

**FOR PUBLICATION**  
**UNITED STATES COURT OF APPEALS**  
**FOR THE NINTH CIRCUIT**

GREATER YELLOWSTONE COALITION;  
NATURAL RESOURCES DEFENSE  
COUNCIL; SIERRA CLUB;  
DEFENDERS OF WILDLIFE,  
*Plaintiffs-Appellants,*

v.

WILMA A. LEWIS; TOM TIDWELL;  
ROBERT V. ABBEY; THOMAS J.  
VILSACK; KEN SALAZAR; BRENT  
LARSON, Supervisor, Caribou-  
Targhee National Forest,  
*Defendants-Appellees,*

J.R. SIMPLOT COMPANY; UNITED  
STEELWORKERS LOCAL 632; CITY OF  
POCATELLO; CITY OF CHUBBUCK;  
CITY OF SODA SPRINGS; POWER  
COUNTY; CARIBOU COUNTY;  
BANNOCK COUNTY; IDAHO FARM  
BUREAU FEDERATION; TOWN OF  
AFTON, WYOMING; LINCOLN  
COUNTY, WYOMING,  
*Defendant-intervenors-Appellees.*

No. 09-35729  
D.C. No.  
4:08-cv-00388-  
MHW

GREATER YELLOWSTONE COALITION;  
NATURAL RESOURCES DEFENSE  
COUNCIL; SIERRA CLUB;  
DEFENDERS OF WILDLIFE,

*Plaintiffs,*

and

ASHLEY CREEK PROPERTIES, L.L.C.,  
*Petitioner-intervenor-Appellant,*

v.

BRENT LARSON, Supervisor,  
Caribou-Targhee National Forest,  
in his official capacity; WILMA A.  
LEWIS; TOM TIDWELL; ROBERT V.  
ABBAY; THOMAS J. VILSACK; KEN  
SALAZAR,

*Defendants,*

UNITED STEELWORKERS LOCAL 632;  
CITY OF POCATELLO; CITY OF  
CHUBBUCK; CITY OF SODA SPRINGS;  
POWER COUNTY; CARIBOU COUNTY;  
BANNOCK COUNTY; IDAHO FARM  
BUREAU FEDERATION; TOWN OF  
AFTON, WYOMING; LINCOLN  
COUNTY, WYOMING,

*Defendant-intervenors,*

and  
J.R. SIMPLOT COMPANY,  
*Defendant-intervenor-Appellee.*

No. 09-35753  
D.C. No.  
4:08-cv-00388-  
MHW  
OPINION

Appeal from the United States District Court  
for the District of Idaho  
Mikel H. Williams, Magistrate Judge, Presiding

Argued and Submitted  
October 6, 2010—Seattle, Washington

Filed December 23, 2010

Before: Betty B. Fletcher, A. Wallace Tashima and  
Sidney R. Thomas, Circuit Judges.

Opinion by Judge Thomas;  
Dissent by Judge B. Fletcher

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**COUNSEL**

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Robert H. Foster, Aaron P. Avila, and Justin R. Pidot; United States Department of Justice; Washington, D.C.; attorneys for the appellees.

David H. Maguire; Maguire & Penrod; Pocatello, Idaho; and James Sanderson; Afton Wyoming; attorneys for intervenor-defendants United Steelworkers Local 632; Idaho Farm

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Bureau Federation; City of Pocatello, Idaho; City of Soda Springs, Idaho; City of Afton, Wyoming; Power County, Idaho; Bannock County, Idaho; Caribou County, Idaho; and Lincoln County, Wyoming.

Albert P. Barker and Paul L. Arrington; Barker Rosholt & Simpson, LLP; Boise, Idaho, attorneys for intervenor-defendant J. R. Simplot Company.

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## OPINION

THOMAS, Circuit Judge:

Greater Yellowstone Coalition, Natural Resources Defense Council, Sierra Club, and Defenders of Wildlife (collectively “Greater Yellowstone”) appeal the district court grant of summary judgment on Greater Yellowstone’s action claiming that the expansion of the J.R. Simplot Smoky Canyon Mine would violate the National Environmental Policy Act (“NEPA”), the Clean Water Act (“CWA”), and the National Forest Management Act (“NFMA”). We have jurisdiction under 28 U.S.C. § 1291, and we affirm.

### I

Since 1984, J.R. Simplot Company (“Simplot”) has operated the Smoky Canyon Mine in parts of the Caribou National Forest to acquire phosphate ore. Current mining operations encompass five panels, labeled A to E, occupying around 5,000 acres of land. Overburden from these panels contains waste rock with a high selenium concentration. Although essential to animal health in small amounts, selenium is toxic at elevated levels. Highly toxic selenium concentrations have been found in area streams. Because of the high selenium levels produced at the site, the existing mining operations are subject to an ongoing site investigation and response action

under the Comprehensive Environmental Response, Compensation, and Liability Act.<sup>1</sup>

To extend the life of the Smoky Canyon Mine, Simplot proposed to extract resources from two federal mineral leases adjacent to the mine, designated as panels F and G. Simplot sought approval from the two federal agencies with jurisdiction over the federal land. The United States Bureau of Land Management (“BLM”) has jurisdiction over all phosphate mining leases on public land, *see* 30 U.S.C. § 211, and the United States Forest Service has the authority to provide a special use permit in furtherance of mining operations where such activities occur on forest system lands, such as the Caribou National Forest, *see* 36 C.F.R. § 251.

