Must the Public Pay Miners Not to Pollute? A Takings Analysis of a Proactive §404(c) Action in Bristol Bay, Alaska

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Summary

A potential federal action under §404(c) of the Clean Water Act to prohibit or restrict the disposal of mine wastes from large-scale hardrock mines like the proposed Pebble Mine in waters of the Bristol Bay Watershed, which supports the world's largest commercial sockeye salmon fishery, calls for a takings analysis. A proactive §404(c) action in Bristol Bay would not be a taking of private property because the owners of state mining claims, such as those encompassing the Pebble Deposit, have neither a protected property right to dispose of mine wastes in waters of the United States nor an absolute right to mine. Even if a protected property right were involved, a §404(c) action would effect neither a categorical nor a *Penn Central* taking of property in state mining claims.

> Indeed, despite our conviction that private property rights are to be strongly protected, we are struck by the impropriety of taking action that would require the General Assembly to pay someone not to pollute public water or destroy public fisheries.[1]

Modern large-scale metals mines generally require numerous federal, state, and local permits, often including a Clean Water Act (CWA)[2] §404 permit to dispose of dredged or fill material (mine wastes) at specified sites in waters of the United States.[3] This permit is issued by the U.S. Army Corps of Engineers (the Corps), but the U.S. Environmental Protection Agency (EPA) has authority under §404(c) of the Act to veto a Corps-issued permit or to proactively identify waters as unavailable for the disposal of certain materials where such disposal would have an "unacceptable adverse effect" on fishery areas or other enumerated resources.[4] Given that many proposed mining operations are located on federal or state public land by virtue of federal or state mining claims, and that valid claims are a legally protected form of property, the question arises whether a §404 permit denial or veto, or a proactive action, that forecloses or significantly limits mine development may amount to a taking of property under the Fifth Amendment.

In light of the current mining boom on public lands, this question could arise in many places in the western United States. This Article examines the question in the specific context of the Pebble Deposit, a huge copper and gold deposit located on state land in the headwaters of world-class salmon streams in the Bristol Bay region of Alaska. The Pebble Deposit is a useful test case for the takings inquiry because the company that holds the mining claims—the Pebble Limited Partnership (PLP)—may submit permit applications to develop the deposit as early as this year, and the EPA has been asked to exercise its §404(c) authority proactively to protect waters of

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1. Machipongo Land & Coal Co., Inc. v. Commonwealth, 799 A.2d 751, 775, 32 ELR 20706 (Pa. May 30, 2002), *cert. denied*, Machipongo Land & Coal Co., Inc. v. Pennsylvania, 537 U.S. 1002 (2002).
2. Federal Water Pollution Control Act, 33 U.S.C. §§1251-1387, ELR Stat. FWPCA §§101-607.
3. 33 U.S.C. §1344(a) (2006) (permit authority); 40 C.F.R. §232.2 (2011) (defining "discharge of fill material" to include placement of mining-related materials).
4. 33 U.S.C. §1344(c) (2006).

the United States in this world-class fishery area from the disposal of mine wastes. Although the takings inquiry is notoriously fact-specific, some of the lessons from this takings analysis should be relevant to other mining claims on public lands throughout the west. This Article concludes that a well-supported §404(c) action would not be a taking of PLP's property. Given the limited nature of PLP's property rights and the historical importance of the Bristol Bay fishery, a prohibition on the placement of mine wastes into waters here in order to protect the fishery would not impose an unfair or unexpected burden on PLP. Rather, PLP's investment in mining claims in the headwaters of one of the world's greatest salmon fisheries may fairly be viewed as a business risk for which the public should not be required to compensate the company.

The Article begins by providing some background on the Bristol Bay fishery, PLP's mining plans, and EPA authority under the CWA. It then describes two general scenarios under which EPA could make a proactive §404(c) determination in the Bristol Bay watershed, gives a brief summary of current takings law, and provides an introduction to mining claims as a type of property. The Article then sets forth an analysis of the question whether the §404(c) action would effect a taking of PLP's property in Bristol Bay, concluding that PLP lacks a protected property interest in the subject of the §404(c) action and that, even if it did possess such an interest, a §404(c) action would result in neither a categorical nor a *Penn Central* taking.

I. The Bristol Bay Fishery and the Pebble Deposit

The Bristol Bay region of southwest Alaska supports the largest commercial sockeye salmon fishery in the world, supplying about one-half of the world's commercial supply of sockeye salmon.[5] Since 1950, the most valuable fisheries in the United States have derived from sockeye salmon, and Bristol Bay has supplied 63% of the revenue associated with these fisheries.[6] The broader commercial salmon fishery, which targets all five species of Pacific salmon,[7] has operated in Bristol Bay since 1884.[8] The salmon fishery is the backbone of the regional economy, supplying a primary source of personal income in the region and providing a tax base to fund local schools.[9] Salmon are also central to the traditions of the region's Native cultures and are an integral part of a rich subsistence tradition; most households in the region rely on subsistence hunting and fishing for a large percentage of their food.[10]

Bristol Bay, which opens southwest into the Bering Sea, is fed by nine major river systems flowing in from the north, east, and south. Each of these systems supports significant salmon runs, and each "contains tens or hundreds of locally adapted populations distributed among tributaries and lakes."[11] Population diversity within the Bristol Bay sockeye salmon has a critical stabilizing effect on the variability of salmon returns from year to year.[12] If the salmon stock were homogenous instead of diverse, the variability of salmon returns from one year to the next would be much greater, and fisheries closures could be required up to 10 times more often than they are currently, resulting in substantial economic insecurity.[13] This population diversity—or what scientists call the "portfolio effect"—is typical of "a landscape with a largely undisturbed habitat, natural hydrologic regimes . . . combined with sustainable fishery exploitation."[14]

Two of the most important rivers in the watershed are the Nushagak, which supports the largest Chinook run in Bristol Bay, and the Kvichak, which supports the largest sockeye run in the world.[15] Together, these drainages are "the heart of the world's most productive wild salmon nursery."[16] The headwaters of the Nushagak and Kvichak Rivers are webs of small tributaries and lakes that are fertile spawning waters for salmon and other fish and that participate in a complex interchange of surface and groundwaters.[17]

Underlying these headwaters is the Pebble Deposit, a copper-gold-molybdenum porphyry sulfide deposit that contains one of the largest concentrations of these metals in the world.[18] The deposit straddles the headwaters of two drainages—the South Fork Koktuli River, which flows west into the Nushagak Watershed, and Upper Talarik Creek, which flows south into Iliamna Lake, which in turn empties into the Kvichak River.[19] These streams, and many of their small tributaries, are documented anadromous fish habitat.[20]

5. *See* Alaska Dep't of Fish and Game, Commercial Fisheries Overview, http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareabristolbay.main (last visited May 8, 2012).
6. Daniel E. Schindler et al., *Population Diversity and the Portfolio Effect in an Exploited Species*, 465 Nature 609, 609 (2010).
7. *See* Commercial Fisheries Overview, *supra* note 5.
8. *See* Tim Troll, *Bristol Bay Commercial Fishery Celebrates 125 Years*, Trout Unlimited, http://www.tu.org/conservation/alaska/bristol-bay-commercial-fishery-celebrates-125-years (last visited May 8, 2012).
9. Schindler et al., *supra* note 6, at 609.
10. Letter from Jason Metrokin, President & CEO, Bristol Bay Native Corporation, to Dennis J. McLerran, Regional Administrator, EPA Region 10, at 2 (Aug. 12, 2010) (on file with author) [hereinafter Metrokin Letter].
11. Schindler, *supra* note 6, at 609.
12. *Id.*
13. *Id.* at 610.
14. *Id.* at 611.
15. Ecology and Environment, Inc., An Assessment of Ecological Risk to Wild Salmon Systems From Large-Scale Mining in the Nushagak and Kvichak Watersheds of the Bristol Bay Basin (2010) [hereinafter An Assessment of Ecological Risk].
16. *Id.*
17. Carol Ann Woody & Sarah Louise O'Neal, Fish Surveys in Headwaters Streams of the Nushagak and Kvichak River Drainages, Bristol Bay, Alaska, 2008-2010, at 16, 21-22 (2010) (on file with author).
18. Northern Dynasty Minerals Ltd., *The Pebble Deposit*, http://www.northerndynastyminerals.com/ndm/Pebble.asp (last visited May 8, 2012).
19. *See* David M. Chambers, Pebble Engineering Geology: Discussion of Issues 2 (2007) (on file with author); An Assessment of Ecological Risk, *supra* note 15, at 2 (map).
20. Alaska Dep't of Fish & Game, Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes (2011).

First explored in the mid-1980s, the claims to the Pebble Deposit were acquired by Canadian company Northern Dynasty Minerals Ltd. (NDM) in 2001.[21] In 2007, NDM joined with global mining giant Anglo-American PLC to form the PLP, which is engaged in active exploration of the claims.[22] Today, PLP has direct and indirect interests in a contiguous block of 3,108 state mining claims, which cover 378,600 acres, or 592 square miles.[23]

Although PLP has not yet submitted formal permit applications to develop the Pebble Deposit, it has developed various preliminary plans. The most recent plan describes three potential scenarios—a 25-year mining operation, a 45-year operation, and a 78-year operation.[24] The 25-year scenario depicts a mine far larger than any mine ever built in Alaska, while the 78-year scenario would create the largest hardrock mine in North America.[25] Focusing on the smallest possible mine—the 25-year scenario—this open-pit operation would mine about two billion tons of ore.[26] Because the concentration of recoverable metals in the Pebble Deposit is very low per ton of ore, the mine would generate enormous amounts of waste material, including about three billion tons of waste rock and two billion tons of mine tailings.[27] The pit and adjacent waste rock disposal areas would disturb over 5,200 acres in the headwaters of Upper Talarik Creek and South Fork Koktuli River, including two miles of Upper Talarik Creek and several miles of tributaries to the South Fork Koktuli.[28] Mine tailings would be stored in a tailings storage facility covering about 4,000 acres in unnamed tributaries to the North Fork Koktuli, destroying several miles of documented anadromous fish habitat.[29] The 25-year scenario also describes: a water treatment plant that would treat excess water in the storage facilities and discharge it to one or more nearby streams; an 86-mile transportation corridor (including a road and several pipelines) to connect the mine to a proposed port at Cook Inlet, crossing 120 streams along the way; and a 378-megawatt power plant at the mine site.[30]

A hardrock mining project of this size poses a number of serious threats to aquatic resources, including salmon. For example, the miles of stream stretches that would be excavated for mining or buried under tailings would no longer produce fish, even after mining is completed, and the thousands of acres of habitat destroyed by the mine pit and waste disposal areas would also likely result in reduced fish production.[31] Given the importance of the portfolio effect described earlier, this reduced production poses a significant risk, particularly in the headwaters of the two highest producing salmon streams in the Bristol Bay Watershed. The huge volume of mine wastes that would be discharged into surface waters would pose threats to water quality and fish because of the potential for acid mine drainage (AMD) and leaching of copper and other heavy metals known to be toxic to fish.[32] Because of its high potential for AMD and its location in close proximity to surface and groundwater, the proposed mine would pose a particularly high risk to water quality.[33] The withdrawal of up to 32 billion gallons of water annually from the three drainages for pit dewatering and other mine purposes could result in substantial flow reductions in these streams, diminishing their quality as fish habitat and resulting in reduced fish production.[34]

In order to develop the Pebble Deposit, PLP will need to obtain dozens of permits and authorizations from numerous federal, state, and local agencies.[35] A §404 permit will be required for the discharge of mine tailings, waste rock, and overburden into waters of the United States, including the construction of very large tailings storage facilities that will store mine tailings in the headwaters of the North Fork Koktuli and potentially in the South Fork Koktuli and Upper Talarik drainages. Under §404 of the CWA, the Corps has the authority to issue permits for the discharge of dredged or fill material at specified sites in waters of the United States.[36] EPA has review authority over proposed §404 permits, and may restrict, prohibit, deny, or withdraw the specification or use of any defined area as a disposal site for dredged or fill material whenever the Agency determines that "the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas

21. Northern Dynasty Minerals Ltd., *The Pebble Project: The Future of U.S. Mining & Metals*, http://www.northerndynastyminerals.com/i/pdf/ndm/NDM_FactSheet.pdf (last visited Apr. 24, 2012).
22. *Id.*
23. Wardrop Eng'g Inc., Preliminary Assessment of the Pebble Project, Southwest Alaska 19 (2011), *available at* http://www.northerndynastyminerals.com/i/pdf/ndm/Pebble_Project_Preliminary%20Assessment%20Technical%20Report_February%2017%202011.pdf.
24. *Id.* at 4.
25. William M. Riley & Thomas G. Yocom, Mining the Pebble Deposit: Issues of 404 Compliance and Unacceptable Environmental Impacts 3 & n.8 (2011) (Report for Bristol Bay Native Corp. & Trout Unlimited) (on file with author).
26. Wardrop, *supra* note 23, at 4. This preliminary assessment provides a mine plan only for the 25-year scenario, even while cautioning that this scenario is "not . . . ideal for assessing the potential long-term economic value of the project" and identifying the 45-year scenario as the "base case" for preliminary economic assessment purposes. Adverse effects to water and fish would increase along with the size and duration of the mining operation.
27. Riley & Yocom, *supra* note 25, at 18-20.
28. *Id.* at 18.
29. *Id.* at 19.
30. *Id.* at 18-20.
31. An Assessment of Ecological Risk, *supra* note 15, at 15.
32. Riley & Yocom, *supra* note 25, at 32-34; *see, e.g.*, David H. Baldwin et al., *Sublethal Effects of Copper on Coho Salmon: Impacts on Nonoverlapping Receptor Pathways in the Peripheral Olfactory Nervous System*, 22 Envtl. Toxicology & Chemistry 2266-74 (2003) (copper is broadly toxic to the salmon olfactory nervous system, interfering with olfactory-mediated behaviors that are critical to the survival and migratory success of wild salmonids); Karen L. Barry et al., *Impacts of Acid Mine Drainage on Juvenile Salmonids in an Estuary Near Brittania Beach in Howe Sound, British Columbia*, 57 Can. J. Fisheries & Aquatic Sci., 2032-43 (2000) (study confirming that acid mine drainage from Brittania Mine was toxic to juvenile Chinook and chum salmon).
33. James R. Kuipers et al., *Comparison of Predicted and Actual Water Quality at Hardrock Mines: The Reliability of Predictions in Environmental Impact Statements* at ES-12 (2006), *available at* http://www.earthworksaction.org/files/publications/ComparisonsReportFinal.pdf?pubs/ComparisonsReportFinal.pdf.
34. Riley & Yocum, *supra* note 25, at 34-35; An Assessment of Ecological Risk, *supra* note 15, at 107-08.
35. *See* The Pebble Partnership, *Federal, State, and Local Permits*, http://www.pebblepartnership.com/content/federal-state-and-local-permits (last visited May 8, 2012).
36. 33 U.S.C. §1344(a) (2006).

(including spawning and breeding areas), wildlife, or recreational areas."[37] "Unacceptable adverse effect" is defined in EPA implementing regulations as "impact on an aquatic or wetland ecosystem which is likely to result in . . . significant loss of or damage to fisheries, shellfishing, or wildlife habitat or recreation areas."[38]

EPA may exercise this authority in one of two ways: it may exercise a veto over the specification by the Corps of a site for the discharge of dredged or fill material, or it may "prohibit or otherwise restrict the specification of a site under Section 404(c) with regard to any existing or potential disposal site before a permit application has been submitted to or approved by the Corps or a state."[39] In other words, EPA may veto a decision by the Corps to issue a §404 permit or it may take proactive action to protect specific waters before a permit process is initiated.

The proposal to develop the Pebble Deposit is highly controversial both locally and internationally, with local communities that depend upon commercial and subsistence fishing deeply concerned about the potential effects of large-scale metallic sulfide mining on the waters that incubate the fish.[40] In 2010, a coalition of Tribal Councils, the Bristol Bay Native Corporation (BBNC), and other groups separately asked EPA to use its §404(c) authority to protect Bristol Bay water and salmon from threats posed by large-scale hard rock mines such as the proposed Pebble Mine.[41]

In response to these requests, EPA announced in February 2011 that it would conduct a scientific assessment of the Bristol Bay Watershed, focusing primarily on the Nushagak and Kvichak drainages.[42] The assessment is examining three questions: Whether the Bristol Bay fishery is the world-class fishery it is depicted to be; what are the potential impacts to this fishery from large-scale mining development; and whether there are technologies or practices that will reduce these impacts.[43] A draft of the watershed assessment was released in May for a 60-day public comment period, after which EPA plans to conduct a peer review of the report and publish a final version toward the end of the year.[44] Following completion of the watershed assessment, EPA may initiate action under §404(c) to in some manner prohibit or restrict discharges of mining-related dredged or fill material into specified waters in the region. It is possible that a §404(c) action could render development of the Pebble Deposit economically or technologically infeasible at the present time.

II. Two Possible Bristol Bay §404(c) Scenarios

EPA has a great deal of flexibility in crafting a proactive prohibition or restriction under §404(c), so long as the administrative record provides adequate support for its determination that the prohibited discharges would have an "unacceptable adverse effect" on fishery areas.[45] The analysis in this Article is based on two general approaches that EPA could take. First, EPA could craft a broad §404(c) determination that prohibits or restricts discharges of large-scale mine-related dredged or fill material into waters of the United States across the entire Bristol Bay Watershed. If there is adequate scientific support for this broad approach, it likely would stem at least in part from the necessity of safeguarding the salmon population diversity that extends across and within each of the nine major river systems within the Bristol Bay Watershed from the known adverse impacts of mine wastes on salmon and other aquatic life. Whether this approach would render development of the Pebble Deposit infeasible depends on whether such development requires the discharge of mine wastes into waters of the United States.

The second approach would be a narrow §404(c) determination that would prohibit or restrict discharges into waters of the United States of dredged or fill material from mining the Pebble Deposit. If there is adequate scientific support for this approach, it likely would stem from the fact that the scientific record is better-developed with respect to the nature of the Pebble Deposit and its particular mineralization than with respect to other ore bodies in the region. Thus, EPA may be able to support an "unacceptable adverse effect" finding for discharges from mining the Pebble Deposit, even if it cannot for discharges from large-scale mining more generally. This approach may have the effect of precluding near-term development of the Pebble Deposit.

