NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

JOHN H. BANKS, MARY BANKS, ELIZABETH S. ERRANT TRUST, EUGENE J. FRETT, INDIVIDUALLY AND AS TRUSTEE OF THE VICTOR J. HORVATH AND FRANCES B. HORVATH TRUST DATED NOVEMBER 1995, CHERIE R. OKONSKI, CRAIG D. OKONSKI, ANDREW G. BODNAR, CHRISTINE M. ZAHLBODNAR, EHRET MICHIGAN TRUST,

Plaintiffs-Appellants

 \mathbf{v} .

UNITED STATES,

Defendant-Cross-Appellant

2016-2305, 2016-2326

Appeals from the United States Court of Federal Claims in Nos. 1:00-cv-00365-PEC, 1:00-cv-00379-PEC, 1:00-cv-00380-PEC, 1:00-cv-00381-PEC, 1:00-cv-00382-PEC, 1:00-cv-00383-PEC, 1:00-cv-00384-PEC, 1:00-cv-00385-PEC, 1:00-cv-00386-PEC, 1:00-cv-00387-PEC, 1:00-cv-00389-PEC, 1:00-cv-00390-PEC, 1:00-cv-00391-PEC, 1:00-cv-00392-PEC, 1:00-cv-00393-PEC, 1:00-cv-00394-PEC, 1:00-cv-00395-PEC, 1:00-cv-00396-PEC, 1:00-cv-00398-PEC, 1:00-cv-00399-PEC, 1:00-cv-00400-PEC, 1:00-cv-00401-PEC, 1:05-cv-01353-PEC, 1:05-cv-01381-PEC, 1:06-cv-00072-PEC, 1:99-cv-04451-PEC

PEC, 1:99-cv-04452-PEC, 1:99-cv-04453-PEC, 1:99-cv-04454-PEC, 1:99-cv-04455-PEC, 1:99-cv-04456-PEC, 1:99-cv-04457-PEC, 1:99-cv-04458-PEC, 1:99-cv-04459-PEC, 1:99-cv-44510-PEC, 1:99-cv-44511-PEC, 1:99-cv-44512-PEC, Judge Patricia E. Campbell-Smith.

Decided: December 29, 2017

MARK ENGLUND CHRISTENSEN, Christensen and Ehret, LLP, Chicago, IL, argued for plaintiffs-appellants. Also represented by JOHN BRODERICK EHRET, Olympia Fields, IL; EUGENE J. FRETT, Sperling & Slater, P.C., Chicago, IL.

JOHN LUTHER SMELTZER, Environment and Natural Resources Division, United States Department of Justice, Washington, DC, argued for defendant-cross-appellant. Also represented by JEFFREY H. WOOD, ELIZABETH ANN PETERSON; TERRY M. PETRIE, Denver, CO.

Before REYNA, WALLACH, and STOLL, Circuit Judges. WALLACH, Circuit Judge.

This case returns to us for the third time. It arises from the alleged physical taking by the U.S. Army Corps of Engineers ("Corps") of certain parts of shoreline on Lake Michigan owned by thirty-seven property owners (collectively, "Banks" or "Appellants"). See Banks v. United States (Liability Op.), 78 Fed. Cl. 603, 604–05 (2007). The parties both appeal the U.S. Court of Federal Claims' findings with respect to the Corps' liability for a physical taking based on erosion of the shoreline and the award of damages. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(3) (2012). We vacate and remand.

Background¹

The Corps began constructing jetties on Lake Michigan in the 1830s and completed construction with the installation of steel sheet piling encasements, which occurred from 1950 to 1989. *Banks v. United States* (*Banks IV*), 741 F.3d 1268, 1272 (Fed. Cir. 2014). These jetties interrupt the natural littoral drift by blocking the flow of sand and sediment to the St. Joseph Harbor from areas north of the Banks's properties and thereby cause erosion. *Id.*²

As relevant here, Banks sued the United States ("the Government") in the Court of Federal Claims, alleging a Fifth Amendment taking. J.A. 33; see Liability Op., 78 Fed. Cl. at 604–05. In 2003, we reversed the Court of Federal Claims' finding that Appellants lacked jurisdiction. Banks v. United States (Banks II), 314 F.3d 1304, 1310 (Fed. Cir. 2003). In 2011, the Court of Federal Claims again found that it did not have jurisdiction to adjudicate the case based on purportedly newly-submitted evidence but added that, "[f]or purposes of judicial effi-

The facts and procedural history of this case are extensive, involving twenty reported opinions by the Court of Federal Claims and two prior opinions by this court. The majority of these preceding decisions are not relevant to this appeal. A more extensive recitation of the facts underlying these appeals may be found in *Liability Op.*, 78 Fed. Cl. at 604–14. We provide only a brief summary of the relevant, undisputed facts and procedural history necessary to resolve this appeal. We address the disputed factual findings below. For ease of reference, we adopt the naming conventions utilized by the Court of Federal Claims and the parties.

² Banks's properties cover a 4.5 mile stretch of beach south of the harbor jetties. *See Banks IV*, 741 F.3d at 1272.

ciency, if the reviewing court in any appeal should disagree with the court's view of its jurisdiction, . . . the court also presents here its finding from the trial . . . in the alternative" regarding liability and damages. *Banks v. United States (Banks III)*, 102 Fed. Cl. 115, 120 (2011). We reversed the Court of Federal Claims' finding that it had no jurisdiction for a second time in *Banks IV*, stating that

[t]he Court of Federal Claims' alternative merits discussion is not a final and appealable decision over which this court has jurisdiction. On remand, the Court of Federal Claims may reconsider any merits rulings that were rendered at a time it mistakenly believed it lacked jurisdiction. In light of the Court of Federal Claims' clearly erroneous fact finding on claim accrual, it is appropriate that there be no law-of-the-case or comparable obstacle preventing it from reconsidering its earlier, related findings on the merits.