The agencies released a Draft Environmental Impact Statement (“DEIS”) for public comment in 2005. The agencies held three public meetings in January 2006 and received 38,616 letters, emails, and comment forms responding to the DEIS. In October 2007, the agencies published a Final Environmental Impact Statement (“FEIS”). In the FEIS, the agencies concluded that the mine expansion would not contribute to violations of water quality standards. The agencies based this conclusion on the combined effects of (1) Simplot’s efforts to reduce the selenium pollution seeping from Smoky Canyon’s existing pits, and (2) Simplot’s proposed store and release cover system.

In light of the existing selenium pollution, especially in Sage Creek, the agencies acknowledged the necessity of remediating the current mining areas in order to avoid exacerbating the current water quality violations. The agencies

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<sup>1</sup>Appendix 2A of the Final Environmental Impact Statement explains the proposed remediation efforts as of 2007, including the diversion of Pole Canyon Creek around the Pole Canyon Overburden Area. As counsel noted at oral arguments, such a diversion has successfully been implemented.

determined two areas—Pole Canyon and Panel E—were the major sources of existing selenium pollution in Sage Creek. The agencies noted in the FEIS that determining all sources of existing pollution would require additional investigation. The FEIS evaluated the remediation efforts at Pole Canyon and Panel E, and concluded that the remediation efforts would significantly reduce existing selenium levels.

In combination with remediating existing pollution, Simplot sought to limit future selenium pollution from the mine expansion by reducing the amount of water that would flow through the newly extracted waste rock. Simplot conducted scientific modeling and analysis to predict the rate at which water would filter through the overburden and into surface water, and the amount of selenium such water would carry. Based on that information, Simplot designed a cover that would be placed throughout panels F and G to limit the percolation of water. However, when Simplot tested this cover using a HELP3 water balance model, the agencies determined the amount of precipitation entering the overburden needed to be reduced further.

To achieve the required reductions in percolation, Simplot developed the Deep Dinwoody Cover System, which consists of layers of one to two feet of topsoil, three feet of material from a geological stratum known as the Dinwoody Formation, and two feet of chert—a coarse material that encourages moisture storage and subsequent removal of moisture by evapotranspiration. The agencies eventually adopted this design in the FEIS.

To test the Dinwoody Cover, Simplot hired an independent environmental consultant, O’Kane Consultants, that performed two sets of studies using conservative estimates of the Dinwoody Cover elements. O’Kane first used 100 years of daily climate data to run a one-dimensional model study that estimated annual water infiltration based on evaporation, transpiration, runoff, and vertical percolation. Because the one-

dimensional model did not account for horizontal movement of water, O’Kane then performed two two-dimensional studies. The first two-dimensional study took into account the full size of the mine, and was run across twenty years, including the five wettest years. The second two-dimensional study was run across the full 100 years, but used a shortened slope length instead of the full size of the mine. The two studies were conducted using this methodology because a full two-dimensional model would have taken at least three months to complete.

During the environmental review process, the agencies convened a twenty-four person interdisciplinary group of experts, six of whom were tasked with reviewing water quality issues. These six experts (“the technical review team”) reviewed the results of the O’Kane studies to evaluate the models and results. One of these experts, Dr. Christopher Carlson, the Forest Service’s National Ground Water Program Leader, expressed concern with the modeling. In his view, it failed to account for the seasonal surge of snowmelt and precipitation that occurs in the area. To address this concern, the technical review team asked a separate consulting firm, Knight Piésold Consulting Engineers, whether the studies accounted for seasonal variations. Knight Piésold concluded that the studies did account for seasonal variations by including in the inputs the peak flows, even though the output (the total water percolating through the cover) was reported annually. Because the studies showed the total annual output was no more than 0.7 inches of water, the annual output would remain the same even if that entire 0.7 inches seeped through during the peak flow months. After analyzing the O’Kane studies, the technical review team noted that the lack of monthly outputs “led to uncertainty within the technical review team about the short-term accuracy” of the results. However, the technical review team concluded that additional modeling was not necessary because the team members were confident in the long-term results and because Simplot agreed to testing of the cover to confirm it operated as the model predicted.



Throughout the review process, the agencies collaborated with the Idaho Department of Environmental Quality (“IDEQ”), the Idaho agency charged with enforcing water quality standards in Idaho. The IDEQ appointed members to the technical review team, assisted with sampling and interpreting results, and participated in the modeling review. It concluded that the mine expansion would not result in violation of either surface or groundwater quality standards, and concurred with the agencies’ approval of the project.