37. *Id.* §1344(c).
38. 40 C.F.R. §231.2(e). The §404(b)(1) guidelines that govern issuance of §404 permits are to be considered in evaluating the unacceptability of impacts. *Id.* For a discussion of the §404(b)(1) guidelines, see *infra* Part V.A.1.
39. U.S. Environmental Protection Agency (EPA), *Factsheet: Clean Water Act Section 404(c) "Veto Authority," available at* http://water.epa.gov/type/wetlands/outreach/upload/404c.pdf (last visited May 8, 2012). A §404(c) determination is made by the relevant Regional Administrator following a public process that includes a Notice of Proposed Determination, a 30- or 60-day public comment period and public hearing, and finally, a Recommended Determination or Withdrawal. *Id.* EPA has exercised its §404(c) authority only 13 times, none proactively. *Id.*
40. *See, e.g.*, *Morning Edition:* Daysha Eaton, *Pebble Mine Development Polarizes Alaska* (National Public Radio, Oct. 17, 2011), *available at* http://www.npr.org/2011/10/17/141411373/pebble-mine-development-polarizes-alaska; Press Release, Bristol Bay Native Corporation, Survey Results: BBNC Shareholders Strongly Oppose the Pebble Mine (Apr. 16, 2012), *available at* http://www.bbnc.net/index.php/news-a-events/212-survey-results-bbnc-shareholders-strongly-oppose-the-pebble-mine.
41. *See* Letter from Six Federally-Recognized Tribes in the Kvichak and Nushagak River Drainages of Southwest Alaska: Nondalton Tribal Council, Koliganik Village Council, New Stuyahok Traditional Council, Ekwok Village Council, Curyung Tribal Council, Levelock Village Council, to Lisa P. Jackson, Administrator, U.S. Environmental Protection Agency and Dennis J. McLerran, Regional Administrator, U.S. EPA Region 10 (May 2, 2010) (on file with author); Metrokin Letter, *supra* note 10, at 1.
42. *See* Press Release, U.S. EPA, EPA Plans Scientific Assessment of Bristol Bay Watershed (Feb. 7, 2011), *available at* http://yosemite.epa.gov/opa/admpress.nsf/0/8C1E5DD5D170AD99852578300067D3B3.
43. *Id.*
44. *See* U.S. EPA, *Bristol Bay*, http://yosemite.epa.gov/R10/ECOCOMM.NSF/bristol+bay/bristolbay (last visited May 10, 2012).
45. *See* Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43, 13 ELR 20672 (1983) (agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made).

III. Current Takings Law

The Fifth Amendment to the U.S. Constitution provides that "private property [shall not] be taken for public use, without just compensation."[46] The aim of the Takings Clause is to prevent the government "from forcing some people alone to bear public burdens which, in all fairness and justice, should be borne by the public as a whole."[47] Thus, an analytical touchstone in any takings case is the perceived fairness of the government action at issue.

The government may take private property through direct appropriation or physical invasion, or it may do so by regulating private property in a manner that is "so onerous that its effect is tantamount to a direct appropriation or ouster . . . ."[48] It is generally agreed that the first recognition of the latter type of taking—a "regulatory taking"—occurred in the U.S. Supreme Court decision in *Pennsylvania Coal Co. v. Mahon*.[49] In that decision, the Court examined the constitutionality of a Pennsylvania statute that prohibited the mining of coal in such a way as to cause the subsidence of surface structures. The statute applied even where surface owners had signed away the right to protection from subsidence, and it applied to the claimant in such a way as to completely prevent any coal mining on its subsurface properties.[50] In holding that the statute resulted in a taking of the claimant's property, the Court famously stated that "while property may be regulated to a certain extent, if a regulation goes too far it will be recognized as a taking."[51] At the same time, the Court acknowledged that "[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law."[52] The takings analysis, which must proceed with careful attention to the specific facts of each case, unfolds within the framework of the tension between these two statements.

Today, when a court evaluates a takings claim, it generally asks two questions. First,

> a court should inquire into the nature of the land owner's estate to determine whether the use interest proscribed by the governmental action was part of the owner's title to begin with, *i.e.*, whether the land use interest was a stick in the bundle of property rights acquired by the owner.[53]

The Fifth Amendment itself does not answer this question; instead, property rights are defined by independent sources of law: "It is well settled that 'existing rules and understandings' and 'background principles' derived from an independent source, such as state, federal, or common law, define the dimensions of the requisite property rights for purposes of establishing a cognizable taking."[54] Even a claim that all economically viable use of property has been destroyed can be defeated if the government can show that its regulatory action does no more than prohibit a use that is already proscribed by background principles of law.[55] If the land use interest affected by the challenged government action is not a stick in the property owner's bundle of rights, there is no taking.

If a protected property interest is involved, then the court goes on to assess whether the challenged government action took that interest.[56] Government regulation takes property as a categorical matter if it either causes a permanent physical occupation of the property[57] or deprives the owner of all economically beneficial use of the property.[58] Government action or regulation that is not a categorical taking must be evaluated within the analytic framework of *Penn Central Transp. Co. v. City of New York*,[59] which identified three factors that courts generally evaluate in determining whether a taking has occurred: "The economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations are, of course, relevant considerations. So, too, is the character of the governmental action."[60] There is no set formula for evaluating these factors; rather, the *Penn Central* inquiry is an "ad hoc, factual inquir[y],"[61] which "aims to identify regulatory actions that are functionally equivalent to the classic taking in which the government directly appropriates private property or ousts the owner from his domain."[62] The claimant bears the burden of establishing that the government action caused a taking of its property.[63]

IV. Property Rights in Mining Claims on Public Land

The property that PLP possesses in the Bristol Bay region is direct and indirect interests in a block of state mining

46. U.S. Const. amend. V.
47. Armstrong v. United States, 364 U.S. 40, 49 (1960); *see* Lingle v. Chevron U.S.A., Inc., 544 U.S. 528, 539, 35 ELR 20106 (2005) (takings tests focus on "the severity of the burden that government imposes upon private property rights").
48. *Lingle*, 544 U.S. at 537.
49. 260 U.S. 393 (1922).
50. *Id.* at 412-14.
51. *Id.* at 415.
52. *Id.* at 413.
53. *See, e.g.*, M&J Coal Co. v. United States, 47 F.3d 1148, 1154, 25 ELR 20600 (Fed. Cir. 1995) (internal quotation marks omitted), *cert. denied*, 516 U.S. 808 (1995).
54. Acceptance Ins. Cos., Inc. v. United States, 583 F.3d 849, 857 (Fed. Cir. 2009) (quoting Conti v. United States, 291 F.3d 1334, 1340, 32 ELR 20667 (Fed. Cir. 2002)); *see* Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1030, 22 ELR 21104 (1992) (the Court traditionally resorts to "existing rules or understandings that stem from an independent source such as state law to define the range of interests that qualify for protection as property under the Fifth and Fourteenth Amendments . . . .") (internal quotation marks omitted).
55. *See Lucas*, 505 U.S. at 1029.
56. *See M&J Coal Co.*, 47 F.3d at 1154.
57. *See* Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 421 (1982).
58. *See Lucas*, 505 U.S. at 1015.
59. 438 U.S. 104, 8 ELR 20528 (1978).
60. *Id.* at 124 (internal citation omitted).
61. *Id.*
62. Lingle v. Chevron U.S.A., Inc., 544 U.S. 528, 539, 35 ELR 20106 (2005).
63. *See, e.g.*, Cienega Gardens v. United States, 503 F.3d 1266, 1288 (Fed. Cir. 2007) ("As with the other factors, the burden is on the owners to establish a reasonable investment-backed expectation in the property at the time it made the investment.").

claims on state land. If these claims are valid, PLP has protectable property rights in them.[64] In order to evaluate whether the §404(c) action would affect any protected use rights held by PLP by virtue of its possession of valid mining claims, it is necessary to understand the basic nature and source of property rights in mining claims on state lands. This requires an introduction to federal and Alaska mining laws governing claim location.

The federal Mining Act of 1872 provides as follows:

> Except as otherwise provided, all valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States and those who have declared their intention to become such, under regulations prescribed by law, and according to the local customs or rules of miners in the several mining districts, so far as the same are applicable and not inconsistent with the laws of the United States.[65]

"Discovery" of a valuable mineral deposit and proper location and recording of the claim "gives an individual the right of exclusive possession of the land for mining purposes . . . ."[66] A "discovery" exists "[w]here minerals have been found and the evidence is of such a character that a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine . . . ."[67] In applying this "prudent person" test, the profitability of mining the deposit is an important consideration.[68] To retain possession of the claim, the holder must satisfy an annual assessment requirement or pay an annual maintenance fee.[69] A holder of a valid mining claim may patent the claim, by paying a small fee and complying with relevant statutory requirements, thereby obtaining full legal title to the land and the minerals within the claim.[70]

The Act also provides that:

> The locators of all mining locations . . . so long as they comply with the laws of the United States, and with State, territorial, and local regulations not in conflict with the laws of the United States governing their possessory title, shall have the exclusive right of possession and enjoyment of all the surface included within the lines of their locations . . . .[71]

To this basic grant was added, in 1955, the proviso that unpatented mining claims may be used only for "prospecting, mining or processing operations and uses reasonably incident thereto."[72] In addition, unpatented mining claims were made subject to the right of the government to manage the surface resources and to use the surface as necessary to manage surface resources and for access to adjacent land.[73] The government's right to use the surface is, in turn, limited by the requirement that it not "endanger or materially interfere with prospecting, mining or processing operations or uses reasonably incident thereto[.]"[74] This addition brought an end to the mining claimant's "exclusive right of possession" of the surface of the claim.[75]

A valid mining claim, even prior to patent, "constitutes property to its fullest extent, and is real property subject to be sold, transferred, mortgaged, taxed, and inherited without infringing any right or title of the United States."[76] A mining claim is considered a "fully recognized possessory interest"[77] that is entitled to Fifth Amendment protection.[78] At the same time, a mining claim is a "unique form of property"[79] that confers limited rights on the locator. A mining claim is "a privilege granted by Congress, but it can only be exercised within the limits prescribed by the grant."[80] This property interest remains valid only so long as it continues to meet the discovery, maintenance, and other requirements imposed by the statutory grant.[81] As owner of the underlying title, the government "maintains broad powers over the terms and conditions upon which the public lands can be used, leased, and acquired."[82] Thus, the U.S. Congress can at any time revoke the statutory grant (subject to valid existing rights) or revise the conditions imposed on the grant.[83] In short, a mining claim on public land is a unique, and circumscribed, form of property.

The Alaska mining laws are closely patterned after federal mining law. The federal mining laws applied directly

64. Beluga Mining Company v. State, Dep't of Natural Resources, 973 P.2d 570, 575 (Alaska 1999) (recognizing that mining company claimant had property rights in its claims); United States v. Locke, 471 U.S. 84, 86 (1985) (unpatented mining claim on federal land is a "fully recognized possessory interest"). A portion of PLP's claims may be invalid because they occur within the boundaries of Mineral Order No. 393, under which the Alaska Department of Natural Resources (DNR) in 1983 closed over 213,000 acres along streams in Bristol Bay to entry under the state's locatable mineral leasing and mining laws. *See* Bristol Bay Area Plan Mineral Order No. 393 (Dep't of Natural Res., 1984) (on file with author).
65. 30 U.S.C. §22 (2006).
66. United States v. Locke, 471 U.S. 84, 86 (1985).
67. Clouser v. Espy, 42 F.3d 1522, 1528, 25 ELR 20360 (9th Cir. 1994).
68. *Id.* (citing United States v. Coleman, 390 U.S. 599, 602 (1968)).
69. 30 U.S.C. §28 (2006); 43 C.F.R. §3834.11 (2011).
70. 30 U.S.C. §29 (2006); *Locke*, 471 U.S. at 86.
71. 30 U.S.C. §26 (2006).
72. Surface Resources and Multiple Use Mining Act of 1955, §4; 30 U.S.C. §612(a) (2006).
73. 30 U.S.C. §612(b) (2006).
74. *Id.*
75. South Dakota Mining Ass'n v. Lawrence County, 977 F. Supp. 1396, 1402 (D.S.D. 1997), *aff'd*, 155 F.3d 1005, 29 ELR 20043 (8th Cir. 1998); *see also* 2 Rocky Mountain Mineral Law Found., American Law of Mining, §36.03[1] (Matthew Bender 2d ed. 2011) (Multiple Use Mining Act of 1955 "substantially reduced the former rights of locators to exclusive possession and use").
76. United States v. Etcheverry, 230 F.2d 193, 195 (10th Cir. 1956); *see also* Bradford v. Morrison, 212 U.S. 389, 395 (1909) (unpatented lode mining claims are real property).
77. United States v. Locke, 471 U.S. 84, 86 (1985).
78. Skaw v. United States, 740 F.2d 932, 936 (Fed. Cir. 1984) (citing Freese v. United States, 639 F.2d 754 (9th Cir. 1981)).
79. Best v. Humboldt Placer Mining Co., 371 U.S. 334, 335 (1963).
80. Belk v. Meagher, 104 U.S. 279, 284 (1881); *see also* Am. Law of Mining at §36.04 (a mining claim is a limited interest in land that "originates as a grant from the United States upon compliance with statutory requirements").
81. Am. Law of Mining at §36.02.
82. *Locke*, 471 U.S. at 104.
83. *Id.* at 105-06 (upholding new annual filing requirement for existing claims).

to the Alaska Territory as early as 1884,[84] and this application was extended and confirmed when Alaska became a state in 1959.[85] Alaska enacted its own mining laws that year, and the Alaska Department of Natural Resources (DNR) first adopted implementing regulations in 1974. Under Alaska law, "[u]nless otherwise provided, the usages and interpretations applicable to the mining laws of the United States as supplemented by state law apply to [the state mining statutes]."[86]

Like federal law, Alaska law provides that mining claims on state public lands are established through discovery, location, and recording. The Alaska Constitution provides in relevant part as follows:

> Prior discovery, location, and filing, as prescribed by law, shall establish a prior right to these minerals and also a prior right to permits, leases, and transferable licenses for their extraction. . . . Surface uses of land by a mineral claimant shall be limited to those necessary for the extraction or basic processing of the mineral deposits, or for both.[87]

The statutes add:

> Rights to deposits of minerals . . . on state land that is open to claim staking may be acquired by discovery, location and recording as prescribed in AS 38.05.185-38.05.275. The locator has the exclusive right of possession and extraction of the minerals . . . lying within the boundaries of the claim.[88]

As under federal law, "discovery" is defined by the "prudent person" standard: "'Discovery' means a finding of valuable mineral as would justify an ordinarily prudent person in expending further time, labor, and money upon the property with a reasonable expectation of developing a paying mine."[89] In addition, the DNR has the authority to identify some lands as available for mining only by lease (known as a "leasehold location") in certain circumstances[90] Establishing rights to a leasehold location also requires discovery, location, and recording, and provides essentially the same rights as do mining claims, except that a written lease is required before production can begin.[91] Some of PLP's mining locations are within the boundaries of Leasehold Location No. 1, and therefore require conversion to lease.[92]

Like federal law, Alaska law restricts the surface uses of mining claims:

> Surface uses of land or water included within a mining property by the owners, lessees, or operators shall be limited to those necessary for the prospecting for, extraction of, or basic processing of minerals and shall be subject to reasonable concurrent uses. Leases for millsites, tailings disposal, and other mine related facilities may be issued by the director.[93]

Where the state owns the surface, "[a] locator does not have exclusive use of the surface of the location. A locator may use the surface of the location only to the extent necessary for the prospecting for, extraction of, or basic processing of mineral deposits. . . ."[94]

Also, like federal law, state law treats valid mining locations as a form of property that enjoys Fifth Amendment protection.[95] One important difference between Alaska law and federal law is that Alaska law does not provide for patenting of valid mining claims. When Alaska entered the Union pursuant to the Alaska Statehood Act, the new state was given the right to select about 103 million acres of federal land, subject to the requirement that the state retain possession of the minerals on all state-selected lands.[96]

V. A Takings Analysis of a Proactive §404(c) Action in Bristol Bay

This section applies the takings principles summarized in part III to analyze whether a proactive §404(c) action in Bristol Bay that prohibits or restricts discharges of mine wasteswastes into waters of the United States, either generally or from the Pebble deposit, would be a taking of PLP's property. This analysis asks, first, whether a §404(c) action would involve a protected property interest held by PLP, and second, whether the action would effect a cat-

84. Act of May 17, 1884, ch. 53, §8, 23 Stat. 24; *see also* 30 U.S.C. §49a (2006) (extending U.S. laws governing mining claims and locations to the Territory of Alaska).

85. Alaska Statehood Act, §8(d), Pub. L. No. 85-508, 72 Stat. 339 (1958):
> Upon admission of the State of Alaska into the Union as herein provided, all of the Territorial laws then in force in the Territory of Alaska shall be and continue in full force and effect throughout said State except as modified or changed by this Act, or by the constitution of the State, or as thereafter modified or changed by the legislature of the State.

48 U.S.C. §21, note prec.

86. Alaska Stat. Ann. §38.05.185(c) (West 2012); *see* Hayes v. A.J. Assoc., Inc., 846 P.2d 131, 134 n.7 (Alaska 1993) (noting that the federal law requirement that claim locators act in "good faith" applies to Alaska mining law by virtue of Alaska Stat. §38.05.185(c)).

87. Alaska Const. art. 8 §11.

88. Alaska Stat. Ann. §38.05.195(a) (West 2012); *see also* Alaska Stat. Ann. §38.05.275(a) ("Mining locations made on state land . . . acquire for the locator mining rights under AS 38.05.185-AS 38.05.275, subject to existing claims . . . ."); Moore v. State, 992 P.2d 567, 578, 30 ELR 20218 (Alaska 1999) ("Through location, a locator acquires a mining claim priority against subsequent locators to the selected claims.").

89. Alaska Admin. Code tit. 11, §86.105.

90. Alaska Stat. Ann. §38.05.185(a) (West 2012).

91. *See* Alaska Stat. Ann. §38.05.205(a) (West 2012):
> A mining lessee has the exclusive rights of possession and extraction of all minerals subject to AS 38.05.185-38.05.275 lying within the boundaries of the lease or location. . . . Minerals may not be mined and marketed or used until a lease is issued, except for limited amounts necessary for sampling or testing.

92. Mineral Leasehold Location Order No. 1 (Dep't of Natural Res., 1984) (on file with author).

93. Alaska Stat. Ann. §38.05.255(a) (West 2012); *see also* Parker v. Alaska Power Auth., 913 P.2d 1089, 1091 (Alaska 1996) (because state mining claim holder's use of surface estate is subject to reasonable concurrent uses, power authority did not effect a taking by acquiring a right-of-way and constructing power lines across the surface).

94. Alaska Admin. Code tit. 11, §86.145(a).

95. *See* Welcome v. Jennings, 780 P.2d 1039, 1042 (Alaska 1989) (treating mining claims as real property in context of quiet title action).

96. Alaska Statehood Act §6(i), Pub. L. No. 85-508, 72 Stat. 339 (1958), 48 U.S.C. §21, note prec.

egorical or a *Penn Central* taking of PLP's property in its mining claims.

A. *A §404(c) Action Would Not Affect a Protected Property Interest*

A §404(c) decision to prohibit or restrict discharges of mine wastes into specific waters would neither appropriate PLP's mining claims nor directly regulate them; thus, it would not take the claims themselves.[97] Nonetheless, the §404(c) decision could interfere with the Pebble Deposit by rendering mining either technically infeasible (if there is no other practicable way to manage the mine wastes) or economically infeasible (if there are other ways to manage the mine wastes but these methods would be too expensive to undertake at a profit). PLP can establish the requisite property interest for takings purposes, however, only if the §404(c) action would affect a use interest that is part of PLP's title to its state mining claims. It is unlikely that PLP can make this showing because its possession of state mining claims gives it neither a right to discharge mine wastes into waters of the United States, nor an absolute right to mine. Further, inherent in PLP's title to its claims are background principles of state law that preclude it from establishing a right to mine in a manner that harms public trust resources (water and fish) or from mining in a manner that constitutes a public nuisance.

1. No Right to Discharge Mine Wastes Into Waters of the United States

A proactive §404(c) action would prohibit or restrict the discharge of certain mining-related dredged or fill material into certain waters. Thus, a basic question is whether PLP possesses a right to discharge mine wastes into U.S. waters by virtue of its ownership of valid state mining claims.