741 F.3d at 1283. On remand, the Court of Federal Claims determined that our mandate in *Banks IV* did not "require revisiting" any of its previously-made findings on liability and damages and, thus, "enter[ed] the liability and damages findings that were presented 'in the alternative' by the court in *Banks III*." *Banks v. United States*, No. 99-4451L, 2015 WL 4939954, at *3 (Fed. Cl. Aug. 18, 2015) (capitalization modified). Those "alternative" merits findings included findings that: (1) the shoreline at issue for all properties except one sat on a sandy lake bed, not a cohesive lake bed, ³ *Banks III*, 102 Fed. Cl. at

The composition of the lakebed is relevant because the composition affects erosion and mitigation processes. A sandy lakebed is made up of

³ As we explained in *Banks IV*,

180; (2) Appellants were entitled to damages for the Corps' failure to mitigate 30% of the erosion of shoreline above Lake Michigan's high-water mark⁴ from the time individual Appellants owned the lakeshore properties (no

materials that are loosely deposited, or easily dispersed. Thus, . . . as long as the sand supply south of the harbor is restored to the pre-harbor levels, then we can assume directly that the erosion will remain the same as pre-harbor levels, all other things aside. Conversely, in a cohesive lakebed, the materials are bound together and are not freely mobile. Cohesive shores are thus more complicated because the sand acts to abrade, sort of like sandpaper, the till. . . . Stated simply, if a shoreline is sandy, mitigation will be more successful than if the shoreline is cohesive.

741 F.3d at 1273 n.2 (internal quotation marks and citations omitted); see Banks III, 102 Fed. Cl. at 151 ("The composition of the shoreline is significant in this case because it indicates how the shoreline will erode, whether any erosion is permanent[,] and whether it is possible to mitigate any ongoing erosion." (citation omitted)).

Erosion above the high-water mark at the time of construction of the Corps' encumbrance (here, the jetties) is the relevant scope of erosion for purposes of damages in physical takings cases. See Owen v. United States, 851 F.2d 1404, 1412 (Fed. Cir. 1988) (holding that the Government's "navigational servitude does not provide a blanket exception to the Takings Clause of the Fifth Amendment where improvements to navigation made by the [G]overnment result in erosion to land located above or outside . . . the high-water mark at the time of construction"); Liability Op., 78 Fed. Cl. at 606, 656.

earlier than 1950) until 1970,⁵ id. at 123 (citing Liability Op., 78 Fed. Cl. at 656); (3) Banks had shown no damages for the erosion caused up to 1970, id. at 189–208; (4) the Corps successfully mitigated all of the erosion caused between 1970 and 2009, id. at 189; and (5) although Banks would be entitled to 30% of all reasonably foreseeable future loss due to erosion not mitigated by the Corps. id. at 212, Banks had failed to carry the burden of proof to establish entitlement to just compensation for any reasonably foreseeable erosion, id. at 215. In Banks III, the Court of Federal Claims specifically did not calculate damages to which Banks would be entitled for shoreline protection measures implemented between 1950 and 1970 "[b]ecause these references are scattered across several thousand pages of trial testimony and documentary evidence." Id. at 212. Instead, it ordered the parties to file a joint stipulation as to shoreline protection measures during this period, see Banks, 2015 WL 4939954, at *3-4, and, in accordance with the Joint Stipulation, awarded a total of \$1,956.27 in damages (plus pre-judgment interest) in May 2016, see J.A. 1-6 (orders following submission of Joint Stipulation), 9067–70 (Joint Stipulation).

Banks appeals the Court of Federal Claims' entry of its alternative merits determinations and underlying

Some of the erosion was caused by natural forces. It was undisputed at trial that, for the period prior to 1970, some erosion was attributable to the Corps, and the amount that was attributable to the Corps went unmitigated. See Liability Op., 78 Fed. Cl. at 656. Although Banks contested the start date of the Corps' mitigation below, see, e.g., id. at 654–55, Banks does not appear to challenge this date on appeal, see, e.g., Appellants' Br. 49 ("Indeed, the purported 'mitigation' program did not even begin until 1970"). Accordingly, we treat 1970 to be the start date for the Government's mitigation efforts.

reasoning with respect to the same. See Appellants' Br. 34–70. The Government cross-appeals solely to preserve the issue of whether jurisdiction was properly found in Banks IV for a possible petition for rehearing en banc or for writ of certiorari. See Cross-Appellant's Br. 2.6

DISCUSSION

I. Standards of Review

We review the Court of Federal Claims' legal conclusions de novo and its factual findings for clear error. See John R. Sand & Gravel Co. v. United States, 457 F.3d 1345, 1353 (Fed. Cir. 2006). We consider de novo the scope of our mandate and whether it was violated. Cardiac Pacemakers, Inc. v. St. Jude Med., Inc., 576 F.3d 1348, 1355 (Fed. Cir. 2009). "A finding may be held clearly erroneous when the appellate court is left with a definite and firm conviction that a mistake has been

We need not address the Government's crossappeal. The Government acknowledges that "[t]his [clourt's rulings Banks in $II\ldots$ and IV... constitute law of the case on the issue of the statute of limitations and the Court of Federal Claims' jurisdiction over [Banks]'s [c]laims" but "reserves the right . . . to raise those defenses in a possible later petition." Cross-Appellant's Br. 34. However, "[i]t is only necessary and appropriate to file a cross-appeal when a party seeks to enlarge its own rights under the judgment or to lessen the rights of its adversary." Bailey v. Dart Container Corp., 292 F.3d 1360, 1362 (Fed. Cir. 2002) (citation omitted). Because the Government concedes its arguments on the statute of limitations and jurisdiction are foreclosed in the current appeal, "allowing a cross-appeal to proceed in the circumstances of the present case is not permitted and unnecessarily expands the amount of briefing that is otherwise allowed." Id.

committed." *Ind. Mich. Power Co. v. United States*, 422 F.3d 1369, 1373 (Fed. Cir. 2005) (internal quotation marks, ellipses, and citation omitted).

When reviewing damages awards by the Court of Federal Claims, "[d]ifferent standards of review are applicable to different aspects of a damages award. This court has held that the amount of a prevailing party's damages is a finding of fact. Thus, where the amount is fixed by the court, review is in accordance with the clearly erroneous standard." Home Savs. of Am., FSB v. United States, 399 F.3d 1341, 1346 (Fed. Cir. 2005) (internal quotation marks, ellipsis, and citation omitted). "However, certain subsidiary decisions underlying a damage theory are discretionary with the court. Such decisions are, of course, reviewed under the abuse of discretion standard." Id. (internal quotation marks, ellipsis, and citation omitted). "[T]he clear error standard governs... findings about the general type of damages to be awarded . . . , their appropriateness . . . , and rates used to calculate them. The abuse of discretion standard applies to decisions about methodology for calculating rates and amounts." Id. (citation omitted).