The project was approved by the agencies, despite Greater Yellowstone’s objections. After exhausting the administrative remedies, Greater Yellowstone filed suit in district court alleging the agencies’ approval violated the CWA, the NFMA, and NEPA. Greater Yellowstone sought a preliminary injunction against the mine expansion. The court granted J.R. Simplot Company, various Idaho and Wyoming cities and counties, United Steelworkers Local 632, and the Idaho Farm Bureau Federation intervenor status. The district court denied the motion for a preliminary injunction and granted summary judgment for the agencies.<sup>2</sup> Greater Yellowstone filed a timely appeal to this court.

We review a district court’s grant of summary judgment *de novo*. *Arakaki v. Hawaii*, 314 F.3d 1091, 1094 (9th Cir. 2002). We may set aside agency action if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). As we recently explained:

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<sup>2</sup>Greater Yellowstone appealed the district court’s denial of the preliminary injunction motion to this court. We held that the district court too narrowly confined its analysis of irreparable harm, so we vacated in part and remanded, issuing a temporary stay until such proceedings could be completed. On remand, the district court again denied the preliminary injunction motion. Greater Yellowstone appealed and filed a motion for an emergency injunction pending appeal, which we denied. Greater Yellowstone’s second appeal for review of the district court’s preliminary injunction decision was dismissed as moot after the district court’s summary judgment decision.

[W]e will reverse a decision as arbitrary and capricious only if the agency relied on factors Congress did not intend it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation that runs counter to the evidence before the agency or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

*The Lands Council v. McNair*, 537 F.3d 981, 987 (9th Cir. 2008) (en banc), *overruled on other grounds by Winter v. Natural Res. Def. Council*, 129 S. Ct. 365 (2008) (quotations and citations omitted). Agencies have discretion to rely on their own experts' reasonable opinions to resolve a conflict between or among specialists, even if we find contrary views more persuasive. *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989). In sum, our "inquiry must 'be searching and careful,' but 'the ultimate standard of review is a narrow one.'" *Id.* (quoting *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971)).

## II

On appeal, Greater Yellowstone contends that the agencies: (1) acted arbitrarily and capriciously in violation of NEPA, the CWA, and the NFMA; (2) violated NEPA's hard look and public disclosure requirements; and (3) failed to acquire a § 401 certification as required under the CWA.

### A

The district court correctly concluded that the agencies did not act arbitrarily or capriciously in violation of the CWA and the NFMA by approving the mine expansion.

[1] The CWA requires federal agencies to determine that approved actions do not result in pollution in violation of state water quality standards. 33 U.S.C. § 1323(a). The IDEQ has

promulgated regulations establishing the maximum acceptable level of selenium at .00005 milligrams per liter. Idaho Admin. Code § 58.01.02.210.01. The NFMA requires the Forest Service to develop comprehensive management plans for each unit of the National Forest System, 16 U.S.C. § 1604(a), and all subsequent agency action must be consistent with the governing forest plan, *id.* § 1604(i). The Caribou National Forest Plan provides that in phosphate mine areas, “[o]verburden and soil materials shall be managed according to state-of-the-art protocols to help prevent the release of hazardous substances in excess of state and/or federal regulatory standards.” U.S. Dep’t of Agriculture, Forest Service, Revised Forest Plan for the Caribou National Forest 4-83 (Feb. 2003).

Although selenium pollution is currently a serious problem at the site, the agencies concluded in their FEIS that Simplot’s mine expansion would not result in increased selenium pollution in violation of Idaho law or the Caribou National Forest Plan, as prohibited by the CWA and NFMA. This determination rested on the agencies’ conclusion that existing selenium pollution could be reduced and future selenium pollution could be limited. In reviewing agency decisions, we must determine whether the agencies’ decision is “founded on a rational conclusion between the facts found and the choices made.” *Ariz. Cattle Growers’ Ass’n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1243 (9th Cir. 2001).

[2] Greater Yellowstone argues that the agencies failed adequately to examine other sources of existing selenium pollution when concluding that remediation at two of the known sources—Pole Canyon and Panel E—would be sufficient to offset future pollution from the mine expansion. The agencies acknowledged that without decreasing existing pollution, the mine expansion would exacerbate the current selenium exceedences. The agencies then examined the available evidence, which indicated that Pole Canyon and Panel E were the major contributors of the existing selenium contamination. After evaluating the data, the agencies determined that remediation

efforts at Pole Canyon and Panel E alone would be sufficient to offset selenium from the expansion. Because this is a rational conclusion from the facts found, neither the CWA or the NFMA required the agencies to identify further any other possible source of pollution.

Greater Yellowstone argues the agencies' reliance on the O'Kane studies was arbitrary and capricious because the studies failed to account for seasonal variations. Although Greater Yellowstone points to Dr. Carlson's concerns about whether the studies adequately modeled peak flows, the record demonstrates that the agencies fully evaluated Dr. Carlson's concerns. Not only did O'Kane assure the agencies that the models addressed seasonal variations, the technical review team specifically asked a separate consultant whether the studies accounted for such changes in precipitation. All of the experts agreed that the model effectively accounted for seasonal variation in the long-term. Although the team admitted to uncertainty about the short-term accuracy of the model, this limited qualification of the team's conclusions falls far short of Greater Yellowstone's assertion that it "failed to consider an important aspect of the problem." *Motor Vehicle Mfrs. Ass'n v. State Farm Auto Ins. Co.*, 463 U.S. 29, 43 (1983).

