266 Application, it was noted that Section 2.2 - Alignment Sheets, Construction Line  
267 List, and Permits in the ECP states that SCS will prepare Environmental Plan  
268 Sheets that accompany the SWPPP required under the Minnesota Pollution  
269 Control Agency (MPCA) NPDES Disposal System Construction Stormwater  
270 General Permit (MNR100001). The ECP further states that SCS will prepare an  
271 Iowa Agricultural Impact Mitigation Plan (AIMP) that will accompany the Iowa Utility  
272 Board Filing for Hazardous Liquid Pipeline Projects. The AIMP will comply with the

273 provisions of Iowa Code § 479B.20 and the rules and regulations promulgated by  
274 the Utilities Board during and after pipeline construction. For agricultural areas in  
275 Iowa, the AIMP will supersede this document. The referenced text from Section  
276 2.2 appears to be from a different document since the cited permits and state  
277 agencies do not apply to the Summit project application for the SDPUC.  
278

279 **Q: Will a jurisdictional determination be requested from the U.S. Army Corps of**  
280 **Engineers (USACE) prior to application for a Nationwide Permit or Section**  
281 **404 Permit?**

282  
283 A: The Wetland Report discussed that field wetland delineations are about 85%  
284 complete and are anticipated to be completed in fall 2023. The Application did not  
285 mention anything about obtaining a jurisdictional determination from the USACE.  
286 The federal water resource permits, such as the USACE Nationwide Permit 58 and  
287 Section 404 Permit will require that wetlands be delineated and a jurisdictional  
288 determination provided.  
289

290 **Q: What methodology did you employ for your review of terrestrial impacts?**

291  
292 A: The methodology that I employed to review and assess Section 5.3.1 Vegetative  
293 Communities included reference to various online resources, including the U.S.  
294 Geological Service (USGS) National Land Cover Database map, data and  
295 mapping from the DANR, and SouthDakota.gov to obtain relevant and current  
296 information to compare to the Application.  
297

298 The methodology that I employed to review and assess Section 5.3.2 - Wildlife,  
299 which includes protected species and game species, I initially reviewed the entirety  
300 of the Application since there are discussions involving terrestrial species and  
301 potential impacts located throughout the Application. I also referenced the U.S.  
302 Fish and Wildlife Service (USFWS) occurrences database and Environmental  
303 Conservation Online Database (ECOD), the South Dakota Endangered and  
304 Threatened Species Codified Law Chapter 34A-8, and online data and mapping  
305 from the South Dakota Game, Fish, and Parks (SDGFP) to compare with the  
306 Application. I also referenced the SDGFP Wildlife Action Plan, Species in Greatest  
307 Conservation Need list, and Natural Heritage Database to compare with the  
308 Application.  
309

310 The methodology that I employed to review and assess ecosystems, I referenced  
311 many of the sources listed above, as well as the U.S. Environmental Protection  
312 Agency (EPA) Ecoregions for North America and the land use land cover maps  
313 provided in Appendix 6C of the Application (October 13, 2022 version) for use in  
314 remote mapping interpretation to compare with the information provided in the  
315 Application.  
316

317 The methodology that I employed to review and assess noxious weeds, I  
318 referenced the South Dakota Noxious Weeds Codified Law 38-22 and the South

319 Dakota Noxious Weeds list maintained by the South Dakota State University  
320 Extension to compare with the Application. I also utilized my work experience  
321 identifying and managing noxious plants on wetland and habitat restoration  
322 projects, including my Pennsylvania Pesticide Applicator's license training.

323  
324 **Q: Did you review Section 5.3 of Summit's Application?**

325  
326 A: Yes, I reviewed all of Section 5.3 – Terrestrial Ecosystems, including the related  
327 Appendices. Several observations were noted and discussed in more detail in the  
328 applicable answers below. These include that there is a need to finalize agency  
329 consultations regarding the project impact on the Dakota Skipper and the Lined  
330 Snake. Also, Section 5.14 Soils discusses the potential for soil compaction and  
331 rutting by construction equipment, but it does not identify the presence or absence  
332 of high rutting hazard soil areas.