In *Kinross Copper Corporation v. State*, an Oregon court of appeals considered this question in a very similar factual context.[98] In that case, Kinross Copper possessed unpatented mining claims containing copper ore within a national forest in Oregon.[99] The company developed a plan of operations for a copper mine, which plan included discharging various mine wastewaters into the North Santiam River Subbasin.[100] The discharges would require national pollutant discharge elimination system (NPDES) permits under §402 of the CWA.[101] Accordingly, Kinross Copper applied to the state Environmental Quality Commission (EQC) for an NPDES permit to discharge mine wastewater into the North Santiam River Subbasin.[102] The DEQ denied the permit on the ground that the agency's preexisting "Three Basin Rule" prohibited any new or increased discharges into the North Santiam Basin.[103]

Kinross sued the state under both federal and state constitutions, alleging that "the denial of its NPDES permit rendered its unpatented mining claims entirely valueless and thus constituted a *per se* taking."[104] The state argued that Kinross "never had the right to discharge wastewater into a state waterway."[105] Kinross, on the other hand, argued that it did have this right, primarily because federal mining laws and customs purportedly recognized a miner's rights to use water on federal lands.[106] Following an extensive analysis of Kinross' argument, the court sided with the state.

First, the court dismissed as irrelevant Kinross' allegation that "it has been deprived of the right to mine copper as otherwise permitted by its unpatented mine claim."[107] The EQC decision did not prohibit Kinross from mining, said the court, but prohibited it from discharging wastewater into the river; thus, in order for Kinross to establish a taking, it "must show that it had a right to discharge its wastewater into a river of the state."[108] The court then examined federal mining laws and federal and state laws governing the use of water to conclude that Kinross lacked this right. The court acknowledged that under mining customs that evolved on the public lands in the 19th century, the right to use water as an incident of mining activity "included the right to discharge into a stream . . . ."[109] Both federal mining law and state law, however, had by the turn of the 20th century adopted the rule of prior appropriation, under which the right to use water is obtained by prior appropriation and beneficial use, rather than by ownership of the land across which the water flows.[110] "Thus, for claims granted after 1877, the property granted by the federal government under the Mining Act of 1872 consists of the unpatented mining claim itself. No water rights are granted as part of the claim."[111] Further, passage of the CWA in 1972, as well as parallel state laws, prohib-

97. *See* Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 488 n.18, 17 ELR 20440 (1987) (anti-subsidence statute requiring that certain amount of coal be left in the ground was not a physical appropriation of coal property); Washoe County, Nevada v. United States, 319 F.3d 1320, 1326-27 (Fed. Cir.), *cert. denied*, 540 U.S. 872 (2003) (federal government did not physically take or regulate county's state-granted water rights when it declined to grant a right-of-way across federal land, rendering the county's water rights unusable). Cases that have recognized a government taking of mining claims requiring just compensation have involved straightforward appropriation or regulation of the underlying land for a public purpose. *See, e.g.*, Best v. Humboldt Placer Mining Co., 371 U.S. 334, 335 (1963) (where government needed particular land, encumbered by unpatented mining claims, to construct the Trinity River Dam and Reservoir in California, it initiated condemnation proceedings to obtain both).

98. Kinross Copper v. Oregon, 981 P.2d 833, 837 (Or. Ct. App. 1999), *cert. denied*, 531 U.S. 960 (2000).

99. *Id.* at 835.

100. *Id.*

101. *Id.*; *see* 33 U.S.C. §1342 (2006). While §404 permits are issued by the Corps, NPDES permits under §402 are generally issued by the state within which the discharge will occur, under a delegation of authority from EPA. *Kinross*, 981 P.2d at 839 (citing 33 U.S.C. §1342(b)).

102. *Kinross*, 981 P.2d at 835.

103. *Id.*

104. *Id.*

105. *Id.* at 836.

106. *Id.*

107. *Id.* at 837.

108. *Id.*

109. *Id.* at 838.

110. *Id.* at 838-39.

111. *Id.* at 839. This conclusion is supported by the Supreme Court decision in *Andrus v. Charlestone Stone Products Co.*, 436 U.S. 604, 613-14 (1978), which emphasized that the federal mining laws provided for regulation of

ited any discharges into waters without the required permits, and nothing in these laws "confers a property right to obtain a permit or conduct any activities for which a permit is required."[112] As a result, Kinross' claim that it had a right to discharge wastewater into the North Santiam River was "untenable," and the court held that no taking had occurred:

> In short, plaintiff's takings claim is predicated on the loss of a right that it never possessed, namely, the "right" to discharge mining wastes into the waters of the state. It necessarily follows that, in denying plaintiff's application for a permit to conduct that activity, the state has not effected a taking of private property within the meaning of either the state or federal constitutions.[113]

The Supreme Court denied Kinross' petition for certiorari.[114]

There are no Alaska decisions involving facts like those in *Kinross*, but there can be little doubt that application of the law governing state mining claims would involve the same analysis and result. As noted earlier, relevant interpretations of the federal mining laws generally apply to the Alaska mining laws; the law of prior appropriation, moreover, applies in Alaska by virtue of the 1966 Alaska Water Use Act.[115] Thus, the legal predicates underlying the *Kinross* court's conclusion that federal mining claims do not include water rights support the same conclusion for Alaska mining claims. With respect to discharges into surface waters, the federal CWA applies in Alaska as elsewhere, prohibiting such discharges without the required permits.[116] The Alaska Clean Water Act also prohibits such discharges: "A person may not pollute or add to the pollution of the air, land, subsurface land, or water of the state."[117] More specifically, " [a] person may not . . . take any action that results in the disposal or discharge of solid or liquid waste material . . . into the waters or onto the land of the state without prior authorization from the [Department of Environmental Conservation]."[118] In addition, state approval is required before a person may "use, divert, obstruct, pollute, or change the natural flow or bed of" a river, lake, or stream that has been specified as "important for the spawning, rearing, or migration of anadromous fish."[119] Thus, in Alaska as elsewhere, discharges of pollution or wastes into surface waters are prohibited in the absence of a permit, and the right to discharge mine wastes into surface waters does not inhere in a mining claimant's title.

This conclusion is bolstered by the mining law provisions limiting the surface uses of mining claims. As noted earlier, the federal mining laws give the owners of valid mining claims the "exclusive right of possession and enjoyment" of the surface of the claims, so long as they comply with relevant laws.[120] Since 1955, this right of surface use has been limited by the federal government's right to manage surface resources.[121] Alaska law also recognizes a state mining claim owner's "limited" right to use the surface of the claim.[122] Alaska law gives the DNR commissioner the discretionary authority to issue leases for surface uses, such as "tailings disposal,"[123] indicating that ownership of a mining claim by itself does not give the claimant the right to dispose of tailings and other mine wastes into surface waters. In short, inherent in the federal and state mining laws is a limitation on the surface use of mining claims requiring that such uses comply with relevant laws. Mining claim holders do not automatically gain the right to use the land on which their claims are located for activities like tailings disposal or discharge of mine wastes; instead, this right is gained only by obtaining the permits required by the relevant laws.

Thus, PLP does not possess, merely by virtue of possessing valid state mining claims, the right to discharge mine wastes into waters of the United States. PLP can obtain that right only by obtaining a §404 permit. Nor does possession of valid mining claims guarantee that a §404 permit will be issued. As the Kinross court noted, "[n]othing in either the federal or state [clean water] laws . . . confers a property right to obtain a permit . . . ."[124]

In general, there is no right to a permit or other government benefit, unless the agency responsible for issuing the

mining rights only and reaffirm that water rights are regulated separately under state and local law.

112. Kinross Copper v. Oregon, 981 P.2d 833, 840 (Or. Ct. App. 1999). *See also* Trustees for Alaska v. EPA, 749 F.2d 549, 559-60, 15 ELR 20146 (9th Cir. 1984) (holding that Alaska placer miners failed to establish a taking of their property resulting from restrictive NPDES permits, without addressing miners' argument that they possessed a property right to pollute stemming from federal mining law and Alaska water rights law).
113. *Kinross*, 981 P.2d at 840.
114. Kinross Copper Corp. v. Oregon, 531 U.S. 960 (2000).
115. Alaska Stat. Ann. §46.15.010-46.15.270 (West 2012); Tulkisarmute Native Community Council v. Heinze, 898 P.2d 935 (Alaska 1995) (applying Alaska Water Use Act in context of placer mining operations).
116. 33 U.S.C. §1311(a) (2006). It has long been established that the CWA requirements apply to mining activities. *See, e.g.*, United States v. Earth Sciences, 599 F.2d 368, 374, 9 ELR 20542 (10th Cir. 1979) (point source discharges from mining activity are regulated under the CWA); *see generally* Roger Flynn & Jeffrey C. Parsons, *The Right to Say No: Federal Authority Over Hardrock Mining on Public Lands*, 16 J. Envtl. L. & Litig. 249, 267-68 (2001) (describing federal regulatory authority under the CWA over hardrock mining on federal lands).
117. Alaska Stat. Ann. §46.03.710 (West 2012). "Pollution" is defined as:
> the contamination or altering of waters, land, or subsurface land of the state in a manner which creates a nuisance or makes waters, land, or subsurface land unclean, or noxious, or impure, or unfit so that they are actually or potentially harmful or detrimental or injurious to public health, safety, or welfare, to domestic, commercial, industrial, or recreational use, or to livestock, wild animals, bird, fish, or other aquatic life[.]

Alaska Stat. Ann. §46.03.900(20) (West 2012); *see also* Federal Patent Effect on Fish and Game Authority to Enforce AS 16.05.870, No. 166-347-83, 1984 WL 61050 (Op. Alaska Att'y Gen., Apr. 30, 1984) (where miner has obtained patent to a federal mining claim on streambed of nonnavigable stream, he does not gain right to pollute the water).
118. Alaska Stat. Ann. §46.03.100(a) (West 2012).
119. Alaska Stat. Ann. §41.14.870(a)-(b) (West 2012). As noted earlier, many of the streams in the Nushagak and Kvichak drainage headwaters are documented anadromous fish habitat.
120. 30 U.S.C. §26 (2006).
121. 30 U.S.C. §612(b) (2006).
122. Alaska Stat. Ann. §38.05.255(a) (West 2012); Parker v. Alaska Power Auth., 913 P.2d 1089, 1091 (Alaska 1996).
123. Alaska Stat. Ann. §38.05.255(a) (West 2012).
124. Kinross Copper v. Oregon, 981 P.2d 833, 839-40 (Or. Ct. App. 1999).

permit lacks all discretion to deny it.[125] In *Seven Up Pete Venture v. State*, the Montana Supreme Court held that the owner of mining leases on state land had no property right in the opportunity to apply for a permit.[126] There, the claimant held mining leases on state lands but had not yet obtained the necessary state permits.[127] When a voter-adopted initiative imposed a ban on open-pit mining for gold and silver using cyanide heap-leaching, the claimant's leases became unmineable and the company filed a taking claim against the state.[128] The claimant did not assert a property right to mine with cyanide; rather, it asserted a property right in "the opportunity for a favorable ruling on its mining permit application."[129] The Montana Supreme Court rejected the claim, reasoning that the state's issuance of a permit was not a ministerial act, but rather was subject to its broad discretion, even without the voter-enacted cyanide ban.[130] Similarly, the Alaska Supreme Court observed in *Aspen Exploration Corp. v. Sheffield* that where the state's decision to grant an offshore prospecting permit was discretionary, an unsuccessful applicant had no "vested right or interest in the permit" and could not "complain of the deprivation of any substantive property right."[131]

Like the permits in *Seven Up Pete* and *Aspen*, the issuance of a §404 permit is not a ministerial act. Under §404, the Corps "*may* issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites."[132] In issuing permits, the Corps must follow guidelines developed by EPA.[133] According to these "§404(b)(1) guidelines":

> Fundamental to these Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.[134]

The Guidelines further provide, among many other requirements, that no discharge of dredged or fill material shall be permitted "if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem . . . "; if it would cause or contribute to a violation of an applicable state water quality standard or toxic effluent standard or prohibition; or if it will "cause or contribute to significant degradation of the waters of the United States," which effects may include significant adverse effects on aquatic life.[135] Further, as discussed, EPA may veto a §404 permit or specify waters where §404 permits may not be issued, if it determines that certain discharges would have an "unacceptable adverse effect" on fishery areas or other enumerated resources.[136]

In short, the issuance of a §404 permit is not a ministerial act under the §404 regulatory scheme. To the contrary, the Corps must determine that the detailed and complex standards of the §404(b)(1) Guidelines will be met before it may issue a permit, and even then, EPA can either veto that decision if it disagrees or proactively foreclose the issuance of permits in certain waters. In light of this broad discretion, there can be no property right in either the permit itself or the opportunity to apply for a permit.

In cases in which the denial of a §404 permit has given rise to a successful taking claim, there are two key differences from PLP's situation: the plaintiff owned a fee estate in the land; and its ownership predated the permit requirement.[137] As a result, the "existing rules and understandings" that applied in determining the nature of the property interest were different than those applicable to PLP's mining claims. In *Florida Rock Industries, Inc. v. United States*, for example, a limestone mining company had acquired fee title to 1,560 acres of land just before enactment of §404 in the CWA Amendments of 1972, and had obtained state and local permits well before the Corps extended its §404 jurisdiction to the company's property.[138] The Court of Federal Claims held that the company had a common-law right to mine limestone on its property and that this right was taken by the Corps' denial of the §404 permit.[139] The court noted that where the federal statute is in place when the company acquires its property, "the expectations of the property owner may be different."[140] This point is underscored by several federal cases involving permits under a different federal statute, the Surface Mining Control and Reclamation Act (SMCRA), where takings claims were denied largely on the ground that the relevant statutory requirement existed when the property was acquired.[141] In short, the existing rules and understandings that shape the scope and extent of the property right in state mining

125. *See* Gardner v. City of Baltimore, 969 F.2d 63, 68 (4th Cir. 1992) (applying this rule in context of a municipal permit); American Pelagic Fishing Co. v. United States, 379 F.3d 1363, 1374, 34 ELR 20075 (Fed. Cir. 2004) (no property right in federal permit where permittee could not sell or transfer the permit, the permit did not confer exclusive privileges, and the government at all times retained the ability to revise, suspend, or revoke the permit) (citing Conti v. United States, 291 F.3d 1334, 1341-42, 32 ELR 20667 (Fed. Cir. 2002); *see also* Vandevere v. Lloyd, 644 F.3d 957, 967 (9th Cir. 2011) (Alaska fishery entry permits are not protected property under state law for purposes of a taking claim).
126. 114 P.3d 1009, 1019 (Mont. 2005), *cert. denied by* Seven Up Pete Venture v. Montana, 546 U.S. 1170 (2006).
127. *Id.* at 1013-15.
128. *Id.* at 1015-16.
129. *Id.* at 1016.
130. *Id.* at 1019.
131. 739 P.2d 150, 162 n.27 (Alaska 1987).
132. 33 U.S.C. §1344(a) (2006) (emphasis added).
133. 33 U.S.C. §1344(b) (2006).
134. 40 C.F.R. §230.1(c) (2011).
135. 40 C.F.R. §230.10(a)-(c) (2011).
136. 33 U.S.C. §1344(c) (2006).
137. *See, e.g.*, Florida Rock Indus., Inc. v. United States, 45 Ct. Cl. 21 (1999); Bowles v. United States, 31 Fed. Cl. 37 (1994); Formanek v. United States, 26 Cl. Ct. 332, 22 ELR 20893 (1992).
138. *Florida Rock*, 45 Ct. Cl. at 25.
139. *Id.* at 23.
140. *Id.* at 29 (citing M&J Coal Co., Inc. v. United States, 47 F.3d 1148, 25 ELR 20600 (Fed. Cir. 1995)).
141. *See M&J Coal Co.*, 47 F.3d at 1154 (federal SMCRA predated property acquisition); Rith Energy, Inc. v. United States, 247 F.3d 1355, 31 ELR 20603 (Fed. Cir. 2001) (same), *cert. denied*, 536 U.S. 958 (2002); Appolo Fuels v. United States, 381 F.3d 1338, 34 ELR 20087 (Fed. Cir. 2004) (same), *cert. denied*, 543 U.S. 1188 (2004).

claims do not give PLP a right to discharge mine wastes into U.S. waters.

2. No Absolute Right to Mine

Even without a right to discharge mine wastes into waters of the United States, perhaps PLP's possession of valid mining claims gives it a right to mine that would be effectively taken by the §404(c) discharge restriction. This is the argument that was summarily dismissed by the *Kinross* court, which emphasized that "the determinative inquiry is whether *what the government has prohibited* is itself a property right. . . . [T]he decision of the EQC did not prohibit plaintiff from mining. It prohibited plaintiff from discharging wastewater into the North Santiam River Subbasin."[142] Other authorities, too, suggest that a government action that affects an interest only indirectly does not affect a cognizable property interest for takings purposes. In *Washoe County, Nevada v. United States*, the Federal Circuit held that the federal government did not take a county's rights to groundwater beneath a private ranch when it refused to grant a right-of-way for a water pipeline across federal land, rendering the water rights unusable.[143] In *Colvin Cattle Co., Inc. v. United States*, the Federal Circuit held that the government did not take the claimant's private ranch when it cancelled the claimant's grazing lease on adjacent federal land and thereby reduced the value of the ranch.[144] In *Palmyra Pacific Seafoods L.L.C. v. United States*, the Federal Circuit held that the government did not take the claimant's license to use onshore facilities in support of its commercial fishing operation when it closed the offshore waters to commercial fishing.[145] In each of these cases, the court relied in part on the fact that the government action was not directed at a property right of the claimant (the county's water rights, the private ranch, the onshore support facilities), but instead was directed elsewhere (safeguarding federal land or waters) with only indirect consequences for the claimants. As in *Kinross*, a §404(c) action would not prohibit PLP from mining, but would only prohibit or restrict the discharge of mine wastes into specified waters.