[3] Because the record demonstrates that the agencies fully considered Dr. Carlson's concerns, examined the relevant evidence, and made a reasonable conclusion, their actions were not arbitrary or capricious.

## B

[4] The district court properly concluded that the agencies did not violate NEPA. NEPA requires two things: that an agency "consider every significant aspect of the environmental impact of a proposed action," and that it "inform the public that it has indeed considered environmental concerns in its decisionmaking process." *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 97 (1983) (quotations

omitted). Unlike the CWA, NEPA does not require particular environmental standards or mandate that agencies achieve substantive environmental results. *Bering Strait Citizens for Responsible Res. Dev. v. U.S. Army Corps of Eng'rs*, 524 F.3d 938, 947 (9th Cir. 2008). Greater Yellowstone asserts that the agencies violated NEPA by failing to conduct the hard look required and by failing fully to disclose internal uncertainties about the studies.

1

[5] Greater Yellowstone contends the agencies should have conducted a more searching review in two ways. First, Greater Yellowstone argues the agencies should have ordered additional two-dimensional modeling to respond to Dr. Carlson's claim that the models did not account for seasonal variations. Failure to order additional studies does not, however, equate to a failure to evaluate the environmental impact of the proposal. As discussed previously, the agencies' technical review team conducted a thorough review of the extensive modeling studies, and specifically asked an outside consultant to evaluate Carlson's concerns. Although Greater Yellowstone may disagree with the conclusion that the model fully accounted for seasonal variations, reliance on the model does not constitute a NEPA violation because the agencies conducted the requisite investigation. *See Marsh*, 490 U.S. at 378 ("When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive."). Indeed, the record supports the conclusion that the proposed cover design could handle such seasonal fluctuations.

[6] The fact that the agencies relied on future testing to verify the model's predictions does not invalidate the previous, rigorous evaluation the agencies conducted. Because the agencies had already satisfied NEPA's hard look requirement, the decision to require future testing should not now be con-

strued as undermining their evaluation of the environmental impacts of the mine expansion. Due to this testing, the agencies are in a unique position to monitor the effectiveness of the cover system. Furthermore, because the requirement of future testing is a condition of the permit issued to Simplot, the agencies obviously can enforce that condition of the permit. Should the testing reveal significant inadequacies or miscalculations in the modeling, the agencies presumably are authorized to, and will require Simplot to, take corrective action.<sup>3</sup>

Greater Yellowstone's reliance on *Western Watersheds Project v. Kraayenbrink*, \_\_\_ F.3d \_\_\_, 2010 WL 340012 (9th Cir. Sept. 1, 2010), in which we held that the BLM's failure to address concerns raised by experts violated NEPA's hard look requirement, is misplaced. In *Western Watersheds*, the BLM offered "no reasoned analysis whatsoever" in support of its conclusion and "never seriously considered" a "deluge of concerns." *Id.* at \*16-\*17. In contrast, the agencies here not only fully recognized and evaluated the impact of future selenium pollution, they specifically asked an outside consultant about the one concern Greater Yellowstone says they ignored, justifiably relied on the vast majority of experts who said the model accounted for seasonal variations, and further imple-

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<sup>3</sup>As everyone acknowledges, it will take years for any effects of selenium pollution to materialize fully. However, the monitoring efforts detailed in Appendix 2E of the FEIS explain how the agencies will evaluate, from the day the mine opens, any changes that may affect long term water quality. Among other things, Simplot is required to analyze ground and surface water samples bi-annually, monitor fish population surveys, aquatic habitat surveys, and selenium concentration inventories regularly, and construct the cover system in phases to ensure compliance before final implementation. Simplot must then submit the data from this monitoring to the agencies annually. Furthermore, "[w]here non-compliance with state and federal standards . . . is noted, BLM may issue an order to the operator. . . . If there is a failure to comply with an order or there is an imminent threat of serious or irreparable damage to the environment a cessation of mining order may be issued by the BLM."

mented testing and monitoring to ensure compliance. This is all NEPA requires.

[7] The second way in which Greater Yellowstone asserts the agencies should have conducted a more searching review is by identifying other existing sources of pollution in addition to Pole Canyon and Panel E. By failing to evaluate other potential sources, Greater Yellowstone contends the agencies did not give the environmental impact of the mine expansion the requisite “hard look.” NEPA, however, only mandates an evaluation of a proposed plan’s *future* environmental impact. Because the agencies reasonably concluded that remediation efforts at Pole Canyon and Panel E alone would sufficiently offset future pollution, any other investigation of existing pollution was not required.

2

Greater Yellowstone argues that the agencies also violated NEPA by failing to disclose the internal uncertainty as to the model’s short term accuracy and by publicly denying any uncertainty. The district court properly determined that the agencies appropriately disclosed all relevant uncertainties.

[8] An agency, “must acknowledge and respond to comments by outside parties that raise significant uncertainties and reasonably support that such uncertainties exist.” *McNair*, 537 F.3d at 1001. However,

[T]o the extent our case law suggests that a NEPA violation occurs every time [an agency] does not affirmatively address an uncertainty in the EIS, we have erred. After all, to require the [agency] to affirmatively present every uncertainty in its EIS would be an onerous requirement, given that experts in every scientific field routinely disagree; such a requirement might inadvertently prevent the

[agency] from acting due to the burden it would impose.