II. Legal Standard

The Takings Clause of the Fifth Amendment grants individuals the right to "just compensation" for a taking of private property. U.S. Const. amend. V. Property owners are entitled to compensation from the Government under the Fifth Amendment for physical takings when they show (1) the asserted taking "was the predictable result of the [G]overnment action" because it was "the direct or necessary result" of the act or was "within contemplation of or reasonably to be anticipated by the [G]overnment," and (2) "the [G]overnment's interference with any property rights of [the property owner] was substantial and frequent enough to rise to the level of a taking," in other words, that the interference was "inevitably recurring."

Vaizburd v. United States, 384 F.3d 1278, 1282–83 (Fed. Cir. 2004) (internal quotation marks and citations omitted).

It is undisputed that the Government is liable for a taking of Banks's properties between 1950 and 1970; the parties only dispute whether the Government has fully mitigated whatever amount of damage it caused from the period of 1970 to the present. See Appellants' Br. 3 ("A taking has clearly arisen from the construction of the jetties. What is at issue is the nature and extent of the injury."); Cross-Appellant's Br. 3 ("The [Corps]...has long acknowledged that the [jetties] interrupt the net southerly drift of sands that otherwise would fortify downdrift shorelines. Since 1970, the Corps has conducted beach nourishment to replace sand transport interrupted by the jetties." (citations omitted)); see also Liability Op., 78 Fed. Cl. at 616 ("Erosion of property due to [G]overnment action is one example of physical injury that rises to the level of a taking. . . . The parties do not dispute that St. Joseph Harbor causes erosion and that erosion has occurred in the area of [Banks's] zone. The disputed issue in this case, therefore, is whether the [Glovernment's actions effectively offset the effects of St. Joseph Harbor on [Banks's] zone such that the erosion in [Banks's] zone is not attributable to the [Glovernment." (citations omitted)). Thus, the issues on appeal relate to any amount of compensation to be awarded.

III. Liability and Damages

A. The Court of Federal Claims Violated the Spirit of the Mandate

Banks first argues that the Court of Federal Claims erred by entering its alternative merits findings because our mandate in *Banks IV*, following our claim accrual holding, "necessarily addressed the merits of the permanence and mitigation issues," and thereby foreclosed further findings by the Court of Federal Claims on those

issues. Appellants' Br. 36; see id. at 34–39. "After our mandate issues, the mandate rule forecloses reconsideration of issues implicitly or explicitly decided on appeal.... [B]oth the letter and the spirit of the court's mandate must be considered." TecSec, Inc. v. Int'l Bus. Machs. Corp., 731 F.3d 1336, 1341–42 (Fed. Cir. 2013) (internal quotation marks and citations omitted). While we disagree with aspects of Banks's characterization of the mandate, we agree that the Court of Federal Claims violated the spirit of the mandate for the reasons explained below.

In Banks IV, we stated that "[t]he Court of Federal Claims' alternative merits discussion is not a final and appealable decision over which this court has jurisdiction." 741 F.3d at 1283. In Banks II, we similarly cabined our holding to whether Appellants met "their jurisdictional burden . . . on the basis of justifiable uncertainty of the permanence of the taking caused by the actual mitigation efforts of the Corps." 314 F.3d at 1310; see id. (citing to McNutt v. Gen. Motors Acceptance Corp., 298 U.S. 178, 189 (1936) (stating that parties must establish "jurisdictional facts... by a preponderance of the evidence" (emphasis added))). We found that Appellants' claims had not accrued until the Corps issued several reports in 1996, 1997, and 1999 (collectively, "the Reports") finding that "erosion was permanent^[7] and irreversible," 314 F.3d at 1310, which put Appellants sufficiently on notice that "the permanent nature of the taking is evident," id. at 1309 (quoting Boling v. United

⁷ Recognizing that the Supreme Court has rejected "the argument that [G]overnment action must be permanent to qualify as a taking," *Ark. Game & Fish Comm'n v. United States*, 568 U.S. 23, 33 (2012), we express no views on the use of the term "permanent" in claim accrual as applied to temporary takings claims.

States, 220 F.3d 1365, 1372 (Fed. Cir. 2000) (internal quotation marks omitted)); see Banks IV, 741 F.3d at 1282 ("As found by this court in Banks II, Appellants could not reasonably have known the damage was 'permanent' until the Corps issued [the] Reports showing that its mitigation efforts could not reverse the damage caused by its jetties." (citation omitted)). We reviewed a jurisdictional issue and expressly invited the Court of Federal Claims to "reconsider any merits rulings" it had previously made,

Under the "stabilization" doctrine, a takings claim for a gradual physical taking accrues "once it is clear that the process has resulted in a permanent taking and the extent of the damage is reasonably foreseeable." Boling, 220 F.3d at 1371; see Dickinson v. United States, 331 U.S. 745, 749 (1947) (stating that the law may treat gradual physical takings as claims that have not accrued until they have "stabilized," such that "the consequences of [the taking have so manifested themselves that a final account may be struck"). Pursuant to this doctrine, Government actions may defer when the statute begins to run by casting "justifiabl[e] uncertain[ty]" into plaintiffs' understanding of the permanency of the alleged taking. Applegate v. United States, 25 F.3d 1579, 1583 (Fed. Cir. 1994). Thus, it is not the contents of the Reports that stabilized Banks's claim; it is the Corps' changed understanding of the erosion and signaling to Banks that no further mitigation efforts would be attempted. Cf. Ark. Game & Fish, 568 U.S. at 33 ("Once the [G]overnment's actions have worked a taking of property, no subsequent action by the [G]overnment can relieve it of the duty to provide compensation for the period during which the taking was effective." (internal quotation marks and citation omitted)); Applegate, 25 F.3d at 1581 (referring to the stabilization doctrine as a means for freeing litigants from bringing claims "premature[ly]" or in a "piecemeal" fashion).