In any event, it is beyond dispute that possession of an unpatented mining claim does not give rise to an absolute right to mine that is immune from the constraints imposed by government regulation to protect public resources. Under Alaska law, the right to mine is contingent on obtaining the necessary permits; under federal law, which is influential in interpreting Alaska mining law and therefore worth reviewing, mining claims are a unique and limited form of property,[146] and the courts have long recognized the government's substantial regulatory power over mining claims and mining operations on public lands.[147]

a. No Right to Mine Before Acquiring the Necessary Permits

Under Alaska law, the owner of a state mining claim arguably has no right to mine the claim until it has obtained the required permits and leases. Like federal law, Alaska law recognizes property rights in valid state mining claims, but it views these rights as "prospective and contingent," furnishing no right to mine until the necessary authorizations are obtained.[148]

In *Beluga Mining Company v. State, Dep't of Natural Resources*, the Beluga Mining Company had staked mining claims on land held in trust by the State of Alaska for the Alaska Mental Health Lands Trust (Trust lands).[149] Following a few years of preparatory work on the claims, Beluga applied to the DNR for the mining lease that was required before it could begin mining operations on its claims.[150] The DNR was unable to issue the mining lease because a preliminary injunction entered by the state court in ongoing litigation over the state's management of the Trust lands prevented the DNR from conveying any interests in Trust lands.[151] Accompanying the injunction was a mechanism that allowed third parties with an interest in Trust lands—like Beluga—to seek an exception to the injunction, but Beluga did not avail itself of this mechanism.[152] Instead, Beluga treaded water for about four years before abandoning its claims for financial reasons just weeks before the injunction was dissolved.[153] Two years later, Beluga sued the state, arguing that "it obtained exclusive rights to mine the Beluga-Threemile Claims by locating them, and that the State 'took' those rights, depriving Beluga of private property without just compensation in violation of the Alaska Constitution."[154]

The Alaska Supreme Court rejected Beluga's taking claim. The court first explained that state law provides that mining rights acquired on state land through location,

142. Kinross Copper v. Oregon, 981 P.2d 833, 837 (Or. Ct. App. 1999); *see also Seven Up Pete*, 114 P.3d at 1017-19 (under both state law and the terms of the mining leases, plaintiff had no right to mine without first obtaining a permit).
143. 319 F.3d 1320, 1327-28 (2003).
144. 468 F.3d 803, 808 (Fed. Cir. 2006).
145. 561 F.3d 1361, 1369-70, 39 ELR 20087 (Fed. Cir. 2009), *cert. denied*, 130 S. Ct. 2401 (2010).
146. United States v. Locke, 471 U.S. 84, 104-05 (1985).
147. *See, e.g.*, Flynn & Parsons, *supra* note 116 at 267-71 (describing extensive federal regulation of mining on public lands); Michael Graf, *Application of Takings Law to the Regulation of Unpatented Mining Claims*, 24 Ecology L.Q. 57, 62 (1997) (discussing early cases upholding federal regulation of mining to protect public values); *see, e.g.*, North Bloomfield Gravel-Mining Co. v. United States, 88 F. 664, 677-78 (9th Cir. 1898) (upholding injunction against hydraulic mining that did not comply with federal law regulating discharges from hydraulic mining to protect navigable waters).
148. Beluga Mining Co. v. State Dep't of Natural Res., 973 P.2d 570, 575 (Alaska 1999). The same is true in other states as well. *See, e.g.*, *Seven Up Pete Venture*, 114 P.3d at 1017 (Mont. 2005) ("Clearly, the right to mine is conditioned upon the acquisition of an operating permit."); Ward v. Harding, 860 S.W.2d 280, 287 (Ky. 1993), *cert. denied* by Harding v. Ward, 510 U.S. 1177 (1994) (overruling Buchanan v. Watson, 290 S.W.2d 40 (Ky. 1956), which had "presumed a right to surface mine merely by virtue of the ownership of mineral rights," and holding that "no such presumption shall hereafter exist.").
149. *Beluga* at 572.
150. *Id.* at 571-73.
151. *Id.* at 573.
152. *Id.*
153. *Id.* at 573-74.
154. *Id.* at 574.

discovery, and recording are acquired "subject to existing claims."[155] The claims of the Trust were "existing claims," even though Beluga located its claims before the litigation was filed, because Beluga would not have a "right to mine" based on its claims until it obtained a mining lease; thus, the Trust's claim predated Beluga's anticipatory right to mine. As the court put it,

> The crux of Beluga's suit is that the State prevented Beluga from exercising its "right" to mine. Because no "right" to mine could arise until the State issued Beluga the necessary mining leases, and because the 1990 Weiss injunction prevented the State from issuing those leases, the Weiss plaintiffs had clearly asserted "existing claims" within the meaning of 38.05.275.[156]

Without a right to mine, Beluga had no property right that could be taken by the state's failure to issue a mining lease:

> The State deprived Beluga of no property right. Beluga had property rights in its claims, but it had no right to mine; its mining "rights" were prospective and contingent, and were subject to existing claims.[157]

Wrapping up its analysis, the court reiterated that "Beluga had no absolute rights to extract minerals from the claims. Rather, its rights were always subject to existing claims, challenges, and possible delay under the statutory scheme."[158] The injunction and its escape mechanism "were consistent with the provisions of law controlling issuance of approval to mine," and the resulting delay was therefore well within the contemplation of the statutory scheme.[159]

It could be argued that the *Beluga Mining* decision should be limited to its particular facts. The mining claims in *Beluga Mining* were leasehold locations, and the statute governing leasehold locations is explicit that no mining can begin until a lease is obtained;[160] there is no such explicit statutory language with respect to ordinary mineral locations. In addition, the case involved only a permitting delay, not an outright permit denial (or preclusion); and there was a mechanism to avoid the delay but the claimant failed to use it. The cause of the permit delay, moreover, was not environmental regulation but an existing claim, which is one of the explicit statutory restrictions on the mining rights acquired through a mining location.[161] The state constitution, however, supports a broader reading of the *Beluga Mining* decision as precluding the right to mine either a leasehold location or an ordinary location until the necessary authorizations are obtained. The constitution provides that "[p]rior discovery, location, and filing, as prescribed by law, shall establish a *prior right to these minerals and also a prior right to permits, leases, and transferable licenses for their extraction*."[162] Thus, the constitution does not grant absolute rights but only a priority for acquiring those rights; and it clearly contemplates that acquiring those rights requires the obtaining of permits, leases, and licenses.[163]

b. Government's Broad Power Over Mineral Interests on Public Lands

Mining rights based on federal mining claims also are not absolute but are subject to the government's broad regulatory power. *United States v. Locke* is a seminal case defining, for the modern era, the limits of the property interest in federal mining claims and the breadth of the government's power to define that interest. *Locke* involved a takings and due process challenge to the new recording and annual filing requirements imposed on existing mining claims by the Federal Land Policy and Management Act (FLPMA) of 1976.[164] FLPMA provisions included both an initial recording requirement and an annual filing requirement.[165] Failure to comply with either requirement "shall be deemed conclusively to constitute an abandonment of the mining claim . . . by the owner."[166] The claimants in *Locke* were owners of 10 unpatented mining claims in Nevada who operated profitable gravel mining operations on their claims.[167] Although they complied with the initial recording requirement, they missed the deadline for the first annual filing by one day, and the Bureau of Land Management (BLM) notified them that their claims were deemed abandoned.[168]

Analyzing the resulting takings claim, the Court first observed that the legislature has the power to impose new

155. *Id.* (citing Alaska Const. art. VIII, §11 and Alaska Stat. §38.05.275).
156. *Id.* at 575.
157. *Id.* Though it could have ended its analysis at the lack of a cognizable property interest, the court went on to analyze and reject Beluga's categorical and *Penn Central* takings arguments. Rejecting Beluga's assertion of a categorical taking, the court concluded that "Beluga's failure to make the annual rental payments—not the State's enforcement of the statutory scheme—caused the loss of Beluga's claims." *Id.* The court's analysis of the *Penn Central* taking claim is discussed below in part V.C.1.
158. *Id.* at 577.
159. *Id.* Although *Beluga* involved only a permitting delay, not an outright permit denial, it is instructive that the court cited *Aspen Exploration Corp. v. Sheffield*, 739 P.2d 150, 162 n.27 (Alaska 1987), for the proposition that where the claimant required a permit to acquire offshore prospecting rights, and the permit could by law be denied, the denial of that permit could not deprive the claimant of a property right.
160. *See* Alaska Stat. Ann. §38.05.205 (West 2012) ("Minerals may not be mined and marketed or used until a lease is issued . . . .").
161. *See* Alaska Stat. Ann. §38.05.275(a) (West 2012) ("Mining locations made on state land . . . acquire for the locator mining rights under AS 38.05.185-38.05.275, subject to existing claims . . . .").
162. Alaska Const. art. 8, §11 (emphasis added).
163. Although the *Beluga* court referred to rights arising upon obtaining the necessary state authorizations, DNR appears to recognize that this principle must extend to necessary federal authorizations as well. *See* Department of Natural Resources, Factsheet: Mineral Locations (Claims) and the Rights Acquired (2010)), *available at* http://dnr.alaska.gov/mlw/factsht/mine_fs/minera_rights.pdf (last visited May 10, 2012) ("Under the mining law, a mining claim grants the exclusive right to the locatable minerals in the ground. . . . The mining law does grant the exclusive right to extract the locatable minerals upon receiving all required authorizations . . . .") (emphasis added). In *M&J Coal*, the court was explicit that the coal company's possession of a state mining permit did not give it the right to mine in a manner that was contrary to the federal SMCRA. *M&J Coal*, 47 F.3d at 1154.
164. 471 U.S. 84, 87-89 (1985) (citing 43 U.S.C. §1744).
165. *Id.* at 88-89.
166. *Id.* at 87 n.2 (citing 43 U.S.C. §1744(c)).
167. *Id.* at 89.
168. *Id.* at 90.

regulatory constraints on vested property rights.[169] Then, in oft-quoted language, the Court applied this principle to mining claims:

> This power to qualify existing property rights is particularly broad with respect to the "character" of the property rights at issue here. Although owners of unpatented mining claims hold fully recognized possessory interests in their claims, we have recognized that these interests are a "unique form of property." The United States, as owner of the underlying fee title to the public domain, maintains broad powers over the terms and conditions upon which the public lands can be used, leased, and acquired. . . . Claimants thus must take their mineral interests with the knowledge that the Government retains substantial regulatory power over those interests.[170]

Applying this principle, the Court held that "there can be no doubt that Congress could condition initial receipt of an unpatented mining claim upon an agreement to perform annual assessment work and make annual filings."[171] Congress, moreover, could impose this condition retroactively on preexisting claims, because doing so was a rational means of pursuing the legitimate goal of ensuring that federal land managers have up-to-date information about the location of mining claims on the public lands, and the burden imposed on claimants was minimal.[172] *Locke* thus stands for the principle that Congress has broad power to define the property interest in unpatented mining claims, including by imposing new requirements that claimants must satisfy in order for their claims to remain valid to retain their property interest.

Whatever mining rights arise from possession of valid mining claims, relevant laws help to shape and circumscribe these rights. Under federal law, holders of valid unpatented mining claims have the right to possess and enjoy the surface of their claims, so long as they comply with federal, state, and local laws.[173] This right of surface use is limited to uses that are "reasonably incident" to mining,[174] and it is subject to the paramount right of the United States to manage surface resources and to use the surface as necessary for such management and for access to adjacent land.[175] The government retains the right to regulate disturbance of surface resources and to protect the land from waste.[176] The government has broad authority to regulate the uses of lands encumbered by unpatented mining claims, an authority that has been implemented in regulations promulgated by BLM with respect to general public domain lands, and by the U.S. Forest Service (Forest Service) with respect to national forest lands.[177]

The application of this broad authority to mining interests on public lands has long been upheld by the federal courts. In *United States v. Richardson*, the U.S. Court of Appeals for the Ninth Circuit upheld an injunction against blasting and bulldozing on mining claims within a national forest, interpreting the Forest Service's statutory authority to manage surface resources as allowing it to prohibit mining methods that were "unnecessary" and "unreasonably destructive of surface resources and damaging to the environment."[178] In *United States v. Weiss*, the Ninth Circuit affirmed an injunction prohibiting the holders of mining claims within the St. Joe National Forest in Idaho from conducting surface-disturbing mining activities until they complied with Forest Service regulations.[179] While acknowledging that mining has a "special place" in public land laws, the *Weiss* court emphasized the government's paramount ownership of the land and its right to protect its interest against waste.[180] In *Freese v. United States*, the Claims Court rejected a claim by the owner of unpatented mining claims on national forest lands in Idaho that "continuing governmental regulation and administration of plaintiff's mining claims constituted an unconstitutional taking of the claims by inverse condemnation."[181] The court noted that the claimant's property was limited to the possessory right for purposes of developing minerals and was without question "subject to the superior right of the United States to regulate uses of the surface resources" within the area.[182] Although Forest Service regulation had constrained the claimant's mining plans, it had not "deprived him of the ability to develop the claims" and did not constitute a taking.[183]

More recently, a federal district court in Idaho held in *Pacific Rivers Council v. Thomas* that mining activities must be included in Forest Service land use planning, given that the "initiation or continuation" of mining operations "is subject to the approval of the Forest Service."[184] In *Baker v. U.S. Dep't of Agriculture*, the same court held that the National Environmental Policy Act (NEPA)[185] applied to mining activity, noting that "the Forest Service clearly has the power to reject an unreasonable [mining] plan, and to impose conditions on the mining activity."[186] In *Hells Canyon Preservation Council v. Haines*, a federal district court in Oregon granted summary judgment on plaintiffs' claim, among others, that the Forest Service violated its Organic Act when it approved a mining project in the Wallowa-

169. *Id.* at 104.
170. *Id.* at 104-05.
171. *Id.* at 105.
172. *Id.* at 105-06.
173. 30 U.S.C. §26 (2006).
174. 30 U.S.C. §612(a) (2006); Teller v. United States, 113 F. 273, 280 (8th Cir. 1901) (holders of unpatented mining claims not entitled to harvest timber for non-mining purposes); United States v. Rizzinelli, 182 F. 675, 684 (D. Idaho 1910) (holders of unpatented mining claims not entitled to operate saloons on their claims).
175. 30 U.S.C. §612(b) (2006).
176. United States v. Weiss, 642 F.2d 296, 299, 11 ELR 20512 (9th Cir. 1981); *Teller*, 113 F. at 281.
177. *See* 43 C.F.R. subpart 3809 (BLM); 36 C.F.R. Part 228 (Forest Service).
178. 599 F.2d 290, 295, 9 ELR 20448 (9th Cir. 1979), *cert. denied by* Richardson v. United States, 444 U.S. 1014 (1980).
179. 642 F.2d 296, 298-99, 11 ELR 20512 (9th Cir. 1981).
180. *Id.* at 299.
181. 6 Cl. Ct. 1, 3 (1984), *aff'd*, 770 F.2d 177 (Fed. Cir. 1985).
182. *Id.* at 14.
183. *Id.*
184. 873 F. Supp. 365, 374, 25 ELR 20765 (D. Idaho 1995) (quoting United States v. Weiss, 642 F.2d 296, 297, 11 ELR 20512 (9th Cir. 1981)).
185. National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §§4321-4370(f), ELR Stat. NEPA §§2-209.
186. 928 F. Supp. 1513, 1518 (D. Idaho 1996).

Whitman National Forest without minimizing adverse environmental effects as required by its own regulations.[187]

These cases establish that mining rights on public lands are not absolute but are subject to the government's broad power to regulate surface uses of public lands. None of these cases, however, involved a situation in which the claimants were prevented from mining altogether. Reeves v. United States did involve such a situation.[188] In *Reeves*, the plaintiffs had staked mining claims within an existing wilderness study area (WSA) on BLM land.[189] When they subsequently submitted a mining plan to BLM for approval, as required by BLM regulations, the agency rejected the plan based on its finding that the proposed mining would violate the "nonimpairment" standard applicable to WSAs.[190] Noting that the decision had the effect of depriving them of all viable economic use of their property, the plaintiffs argued that "the prohibition of all surface disturbance on otherwise valid mining claims constitutes a regulatory taking of their property rights."[191] The government, on the other hand, argued that because the land was already a designated WSA when the plaintiffs located their claims, they obtained only limited property rights; since these limited rights did not include an "unlimited right to mine the claims they located," plaintiffs did not possess the property right they claimed was taken.[192]

The Federal Court of Claims began its analysis by articulating the principle that the ability to recover for a deprivation of property "is not absolute but instead is confined by limitations on the use of land which 'inhere in the title itself.'"[193] The court looked to the mining laws, as amended by FLPMA, as the relevant laws for determining inherent title limitations, and noted that the land on which the claims were located was already designated a WSA when the plaintiffs staked their claims.[194] Quoting another important case, *M&J Coal Co. v. United States*, the court observed: "Specifically, in analyzing a governmental action that allegedly interferes with an owner's land use, there can be no compensable interference if such land use was not permitted at the time the owner took title to the property."[195] Emphasizing the government's "particularly broad" power to regulate mining claims and observing that the plaintiffs had plenty of notice that the nonimpairment standard applied, the court concluded that "the plaintiffs in this case have acquired mining claims limited by the restrictions of the nonimpairment standard."[196] In short, because the nonimpairment standard governed—and therefore the land use was not permitted—at the time Reeves took title to the property, Reeves had no protected property interest in mining in contravention of this standard, and a compensable taking had not occurred.

M&J Coal Co. v. United States is another case in which existing legal standards were held to limit the use rights acquired by a property owner.[197] M&J Coal was the fee owner of a subsurface coal estate and was conducting intensive coal mining operations pursuant to state permits in an area where many of the surface owners had deeded away the right to protection from subsidence.[198] When surface residents began seeing cracks in the ground, severed gas lines, and electric wires stretched "as tight as a fiddle string," they complained to the federal Office of Surface Mining Reclamation and Enforcement (OSM), which regulates surface coal mining pursuant to SMCRA.[199] Following an inspection and consultation with the state regulatory agency, the OSM exercised its authority under SMCRA and issued a cessation order against M&J "for a condition, practice, or violation creating an imminent danger to the health and safety of the public."[200] The company was allowed to continue mining under a subsidence control plan that reduced the amount of coal it could mine and, therefore, its profits.[201]

Reviewing the company's subsequent taking claim, the court first examined the nature of M&J's property rights to determine "whether the proscribed use was part of M&J's 'property' within the meaning of the Fifth Amendment."[202] Despite the fact that the company's deeds allowed them to cause subsidence of the overlying surface estates, the court concluded that because of SMCRA's imminent danger provisions, "M&J never acquired the right to mine in such a way as to endanger the public health and safety . . . ."[203] Because M&J's property rights did not include the proscribed use, the court concluded that there was no taking.[204] In short, relevant land use prohibitions and standards that are in place when a claimant acquires its property inhere in the title to that property and may preclude the owner from establishing a right to engage in a particular land use.

187. No. CV 05-1057-PK, 2006 WL 2252554, at *6, 36 ELR 20158 (D. Or. 2006).
188. Reeves v. United States, 54 Fed. Cl. 652, 672 (2002).
189. *Id.* at 654. The land was designated a WSA, and thereby made subject to the nonimpairment standard, pursuant to FLPMA. *Id.* at 659 (citing 43 U.S.C. §1782).
190. *Id.* at 655.
191. *Id.* at 655, 671.
192. *Id.* at 671.
193. *Id.* (quoting Palazzolo v. Rhode Island, 533 U.S. 606, 629, 32 ELR 20516 (2001)).
194. *Reeves*, 54 Fed. Cl. at 672.
195. *Id.* (quoting M&J Coal Co. v. United States, 47 F.3d 1148, 1153, 25 ELR 20600 (Fed. Cir. 1995)).
196. *Reeves*, 54 Fed. Cl. at 672-73 (citing United States v. Locke, 471 U.S. 84, 104-05 (1985)).
197. 47 F.3d at 1150-51.
198. *Id.*
199. *Id.* at 1151. *See* Surface Mining Control and Reclamation Act, 30 U.S.C. §§1201-1328 (2006), ELR Stat. SMCRA §§101-908.
200. *M&J Coal*, 47 F.3d at 1151.
201. *Id.* at 1151-52.
202. *Id.* at 1154.
203. *Id.* at 1155.
204. *Id.* In *Palazzolo v. Rhode Island*, 533 U.S. 606, 628, 32 ELR 20516 (2001), the Supreme Court held that the mere fact that a property owner has notice of a preexisting regulatory scheme does not, by itself, defeat a takings claim as a matter of law. Even after *Palazzolo*, however, the regulatory regime in place when the property is acquired is highly relevant to the takings inquiry—both as part of the inquiry into the nature and scope of the affected property interest, *see, e.g.*, *Reeves*, 54 Fed. Cl. at 672, and as an element of reasonable investment-backed expectations, one of the *Penn Central* factors. *See infra* Part V.C.1.