*Id.* We cannot hold in this case that one statement indicating uncertainty within the technical review team represents a significant uncertainty as to the model's ability to predict future pollution levels. This conclusion is supported by the voluminous evidence in the record manifesting confidence in the modeling results and the ultimate determination by the technical review team supporting the models' predictions.

Greater Yellowstone relies on *Lands Council v. Powell*, 395 F.3d 1019, 1031 (9th Cir. 2005), in which we held that the Forest Service violated NEPA when it relied upon a flawed model and failed to disclose the limitations of that model in the EIS. In *Powell*, however, the government conceded that the model did not include relevant variables. *Id.* at 1031-32. In contrast, the agencies here argue that the relevant variables reflecting seasonal variations were included and that Dr. Carlson's objections went to the time scale of the model output rather than the input variables.

[9] Because the one sentence in the record indicating some uncertainty within the team does not rise to the level of "significant uncertainty" contemplated by *McNair*, we hold that the agencies did not violate NEPA's disclosure requirements.

## C

The district court correctly concluded that Simplot did not fail to acquire a § 401 certification as required under the CWA. The § 401 certification requirement applies only to discharges from point sources. *See Or. Natural Desert Ass'n v. Dombeck*, 172 F.3d 1092, 1095-97 (9th Cir. 1998). Simplot was not required to obtain a § 401 certification because the mining pits protected by the cover do not qualify as a point source.



[10] Pursuant to § 401 of the CWA, “[a]ny applicant for a Federal license or permit to conduct any activity . . . which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates.” 33 U.S.C. § 1341(a)(1). The CWA defines “discharge” as including “any addition of any pollutant to navigable waters from any point source.” *Id.* § 1362(12)(A). A point source is defined by the CWA as “any discernible, confined and discrete conveyance . . . from which pollutants are or may be discharged.” *Id.* § 1362(14).

[11] The text of § 401 and the case law are clear that some type of collection or channeling is required to classify an activity as a point source. *See Trustees for Alaska v. EPA*, 749 F.2d 549, 558 (9th Cir. 1984) (“[P]oint and nonpoint sources are not distinguished by the kind of pollution they create or by the activity causing the pollution, but rather by whether the pollution reaches the water through a confined, discrete conveyance.”). When evaluating what constitutes a point source in the mining context specifically, we have noted that Congress intended “runoff caused primarily by rainfall around activities that employ or create pollutants” to be a nonpoint source. *Id.* (citing *United States v. Earth Sciences, Inc.*, 599 F.2d 368, 373 (10th Cir. 1979)).

[12] In the proposed mine expansion, there are two potential discharges where polluted water enters the ground and, eventually, surface water. First, water runs off the top of the cover. This water enters a type of stormwater drain system before it is released. This stormwater system is exactly the type of collection or channeling contemplated by the CWA, and Simplot has obtained the requisite § 401 certification for that system.

[13] The second potential source of discharge occurs when some water seeps through the cover and into the pits containing waste rock. This is nonpoint source pollution because

there is no confinement or containment of the water; the cover is designed to divert water away from the pits. As such, the water filters into the pits at a rate less than water would filter into the surrounding ground that is not protected by the cover. The small amount of precipitation (around 0.7 inches a year) that does make it through the cover is not collected or channeled, but instead filters through 200 feet of overburden and 250 to 750 feet of undisturbed material beneath the overburden, eventually entering the surface water. *See N.W. Env'tl. Def. Ctr. v. Brown*, \_\_\_ F.3d \_\_\_, 2010 WL 3222105, at \*4-5 (9th Cir. Aug. 17, 2010) (“Stormwater that is not collected or channeled and then discharged, but rather runs off and dissipates in a natural and unimpeded manner, is not a discharge from a point source.”). The pits that collect the waste rock do not constitute point sources within the meaning of the CWA, and Simplot was not required to obtain a permit under § 401.

### III

The agencies did not act arbitrarily and capriciously in their review and approval of Simplot’s proposed mine expansion project. The agencies complied with NEPA’s procedural requirements by fully evaluating the environmental impacts of the mine and disclosing those results to the public. Simplot was not required to obtain a § 401 certification. The district court properly granted summary judgment to the agencies.

**AFFIRMED.**

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B. Fletcher, Circuit Judge, dissenting:

I respectfully dissent. Although I concur in Part II.C of the majority opinion, I cannot agree with the majority that the federal agencies acted neither arbitrarily nor capriciously when approving the Smoky Canyon Mine expansion project. The majority violates both the letter and the spirit of the appli-

cable federal environmental standards by approving agency action despite currently lacking critical information and by deferring key evaluations to some unspecified future date.