Banks IV, 741 F.3d at 1283; thus, we acknowledged that the mandate did not foreclose re-consideration of any findings related to merits or damages, see McDonnell Douglas Corp. v. United States, 323 F.3d 1006, 1013–14 (Fed. Cir. 2003) (finding that the Court of Federal Claims improperly interpreted our mandate as deciding a merits question where "[o]ur ruling had a limited scope, and we emphasized that point by refusing to address the merits").9

Our holding that our mandate did not include a finding on the amount of the Government's liability and damage caused comports with the distinction between jurisdictional and merits determinations in takings cases. To determine when a takings claim accrued and the statute of limitations began to run, we first must determine "when all the events which fix the [G]overnment's alleged liability have occurred and the plaintiff was or should have been aware of their existence." **Hopland** Band of Pomo Indians v. United States, 855 F.2d 1573, 1577 (Fed. Cir. 1988). Having satisfied ourselves of jurisdiction, we then remand for an analysis of whether the elements of a takings claim and damages have been met, see, e.g., N.W. La. Fish & Game Preserve Comm'n v. United States, 79 Fed. Cl. 400, 404-12 (2007) (undertaking de novo takings analysis following remand on jurisdiction); see also Fisher v. United States, 402 F.3d 1167, 1173 (Fed. Cir. 2005) (en banc in relevant part) (holding that the determination that a statute allows for Tucker Act jurisdiction and "on its merits" provides a moneymandating remedy must be a single analysis but "whether the facts of the case support a remedy, of course[,] remains as a separate question"); United States v. Dickinson, 152 F.2d 865, 867–68 (4th Cir. 1946) (evaluating jurisdiction and merits separately to see whether certain flooding events, "if found to exist," constitute takings),

Although the Court of Federal Claims did not violate the scope of the mandate in the manner Banks argues, it violated the mandate's spirit by ignoring our express warning that its alternative merits findings would not withstand appellate scrutiny. See Pacific Gas & Elec. Co. v. United States, 668 F.3d 1346, 1352 (Fed. Cir. 2012) (holding the spirit of the mandate must allow a trial court to reconsider certain findings because "[t]o hold otherwise would run the risk of not properly allowing for reconsideration of the mitigation damages sought... and [appellant would not be made whole"). We explicitly stated that, "[i]n light of the Court of Federal Claims' clearly erroneous fact finding on claim accrual, it is appropriate that there be no law-of-the-case or comparable obstacle preventing it from reconsidering its earlier, related findings on the merits." Banks IV, 741 F.3d at 1283 (empha-Nevertheless, the Court of Federal Claims ses added). ignored this statement and found that it was "bound by the mandate, and by its own prior findings," to adopt in toto these "clearly erroneous" alternative merits findings from Banks III without further consideration. 2015 WL 4939954, at *3 (internal quotation marks and citation omitted); see Banks v. United States, 120 Fed. Cl. 29, 40 (2015) ("[F]urther proceedings by this court on remand must be narrowly tailored Counter to [Appellants]' arguments, the Federal Circuit did not direct the court to engage in an unrestricted effort to reconsider all of the merits findings presented in the alternative in Banks III "). The Court of Federal Claims incorrectly interpreted our holding in *Banks IV* as "advi[c]e that such reconsideration is limited to only the factual findings that were premised on evidence that was considered purely to

aff'd, 331 U.S. 745 (1947). In other words, as we have stated, "the question of damages is discrete from the question of claim accrual." *Goodrich v. United States*, 434 F.3d 1329, 1336 (Fed. Cir. 2006).

support the court's erroneous determination that it lacked jurisdiction in *Banks III*." *Id*. We said no such thing. The Court of Federal Claims' misunderstanding led it to erroneously deny Appellants' requests to present new evidence following remand, inhibiting its ability to carry out the very task we had explicitly assigned to the court: a reconsideration of its earlier merits findings. *See id*. at 40–41. As explained below, certain of the Court of Federal Claims' alternative merits findings are clearly erroneous, and we remand to the Court of Federal Claims for a third time.

Moreover, contrary to the Court of Federal Claims' alternative merits findings, see Banks III, 102 Fed. Cl. at 191 n.113, the Reports are highly instructive on the issues of merits and damages. Here, the Government's admissions are entitled to great weight in the merits analysis because: the evidence submitted for purposes of claim accrual shows Government statements strongly supporting findings in favor of permanent, irreversible damage to Banks's properties as a result of the taking, see infra Section III.B.1 (reviewing findings of the Reports); J.A. 5423-521, 5633-41, and we have found such evidence persuasive in our jurisdictional review because it removes "uncertainty" that previously existed with respect to the Government's position on the success of its mitigation efforts, Applegate, 25 F.3d at 1583. The date of stabilization marks the time from which the "account may be struck," Dickinson, 331 U.S. at 749, so we follow the instruction that expert testimony "in conflict with contemporaneous documents" from the time of the alleged harm, here, 2000, deserves "little weight, particularly when the crucial issues involve mixed questions of law United States v. U.S. Gypsum Co., 333 U.S. and fact." 364, 395 (1948); see Cucuras v. Sec'y of Dep't of Health & Human Servs., 993 F.2d 1525, 1528 (Fed. Cir. 1993) (citing Gypsum, 333 U.S. at 395). The contemporaneous documentary evidence here, the Reports, continues a decades-long understanding of the Government as to its liability and the need for mitigation efforts, see infra Section III.B.1, as the Government conceded, see Banks III, 102 Fed. Cl. at 189, and that understanding only has changed upon the start of litigation with the Government's new expert testimony, cf. St. Bernard Parish Gov't v. United States, 126 Fed. Cl. 707, 717–18 (2016) (finding Government's expert testimony in a takings case unreliable when it was "in direct conflict with the Government's prior admissions and testimony"). Thus, the expert testimony considered by the Court of Federal Claims deserves "little weight" in view of the highly instructive and contemporaneous Reports. See Gypsum, 333 U.S. at 395.