This principle is underscored by decisions in which government actions affecting mining interests were held to effect a taking. One such decision is *Florida Rock*, discussed earlier, in which the Federal Court of Claims held that a landowner denied a §404 permit was "entitled to just compensation for the taking of its common law right to mine the underlying limestone on its land."[205] A key factor in that conclusion was that the §404 permit requirement was not in place when the landowner acquired the property. Another such decision is *Whitney Benefits*, *Inc. v. United States*, in which the Federal Circuit held that the enactment of a SMCRA provision prohibiting the issuance of surface coal mining permits for surface mining an alluvial valley floor (AVF) effected a taking of a coal deposit owned in fee by claimants within an AVF.[206] Critical to the court's conclusion in *Whitney Benefits* was its definition of the property: "[T]he *only* property here involved is the right to surface mine a particular deposit of coal. The only possible use of that right is to surface mine that coal. When Congress prohibited that mining of that coal . . . it took [ ] all the property involved in this case."[207] Also critical was that the AVF provision was not in place when the company acquired the property; indeed, the enactment of the new law was itself the action that caused a taking: "Before SMCRA was enacted, Benefits had a property right it could expect to exercise, i.e. to surface mine the Whitney coal."[208]

Another important factor in *Florida Rock* and *Whitney Benefits* was that the successful takings claimants were fee owners of land rather than simply holders of mining claims on public land. While fee ownership of land is rooted in the common law, mining claims on public land are a creature of statute and a unique and circumscribed form of property that the government retains broad power to define.[209] The limited nature of this form of property and the role of existing legal standards in defining the use rights acquired by any property owner are key factors in determining whether a §404(c) prohibition or restriction in Bristol Bay would affect a protected use interest held by PLP. No federal court has explicitly treated §404 as an existing standard that limits a mining claimant's (or any property owner's) rights; but neither has any federal court held that the denial or veto of a §404 permit was a taking of a mining claimant's property. The §404 requirement is longstanding and its application in the headwaters of the Nushagak and Kvichak watersheds is unquestionable given the area's extensive network of streams, lakes, and wetlands. In light of this, it is reasonable to conclude that mining rights stemming from mining claims located in this region are circumscribed by the §404 requirement. Given the limited nature of mining claimants' mining rights and the "contingent and prospective" nature of state mining claims in Alaska, a proactive §404(c) action that does not prohibit mining but simply prohibits or restricts mine waste discharges into specified waters in the Bristol Bay watershed would not affect a use interest that is part of PLP's property.

3. No Right to Mine in a Manner That Harms Public Trust Resources

PLP's mining rights are also constrained by the public trust doctrine, which imposes a duty on the states to manage trust resources, including fish and water, for the benefit of the public. In *Esplanade Properties, LLC v. City of Seattle*, the Ninth Circuit affirmed a district court determination that the public trust doctrine is a background principle of law that precluded the existence of a compensable property right.[210] In *Esplanade Properties*, a developer was denied a permit for tideland development based on the state Shoreline Management Act.[211] The court concluded that the Act reflected the long-existing public trust doctrine, which already precluded the proposed development.[212] The court based this conclusion on a Washington Supreme Court public trust decision that it found controlling, *Orion Corp. v. State*.[213]

In *Orion Corp.,* the Washington Supreme Court held that the state Shoreline Management Act did not effect a taking of Orion's tideland property by prohibiting the dredging and filling of tidelands, because the public trust doctrine applied to the tidelands when Orion acquired them and therefore already prohibited any dredging or filling.[214] According to the court, "Orion had no right to make any use of its property that would substantially impair the public rights of navigation and fishing, as well as incidental rights and purposes" recognized previously.[215] Since a property right must exist before it can be taken, the prohibition on dredging and filling of tidelands was not a taking.[216]

The following sections describe the public trust doctrine as it has developed in Alaska and posit that this doctrine precludes mining claimants in Alaska from establishing a right to mine in a manner that harms public trust resources.

205. 45 Fed. Cl. 21, 23 (1999), *see supra* notes 138-140 and accompanying text.
206. 926 F.2d 1169, 1170, 21 ELR 20806 (Fed. Cir.), *cert. denied*, 502 U.S. 952 (1991).
207. *Id.* at 1172. The court excluded the surface acreage from the relevant property determination because it found that the surface had been acquired after the fact solely to facilitate mining the coal beneath. *Id.* at 1174.
208. *Id.* at 1172.
209. *See Locke*, 471 U.S. at 104; *see also infra* notes 311-315 and accompanying text.
210. 307 F.3d 978, 985, 33 ELR 20056 (9th Cir. 2002), *cert. denied by* Esplanade Properties, LLC v. City of Seattle, Wash., 539 U.S. 926 (2003). The background principles concept is another aspect of the threshold inquiry into whether the claimant has a valid property interest that is cognizable for Fifth Amendment purposes. *See supra* notes 67-71 and accompanying text. Background principles reflect "common, shared understandings of permissible limitations derived from a State's legal tradition." *Palazzolo*, 533 U.S. at 630 (citing *Lucas*, 505 U.S. at 1029-30).
211. *Esplanade,* 307 F.3d at 980-81.
212. *Id.* at 985-86.
213. *Id.* at 986 (citing Orion Corp. v. State, 747 P.2d 1062, 18 ELR 20697 (Wash. 1987), *cert. denied*, 486 U.S. 1022 (1988)).
214. *Orion Corp.*, 747 P.2d at 1072-73.
215. *Id.*
216. *Id.*

a. The Public Trust Doctrine in Alaska

In *Illinois Central Railroad Co. v. Illinois*, the U.S. Supreme Court held that when a state receives title to tidelands and lands beneath navigable waterways at statehood, it receives such lands "in trust for the people of the state, that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein, freed from the obstruction or interference of private parties."[217] If the state conveys such lands to third parties, the lands remain subject to the public trust, unless conveyance free of the trust promotes the public interest and does not substantially impair the public's interest in the remaining lands and waters.[218]

Alaska's first legislative recognition of the public trust doctrine occurred in 1985, with enactment of the following provision:

> Ownership of land bordering *navigable or public water* does not grant an exclusive right to the use of the water and a right of title to the land below the ordinary high water mark is subject to the rights of the people of the state to use and have access to the water for recreational purposes or other public purposes for which the water is used or capable of being used consistent with the public trust.[219]

The statutory definitions of "navigable water" and "public water" are broad. The former is defined as:

> any water of the state forming a river, stream, lake, pond, slough, creek, bay, sound, estuary, inlet, strait, passage, canal, sea or ocean, or any other body of water or waterway within the territorial limits of the state or subject to its jurisdiction, that is navigable in fact for any useful public purpose, including but not limited to water suitable for commercial navigation, floating of logs, landing and takeoff of aircraft, and public boating, trapping, hunting waterfowl and aquatic animals, fishing, or other public recreational purposes[.][220]

The latter is defined as: "navigable water and all other water, whether inland or coastal, fresh or salt, that is reasonably suitable for public use and utility, habitat for fish and wildlife in which there is a public interest, or migration and spawning of fish in which there is a public interest."[221] These definitions have the effect of applying the traditional public trust doctrine to a broad category of waters that support public uses or provide habitat for fish "in which there is a public interest."

The Alaska Supreme Court first judicially recognized the public trust doctrine in *CWC Fisheries, Inc. v. Bunker*.[222] In that case, the court held that a state conveyance of tidelands that does not meet the limited circumstances described in *Illinois Central Railroad* "will be viewed as a valid conveyance of title subject to continuing public easements for purpose of navigation, commerce, and fishery."[223] Accordingly, "[t]he grantee may 'assert a vested right to the servient estate (the right of use subject to the trust),' but may not enjoin any member of the public from utilizing the property for public trust purposes."[224] The court found no clear statutory intent to convey lands free of the public trust and concluded that such conveyance would be inconsistent with the "common use clause" of the Alaska Constitution, which provides that "[w]herever occurring in their natural state, fish, wildlife, and waters are reserved to the people for common use."[225] The court then concluded that tidelands conveyed to private parties pursuant to statutory "class I preference rights" were conveyed subject to the public trust: "While patent holders are free to make such use of their property as will not unreasonably interfere with these continuing public easements, they are prohibited from any general attempt to exclude the public from the property by virtue of their title."[226]

In *Owsichek v. State, Guide Licensing & Control Board*, decided later the same year, the Alaska Supreme Court looked more deeply at the Common Use Clause in the process of invalidating a state statute that authorized the state Guide Licensing & Control Board to grant hunting guides "exclusive guide areas" (EGAs).[227] Examining the history of the clause, the court observed that it was "intended to guarantee broad public access to natural resources."[228] In addition, "[i]ts purpose was anti-monopoly. This purpose was achieved by constitutionalizing common law principles imposing upon the state a public trust duty with regard to the management of fish, wildlife and waters."[229] In other words, the Common Use Clause incorporated the public trust doctrine: "Thus, common law principles incorporated in the common use clause impose upon the state a trust duty to manage the fish, wildlife and water resources of the state for the benefit of all the people."[230] The court observed that the extent to which the public trust duty limits the state's discretion to manage resources is not clearly defined; at a minimum, however, the duty implies a "prohibition against any monopolistic grants or special privileges."[231] Further, "the common law principles incorporated in the common use clause impose upon the state a trust duty to manage the fish, wildlife and water resources of the state for the benefit of all the people."[232] In *Brooks v. Wright*,

217. 146 U.S. 387, 452 (1892).
218. *Id.* at 453.
219. Alaska Stat. Ann. §38.05.126(c) (West 2012) (emphasis added); *see* CWC Fisheries, Inc. v. Bunker, 755 P.2d 1115, 1118, 19 ELR 20111 (Alaska 1988) (recognizing this statute, as a clear "legislative expression of . . . continued adherence to the 'public trust' doctrine") (internal quotation marks omitted).
220. Alaska Stat. Ann. §38.05.965(13) (West 2012).
221. Alaska Stat. Ann. §38.05.965(18) (West 2012).
222. *CWC Fisheries*, 755 P.2d at 1118.
223. *Id.*
224. *Id.* (quoting Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 723, 13 ELR 20272 (Cal. 1983), *cert. denied*, 464 U.S. 977 (1983)).
225. *Id.* at 1120 (quoting Alaska Const. art. 8, §3).
226. *Id.* at 1121.
227. 763 P.2d 488, 489 (Alaska 1988).
228. *Id.* at 493.
229. *Id.*
230. *Id.* at 495.
231. *Id.* at 495-96.
232. *Id.* at 495.

the court reaffirmed that the purpose of the public trust doctrine was "not so much to avoid *public* misuse of these resources as to avoid the *state's* improvident use or conveyance of them."[233]

In the most recent case applying the public trust doctrine, the Alaska Supreme Court reaffirmed the principle that Alaska "holds title to the beds of navigable waters 'in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties.'"[234] The purposes of the public trust extend beyond the traditional trio of navigation, commerce, and fisheries: Pursuant to its public trusteeship, the state may "regulate a riparian owner's use of adjacent state-owned lands to protect recreational and other public purposes, including 'the right to fish, hunt, bathe, swim, [and] to use for boating and general recreation purposes the navigable waters of the state . . . .'"[235] In sum, the public trust doctrine protects public access to trust resources such as fish, wildlife, and water, imposes a duty on the state to manage trust resources for the common good, and furthers an anti-monopoly agenda by preventing the state from giving out exclusive grants or special privileges in trust resources.

b. The Public Trust Doctrine Precludes a Right to Mine in a Manner That Harms Trust Resources

A proactive §404(c) determination would prohibit or restrict the use of specific waters in the Bristol Bay region as disposal sites for the discharge of mine wastes. The specific waters that would be covered by the §404(c) action would include streams and lakes that are documented anadromous fish streams, incubation grounds for salmon populations that are part of the world-class Bristol Bay fishery. These waters fit comfortably within the statutory definition of "public waters" that are imbued with the public trust.[236] The public trust responsibility as incorporated into the Common Use Clause, however, extends beyond fish-bearing waters to all waters of the state, as well as to the fish themselves.[237]

Because the affected waters and fish are subject to the public trust, at a minimum mining claimants cannot establish an entitlement to use these resources in a manner that harms the interests protected by the trust.[238] If EPA were to take action under §404(c), it would do so based on a scientifically supported finding that certain mining-related discharges into specific waters would have an "unacceptable adverse effect" on fishery areas, a public trust resource in which there is a significant public interest. As a result, the public trust doctrine would preclude PLP from establishing a right to mine in a manner that requires such discharges.

In *National Audubon Soc'y v. Superior Court*, the National Audubon Society sued to enjoin the Los Angeles Department of Water and Power's (DWP) water diversions from nonnavigable tributaries to Mono Lake, a navigable lake, based on the public trust doctrine.[239] The California Supreme Court examined the relationship between the public trust doctrine and California's appropriative water rights system and concluded that the public trust doctrine "protects navigable waters from harm caused by diversion of nonnavigable tributaries."[240] The court reached this conclusion based on the following conception of the public trust doctrine:

> In our opinion, the core of the public trust doctrine is the state's authority as sovereign to exercise a continuous supervision and control over the navigable waters of the state and the lands underlying those waters. This authority applies to the waters tributary to Mono Lake and bars DWP or any other party from claiming a vested right to divert waters once it becomes clear that such diversions harm the interests protected by the public trust.[241]

In short, even where the state can authorize and has previously authorized the activity, the public trust doctrine "precludes anyone from acquiring a vested right to harm the public trust . . . ."[242]

One of the authorities on which the *National Audubon* court relied was a "venerable" California case that applied public trust principles to uphold an injunction against the dumping of mine wastes into a river.[243] In *People v. Gold Run Ditch & Mining Company*, the California Supreme Court upheld an injunction against the company's hydraulic mining practices, which involved spraying high-pressure water against hillsides to uncover gold and dumping 600,000 cubic yards of waste rock annually into the north fork of the American River.[244] The material washed downstream into the Sacramento River and raised the beds of both rivers, impairing navigation, polluting the rivers, and increasing the risk of floods.[245] The court defined the question as whether the company had the right, as the owner of the mine, to dump the materials into a river in this damaging manner.[246] Answering the question in the negative, the court emphasized the "paramount and controlling rights"

233. 971 P.2d 1025, 1031 (Alaska 1999).
234. State v. Alaska Riverways, Inc., 232 P.3d 1203, 1211 (Alaska 2010) (quoting Illinois Central Railroad Co. v. Illinois, 146 U.S. 387, 452 (1892)).
235. *Id.* at 1212 (quoting Hayes v. A.J. Associates, Inc., 846 P.2d 131, 133 n.6 (Alaska 1993)). In *Hayes*, the Alaska Supreme Court rejected the assertion that mining is a public trust purpose because "a mining claim is not a 'public use,' but rather an exclusive, depleting use of a non-renewable resource for private profit." *Id.* at 133.
236. *See* Alaska Stat. Ann. §38.05.965(18) (West 2012).
237. Alaska Const. art. 8, §3; *Owsichek*, 763 P.2d at 495.
238. *See* Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 727, 13 ELR 20272 (Cal. 1983).
239. *Id.* at 712.
240. *Id.* at 721.
241. *Id.* at 712.
242. *Id.* at 732.
243. *Id.* at 720 (citing People v. Gold Run Ditch & Mining Co., 4 P. 1152 (Cal. 1884)).
244. *Gold Run,* 4 P. at 1153-54.
245. *Id.* at 1154.
246. *Id.* at 1155.

of the people in the navigable rivers and characterized the dumping as an "invasion" of those rights.[247] Finally,

> Rejecting the argument that dumping was sanctioned by custom and legislative acquiescence, the opinion asserted that . . . "The State holds the absolute right to all navigable waters and the soils under them. . . . The soil she holds as trustee of a public trust for the benefit of the people; and she may, by her legislature, grant it to an individual; but she cannot grant the rights of the people to the use of the navigable waters flowing over it. . . ."[248]

In short, a mining operator has no right to dump mine wastes into waters in a manner that damages public trust uses.

The Alaska Supreme Court has not explicitly addressed the *National Audubon* principle that no one can acquire a vested right to harm the public trust. This principle flows naturally, however, from the duty that the trust imposes on the government to manage trust resources for the common good and from the trust's anti-monopoly purpose of ensuring broad public access to and preventing the grant of exclusive privileges in trust resources. The state's ability to carry out its public trust duty to manage trust resources for the common good would be severely undermined if anyone who acquired valid mining claims automatically acquired a vested right to use trust resources in a manner that harms the trust. Such acquisition would be much like the state giving out an exclusive grant or special privilege in the resource, as the rest of the public would not have the same right of using the trust resource and the mining claimant's damaging use would impair the general public's use of and access to the resource. Thus, the *National Audubon* principle should apply to preclude PLP from asserting a protected property right to mine in a manner that harms public trust resources. In the face of a well-supported EPA finding that discharges of mine wastes in certain waters would have an unacceptable adverse effect on fishery areas, the public trust doctrine would preclude PLP from establishing a property right to mine in a manner that requires such discharges.

4. No Right to Mine in a Manner That Causes a Public Nuisance

It is a well-established principle that "a State need not provide compensation when it diminishes or destroys the value of property by stopping illegal activity or abating a public nuisance."[249] If an activity constitutes a public nuisance, the state may regulate or prohibit that activity without liability under the Fifth Amendment, even if the prohibition reduces or destroys the economic value of affected property. It is possible that the discharges proscribed by a §404(c) action in Bristol Bay would constitute a public nuisance; if so, the action would not effect a taking.