## I

To understand fully what is at issue in this case, it is necessary to focus on two key facts. First, in 2003, the Environmental Protection Agency, U.S. Forest Service, and Idaho Department of Environmental Quality signed an Administrative Order on Consent pursuant to the Comprehensive Environmental Compensation Liability Act (CERCLA) with the J.R. Simplot Company (“Simplot”). This order required Simplot to undertake a set of “removal response actions” to clean up selenium pollution the company’s mining activities had caused in and around the Smoky Canyon Mine. There is no evidence, however, that Simplot has complied with its obligation to develop and implement a comprehensive clean-up plan for pollution stemming from existing mine panels A, B, C, and D. In fact, Simplot has only identified some of the sources of extant selenium pollution caused by its mining activities in Smoky Canyon.

Second, Simplot is at the helm of an industry that contributes millions of dollars annually to the economy of southeastern Idaho and western Wyoming. Simplot’s Smoky Canyon Mine in eastern Idaho provides phosphate ore through a slurry line to a manufacturing facility known as the Don Plant in Pocatello, Idaho. The claim is that, if the Smoky Canyon Mine expansion project were halted, the Don Plant would face closure. As evident from the myriad intervenors in this lawsuit, significant economic interests oppose this outcome.

For example, according to the United Steelworkers Local 632, the union which represents more than 250 employees at the Don Plant, that facility provides over \$33 million in wages, salaries, and benefits for residents of four counties. The Don Plant is thus a key source of employment in an area

where many residents lack post-high school educations and where unemployment is chronic. Roger Chase, a former Simplot employee who served as the mayor of Pocatello from 2002 through 2009, estimated that Simplot jobs paid twenty to thirty percent more than other new jobs available in Pocatello. Chase also testified that Simplot “provides substantial benefits to the City of Pocatello,” including funding for Idaho State University. The Idaho Farm Bureau Federation has warned that the closure of the Don Plant would adversely affect Idaho farmers’ farming costs and overall standards of living. County commissioners for communities adjacent to the Don Plant estimated that the closure of either the mine or the plant would result in the loss of millions of dollars in tax revenues, jeopardizing local school district budgets and other social services in the region.

## II

Against this backdrop, Simplot applied to the Bureau of Land Management (“BLM”) and the U.S. Forest Service (collectively, “the agencies”) for permission to expand the Smoky Canyon Mine into two new panels, F and G. The expansion would extend the life of the mine, and of the Don Plant, by fourteen to sixteen years. On the record before us, I cannot agree with the majority that the agencies did not act arbitrarily or capriciously in approving the mine expansion project, in violation of the Clean Water Act (“CWA”), National Forest Management Act (“NFMA”), and the National Environmental Policy Act (“NEPA”). Rather, I would hold that the agencies violated these federal laws in three distinct ways: (1) by authorizing the expansion project on the basis of admittedly incomplete information regarding sources of extant selenium pollution, without any indication that the missing information could not reasonably be obtained; (2) by relying on the results of concededly inadequate modeling to predict the water quality impacts of the expansion project; and (3) by adopting what amounts to a “test while mining” scheme, relying on post-decisional modeling rather than additional modeling prior to

project approval to evaluate the expanded mine's environmental impacts.

### A

Under the CWA, states are required to compile a list of water bodies, called a § 303(d) list, that do not achieve applicable water quality standards. *See* 33 U.S.C. § 1313(d). The Final Environmental Impact Statement ("FEIS") for the mine expansion project referenced the 2002 list, which encompassed twenty-four miles of streams considered impaired by selenium. The impaired water bodies include South Fork Sage Creek, Pole Canyon Creek, and various other tributaries to Sage Creek. The record nowhere reveals what kind of remediation has been undertaken.

In evaluating the mine expansion project, the agencies determined that remediation at just two known sources of selenium pollution, Pole Canyon and Panel E, would suffice to offset future pollution caused from additional mining. This determination was critical for the agencies' authorization of the mine expansion project, which was premised in part on the assumption that the successful remediation of these sites would be sufficient to offset additional selenium discharges associated with new mining activities without pushing the total selenium levels over legal limits.

The majority contends that the agencies' decision that the remediation of Pole Canyon and Panel E would adequately offset future mine-related pollution is rational, and accepts the agencies' conclusion that these areas are *the* major sources of existing selenium pollution. *Maj. Op.* at 126-27, 131. The record, however, belies these conclusions, and indicates that Pole Canyon and Panel E are but two of the *known* sources of existing selenium pollution.

In choosing to focus on Pole Canyon and Panel E, the Forest Service and BLM relied on a contractor employed by Sim-

plot to assess these sites. It concluded that the sites were exclusively responsible for the selenium contamination in Hoopes Spring and South Fork Sage Creek Spring. The agencies acknowledged, however, that the contractor's conclusion was but "one possible interpretation" of the limited available data, and further that "additional investigation" would be required to determine all the "source(s)" of existing selenium contamination in the area. Indeed, the record before the agencies at the time of their determination mentioned selenium contributions from at least two other sources: Panel A and Panel D. Yet these sources were not included in the proposed remediation plan.