B. The Court of Federal Claims Clearly Erred in Its Damages Analysis

1. The Finding of a Sandy Shoreline

The Court of Federal Claims determined that all but one of Banks's properties were located on an area of sandy shoreline, see Banks III, 102 Fed. Cl. at 180, and, therefore, the Government successfully mitigated the erosion with sand replenishment efforts beginning in 1970, id. at 189. In reaching this conclusion, the Court of Federal Claims acknowledged the Reports indicate the lakeshore is cohesive and that the Government's testimony at trial presented a changing stance on the classification. Liability Op., 78 Fed. Cl. at 628 ("There is no dispute that, prior to this litigation, [the Government] consistently held the position that the shore in the area south of St. Joseph Harbor was cohesive." (citations omitted)); see Banks III, 102 Fed. Cl. at 152 (repeating admission). However, the Court of Federal Claims found the Government's evidence, in the form of testimony taken after the Reports issued, more persuasive because it focused specifically on Banks's thirty-seven properties, see Banks III, 102 Fed. Cl. at 152–53, 169–70, and purportedly demonstrated greater understanding of an evolving science of lakeshore classification, *see*, *e.g.*, *id.* at 153, 171–73. Therefore, it classified the Banks's properties as having a sandy shoreline. *Id.* at 180.

Banks contends these findings are clearly erroneous because the Court of Federal Claims adopted the testimonial findings of the Corps' expert, Dr. Robert Nairn, even though his testimony was "not generally accepted" or "based on appropriate methodology" and was contradicted by other facts on record. Appellants' Br. 45; see id. at 13–19, 39–48. In addition, Banks contends that the Reports and the testimony of Banks's expert, Dr. Scudder Mackey, correctly describe the lakeshore as cohesive, such that erosion damage attributable to the Government cannot be mitigated and is irreversible. *Id.* at 48–51. The Court of Federal Claims' adoption of Dr. Nairn's finding of a sandy shoreline was clearly erroneous.

"[T]he plaintiff must establish economic impact" in takings cases. CCA Assocs. v. United States, 667 F.3d 1239, 1245 (Fed. Cir. 2011). As referenced above, see supra Section III.A, the Reports are entitled to great weight and sufficiently demonstrate a determination of cohesiveness, leading to irreversible damage in this case. First, in the Reports, the Government acknowledged that it caused erosion south of the jetties and that mitigation efforts were not working. See J.A. 5434 (restating determination from a May 1973 report that the jetties were "trap[ping] approximately 84,000 [cubic meters] of sediment per year" and finding that, from 1992, "fine sand ha[d] been a less-than-ideal material for nourishment" because it did "not fulfill the role of the coarser sediment which forms a large part of the natural beach closer to shore"), 5638 ("[P]ast [nourishment] efforts have been marginal at executing and maintaining a consistent nourishment plan "). The shift from nourishment using fine sand to coarse sand confirms the Government's unsuccessful attempts at mitigation. See J.A. 5435

(demonstrating that only fine sand was used until 1986, at which point fine and coarse sand each were used at various times). Moreover, even the changed nourishment plan was found to "indicate[] that the [coarser sand] was no more effective . . . in protecting the underlying till from exposure and downcutting^[10]" in the particular sector studied. J.A. 5515. The Reports further confirmed evidence of downcutting that was noticed in "relatively even distribution" of nearshore lakebed, J.A. 5493, J.A. 5638 (describing broad evidence of downcutting before mitigation efforts began and after installation of the jetties for the entirety of the St. Joseph Harbor area), and that the shore of properties south of the jetties was classified as cohesive, J.A. 5521 ("[T]he nourishment requirements for cohesive shores downdrift of harbor structures... are more complicated than the requirements for similar situations on sandy shores."), 5636 (determining that "much, or perhaps most, of the coastlines of Lake Michigan" may be classified as cohesive). This is persuasive evidence that the shoreline south of the jetties, where Banks's properties are located, exhibits cohesive properties such that certain erosion to the property is irreversible and may not be mitigated.

Second, as Dr. Nairn conceded, identification of shore-line composite falls along a spectrum. See Banks III, 102 Fed. Cl. at 164 (crediting Dr. Nairn's testimony regarding a "spectrum" of shorelines), 169–172 (further defining the spectrum). In a 2009 sediment budget report, Dr. Nairn identifies a cohesive shore as one "having less than 10[%]

Downcutting is a process of erosion for cohesive substrates whereby, "[i]f the sand cover to glacial till is depleted, the energy of the waves and the shifting of the sand, which acts as 'sandpaper,' can cause the lake bottom to erode and thus lower." *Liability Op.*, 78 Fed. Cl. at 622 (citation omitted).

to 30% sand content...in the eroding bluff and nearshore sediment." 11 J.A. 8270. We find persuasive the Government's explanation, as accepted by the Court of Federal Claims, that lakebeds with cohesive properties contain some amount of sand and that the percentage difference of sand in the substratum will affect the properties of the shoreline. See Banks III, 102 Fed. Cl. at 172. Contrary to the Court of Federal Claims' findings, see id. at 180, Dr. Nairn's explanation of a spectrum of shoreline composites is consistent with the Reports, which posit that "the concept of a sandy coastline may be incorrect" and that initial studies of Lake Michigan "suggest that much, or perhaps most, of the coastline . . . consist[s] of an underlayer of consolidated material (usually clay or till) covered by a layer of non-consolidated material (usually Although the Government has atsand)," J.A. 5636. tempted to change its arguments following the Reports, its new theory of classification simply confirms that the shoreline has cohesive properties that therefore exhibit irreversible damage due to erosion.