The law of public nuisance is state law, but most states follow the doctrine as it is laid out in the *Restatement (Second) of Torts*. According to the *Restatement*, "[a] public nuisance is an unreasonable interference with a right common to the general public."[250] An interference with a public right is unreasonable if it significantly affects the public health, safety, peace, comfort, or convenience; if it is proscribed by law; or if it is continuing or long-lasting and has a significant effect upon the public right.[251] Determining whether conduct amounts to a public nuisance essentially involves a weighing of factors, such as the gravity of the harm it causes, the utility of the conduct, and the suitability of the activity, as well as the suitability of the existing use, to the character of the location in which it occurs.[252] Activities that are "customary and usual" in the community have greater social value than those that are not, while activities that produce a direct public benefit have more value than those conducted mainly to benefit an individual.[253]

In most states, including Alaska, fishing in navigable or public waters is a public right[254]; in some, there is a public right to clean water.[255] The entire general public or community need not be affected by the interfering conduct for a nuisance to be found, "so long as the nuisance will interfere with those who come in contact with it in the exercise of a public right or it otherwise affects the interests of the community at large."[256] For example, water pollution that adversely affects a few dozen riparian landowners is not necessarily a public nuisance, but if the pollution "kills the fish in a navigable stream and so deprives all members of the community of the right to fish, it becomes a public nuisance."[257] The question of whether an activity is unreasonable is ultimately a question of fact involving a balancing of interests, to be determined in light of all the circumstances.[258]

In *Machipongo Land & Coal Co, Inc. v. Commonwealth*, the Pennsylvania Supreme Court considered a taking claim brought by landowners who held surface and subsurface rights in land within the Goss Run Watershed when the state Department of Environmental Protection (DEP) designated this watershed as unsuitable for coal mining under

247. *Id.*
248. *National Audubon*, 658 P.2d at 720 (quoting *Gold Run*, 4 P. at 1152).
249. Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 492 n.22, 17 ELR 20440 (1987) (citing state cases); *see* Mugler v. Kansas, 123 U.S. 623, 671 (1887) (state prohibition on manufacture and sale of liquor not a taking but abatement of a nuisance); R&Y, Inc. v. Municipality of Anchorage, 34 P.3d 289, 297 n.24 (Alaska 2001) ("Courts have consistently held that a state need not provide compensation when it diminishes or destroys the value of property by stopping illegal activity or abating a public nuisance.").
250. Restatement (Second) of Torts §821B(1) (2012).
251. *Id.* §821B(2).
252. *Id.* §§826-828.
253. *Id.* §828 cmt. f.
254. Alaska Const. art. 8, §3; Canoe Pass Packing Co. v. United States, 270 F. 533, 535 (9th Cir. 1921) ("there remains in the general public a common right to fish in all the public waters of the territory").
255. *See, e.g.*, Machipongo Land & Coal Co., Inc. v. Commonwealth, 799 A.2d 751, 775, 32 ELR 20706 (Pa. 2002) (quoting Pa. Const. art. I, §10).
256. Restatement §821B cmt. g; *see also* Maier v. Ketchikan, 403 P.2d 34, 38 (Alaska 1965) (reversing dismissal of public nuisance claim), *overruled on other grounds by* Johnson v. City of Fairbanks, 583 P.2d 181 (Alaska 1978).
257. Restatement §821B cmt. g; *see also* William Lloyd Prosser & W. Page Keeton, Prosser and Keeton on the Law of Torts §90 at 645 (1984).
258. Restatement §826 cmt. b.

state law.[259] The DEP made its unsuitability determination after conducting a technical study that concluded that surface mining of coal within the watershed had a "high potential to cause increases in dissolved solid and metal concentrations in Goss Run that would adversely affect the use of the stream as an auxiliary water supply" and "a significant potential to disrupt the hydrologic balance causing decreases in the net alkalinity of discharges . . . destroying the habitat for wild trout populations."[260] One issue before the court was whether the lower court had properly excluded evidence that coal mining on the designated land would constitute a public nuisance.[261] If the use was a public nuisance, observed the court, then the state could prohibit it without paying compensation to the landowners.[262]

Grounding its analysis of the issue in the *Restatement*, the court noted that in Pennsylvania the public has a right not to have pollution discharged into public waters and that such discharges are a public nuisance as a matter of common and statutory law.[263] Although the DEP had found that coal mining in the designated area would likely destroy the trout population in Goss Run and harm the use of the stream as water supply, the court observed that the public has a right to clean streams, regardless of the specific uses to which the streams are put.[264] The court went on to note that although mining is not a nuisance per se in Pennsylvania, pollution of streams is and can therefore be prevented by the state.[265] Further, the state need not establish that the harm is "practically certain to occur" but must only show, as the DEP did in this case, that mining had a "high potential" of causing pollution of Goss Run.[266] The court therefore remanded the nuisance issue to the lower court to allow the introduction of evidence that coal mining would "unreasonably interfere with the public right to unpolluted water . . . ."[267] If the evidence showed that coal mining would constitute a nuisance, then no compensation would be required:

> The government is not required to pay Property Owners to refrain from taking action on their land that would have the effect of polluting public waters. Indeed, despite our conviction that private property rights are to be strongly protected, we are struck by the impropriety of taking action that would require the General Assembly to pay someone not to pollute public water or destroy public fisheries.[268]

The conclusion of the *Machipongo* court that pollution of public waters, especially in a manner that is harmful to aquatic life, is a public nuisance is echoed in cases from many other states. In *Hendler v United States*, the Federal Court of Claims declined to find a taking where EPA had entered the claimant's property and installed monitoring wells to determine the extent of groundwater pollution caused by others beneath the property.[269] The court held that groundwater contamination was a public nuisance under the law of California, where the property was located, and that EPA's actions taken to abate the nuisance therefore came within the nuisance exception to takings liability.[270] In *Hampton v. North Carolina Pulp Co.*, the North Carolina Supreme Court recognized a cause of action for public nuisance against the operator of a pulp mill that was polluting the Roanoke River and impeding the upstream migration of fish, brought by a riparian landowner who operated a commercial fishery in the river.[271] In *Columbia River Fishermen's Protective Union v. City of St. Helens*, commercial fishermen operating in the Columbia River brought a public nuisance claim against the city and several companies that were discharging pollution into the river and destroying fish life.[272] Observing that "[t]o delete the fish from the Columbia and Willamette rivers is to prevent the plaintiffs from pursuing their vocations and earning their livelihood fishing with gill nets in the portions of the rivers where they have been accustomed to fish[,]"[273] the Oregon Supreme Court held that the fishermen suffered special damages and could maintain the claim.[274] In *State ex rel. Wear v. Springfield Gas & Electric Co.*, a Missouri court of appeals held that the state had stated an adequate cause of action for public nuisance in its allegations against a company that was discharging pollution into an adjacent stream and killing fish.[275] The court particularly approved of the allegations concerning "the destruction of fish life, and rendering the creeks unfit for fish habitation,"[276] observing that "to pollute the streams of the state that are the habitation of fish is a public nuisance, and may be enjoined on that ground . . . ."[277]

There are no comparable cases from Alaska. Nonetheless, there is adequate authority on which to base a sound argument that placing large-scale mine wastes into waters of the United States in a manner that has an unacceptable adverse effect on a world-class fishery that is

259. 569 Pa. 3, 799 A.2d 751, 756-58 (Pa.), *cert. denied by* Machipongo Land & Coal Co., Inc. v. Pennsylvania, 537 U.S. 1002 (2002).
260. *Id.* at 757 (internal quotation marks omitted).
261. *Id.* at 771.
262. *Id.* at 772 (citing Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1027-29, 22 ELR 21104 (1992).
263. *Id.* at 773.
264. *Id.* at 774.
265. *Id.*
266. *Id.* at 775.
267. *Id.*
268. *Id.*
269. 38 Fed. Cl. 611, 613, 27 ELR 21448 (1997), *aff'd*, 175 F.3d 1374, 29 ELR 21185 (Fed. Cir. 1999).
270. *Id.* at 617.
271. Hampton v. North Carolina Pulp Co., 27 S.E.2d 538, 543-44 (N.C. 1943). The court held that plaintiff could maintain a public nuisance cause of action because he suffered special damages to his commercial fishing business. *Id.* at 546.
272. 87 P.2d 195, 196-97 (Or. 1939).
273. *Id.* at 197.
274. *Id.* For other cases recognizing the pollution of waters and consequent injury to fish and fish habitat as a public nuisance, see, e.g., *Ouellette v. Int'l Paper Co.*, 602 F. Supp. 264, 15 ELR 20377 (D. Vt. 1985); Carson v. Hercules Powder Co., 402 S.W.2d 640 (Ark. 1966).
275. State ex rel. Wear v. Springfield Gas & Elec. Co., 204 S.W. 942, 945 (Mo. Ct. App. 1918).
276. *Id.* at 946. The court ultimately found, however, that the evidence failed to support the claim. *Id.* at 947.
277. *Id.* at 946.

the region's economic engine would be a public nuisance under Alaska law.

First, Alaska courts generally follow the common law of nuisance as it has developed in other states and through authorities like the *Restatement*.[278] Second, several Alaska statutes provide support for an argument that mining-related discharges that pollute and destroy fish-bearing waters would be a public nuisance under state law. Although there is no statutory definition of "public nuisance," some kinds of water, air, and land pollution are statutorily defined as a nuisance.[279] Pollution of air, land, or water—defined in part with reference to creation of a nuisance—is prohibited.[280] As discussed earlier, discharges of solid or liquid wastes into waters are prohibited without state authorization, and the state DEC has the authority to "prevent and abate" pollution of waters;[281] in addition, state permission is required before anyone may "use, divert, obstruct, pollute, or change the natural flow or bed of" documented anadromous fish habitat.[282] Under these provisions, it would be illegal to discharge into waters, including fish-bearing waters, mine wastes that would be harmful to, or could reasonably be foreseen as creating a substantial risk of harming, either commercial use of the waters or fish or other aquatic life. State action to abate or prevent such illegal activity would not be a taking.[283]

Several specific factors in the Bristol Bay §404(c) situation strengthen the conclusion that discharges of mine waste into at least some waters in the region could constitute a public nuisance. First, there is a public right of fishing in Alaska.[284] Second, residents of the Bristol Bay communities exercise their public right of fishing extensively: some residents subsistence fish in waters that would be directly affected by mining operations, and residents commercial and subsistence fish in waters whose salmon populations originate in the headwaters of the Nushagak and Kvichak drainages.[285] Third, the prohibited discharges would interfere with this fishing right by adding to headwaters streams and lakes pollutants that have been shown to be toxic to salmon and other aquatic life, by impairing the flow of water and thus the migration of fish to upstream spawning and rearing habitat, and by directly destroying important fish habitat.[286]

Fourth, this interference would be unreasonable, because of the extent of the harm and the public health implications. The harm could be extensive, with the introduction of toxic pollution and the destruction of salmon spawning and rearing habitat in a region that presently boasts largely undisturbed habitat and hydrologic regimes, and the resulting reduction in fish production in one of the world's last great salmon fisheries.[287] If even just a handful of local salmon populations were extirpated as a result of mining-related discharges that introduced toxic pollution into headwaters streams and buried or diverted streams, the entire Bristol Bay salmon system would be undermined in ways that are difficult to predict.[288] Fishing plays a central role in the economy and culture of the Bristol Bay communities. The potential reduction in fish populations and increase in fishery closures that would result from the interference would likely be long-lasting and would undermine the economic stability and cultural traditions of the region. The social value attached to the public right of fishing is very high in Alaska, and the Bristol Bay region is particularly well-suited to the exercise of this right, supporting as it does the world's greatest sockeye salmon fishery and other important fisheries. For those residents and other commercial fishermen who fish in the Bristol Bay region, it would be impossible to avoid the harm resulting from a decrease in fish populations and resulting increase in fishery closures.

On the other hand, the utility of allowing mining operations to discharge toxic dredged or fill materials into fish-bearing waters is probably not great enough to outweigh the harm to the public right of fishing. State law does attach social value to the primary purpose of the discharges, which is extracting minerals for use in a variety

278. *See* In re Exxon Valdez, 104 F.3d 1196, 1198, 27 ELR 20621 (9th Cir. 1997) (observing that Alaska public nuisance law applies the *Restatement* criteria); Stock v. State, 526 P.2d 3, 10 (Alaska 1974) (noting that the term "nuisance" has a well-established meaning at common law) (citing cases from other states); Maier v. Ketchikan, 403 P.2d 34, 38 n.12 (Alaska 1965) (citing the *Restatement of Torts* and *Prosser & Keeton*); Budd v. Houston, No. S-8435, 2000 WL 34545798 at *3 (Alaska Mar. 22, 2000) (citing *Prosser & Keeton*).

279. *See* Alaska Stat. Ann. §46.03.800(a) (West 2012) ("A person is guilty of creating or maintaining a nuisance if the person puts a[n] . . . offensive substance into, or in any other manner befouls, pollutes, or impairs the quality of, a spring, brook, creek, branch, well, or pond of water that is or may be used for domestic purposes."); Alaska Stat. Ann. §46.03.810(a) (West 2012):

> A person is guilty of creating or maintaining a nuisance if the person . . . (2) allows to be placed or deposited upon any premises owned by the person or under the person's control . . . any other matter or thing that would be obnoxious or offensive to the public or that would produce, aggravate, or cause the spread of disease or in any way endanger the health of the community.

280. Alaska Stat. Ann. §46.03.710 (West 2012) (prohibition); *id.* §46.03.900(20) ("pollution" defined as:

> the contamination or altering of waters, land, or subsurface land of the state in a manner which creates a nuisance or makes waters, land, or subsurface land unclean, or noxious, or impure, or unfit so that they are actually or potentially harmful or detrimental or injurious to public health, safety, or welfare, to domestic, commercial, industrial, or recreational use, or to livestock, wild animals, bird, fish, or other aquatic life.

281. *Id.* §46.03.100(a); *id.* §46.03.050; *see supra* notes 117-19 and accompanying text.

282. Alaska Stat. Ann. §41.14.870(b), (d).

283. *See* R&Y, Inc. v. Municipality of Anchorage, 34 P.3d 289, 297 n.24 (Alaska 2001) (state need not provide compensation when it diminishes or destroys the value of property by stopping illegal activity or abating a public nuisance).

284. *See supra* note 254 and accompanying text.

285. *See generally* Stephen R. Braund, Jan. R. Braund & Associates, Pebble Project Environmental Baseline Document, 2004 Through 2008: Chapter 23. Subsistence Uses & Traditional Knowledge, Bristol Bay Drainages (Report for Pebble Ltd. Partnership, 2011), *available at* www.pebbleresearch.com/index.php/download_file/177/108/ (last visited May 12, 2012); An Assessment of Ecological Risk, *supra* note 15.

286. *See supra* notes 31-34 and accompanying text.

287. *See Schindler*, *supra* note 6, at 610.

288. *See supra* notes 11-14 and accompanying text.

of products.[289] The location is poorly suited to the activity, however. Even though the region is suitable for mining, in that the minerals are there, that alone does not make the invasion of the public right of fishing reasonable:

> The suitability of a particular activity . . . to the character of a locality depends upon its compatibility with the predominant activities there carried on. The more exclusively a locality is devoted to one type of activity, the more distinctive its character and the more apt a different activity is to be unsuited to it.[290]

The waters of the Bristol Bay watershed have long been devoted to subsistence and commercial fishing; the distinctive character of this region makes the discharge of mine wastes into its waters an activity that is unsuited to the place. Nor would it be impracticable for the discharges to be prevented or avoided, as mining can simply not be undertaken here or it can be conducted in a way that does not involve the proscribed discharges.

In short, there is a strong case to be made that a §404(c) action prohibiting discharges of mine wastes into waters of the Bristol Bay region would not be a taking because the action would merely be making explicit what is already implicit under background principles of state nuisance law. Moreover, there should be no difficulty in establishing before the fact that an activity would be a nuisance, as the *Machipongo* court recognized:

> [A]lthough mining is not a nuisance *per se*, pollution of public waterways is. . . . While it is true that mining *per se* is not a nuisance, experts need not wait until acid mine water flows out of mines in the UFM [designated unsuitable for mining] area to predict the likely results of mining this land. . . . [I]f the Commonwealth can prove that mining the UFM area would pollute Goss Run, the cause of the nuisance can be prohibited. We see no reason to require the Commonwealth to prove that the alleged pollution is practically certain to occur. It is enough if the Commonwealth can prove what its technical study found, that further mining in the UFM area had a high potential to cause increases in dissolved solid and metal concentrations in Goss Run that would adversely affect the use of the stream as an auxiliary water supply or had a significant potential to disrupt the hydrologic balance causing decreases in the net alkalinity of discharges . . . and destroying the habitat for wild trout populations.[291]

In other words, the state's determination, based on a technical study, that mining had a "high potential" to increase pollution that would "adversely affect" the uses of the stream for water supply and aquatic habitat provided all the authority it needed to take action to prevent a nuisance. A similar study supporting a §404(c) determination—such as the Bristol Bay watershed assessment—should likewise give EPA all it needs to prohibit or restrict discharges of mine wastes into specified waters in the Bristol Bay watershed.[292]

In sum, existing understandings and background principles of law inherent in PLP's title to its state mining claims would preclude PLP from establishing that it has a protected use interest that would be affected by a proactive §404(c) prohibition or restriction on the discharge of mine wastes into specified waters in the Bristol Bay watershed. Without a protected property interest, there can be no taking.

B. Lucas *Categorical Taking*

Assuming for the sake of argument that PLP could establish the existence of a protected property interest, the next step in the takings analysis would be to determine whether the §404(c) determination caused a taking of that interest, either as a categorical matter or under the *Penn Central* factors.

A categorical taking occurs when a regulation "denies all economically beneficial or productive use of land."[293] This is an "extraordinary circumstance" and a "relatively rare" situation.[294] A categorical taking can be found only where the regulation causes a "total loss" or "complete elimination of value";[295] the categorical rule would not apply "if the diminution in value were 95% instead of 100%."[296] At the same time, a landowner left with a mere "token interest" is entitled to compensation.[297]

To determine the economic effect of a government action on private property, a reviewing court must first define the unit of property.[298] Once the property is defined, the

289. *See* Alaska Stat. Ann. §§44.99.100-44.99.110 (declaring state policy to encourage economic development generally and mineral development specifically).

290. Restatement (Second) of Torts §828 cmt. g.

291. Machipongo Land & Coal Co., Inc. v. Commonwealth, 799 A.2d 751, 775, 32 ELR 20706 (Pa. 2002) (internal quotation marks omitted).

292. Additionally, it is well-settled that the federal government may defend against takings liability on the ground that the regulated activity constitutes a nuisance under state law. *See, e.g.*, Resource Investments, Inc. v. United States, 85 Fed. Cl. 447, 479 (2009) (considering whether proposed land use precluded by Corps permit denial was a nuisance under Washington State law); Rith Energy v. United States, 44 Fed. Cl. 366 (1999) ("whether the enforcement of these [state nuisance law] restrictions is accomplished by the state regulatory body or by federal officials acting under the authority of SMCRA is not an issue relevant to the takings analysis"), *aff'd*, 247 F.3d 1355, 31 ELR 20603 (Fed. Cir. 2001). In other words, EPA can rely on background principles of state nuisance law to prohibit an activity that would violate those principles. Depending on the circumstances, state findings or the existence of state authorizations may be relevant in determining whether the prohibited activity would be a nuisance under state law.

293. Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1015, 22 ELR 21104 (1992).

294. *Id.* at 1017-18; *see also* Tahoe-Sierra Preservation Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 330, 32 ELR 20627 (2002) (*Lucas* holding limited to "the extraordinary circumstance when *no* productive or economically beneficial use of land is permitted") (quoting *Lucas*, 505 U.S. at 1017).

295. *Lucas*, 505 U.S. at 1019 n.8.

296. *Tahoe-Sierra*, 535 U.S. at 330 (citing *Lucas*, 505 U.S. at 1019 n.8).

297. Palazzolo v. Rhode Island, 533 U.S. 606, 631, 32 ELR 20516 (2001) (holding that a categorical taking did not occur where landowner could build a single residence on his 18-acre lot).

298. Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 497, 17 ELR 20440 (1987). In *Keystone*, the Supreme Court, evaluating a facial takings challenge to Pennsylvania's new antisubsidence statute, rejected the claimant coal companies' attempt to define the relevant property as the 27 million tons of coal required to be left in place by the new law. *Id.* at 498.

court can "compare the value that has been taken from the property with the value that remains in the property."[299] In defining the property, the court "does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated[ ]" but instead focuses on the nature and extent of the interference with rights in the "parcel as a whole."[300] Defining the relevant parcel is an ad hoc task based on the specific facts and what is realistic and fair under the circumstances, focusing on the economic expectations of the claimant.[301] Factors that are often considered in the relevant parcel determination include the degree of continuity between property interests, the acquisition dates of the various interests, the extent to which the interests are treated as a single unit, and the extent to which the lands affected by the government action enhance the value of the remaining lands.[302] According to one commentator, "[i]n practice, the pattern has been to include contiguous plaintiff-owned land in the relevant parcel unless there is a good reason to exclude it."[303] That some portion of a property may be independently developed in an economically viable way does not necessarily support excluding that portion from the relevant parcel.[304]

PLP's property in the Bristol Bay region consists of direct and indirect interests in 3,108 state mining claims covering 378,600 acres, or 592 square miles.[305] The claims form a contiguous block, and PLP acquired most of them at the same time.[306] Initial exploration in the Pebble region was conducted in the 1980s by Cominco and resulted in the discovery of the Pebble prospect.[307] Much of the exploration drilling performed since then has focused on delineating the Pebble prospect, but a great deal has also occurred outside that prospect and has identified "numerous compelling exploration targets."[308] While Cominco still owned the claims, that company drilled 117 exploration holes in the Pebble Deposit and 47 in the rest of the property.[309] Since acquiring the claims, Northern Dynasty and PLP have drilled 484 exploration holes in the Pebble Deposit and 503 holes in the rest of the property.[310] PLP's development plan and public attention are focused on the Pebble Deposit, but PLP's current exploration work extends beyond that deposit. In light of these facts, a court considering a taking claim could well conclude that the appropriate unit of property is PLP's entire block of claims, or at least those claims in which it currently owns a direct interest. Defining the Pebble Deposit alone as the appropriate unit of property would fail to account for the claims' existence as a block, PLP's exploration activities beyond the Pebble Deposit, and the considerable value of the minerals located elsewhere in PLP's claims.