333  
334 **Q: Please summarize what information was included in Section 5.3 of**  
335 **Summit's Application.**

336  
337 A: Section 5.3 – Terrestrial Ecosystems discusses that the Project footprint in South  
338 Dakota is located within two U.S. Environmental Protection Agency Level III  
339 Ecoregions, the Northern Glaciated Plains Ecoregion, the Northwestern Glaciated  
340 Plains Ecoregion, and seven Level IV Ecoregions. The general vegetative  
341 communities were identified, including the presence of nearly 84% cultivated crops  
342 and pasture/hay and nearly 10% grassland/herbaceous areas traversed by the  
343 Project. This section includes a discussion regarding the HDD crossing of six  
344 USFWS grassland easements and three USFWS wetland easements after  
345 adjusting the project routing to minimize impacts. Surveys for noxious weeds have  
346 not been conducted as of the date of the Application and provided materials, but  
347 the known infestation locations were provided in the Application. This section, as  
348 well as others and the ECP, note that pre-construction surveys will be undertaken  
349 to identify pre-construction contours and drainage patterns.

350  
351 **Q: In your opinion, did Summit's Application adequately address ARSD**  
352 **20:10:22:16 (Effect on terrestrial ecosystems)? Please explain.**

353  
354 A: No, I do not think the ARSD 20:10:22:16 was adequately addressed in the  
355 Application. Also, the Application includes a broad discussion on general  
356 vegetation, wildlife, and ongoing consultation with multiple agencies regarding  
357 protected species, however there are several additional issues that need to be  
358 addressed. The Application should have addressed the presence or absence of  
359 properties enrolled in the NRCS Conservation Reserve Enhancement Program  
360 (CREP) and the potential consultations with NRCS and the negotiations with  
361 landowners for crossing any properties enrolled in the CREP. There are specific  
362 requirements that landowners must follow to maintain properties in the CREP.  
363 Some of these requirements could conflict with the construction, operation, and  
364 maintenance requirements of the Project, such as: no driving on Walk-In areas

365 except on designated trails and parking areas; private CREP lands are leased to  
366 the SDGFP; every acre enrolled in CREP is open to the public hunting and fishing;  
367 and crop and cover vegetation restrictions. A consultation process should occur  
368 between Summit, the USDA and SDGFP to gain a full understanding of the South  
369 Dakota CREP program, limitations to the Project, and identification of all of the  
370 properties involved.

371

372 **Q: In your opinion, did Section 5.3 of Summit’s Application properly identify**  
373 **the potential impacts to vegetation?**

374

375 A: No, I do not think that Summit’s Application properly identified the potential impacts  
376 to vegetation. Section 5.3.1.4 - Impacts to Vegetation – Operation Impacts states  
377 that most of the ROW, including all of the temporarily impacted lands and much of  
378 the permanent ROW, will be allowed to revert to pre-construction vegetative  
379 conditions. This contradicts numerous sections of the Application, including the  
380 ECP, which provides details of revegetation and restoration measures. However,  
381 neither the Application nor the ECP is clear whether revegetation involving seeding  
382 with acceptable seed mixtures, would be applied to temporarily impacted lands.  
383 Disturbed lands should not be left to just revert to pre-construction vegetative  
384 conditions or issues with soil stabilization and noxious weeds would become an  
385 issue. Section 5.3.1.4 - Impacts to Vegetation – Construction Impacts states that  
386 the Contractor may also utilize cleaning stations to remove vegetative and soil  
387 materials using water at a high pressure in lieu of compressed air. These measures  
388 to remove vegetation (cuttings and seeds) with high pressure may very well result  
389 in the spreading of noxious weeds. DANR and SDGFP should be consulted for  
390 additional mitigation measures to avoid the spread of noxious weeds.

391

392 **Q: Do you agree with the mitigation measures Summit plans to implement to**  
393 **minimize the potential impacts to vegetation?**

394

395 A: No, I do not agree with the general language in the Application and ECP regarding  
396 the potential impact to vegetation and revegetation efforts. The Project should not  
397 let temporary disturbed lands revert back to pre-construction conditions. There are  
398 several sections in the Application and ECP that discuss the preparation of seed  
399 beds and application of seed to disturbed areas, but the ECP and the Weed Control  
400 Plan should be clear how to restore disturbed areas to satisfy permit requirements,  
401 avoid erosion and sedimentation issues, and avoid agricultural production loss  
402 issues.