Third, additional evidence supports a finding of at least some permanent glacial till erosion in Banks's properties that cannot be mitigated. Both parties agree that, even if the lakebed were sandy or predominantly

Banks criticizes Dr. Nairn for identifying a purportedly "new category of shoreline, known as 'predominantly sandy," Appellants' Br. 43 (citing J.A. 4709), but then failing to "identify any other experts in his field [who] define a cohesive shoreline through its percentage sand content," *id.* at 44. Banks is incorrect. In Dr. Nairn's 2009 Report, he identifies several other experts in the field who made similar findings indicating that the amount of sediment in the substratum compared to the amount of sand, or other material, is determinative of the sandy/cohesive classification. *See* J.A. 8260–67.

sandy, the portion of the shoreline comprised of cohesive material would still exhibit permanent damage from erosion caused, in part, by the Corps' jetties. See Banks III, 102 Fed. Cl. at 183 (citing Dr. Nairn's finding that "the rate of lakebed downcutting in much of [Banks]' zone was lower in the time period after mitigation began" (emphasis added)); J.A. 6030 (detailing, in Dr. Mackey's 2009 Report, "irreversible lakebed downcutting" affecting the lakeshore), 8272 (stating, in Dr. Nairn's 2009 Report, that "[p]redominantly sandy and fully sandy shores can also erode irreversibly—certainly this is the case for much of the [Banks's] shore as will be shown"), ("For . . . predominantly sandy and fully sandy shores to erode irreversibly [g]lacial sediment deposits [of the cohesive substrate].... are exposed to erosional forces of The Court of Federal Claims waves and currents."). agreed that "[t]he record indicates that the shoreline in [Banks's] zone is neither pure sand nor pure cohesive material. Certain areas contain layers of both cohesive and sandy material." Banks III, 102 Fed. Cl. at 164. Accordingly, the Court of Federal Claims' determination that the Corps has fully mitigated effects of erosion is clearly erroneous. Given the presence of cohesive shoreline and evidence of permanent damage found over a period of decades, Banks has shown that a portion of the Government-caused erosion is irreversible throughout the relevant period and Banks must be compensated for this damage on remand.

2. The Finding That, If Unmitigated, the Corps Was Responsible for 30% Liability of Erosion

The Court of Federal Claims accepted as "the law of this case that, if unmitigated, the jetties are responsible for 30% of the erosion taking place in [Banks's] zone." *Id.* at 180 (referring to a finding made in *Liability Op.*, 78 Fed. Cl. at 654–57). Specifically, the Court of Federal Claims found that the Corps acknowledged that its 1973 report claimed 30% liability for erosion caused by the

jetties based on a determination that 110,000 of 316,000 cubic yards of sand per year were interrupted in the southerly littoral drift. *See Liability Op.*, 78 Fed. Cl. at 656.¹²

Banks contends this finding is clearly erroneous because the Government "substantially undercounted the volume of sand being blocked by the jetties, as well as the jetties['] percentage contribution to the erosion in [Banks's] zone" and "substantially overcounted the volume of sand block[ed] by the [Chesapeake and Ohio Railway Company ('C&O')] and [Michigan Department of Transportation ('MDOT')] revetments." ¹³ Appellants' Br.

The Court of Federal Claims determined that the amount of sand found interrupted by the jetties was directly relevant to the apportionment of erosion attributable to the Corps. See Liability Op., 78 Fed. Cl. at 641 ("This blockage [of 110,000 cubic yards] was considered by the Corps to be causing 30% of the erosion"); see also id. at 636 ("[Banks] acknowledge[s] that the Corps viewed 110,000 cubic yards per year as the total amount of sediment blocked by the piers . . . and that amount was considered to be 30% of the total annual loss to the littoral zone." (internal quotation marks and citation omitted)).

The C&O and MDOT revetments protect certain rail and highway routes from erosion. See Liability Op., 78 Fed. Cl. at 651. These revetments were in place prior to the operable year of mitigation in this case, 1970. Id. The Corps' 1973 Report first estimating its 30% attribution, J.A. 5757, 5768, stated that the percentage would apply "regardless" of the construction of these revetments, Liability Op., 78 Fed. Cl. at 652 (citing the 1973 Report); see 5717–74 (portions of the 1973 Report on record). Because the volume of sand blocked by the MDOT and C&O revetments was not part of the 30% liability determination, the Court of Federal Claims could not have

47; see id. at 45-51. Neither party has presented evidence on how a liability determination would change if the shoreline were classified as partially cohesive. See generally Appellants' Br.; Cross-Appellant's Br. On remand, the Court of Federal Claims shall determine whether the admission of 30% liability based on sand deposits should be adjusted based on the new shoreline classification and, if so, evaluate the Government's partial mitigation efforts in light of this new finding.

Moreover, in the *Liability Op.*, the Court of Federal Claims' percentage liability determination was based on an accounting that 110,000 cubic vards of sand per year were interrupted by the Corps in the southerly littoral drift. See 78 Fed. Cl. at 656. However, in the mitigation portion of the opinion, the Court of Federal Claims credited Dr. Nairn's 2009 Report estimates and "h[e]ld[] that the preponderance of the credible evidence establishes that the piers interrupt net southerly sediment transport in the area of St. Joseph Harbor at the rate of 50,000 cubic yards per year," without reconciling its separate finding of more than double the amount of sand interrupted by the Corps for purposes of liability. *Id.* at 644. The Court of Federal Claims must base its mitigation determination on consistent application of sand dredged and replaced, to the extent the parties agree that sand deposits and removal is the relevant means of determining mitigation for a cohesive shoreline.

Further, the Court of Federal Claims shall review evidence of erosion and mitigation up to the present day. The Court of Federal Claims adopted the mitigation analysis it made in *Banks III*, which found successful mitigation "between 1970 and the publication of Dr. Nairn's [2009 Report]." *Banks III*, 102 Fed. Cl. at 189; see

[&]quot;overcounted" the volume of sand blocked by these revetments, as Banks alleges. *See* Appellants' Br. 47.

id. at 182–89 (The Effectiveness of Defendant's Mitigation Efforts). The Court of Federal Claims, in an earlier opinion on damages, explicitly directed future proceedings to consider evidence through the date of trial. See Banks v. United States, 88 Fed. Cl. 665, 683 n.13 (2009) ("Because the trial on damages will occur approximately a decade after the taking, the court will need to address...just compensation for property lost between the date of taking and the date of trial."). On remand, the Court of Federal Claims is directed to consider evidence up to the present day to ensure that no material change to the Corps' mitigation efforts has occurred.