This section does not undertake an analysis of the economic impact of a §404(c) action on PLP's mining claims for the simple reason that all the facts required to conduct the analysis—such as the precise contours of a §404(c) determination and exactly how it might affect PLP's ability to mine the Pebble Deposit or other deposits in its claim block—are not available. Instead, this section highlights a handful of factors that could make it difficult for PLP to establish that a §404(c) action caused a categorical taking, even if the company could establish that the action involved a protected property interest possessed by PLP.

1. The Categorical Rule Should Not Apply to Mining Claims

As an initial matter, there is a strong argument to be made that the *Lucas* categorical taking rule does not apply to mining claims on public lands. The *Lucas* decision involved a fee-simple ownership of land—specifically, two beachfront lots in South Carolina—that was rendered "valueless" by a newly enacted state statute prohibiting beachfront development.[311] Throughout the decision, Justice Antonin Scalia refers to "land," "landowner," and "land ownership," suggesting that the holding, like the factual setting from which it springs, is limited to fee simple interests in land. For example, in one of the most often-quoted excerpts from the decision, articulating the new categorical rule and its exception, Justice Scalia states:

> We believe similar treatment must be accorded confiscatory regulations, *i.e.*, regulations that prohibit all economically beneficial use of land: Any limitation so severe cannot be newly legislated or decreed (without compensation), but must inhere in the title itself, in the restrictions that background principles of the State's law of property and nuisance already place upon *land ownership*.[312]

The Court focused instead on all the coal owned by the companies in the 13 mines affected by the new law. *Id.* at 496.

299. *Id.* at 497.

300. *Tahoe-Sierra*, 535 U.S. at 327 (citing Penn Central Transp. Co. v. City of New York, 438 U.S 104, 130-31, 8 ELR 20528 (1978)).

301. Robert Meltz, *Takings Law Today: A Primer for the Perplexed*, 34 Ecology L.Q. 307, 348 (2007) (ad hoc inquiry focused on fairness); Cane Tennessee, Inc. v. United States, 62 Fed. Cl. 703, 709 (2004) (focus is on claimant's economic expectations).

302. *Cane Tennessee*, 62 Fed. Cl. at 709.

303. Meltz, *supra* note 301, at 348.

304. *Id.*

305. Wardrop, *supra* note 23, at 19. More specifically, PLP's direct and indirect interests include 2,043 claims covering 330 square miles (including the Pebble Deposit) held by the Pebble Partnership through two subsidiaries; 95 claims covering 24 square miles held by a wholly owned subsidiary of Northern Dynasty; 542 claims covering 136 square miles held by Full Metal Minerals (USA) Inc., in which PLP is acquiring the right to earn a 60% interest; and 428 mineral claims covering 102.9 square miles held by Liberty Star Uranium and Metals Corp., in which Northern Dynasty has entered into an agreement to earn an interest. *Id.*

306. The exceptions are the claims currently owned by Full Metal Minerals and Liberty Star, in which PLP has an agreement to acquire an interest, as well as possibly some additional claims that Northern Dynasty and PLP staked subsequent to acquiring their interests in 2001. *Id.* at 19-21.

307. *Id.* at 20.

308. *Id.* at 25; *see also id.* at 26 (map of "High Priority Targets").

309. *Id.* at 27.

310. *Id.*

311. Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1006-07, 22 ELR 21104 (1992).

312. *Id.* at 1029 (emphasis added); *see also id.* at 1018 (observing that the financial rationale for allowing the government to regulate property without compensation "does not apply to the relatively rare situations where the government has deprived a landowner of all economically beneficial uses").

Although it is generally accepted that mining claims are real property, they are not equivalent to "land," and their ownership cannot be described as "land ownership."

Justice Scalia's several references to the "historical compact" concerning the nature of land ownership also reinforces the sense that his discussion is limited to fee-simple interests in land, or at least something that comes quite close. For example, after conceding that all property is subject to reasonable exercises of the police power, Justice Scalia concludes:

> In the case of land, however, we think the notion pressed by the Council that title is somehow held subject to the "implied limitation" that the State may subsequently eliminate all economically viable use is inconsistent with the historical compact recorded in the Takings Clause that has become part of our constitutional culture.[313]

Whatever the source of this "historical compact," it must be something that preceded, and therefore could be "recorded in," the Takings Clause. Mining claims are of more recent vintage, having been created by statutory grant in the Mining Act of 1872. Justice Scalia's concern for respecting the historical compact concerning land ownership simply does not apply to the property interest in a mining claim.[314]

Finally, one of the central premises of the *Lucas* decision—that regulation effecting a complete economic wipeout must inhere "in the restrictions that background principles of the State's law of property and nuisance already place upon land ownership" to avoid a taking—does not fit well with the nature of the property interest in a mining claim. The fee simple interest in land is "an estate with a rich tradition of protection at common law,"[315] and is thus primarily defined by the states' common law. A mining claim, by contrast, is a creature not of the common law but of statute. The restrictions that are placed on this type of property, that inhere in the title to it, are not primarily background principles of state property and nuisance law (though these are relevant, *see supra*, Part V.A.), but rather the statutory and regulatory restrictions as interpreted and applied through administrative and judicial adjudication. This incongruence between the nature and source of property in a mining claim and the contours of the background principles exception to the categorical rule, which is central to the *Lucas* decision, strongly suggests that the categorical rule itself should not apply to mining claims.

The Supreme Court's subsequent decision in *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency* supports this view.[316] Like *Lucas,* the *Tahoe-Sierra* case involved fee-simple interests in land. In considering the question whether a temporary moratorium on development constituted a per se taking of the claimants' fee-simple estate, the Court characterized its *Lucas* holding as restricted to such interests: "Certainly, our holding [in *Lucas*] that the permanent "obliteration of the value" of a *fee simple estate* constitutes a categorical taking does not answer the question whether a regulation prohibiting any economic use of land for a 32-month period has the same legal effect."[317] Proceeding with its analysis, the Court concluded that "[l]ogically, a fee simple estate cannot be rendered valueless by a temporary prohibition on economic use, because the property will recover value as soon as the prohibition is lifted."[318] Thus, *Tahoe-Sierra*'s characterization of the total taking rule established in *Lucas* indicates that it applies to fee simple estates only.

There are sound jurisprudential reasons why the total taking rule should not be extended to mining claims on public land. The acquisition and development of mining claims on public lands have always been subject to substantial government regulation. The nature and extent of such regulation affects the economic expectations of the mining claim holder in ways that may be relevant in the context of a takings claim.[319] Applying the categorical rule to a government action affecting mining claims on public land may fail to take into account the "already diminished expectations"[320] of the owner of such claims, ignoring questions about both the extent and reasonableness of the owner's expectations in such property and the extent of the government's interference with those expectations.[321] The result may be overprotection of this limited property interest and an unwarranted windfall for the mining claim holder.

Insisting that government actions affecting mining claims be evaluated under *Penn Central* rather than the categorical rule is also a logical extension of the "parcel as a whole" rule discussed above.[322] This rule provides that a property owner may not divide the property into geographical, temporal, or functional segments for purposes

313. *Id.* at 1028.

314. *See* Patrick C. McGinley, *Bundled Rights and Reasonable Expectations: Applying the* Lucas *Categorical Taking Rule to Severed Mineral Property Interests*, 11 Vt. J. Envtl. L. 525, 570 (Spring 2010) (arguing that the "historical compact" referenced in *Lucas* should not be extended to coal interests severed from a fee estate).

315. *Lucas*, 505 U.S. at 1016 n.7.

316. 535 U.S. 302, 32 ELR 20627 (2002).

317. *Id.* at 330-31 (emphasis added).

318. *Id.* at 332. Ultimately, the Court chose not to extend the total taking rule to the temporary moratorium, holding that *Penn Central Transp. Co. v. City of New York*, 438 U.S. 104, 124, 8 ELR 20528 (1978), provides the appropriate analytical framework for such situations. *Id.* at 342.

319. *See* Kristine S. Tardiff, *Closing the Last* Lucas *Loophole: The Partial Interest Problem*, 1 (paper delivered at Vermont Law School takings conference, 2009), *available at* http://www.vermontlaw.edu/Documents/2009TakingsConference/Tardiff_Partial_Interest.pdf (arguing that the *Lucas* categorical rule does not and should not apply to "a regulatory action that impacts the already diminished expectations and limited potential uses associated with a partial interest in land"); *id.* at 4 (where a claimant acquires only a partial interest in a parcel of land the "diminished expectations" of this owner "ought to be part of the regulatory takings analysis").

320. *Id.* at 1.

321. Some courts and commentators have concluded that even if the categorical analysis does apply to partial interests in land, the analysis must look beyond the economic impact of the regulation to consider as well its effect on the owner's reasonable investment-backed expectations. *See, e.g.*, McGinley, *supra* note 314, at 553 (citing Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 17 ELR 20440 (1987), for the proposition that when a mineral interest owner claims a total taking, the claimants' investment-backed expectations are a relevant subject of inquiry); *see also* Tardiff, *supra* note 319, at 6-16 (arguing same).

322. *See* Tardiff, *supra* note 319, at 4.

of determining whether a government action destroys all economic value in the property.[323] In other words, the court must look at the entire property, not just the portion that is restricted or burdened by the government action, in conducting the takings inquiry. This rule seems equally relevant where a piece of land has been legally segmented and a claimant has acquired only a partial interest in it, like a mining claim:

> [I]t makes little sense to preclude the owner of the fee from segmenting that fee in order to establish a taking of any one regulated segment, but to allow that owner to sell off partial interests and then allow the purchaser of those partial interest [sic] to claim a categorical regulatory taking of such interest because that is all she acquired.[324]

In short, although some post-*Lucas* lower courts have applied the categorical rule to partial mineral interests,[325] the Supreme Court has applied the categorical takings analysis only to fee-simple interests in land, and there are good reasons for declining to extend the rule to partial mineral interests, including mining claims on public lands.

2. A Total Taking Is Unlikely

Even if the categorical rule were applied to PLP's mining claims, a §404(c) prohibition on discharges of mine wastes into U.S. waters in Bristol Bay may not actually prevent PLP from mining its claims. PLP may propose a way to conduct some mining on its claims without discharging mine wastes into waters of the United States. PLP may be able to dispose of its mining wastes in uplands; or it may be able to employ dry stack tailings or some other waste disposal technology. If the technology to do this does not currently exist, the mining industry may develop the needed technology in the future. In this respect, the §404(c) decision could be technology forcing, providing motivation for the mining industry to develop mining and waste disposal methods that do not require the discharge of mine wastes into streams, lakes, and wetlands. Because of the potential for new technology, and because the PLP property is so highly mineralized, it is likely that the property would retain some market value, even if mining were foreclosed in the near term.[326]

It is also possible that independent technological or economic challenges may prevent development of the Pebble Deposit. As described earlier, preliminary plans for developing the Pebble Deposit depict an undertaking of enormous size and scope in a remote and rugged region of Alaska that lacks existing infrastructure. As one report puts it: "Given the harsh, undeveloped environment of the region and the sensitivity of the Bristol Bay fishery, each of the mine components, standing alone, would pose enormous technical, logistical and political challenges. Taken together, the scale and ambition of the Pebble project are unprecedented."[327] Throw in the low-grade quality of much of the ore,[328] and the economics of the project may not pencil out; indeed, that proved to be the case for Cominco, the company that first discovered the deposit in the 1980s.[329] If this were the case, then a §404(c) restriction on the disposal of mine wastes into Bristol Bay waters would not effect a taking of PLP's property, because it would not be the cause of the loss of economically viable use of this property.[330]

C. Penn Central *Taking*

Most takings claims are evaluated under the *Penn Central* framework, which identifies three factors to be considered: (1) the economic impact of the government action on the claimant; (2) the extent to which the action interfered with reasonable investment-backed expectations; and (3) the character of the governmental action.[331] Satisfying any single *Penn Central* factor does not decide the inquiry in plaintiff's favor, but allows the inquiry to continue, while failing to satisfy a factor will usually mean the claim fails.[332] The legal landscape at the time the property was acquired is often "pivotal" in determining whether the claimant possesses a reasonable expectation in using the property in a particular manner.[333]

A claim by PLP that its property was taken as a result of either a broad or a narrow §404(c) determination would stumble on at least the expectations and character factors.[334]

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323. *See supra* notes 298-304 and accompanying text.
324. Tardiff, *supra* note 319, at 4.
325. *See, e.g.*, Cane Tennessee, Inc. v. United States, 60 Fed. Cl. 694, 700 (2004) (applying the categorical rule to a 3.5% nonparticipating coal royalty interest in several tracts of land in Tennessee allegedly taken as a result of a "lands unsuitable for mining" designation under SMCRA).
326. Although the *Lucas* decision formulated the categorical taking test as whether a regulation denies all economically beneficial *use* of land, 505 U.S. at 1015, courts sometimes focus on whether the land retains any *value*, and the Federal Circuit treats "use" and "value" interchangeably. *See* Meltz, *supra* note 301, at 331 ("The importance of total loss of value was underscored, however, in *Palazzolo* in 2001 and *Tahoe-Sierra* in 2002.").
327. Earthworks & Nunamta Aulukestai, *Anglo American's Pebble Mine: Investory Advisory, Issue No. 2*, at 5 (Feb. 2012), *available at* http://www.earthworks-action.org/files/publications/Pebble-Investor-Advisory-2012.pdf.
328. *See* Chambers, *supra* note 19, at 2.
329. *See* Kevin Michael Grace, *The $6-Billion Pebble: Northern Dynasty Expects a Takeover of Its 50% of the World's Largest Undeveloped Deposit*, Resource Clips (Mar. 10, 2011, 9:10 PM), http://resourceclips.com/2011/03/10/the-6-billion-pebble/.
330. *See* Meltz, *supra* note 301, at 321 ("The owner must show a 'substantial cause-and-effect relationship, excluding the probability that other forces alone produced the injury.'") (quoting Akins v. State, 71 Cal. Rptr. 2d 314, 340 (Ct. App. 1998); *see also* Alost v. United States, 73 Fed. Cl. 480, 495 (2006) (government action must be direct and proximate cause of the damage that allegedly caused the taking of claimant's property), *affd*, 254 Fed. App. 823 (Fed. Cir. 2007).
331. Penn Central Transp. Co. v. City of New York, 438 U.S. 104, 124, 8 ELR 20528 (1978).
332. Resource Investments Inc. v. United States, 85 Fed. Cl. 447, 511 (2009).
333. Meltz, *supra* note 301, at 371.
334. This Article does not undertake an assessment of the economic impact factor because too little is known at this point about the geochemistry of the various deposits within PLP's claims and the economics of developing these deposits. Suffice it to say that although no specific degree of economic impact has been established by the courts to satisfy this factor, some number upwards of 85% would seem to be in order. *See* Meltz, *supra* note 301, at 334-35 (discussing cases); *see also* John D. Echeverria, *Making Sense of* Penn Central, 39 ELR 10471, 10473-74 (May 2009) ("Furthermore, in the absence of a very significant economic impact, a regulatory taking claim will generally fail; as the Supreme Court has explained, takings recovery is lim-

1. No Reasonable Investment-Backed Expectations

In determining whether a claimant possesses a reasonable investment-backed expectation that he will be able to use his property in a particular manner, courts consider whether the claimant had actual, investment-backed expectations and whether those expectations were objectively reasonable.[335] In order to be objectively reasonable, an expectation must be more than "a unilateral expectation or an abstract need."[336] "Further, the regulatory regime in place at the time the claimant acquires the property at issue helps to shape the reasonableness of those expectations."[337] More specifically, courts consider three factors in determining reasonableness: (1) whether claimant is operating in a highly regulated industry; (2) whether claimant was aware of the problem that spawned the regulation when it acquired the relevant property; and (3) whether claimant could have reasonably anticipated the possibility of the regulation in light of the regulatory environment at the time of the purchase.[338] Where these factors tend toward the affirmative, claimants have a more difficult time establishing a taking. For example, a claimant who knew that economic prospects or government approvals were uncertain, or even acknowledged at the time of purchase that government approvals will be hard to obtain, may not be able to establish reasonable expectations.[339] A claimant who pays a discounted price for the property because of the existence of the regulation may also have trouble establishing that its development expectations were reasonable.[340]

Coal mining is considered a heavily regulated industry in the takings decisions, and a trio of takings cases involving coal mining illustrate how the above factors are applied in determining whether a government action interferes with reasonable investment-backed expectations. *Rith Energy, Inc. v. United States (Rith I)* involved a company that had purchased coal leases in Tennessee eight years after the passage of SMCRA and had operated a coal mine on these leases pursuant to its SMCRA coal mining permit.[341] After the mine had operated for a period of time, the OSM suspended and then revoked the permit when new information emerged indicating a high potential for acid mine drainage and the company failed to devise an adequate plan to address the problem.[342] Examining SMCRA's comprehensive regulatory scheme, the federal circuit noted that "[i]ts provisions include environmental performance standards that directly address acid mine drainage and make clear that surface mining will not be permitted unless the permittee . . . 'avoid[s] acid or other toxic mine drainage. . . .'"[343] The court concluded that the SMCRA provisions precluded Rith from having a reasonable expectation that it would be allowed to mine free of regulatory restraint with regard to acid mine drainage.[344]

In *Rith Energy, Inc. v. United States (Rith II)*, the Federal Circuit denied the company's petition for a rehearing.[345] Rith's principal argument was that the Supreme Court's intervening decision in *Palazzolo v. Rhode Island*[346] removed consideration of the "pre-acquisition regulatory regime" from the takings analysis.[347] The Federal Circuit disagreed, citing Justice Sandra Day O'Connor's concurring opinion for the proposition that the reasonableness of a claimant's expectations continues to be shaped by the regulatory regime in place when the claimant acquired the property.[348] Where, as here, Rith Energy is a player in a highly regulated industry, the company should "expect the regulatory regime to impose some restraints on its right to mine coal under a coal lease."[349]

The final coal mining case is *Appolo Fuels v. United States*, which involved a company that had been in the coal mining business since before the enactment of SMCRA.[350] After SMCRA was enacted in 1972, Appolo acquired additional leases and filed a permit application to conduct coal mining on those leases.[351] A "lands unsuitable for mining" (LUM) petition encompassing some of these new lease lands was filed shortly thereafter.[352] The company was notified of the petition and informed that its permit application would be put on hold while the LUM petition was

ited to 'extreme circumstances.'") (citing United States v. Riverside Bayview Homes, 474 U.S. 121, 124, 16 ELR 20086 (1985)).