When agencies evaluate "reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement," and incomplete information "is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant," NEPA requires that that information be obtained and included in the EIS. *See* 40 C.F.R. §§ 1502.22, 1502.22(a). It is undeniable that the missing information at issue here — the extent of existing selenium pollution at the site of a proposed mine expansion project — "is essential to a reasoned choice among alternatives." *Id.* Although the agencies acknowledged the need for "further investigation" before all sources of selenium contamination at Smoky Canyon could be identified, there is no indication on the record before this court that the costs of such investigation would be exorbitant. The agencies' failure to obtain and include a comprehensive list of the sources of selenium contamination at Smoky Canyon, therefore, violates federal law. This failing is particularly egregious given that Simplot's mining operations at Smoky Canyon have been subject to CERCLA response actions for over seven years.

The majority holds that, since NEPA "only mandates an evaluation of a proposed plan's *future* environmental impact," further investigation of existing pollution was not required. *Maj. Op.* at 135. This is error. Under the circumstances of this

case, any meaningful evaluation of the mine expansion project's future environmental impacts requires a thorough understanding of existing pollution in the project area. Put differently, because Simplot's prior mining activities have so polluted Smoky Canyon, additional mining will necessarily exacerbate pollution in violation of state and federal environmental standards unless significant remediation is completed *before* any new mining occurs. A comprehensive understanding of existing pollution on site is a prerequisite to any determination of where remediation efforts should begin.

Given the foregoing, the agencies' conclusion that the remediation of Pole Canyon and Panel E will be sufficient to offset future pollution from the Smoky Canyon Mine expansion project is hardly a rational conclusion. *Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (To avoid making an arbitrary and capricious determination, agencies "must examine the relevant data and articulate a satisfactory explanation for [their] action including a 'rational connection between the facts found and the choice made.' " (quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962))); *see also Port of Seattle v. FERC*, 499 F.3d 1016, 1035 (9th Cir. 2007), *cert. denied*, 130 S. Ct. 1051 (2010).

## B

As the majority notes, one of the experts who participated in the environmental review process was Dr. Christopher Carlson, the Forest Service's National Ground Water Program Leader. In a detailed memorandum written in January 2007, Dr. Carlson analyzed the proposed cover system for Panels F and G. Dr. Carlson observed that "as the modeling effort progressed, [Simplot's] contractor had substantial difficulty getting the selected model to execute appropriately," leading it to "implement a number of short cuts and approximations in the analyses . . ." These shortcuts "resulted in a cover evaluation process that did not fully characterize or evaluate

the expected cover performance, design options, modeling assumptions and input uncertainty, or the overall uncertainty in the predictions.” This led Dr. Carlson to conclude, on the basis of his extensive expertise in such matters, that “both the agencies and public are left with a limited understanding of the expected operation of the cover system, its critical design features, and the key expected stressors.”

More specifically, Dr. Carlson noted that since the cover would be set “at an elevation of about 7500 [feet] in the northern tier of the country, the primary environmental forcings that the cover will be expected to handle while limiting infiltration are seasonal in nature (e.g., freeze-thaw, snowmelt, wetting-drying, evapotranspiration).” In other words, an absolutely central question regarding the ability of the proposed cover to function as intended involved the cover’s capacity to respond to seasonal variations.

Yet, as Dr. Carlson noted, “the short cuts taken to speed the [modeling] process” led to an evaluation of model output on only an *average annual* basis. Of the 33 inches of precipitation received each year in the area, however, approximately 22 inches — or two thirds — are associated with the spring snowmelt. A major *seasonal* surge is thus predictable, and relevant to the cover’s *actual* functioning capability. The modeling completed did not account for any such surges. This critical shortcoming prompted Dr. Carlson to conclude “that the lack of *seasonal* information, when the snowmelt dominated hydrology of the area would be most extreme, limits reviewers’ ability to fully characterize the expected conditions and develop a complete understanding of the processes likely to be important for both near-term and long-term cover performance.” (emphasis added) Dr. Carlson’s objections were a reiteration of concerns he had expressed in October 2006, when he warned that an evaluation of the proposed cover design that was based “purely on an annual average basis when we know there are significant seasonal aspects to the hydrological cycle should not be acceptable.”



Rather than confront and address these fundamental inadequacies in the modeling completed, and instead of ordering additional modeling to obtain the seasonal information which the Forest Service's own groundwater expert had deemed critical, the agencies simply concluded that "there is sufficient information to implement the store and release cover system developed," and that "[n]o further cover modeling efforts are needed."

The majority accepts this conclusion on the basis of the agencies' contention that "the annual output would remain the same even if [the] entire 0.7 inches [of water percolating through the cover annually] seeped through during the peak flow months." Maj. Op. at 128. Yet there is no evidence in the record before this court that the proposed cover design could handle such seasonal fluctuations, or what would happen if all or even most of the annual output seeped through the cover in a few short weeks in the spring.<sup>1</sup> Indeed, the agencies' technical review team admitted that the lack of monthly output analysis "led to uncertainty within [the team] about the short-term accuracy" of the modeling results.<sup>2</sup>

This is, therefore, not a case involving reasonable scientific disagreements among qualified experts. *Cf. Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989). Rather, this is a case in which the agency's expert raised substantial uncertainties that were supported by scientific authority, and which the agencies entirely failed to address in the FEIS. Under NEPA, "federal agencies must specifically discuss at

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<sup>1</sup>The majority argues that the agencies' determination is sound since "the relevant variables reflecting seasonal variations were included [in the modeling] and . . . Dr. Carlson's objections went to the time scale of the model output rather than the input variables." Maj. Op. at 136. This obfuscates the issue: namely, that the model's *output* predictions are not trustworthy in light of the corners cut and limitations Dr. Carlson identified.