3. Damages Findings for Unmitigated Erosion

As stated above, on remand the Court of Federal Claims shall consider new evidence to make a proper damages determination. There are several inconsistencies in the Court of Federal Claims' initial mitigation analysis that warrant reconsideration. First, the Court of Federal Claims clearly erred in failing to explain why no damages were awarded, even though it credited the testimony of the Government's expert, Mr. David Burgoyne, that five of the forty-one parcels appraised diminished in value. See Banks III, 102 Fed. Cl. at 201-02. Although "[trial] courts necessarily must have considerable discretion to select the method of valuation that is most appropriate in light of the facts of the particular case," Seravalli v. United States, 845 F.2d 1571, 1575 (Fed. Cir. 1998), they "must apply that test correctly," Yankee Atomic Elec. Co. v. United States, 536 F.3d 1268, 1273 (Fed. Cir. 2008). It does not appear that the Court of Federal Claims properly applied the methods and market study employed by Mr. Burgoyne here. Mr. Burgoyne found that the value of properties owned by the Notre Dame Path Association, Neuser, Chapman, Jackson, and Renner plaintiffs diminished in value by \$65,000, \$305,000, \$35,000, \$30,000, and \$30,000, respectively. Banks III, 102 Fed. Cl. at 202. Despite an estimated

\$465,000 in lost property value, it appears that the Court of Federal Claims awarded no damages for these five properties. See J.A. 1 (awarding \$1,956.27 to other property owners); Banks III, 102 Fed. Cl. at 208 (finding Mr. Burgoyne's testimony of no adverse reaction to home values "well-supported and reasonable," without addressing the five properties where diminution in value was found). On remand, the Court of Federal Claims must fairly and completely consider appraisals with respect to these five properties.

Second, the Court of Federal Claims credited Mr. Burgovne's conclusion that "there didn't appear to be any adverse reaction in the marketplace" to Banks's properties following the taking because "the value of the property in [Mr. Burgoyne's] 1950 appraisal was the same as in his 2000 appraisal." Banks III, 102 Fed. Cl. at 201 (internal quotation marks and citation omitted), 202. We agree with Banks that Mr. Burgoyne "took no account of actual lost property" in his 2000 appraisal, since he calculated price based upon property width or lake frontage rather than value of total acreage of properties. Appellants' Br. 53. Mr. Burgoyne claimed that depth of beachfront was insufficient to change market value because the valuation of lakefront property is "special." Banks III, 102 Fed. Cl. at 203; see J.A. 4441-42 ("Q: And in your opinion, that change in the depth of the beach had absolutely no effect on the value of the . . . property?" "A: It still has a beach and that's related to the water levels."), 9059-60 (calculating "Parcel Width (feet)" but not depth).

It cannot be the case that acres of property are lost to erosion and the value of that total property is not affected. The purpose of awarding damages in takings cases is to restore the owner of private property to "as good a position pecuniarily as if his property had not been taken." Olson v. United States, 292 U.S. 246, 255 (1934). Property lost due to Government-caused erosion manifestly has some monetary value. See Almota Farmers Elevator &

Warehouse Co. v. United States, 409 U.S. 470, 478 (1973) ("The constitutional requirement of just compensation derives as much content from the basic equitable principles of fairness, as it does from technical concepts of property law." (internal quotation marks and citations omitted)). The Court of Federal Claims abused its discretion by solely relying upon Mr. Burgovne's method that failed to account for lost acreage. See Home Savs. of Am., On remand, the Court of Federal 399 F.3d at 1346. Claims must consider all relevant evidence while following the general rules of damages calculations to assess the value of all land rather than only land containing residences. See Yankton Sioux Tribe v. United States, 623 F.2d 159, 177 (Ct. Cl. 1980) (declining to depart from normal rule of valuation without good reason). If the value of lost property in this case cannot be reasonably determined based on estimates of surrounding land values, the Court of Federal Claims "may determine damages based on the price the [G] overnment has paid for [erosion] in comparable situations." Ridge Line, Inc. v. United States, 346 F.3d 1346, 1359 (Fed. Cir. 2003). 14

The Court of Federal Claims properly noted that the damages calculation would include any reasonable shoreline protection expenses accrued by Banks from 1950 to 2000. Banks IV, 102 Fed. Cl. at 210–12; see Banks, 2015 WL 4939954, at *3–4. The parties entered into the Joint Stipulation with respect to this value covering the period from 1950 to 1970 and, accordingly, damages were awarded. J.A. 4–6. This award of damages is not challenged here, see generally Appellants' Br.; Cross-Appellant's Br., and is not affected by our holding today. Appellants will also be entitled to damages for shore protection measures from 1970 to the present based on the Corps' percent liability determined on remand. This additional amount shall be determined from the \$2.2

Finally, for the period of 1950 to 2000, Banks presented evidence below of damages lost to erosion valued at \$19,113,621 based on "hedonic regression [methodology] testimony to determine the loss of diminution of value reflected in the appraisal numbers." Appellants' Br. 52; see id. at 55. According to Banks, a hedonic regression model "looks at the price of a good and tries to determine how much of that price is due to each of the attributes that enter into the market pricing." Id. at 20 (citing J.A. 2020-22). The standard method of proving damages in a takings case is to determine the value of a property before and after a taking occurs, see United States v. Va. Elec. & Power Co., 365 U.S. 624, 632 (1961), which, as the Court of Federal Claims correctly found, does not comport with hedonic regression analysis, see Banks III, 102 Fed. Cl. at 196-98 (noting that hedonic regression analysis did not demonstrate a nexus between the alleged lost appreciation of property and the physical erosion). On remand, Banks may submit a new damages estimate. 15 We note that, irrespective of problems with damages calculations submitted by both parties, "a judge may award damages, even if he does not fully credit that party's methodology." Precision Pine & Timber, Inc. v. United States, 596 F.3d 817, 833 (Fed. Cir. 2010). A trial court may even "modify [a party's] methodology for calculating damages" and "resolve conflicting evidence by weighing the evidence and making its own findings." Id. (citations omitted); see LaSalle Talman Bank, F.S.B. v. United States, 462 F.3d 1331, 1336-38 (Fed. Cir. 2006) (upholding a modified

million estimate of the cost of relevant shoreline measures that Banks submitted in *Banks III*. See 102 Fed. Cl. at 211.

¹⁵ To the extent the Court of Federal Claims finds any mitigation began in 1970, a division of damages estimates into pre- and post-1970 property values may be appropriate.

methodology determination by the trial court). The operative test is whether evidence on "the quantum of damages [has been] shown to a reasonable approximation." Ark. Game & Fish Comm'n v. United States, 736 F.3d 1364, 1379 (Fed. Cir. 2013) (emphasis added). The Court of Federal Claims shall reconsider the relevant damages findings in accordance with these principles.