335. Cienega Gardens v. United States, 503 F.3d 1266, 1288 (Fed. Cir. 2007).

336. Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1005, 14 ELR 20539 (1984) (finding that, after passage of federal pesticide legislation, pesticide license applicant had no reasonable investment-backed expectation that its supporting data would be kept confidential beyond the limits set by statute) (internal quotation marks omitted).

337. *Palazzolo*, 533 U.S. at 633 (O'Connor, J., concurring); *Resource Investments*, 85 Fed. Cl. at 511 (quoting O'Connor concurrence in *Palazzolo*); Appolo Fuels v. United States, 381 F.3d 1338, 1350, 34 ELR 20087 (Fed. Cir. 2004) (an examination of the common law and federal regulations in place at time of the relevant activity established the absence of reasonable expectations).

338. *Appolo Fuels*, 381 F.3d at 1349.

339. Good v. United States, 189 F.3d 1355, 1361-63, 30 ELR 20102 (Fed. Cir. 1999) (denial of ESA authorization for land development did not cause a taking where claimant acknowledged at time of purchase that permits would be difficult to obtain, even though ESA was enacted after purchase), *cert. denied*, 529 U.S. 1053 (2000).

340. *See, e.g.*, Rith Energy, Inc. v. United States, 270 F.3d 1347, 1351, 32 ELR 20253 (Fed. Cir. 2001) ("The leases themselves notified Rith of the uncertainty of obtaining permits to mine, and the low price that Rith paid for the leases may well reflect the widely understood risk that Rith would not be permitted to extract as much coal as it hoped from the leased properties."); Ciampitti v. United States, 22 Cl. Ct. 310, 321, 21 ELR 20866 (1991) (no reasonable investment-backed expectations in obtaining §404 permit where claimant knew of difficulty of developing wetlands before purchasing property).

341. 247 F.3d 1355, 1358, 31 ELR 20603 (Fed. Cir. 2001).

342. *Id.*

343. *Id.* at 1364 (quoting SMCRA, 30 U.S.C. §1265(b)(10)).

344. *Id.*

345. 270 F.3d at 1348.

346. 533 U.S. 606, 32 ELR 20516 (2001).

347. *Rith II*, 270 F.3d at 1350.

348. *Id.* (quoting Palazzolo v. Rhode Island, 533 U.S. 606, 633, 32 ELR 20516 (2001) (O'Connor, J., concurring)). Justice O'Connor's concurring opinion in *Palazzolo* has been accepted as properly articulating the Court's view with respect to the reasonable investment-backed expectations factor. *See, e.g.*, Tahoe-Sierra Preservation Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 335-36, 32 ELR 20627 (2002) (discussing Justice O'Connor concurrence with approval); *Rith II*, 270 F.3d at 1350-51.

349. *Rith II*, 270 F.3d at 1351.

350. 381 F.3d 1338, 1342, 34 ELR 20087 (Fed. Cir. 2004).

351. *Id.*

352. *Id.* at 1342-43.

processed.[353] Appolo then continued to acquire more leases in the area, including some within the boundaries of the LUM petition.[354] The OSM then granted the LUM petition, and Appolo then acquired more leases within the area now designated as LUM before filing its takings claim in the Court of Federal Claims.[355] The Federal Circuit held that Appolo Fuels could not have had reasonable investment-backed expectations of mining in light of SMCRA and preexisting common law rules.[356] SMCRA was enacted long before Appolo acquired its leases, and that statute provides explicitly for LUM determinations: "The statute gave notice sufficient to defeat Appolo's reasonable expectations by providing for a process by which the OSM could designate lands as unsuitable for mining under a broad array of circumstances"; as a result, LUM designation was easily foreseen as a reasonable possibility.[357]

A similar analysis and result is found in *Beluga Mining Co.*,[358] an Alaska decision discussed earlier. There, a company with coal mining claims on Alaska Mental Health Trust land alleged a taking when the DNR delayed the processing of its coal mining lease application because of a preliminary injunction issued in separate litigation over the state's management of the Alaska Mental Health Trust lands.[359] The court concluded that the company could not establish reasonable investment-backed expectations because "Beluga's claims were always contingent on State permission to mine and assertion of adverse existing claims."[360] Beluga had developed its claims even though the *Weiss* litigation had been filed, court rulings in that case had already created uncertainty about the priority of Beluga's claims, and newly passed legislation had confirmed that Beluga's rights were subject to existing claims.[361] In light of these events, together with the statutory requirement that Beluga obtain permits to mine, "we conclude that reasonable investors could have recognized that DNR might be delayed in granting Beluga permission to mine."[362] The court denied the taking claim: "Because the delay caused by the *Weiss* injunction was within the realm of the statutory scheme that defined Beluga's rights, the State was not liable for Beluga's losses resulting from entry of the injunction."[363]

Anchorage v. Sandberg[364] is a seminal Alaska takings decision that offers another illustration of how the expectations factor is applied. In *Sandberg*, a developer sued the Municipality of Anchorage, alleging a taking when the Municipality as a neighboring landowner refused to vote for a road improvement district, effectively killing the developer's proposed development.[365] The development proposal was contingent on the approval of other landowners in the district, all of whom had the right to say no.[366] Given that the developer's lots could not be developed without the approval and construction of the necessary road improvements, the court noted that in order to find a taking, it would have to conclude that the municipality had somehow guaranteed that the road improvement district would eventually be approved.[367] Seeing no such guarantee, the court found instead that "SD&R gambled that the road improvement district would be approved and they lost this gamble . . . ."[368] In this context, the developer had no reasonable investment-backed expectation, but rather simply made, and lost, a "business gamble."[369] The court refused to find a taking because "SD&R's speculative development plans do not merit constitutional protection as a matter of law."[370]

Like *Beluga Mining Co.* and the federal cases, the *Sandberg* decision shows just how difficult it is for a claimant to establish reasonable expectations to develop its property or mine its claims when it must first obtain permits or approvals that are not guaranteed. Like the developers' investments in *Sandberg*, PLP's investments in exploring mineral deposits in the headwaters of the world's greatest sockeye salmon fishery may be viewed as a "business gamble." If the gamble succeeds, PLP will reap enormous profits; if it does not, then it seems fair that it bear the loss: "One who buys with knowledge of a restraint assumes the risk of economic loss. In such a case, the owner presumably paid a discounted price for the property. Compensating him for a 'taking' would confer a windfall."[371]

The expectations factor likely would pose an insurmountable hurdle to a successful takings claim against a §404(c) action in Bristol Bay. Although hardrock mining has not been explicitly treated as a highly regulated industry in the takings cases, it is constrained by dozens of federal and state regulations requiring numerous permits; as a factual matter, it is a highly regulated industry.[372] PLP, moreover, has acknowledged that there is no guarantee it will obtain the necessary government approvals for its proposal to mine the Pebble Deposit:

> The following are the principal risk factors and uncertainties which, in management's opinion, are likely to most directly affect the conclusions of the Preliminary Assessment and the ultimate feasibility of the Pebble project. . . .

353. *Id.* at 1343.
354. *Id.*
355. *Id.* at 1343-44.
356. *Id.* at 1349-50.
357. *Id.* at 1350.
358. 973 P.2d 570 (Alaska 1999), *see supra* notes 148-163 and accompanying text.
359. *Id.* at 572-73.
360. *Id.* at 576.
361. *Id.*
362. *Id.*
363. *Id.* at 580.
364. 861 P.2d 554 (Alaska 1993).
365. *Id.* at 556.
366. *Id.* at 560-61.
367. *Id.* at 559.
368. *Id.* at 560.
369. *Id.*
370. *Id.* at 561.
371. Creppel v. United States, 41 F.3d 627, 632 (Fed. Cir. 1994); *see also* Ciampitti v. United States, 22 Cl. Ct. 310, 321, 21 ELR 20866 (1991) (observing that to find a reasonable investment-backed expectation where purchaser was aware of difficulty in obtaining §404 permit would "turn the Government into an involuntary guarantor of Ciampitti's gamble.").
372. *See* Am. Law of Mining §186.01 at 186-2 ("It is well known that the mining industry is one of the most heavily regulated industrial sectors in the United States, at both federal and state levels."); Flynn & Parsons, *supra* note 116 at 267-71 (detailing extensive federal regulation of mining).

> Construction and operation of the mine and processing facilities depends on securing environmental and other permits on a timely basis. No permits have been applied for and there can be no assurance that required permits can be secured or secured on a timely basis.[373]

PLP must have been aware of "the problem that spawned the regulation" when it acquired its claims; PLP is a partnership that includes Anglo-American, a sophisticated international mining company that is aware that mining can impact and has adversely impacted water and fishery resources. This company also is aware that significant fishery resources exist in the Bristol Bay region. PLP's proposal to develop a large metallic sulfide mine has been controversial from its inception because of its potential impact on a world-class fishery. The potential for its proposed mine to impact significant natural resources of local, national, and international importance; the existence of strong local opposition because of these potential impacts; and the obligations of state and federal agencies to protect the affected resources all undermine the ability of PLP to establish that its expectations are objectively reasonable.

The §404 permit requirement and EPA's authority under §404(c) existed when PLP acquired its mining claims. The company has considerable experience with various mining regulatory regimes around the world and must be assumed to be knowledgeable about the laws governing mining, including the CWA. Given the world-class fishery and water resources of the region, it is hard not to conclude that it was reasonably foreseeable that a §404 permit might not be obtainable. The existing legal regime alone weighs heavily against a finding that PLP has a reasonable investment-backed expectation in being allowed to discharge mine wastes into U.S. waters in the Bristol Bay area.

2. Character of the Government Action Tilts Against a Taking

The character factor has been characterized as "*Penn Central*'s most elastic factor"[374] and "a veritable mess."[375] As introduced in the *Penn Central* decision, a key element of the character factor is "whether it amounts to a physical invasion or instead merely affects property interests through 'some public program adjusting the benefits and burdens of economic life to promote the common good.'"[376] A taking is more likely to be found in the former instance than in the latter.[377] An EPA action under §404(c) would not amount to a "physical invasion" of PLP's property,[378] and this definition of the character factor therefore leans against finding a taking.

The courts have articulated various additional definitions of the character factor.[379] In *Lingle v. Chevron USA Inc.*, the Supreme Court may have downgraded the character factor in importance and at the very least simplified it by holding that the question whether a government regulation "substantially advances a legitimate government interest" has no place in takings analysis.[380] In the wake of *Lingle*, some of the definitions of the character factor that had been developed are no longer viable because they either hinge upon or are too closely related to the "substantially advances" test.[381] This discussion will focus on two tests that appear to have continuing vitality.

The first test is whether a government action is harm-preventing or benefit-conferring; if the former, then a taking is far less likely to be found.[382] In *Rith I*, the Federal Circuit affirmed the lower court's denial of Rith's taking claim stemming from the OSM's decision to revoke Rith's surface coal mining permit because Rith's coal mining operations had a high likelihood of producing highly polluting acid mine drainage.[383] In *Rith II*, the Federal Circuit characterized the permit revocation as an action designed to prevent "harmful runoff" from the mine; it therefore found that the character factor supported its decision.[384] In *Appolo*, where the mining company's taking claim stemmed from the designation of portions of its land as unsuitable for mining, the court characterized the designation as made to "prevent potentially contaminated runoff into a water supply" and affirmed the denial of the claim.[385] As in these cases, a §404(c) action would be taken to prevent harm to a world-class salmon fishery, as well as to the communities that have long relied on this resource, rather than to confer a new benefit.

A subset of harm-preventing cases involve government action aimed at protecting public health and safety.[386] Again, the *Rith* decisions provide an example:

> With respect to the nature of the governmental action, the revocation of the permit, as we suggested earlier, was an exercise of the police power directed at protecting the safety, health, and welfare of the communities surrounding the Rith mine site by preventing harmful runoff. The exercise of the police power to address that kind of general public welfare concern is the type of governmental action

373. Press Release, Northern Dynasty Minerals Ltd., Northern Dynasty Receives Positive Preliminary Assessment Technical Report for Globally Significant Pebble Copper-Gold-Molybdenum Project in Southwest Alaska (Feb. 23, 2011).
374. Meltz, *supra* note 301, at 341.
375. Echeverria, *supra* note 334, at 10477.
376. Lingle v. Chevron USA Inc., 544 U.S. 528, 539, 35 ELR 20106 (2005) (quoting Penn Central Transp. Co. v. City of New York, 438 U.S. 104, 124, 8 ELR 20528 (1978).
377. *Penn Central*, 438 U.S. at 124.
378. *See supra* note 97 and accompanying text.
379. *See* Meltz, *supra* note 301, at 341-46; Echeverria, *supra* note 334, at 10477-82.
380. *Lingle*, 544 U.S. at 540 ("And the *Penn Central* inquiry turns in large part, albeit not exclusively, upon the magnitude of a regulation's economic impact and the degree to which it interferes with legitimate property interests.").
381. *See* Echeverria, *supra* note 334, at 10482-83.
382. Meltz, *supra* note 301, at 343. Justice Scalia disparaged the harm-prevention versus benefit-production distinction in *Lucas*, *see* Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1024-25, 22 ELR 21104 (1992), but the decision, which involved a total taking, does not appear to have removed this element from the *Penn Central* character factor. *See* Echeverria, *supra* note 334, at 10485.
383. 247 F.3d 1355, 1362, 31 ELR 20603 (Fed. Cir. 2001).
384. 270 F.3d 1347, 135232 ELR 20253 (Fed. Cir. 2001).
385. 381 F.3d 1338, 1350, 34 ELR 20087 (Fed. Cir. 2004).
386. *See* Meltz, *supra* note 301, at 342-33.

> that has typically been regarded as not requiring compensation for the burdens it imposes on private parties who are affected by the regulations.[387]

The *Appolo* analysis was similar. There, the OSM had made a finding that surface coal mining in the Fern Lake Watershed would cause long-term damage to the water quality of the lake, which was the only feasible water supply for the nearby community.[388] The court characterized the OSM's decision as an exercise of the police power to protect the public health, safety, and welfare of nearby communities and concluded that the LUM designation was not the type of governmental action that requires compensation.[389] Like the government decisions in *Rith I* and *II* and *Appolo*, a §404(c) action in Bristol Bay would be taken to protect the public health and safety by preventing toxic pollution and destruction of fish-bearing waters in a region that relies economically and culturally on the fisheries.

Another example of a harm-prevention case where no taking was found is *Miller v. Schoene*.[390] The case was decided on due process grounds, but is often cited in takings decisions. In *Miller*, the Virginia state entomologist, acting pursuant to a state statute, ordered the destruction of some ornamental red cedar trees in order to prevent them from transmitting cedar rust disease to nearby apple orchards, to which the disease is fatal.[391] The statute provided for reimbursement to the landowners of expenses associated with removing the cedars, and it allowed the landowners to use the cut trees; but it did not allow for compensation for the value of the trees or for any decrease in market value of the properties resulting from the removal of the cedar trees.[392] Despite this lack of compensation, the Court upheld the statute. The Court held that the state could make "a choice between the preservation of one class of property and that of the other" and, since the apple industry was important in Virginia, concluded that the state had not exceeded "its constitutional powers by deciding upon the destruction of one class of property [without compensation] in order to save another which, in the judgment of the legislature, is of greater value to the public."[393]

Like the apple orchards in *Miller*, the salmon industry is crucial in Bristol Bay. The *Miller* case indicates that the government can, without effecting a compensable taking, choose between conflicting property interests and allow the destruction of one in order to preserve the other that is "of greater value to the public." The purpose of a §404(c) action in Bristol Bay would be to prevent "significant adverse effects" to fishery areas in Bristol Bay, a region that has long been economically and culturally reliant on salmon and that hosts a world-class salmon fishery. Preventing harm to this important resource and industry does not confer a new benefit on the public and does not impose an unfair burden on mining claim holders that chose to acquire claims within this watershed so highly valued for its fishery resource.

A second definition of the character factor involves an examination of the nature of the public interest underlying the regulation:

> The character of the governmental action factor requires a court to consider the purpose and importance of the public interest underlying a regulatory imposition, by obligating the court to "inquire into the degree of harm created by the claimant's prohibited activity, its social value and location, and the ease with which any harm stemming from it could be prevented."[394]

Maritrans Inc. v. United States involved a takings challenge by owners of single-hulled oil tank vessels to the new requirement in the Oil Pollution Act (OPA) of 1990 that vessels used to transport oil must be double-hulled.[395] The Act was passed in the wake of the *Exxon Valdez* oil spill in Prince William Sound, Alaska, in order to "reduce the likelihood of high volume spills that would result in damaging pollution."[396] The court concluded that the character factor weighed against finding a taking.[397] Maritrans, in particular, and the oil transport industry in general, were responsible for the risk of harmful high-volume oil spills, and the new law enacted to reduce that risk applied to all operators and therefore spread the burden among them; further, since the industry benefited from transporting oil, it was appropriate that the burden be restricted to the industry and not spread amongst the general public.[398]

Like the double-hull requirement in Maritrans, the §404(c) action would further an important government purpose: preventing damage to a world-class salmon fishery. The harm stemming from the discharge of mine wastes into these waters would be caused by the mining operators responsible for the discharges, and the §404(c) prohibition would apply to any mining operator seeking to discharge the prohibited or restricted mine wastes into the specified waters. Since the mining industry benefits from discharging mine wastes into waters of the United States, it is appropriate to restrict the burden of the discharge prohibition to the industry seeking to discharge mine wastes into waters within the Bristol Bay watershed, rather than spreading it amongst the general public. Because of the importance of the public interest underlying the §404(c) action and the fact that the action would rest the burden of preventing the harm on those responsible for it, the character factor would weigh against finding a taking.

387. 270 F.3d at 1352.
388. 381 F.3d at 1350.
389. *Id.* at 1351.
390. 276 U.S. 272 (1928).
391. *Id.* at 277.
392. *Id.*
393. *Id.* at 279.
394. Maritrans Inc. v. United States, 342 F.3d 1344, 1356 (Fed. Cir. 2003) (quoting Creppel v. United States, 41 F.3d 627, 631 (Fed. Cir. 1994)); *see also* Bass Enterprises Production Co. v. United States, 381 F.3d 1360, 1370, 34 ELR 20088 (Fed. Cir. 2004) (lower court did not err in considering the "potential impact on the public" as part of its evaluation of a taking claim, because "a court may examine the relative benefits and burdens associated with the regulatory action").
395. *Maritrans*, 342 F.3d at 1348-49.
396. *Id.* at 1357.
397. *Id.* at 1358.
398. *Id.* at 1357.

VI. Conclusion

The line between private property rights and government authority to act in the public interest is not fixed, and the perceived fairness of a government action surely may depend on one's perspective. Nonetheless, in the Bristol Bay region where the world-class fishery resource so defines the environment, the economy, and the culture, it seems eminently reasonably for the government to take scientifically supported action to prevent an "unacceptable adverse effect" on that resource. If such action makes it technologically or financially infeasible for mining claimants to develop their mining claims on public lands in the region, at least in the near-term, then it likewise seems fair for the companies to shoulder that economic burden in light of the limited nature of their property rights and the risk they assumed in acquiring mining claims there. In short, EPA may take action under §404(c) of the CWA to protect waters and salmon in the Bristol Bay watershed without paying mining claimants like PLP "not to pollute public water or destroy public fisheries."