<sup>2</sup>Simplot's offer to test the proposed cover design further to ensure that it performs as predicted *after* the mine expansion is underway is another indication that the agencies' conclusions lack adequate factual bases.

appropriate points in the final [EIS] any responsible opposing view which was not adequately addressed in the draft [EIS] and . . . indicate the [agencies]'s response to the issues raised. A failure to do so is itself a NEPA violation.” *Wildwest Inst. v. Bull*, 547 F.3d 1162, 1171 (9th Cir. 2008) (citing 40 C.F.R. § 1502.9(b)) (alterations in original; quotation marks omitted).

Rather than address Dr. Carlson’s measured analysis, the defendants make every effort to minimize or discredit the import of his opinions, a lead the majority willingly follows. But Dr. Carlson is not just one person on a larger team of experts. He is the *leader* of the U.S. Forest Service’s National Ground Water Program, and, as such, has deep expertise on the water pollution problems that lie at the very heart of the mine expansion project. Moreover, the additional modeling necessary to ascertain the seasonal viability of the proposed cover design could, by all accounts, have been completed in as little as four to ten *days*. The defendants’ dismissive attitude, therefore, may reflect little more than uncertainty as to what might surface if additional studies or investigation had been completed. The court should not endorse such an aversion to finding out the truth.

The majority emphasizes that all the experts involved “agreed that the model effectively accounted for seasonal variation in the long-term.” Maj. Op. at 132. This is an overstatement; there is no indication that Dr. Carlson ever found that the modeling completed was effective in any respect. Even assuming that the majority’s characterization is accurate, however, it is irrelevant to the questions raised on this appeal and to the court’s role in evaluating the adequacy of agency action. Even if the model effectively accounted for seasonal variation in the long-term, this alone is insufficient, because the mine expansion project will, *at most*, extend the life of the Smoky Canyon Mine for fourteen to sixteen years. The agencies’ conclusions, and the majority’s opinion, leave open the possibility that significant environmental pollution

will occur at the Smoky Canyon Mine in the near term. If this is not “fail[ure] to consider an important aspect of the problem,” what is? *Motor Vehicle Mfrs. Ass’n*, 463 U.S. at 43.

### C

NEPA’s “look before you leap” requirements dictate that agencies “consider every significant aspect of the environmental impact of a proposed action” *before* that action is approved. *Bering Strait Citizens for Responsible Res. Dev. v. U.S. Army Corps of Engineers*, 524 F.3d 938, 947 (9th Cir. 2008) (quoting *Baltimore Gas & Elec. Co. v. Natural Res. Defense Council, Inc.*, 462 U.S. 87, 97 (1983)). It is not appropriate or acceptable “to defer consideration of cumulative impacts to a future date. ‘NEPA requires consideration of the potential impact of an action *before* the action takes place.’” *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998) (quoting *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1313 (9th Cir. 1990) (emphasis in original)).

The agencies’ actions here are completely contrary to these well-established legal principles. As evident from the foregoing, the agencies did not conduct a “previous, rigorous evaluation” of the proposed cover design via their limited modeling. Maj. Op. at 133. The majority’s contention that this modeling “satisfied NEPA’s hard look requirement” is belied by the record before this court. Indeed, the majority seems to recognize that myriad lingering questions central to a thorough evaluation of the mine expansion project remain: “Should the testing reveal significant inadequacies or miscalculations in the modeling,” the majority asserts, “the agencies presumably are authorized to, and will require Simplot to, take corrective action.” *Id.*

It is telling that no legal authority is cited for this procedure. The majority’s approval is especially troubling given that the proposed expansion might extend the life of the mine

for another fourteen to sixteen years, a time period in which the full extent of new pollution caused may not even register.<sup>3</sup> When the effects from the expansion become clear, Simplot may be “long gone” — leaving selenium-contaminated waterways responsible for abnormalities in aquatic life, dead livestock, and other destructive consequences in its wake.

### III

The environmental harm that will result from expanded mining in Smoky Canyon can only be prevented with careful, reasoned evaluations that account for detailed scientific opinions and tailor remedial steps in light of those opinions. The majority’s willingness to accept the flawed and incomplete assessments of the agencies in this case amounts to an abdication of the judicial function. We should hold that the record before this court reveals significant omissions and woefully inadequate assessments of known and unknown problems associated with the proposed cover design; that, absent a comprehensive assessment of existing sources of selenium pollution in the Smoky Canyon area, the remediation efforts necessary to clean up existing pollution Simplot has already created cannot proceed; and that the agencies’ decision to approve the mine expansion project in light of these deficiencies is arbitrary and capricious and in violation of federal environmental law.

I dissent.

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<sup>3</sup>The agencies concede that it takes ten years for new selenium pollution to register, and for remediation efforts to show any results.