403

404 **Q: Do you have any recommendations for additional mitigation measures in**  
405 **order to minimize impacts to vegetation and terrestrial ecosystems?**  
406 **Please explain.**

407

408 A: The Application includes numerous sections that repetitively state the “impacts  
409 from maintenance activities will be minor because disturbances will be isolated,  
410 short-term, and infrequent and include clearing the permanent pipeline ROW of

411 vegetation and identifying corrosion through regular inspections”. However, neither  
412 the Application nor the ECP identify the frequency of said inspections. The only  
413 frequency of inspections found in the documents was related to erosion control  
414 devices. Vegetation restoration, erosion and sedimentation control measures are  
415 highly interrelated. The Application should have a discussion regarding the  
416 presence or absence of high rutting hazard soils. Frequent inspections and special  
417 measures should be taken in any of these areas to ensure that contractors install  
418 erosion control measures and best management practices in accordance with  
419 accepted specifications and permit conditions. Also, the Applicant’s response to  
420 any needed repairs should be quick and comprehensive.

421  
422 **Q: In your opinion, did Section 5.3 of Summit’s Application properly identify**  
423 **the potential impacts to wildlife?**

424  
425 A: No, the Application did not properly address the potential impacts to wildlife.  
426 Section 6.2 – Species Effect Determinations seems to indicate on Table 2 that final  
427 agency determinations have been made regarding several species. However,  
428 specific documentation from the regulatory agencies has not been provided to  
429 confirm the No Effect or Not Likely to Adversely Affect for the identified protected  
430 species. Specifically, this section states that the Applicant made the  
431 determinations based on literature and background review conducted prior to field  
432 survey efforts focused on determining if any of the listed species or their associated  
433 habitats were present. The Application and Appendices did not specify any  
434 additional surveys or identification methods. Section 5.3.2.5 - Potential Impacts to  
435 Wildlife - Construction Impacts does not address the possibility of wildlife becoming  
436 trapped in excavations. The trenching procedures and ECP should include a  
437 process to address the potential of wildlife entrapment and agency-involved  
438 mitigation measures.

439  
440 **Q: Do you agree with the mitigation measures Summit plans to implement to**  
441 **minimize the potential impacts to wildlife?**

442  
443 A: No, I do not agree with the very general measures that Summit identified in the  
444 Application and supporting documents that would potentially serve as mitigation  
445 measures. The Application and supporting documents did discuss implementing  
446 Best Management Practices (BMPs) but did not specifically identify mitigation  
447 measures for impacts. The Application and supporting documents included many  
448 general statements that impacts from maintenance activities will be minor because  
449 disturbances will be isolated, short-term, and infrequent. I recommend specific  
450 impact mitigation measures be presented to the SDPUC, along with the supporting  
451 information from the applicable source and regulatory agency.

452  
453 Although Section 5.3.2.5 – Potential Impacts to Wildlife – Construction Impacts  
454 states that trench plugs, bridges, and gaps in construction areas may be  
455 implemented to facilitate wildlife crossings, the Application and ECP do not include  
456 any information about how to address any wildlife, and particularly big game

457 animals or even livestock that happen to enter the pipe trench or other excavated  
458 areas.

459  
460 **Q: Did the Applicant conduct species-specific field studies for protected**  
461 **species or only potential habitat identification and online database**  
462 **research?**

463  
464 A: As stated above, Section 6.2 – Species Effect Determinations seems to indicate  
465 on Table 2 that final agency determinations have been made regarding several  
466 species, including determinations of No Effect or Not Likely to Adversely Affect for  
467 the identified protected species. The Application and Appendices do not specify  
468 whether any field surveys utilizing specific identification methods (e.g., acoustic or  
469 mist net surveys for bats, traps, or other observation methods) were initiated or  
470 completed.

471  
472 **Q: Does this conclude your testimony?**

473  
474 A: Yes.