4. Damages Findings for Future Harms

Banks contends that the Court of Federal Claims erred in "holding that [Banks] will suffer no future damages" because "the evidence in the trial record is that future erosion is a certainty, but any future mitigation is entirely speculative." Appellants' Br. 64 (capitalization omitted), 65. We agree with Banks.

The Corps has not mitigated all of its jetty-caused erosion. See supra Section III.B.1. Whatever percentage liability the Court of Federal Claims determines exists for the Corps on remand shall be applied to reasonably foreseeable future losses or shore protection measures. See Dickinson, 331 U.S. at 751 ("If the resulting erosion" which, as a practical matter, constituted part of the taking was in fact preventable by prudent measures, the cost of that prevention is a proper basis for determining the damage "); Ridge Line, 346 F.3d at 1359 (stating, in a gradual physical takings case, that just compensation includes recovery for "all damages, past, present and prospective" (internal quotation marks and citation omitted)). Here, there will be future losses to the proper-See Banks III, 102 Fed. Cl. at 202 (providing Mr. Burgoyne's testimony that erosion would not impact structures on properties located "hundreds of feet from any improvements" "for many, many years" (citation omitted)); Banks, 88 Fed. Cl. at 687 ("The court recognizes the possibility that the entirety of some [of Banks's] properties might be eroded away over time if [Banks] do[es] not institute shore protection measures.").

We further agree with Banks that the Court of Federal Claims erred by assuming that "future erosion will be mitigated." Appellants' Br. 65. The Court of Federal Claims stated that Banks's "argument that funding for the mitigation program 'is in serious jeopardy' of lapsing in the future is speculative and dependent upon future actions by the [G]overnment." Banks III, 102 Fed. Cl. at 213. While funding for the mitigation efforts existed in 2011. Banks showed at trial that the office responsible for carrying out mitigation efforts at St. Joseph Harbor had "no funding available at all for" fiscal year 2012, J.A. 2317. Moreover, the Reports admitted that "[i]nconsistent funding [of the nourishment plans for St. Joseph Harbor] remains a significant issue." J.A. 5639. On remand, the Court of Federal Claims shall consider whether funding for mitigation efforts at St. Joseph Harbor has continued beyond 2011 and, if funding has ceased or diminished, shall award appropriate additional future damages.

Banks has only asked for remand on the award of future shore protection measures, see Appellants' Br. 70–71; however, the Court of Federal Claims determined, and we agree, that an award of the Corps' liability percentage for shore protection measures or the value of property lost for future foreseeable erosion is appropriate here, see Banks, 88 Fed. Cl. at 688. Neither party submitted evidence of the reasonable projected value of future property loss in the initial trial, see Banks III, 102 Fed. Cl. at 214–15, and the Court of Federal Claims did not allow parties to submit additional evidence following remand from our court based on its mistaken understanding of the scope of our mandate, see Banks, 2015 WL 4939954, at *2-3 (denying Banks's request for reconsideration and reexamination). In determining future damages, the parties may submit evidence of the value of future lost property on remand to assist the Court of Federal Claims in determining an appropriate award for future damages.

The Court of Federal Claims also determined that for future shoreline estimates measures were not "sound economy" as required by Vaizburd, 384 F.3d at 1286, because they were estimated to cost more than the value of the properties upon which they are installed, Banks III, 102 Fed. Cl. at 214. Appellants argue they are entitled to some portion of shore protection measures ranging from \$17,794,053 (for quarrystone revetments) to \$56,853,552 (for step revetments). Appellants' Br. 66. The Court of Federal Claims did not clearly err in finding insufficient evidence to justify the value of shoreline protection measures claimed by Banks, but erred in preventing Banks from submitting additional evidence on future damages. See Banks, 120 Fed. Cl. at 34 & n.3, 40-41. On remand, Appellants may submit additional evidence on future shoreline protection measures and argue why their estimates are sound economy.

5. Damages for Value of Lost Sand

Banks contends that it submitted evidence of the "value of all of the sand taken," Appellants' Br. 68, totaling approximately "\$1,397,440 in damages per year since 1950," id. at 69-70, to which it is entitled as part of the overall damages calculation. Banks offers no legal support for the proposition that courts may award just compensation on a permanent physical takings claim for the value of lost resources. Indeed, in a case where plaintiffs similarly claimed the value of a lost resource in addition to the value of the land it was located on, our predecessor court denied the claim. See Georgia-Pacific Corp. v. United States, 640 F.2d 328, 361 (Ct. Cl. 1980) ("There exists no basis, in fact or in law, for awarding plaintiff additional just compensation in the form of severance damage for the taking of such gravel deposit areas."). Instead, as the Court of Federal Claims noted, "[i]n a permanent taking scenario such as this case, plaintiffs are entitled to the value of the property permanently lost,

rather than the restoration of property lost." Banks, 88 Fed. Cl. at 684. Banks cites to Stop the Beach Renourishment, Inc. v. Florida Department of Environmental Protection in support of its arguments. See Appellants' Br. 70 (citing 560 U.S. 702, 708 (2010)). However, Stop the Beach involves littoral landowners' rights to accretions (naturally-forming additions of land to property caused by sand, sediment, and deposit), and relictions fland once covered by water that becomes dry when water recedes), which are a separate form of taking from monetary damages for erosion. See 560 U.S. at 708. Banks's claims do not allege a taking of either of these types of rights to their littoral property. 16 Accordingly, the Court of Federal Claims did not err in denying an award for the value of lost sand and, on remand, it shall not grant any such award.

CONCLUSION

We have considered the parties' remaining arguments and find them unpersuasive. Accordingly, the Opinions and Orders of the U.S. Court of Federal Claims are

VACATED AND REMANDED

Costs

Costs to Banks.

¹⁶ Banks also cites to a Michigan Supreme Court case *Peterman v. Department of Natural Resources. See* Appellants' Br. 70 (citing 446 Mich. 177, 197–98 (1994)). Not only is *Peterman* not binding, that case states that landowners may receive compensation for damage to beaches *below* the high-water mark in certain instances, *see* 446 Mich. at 180, a claim again not alleged here and contrary to *Owen. See* 851 F.2d at 1412 (holding only erosion above the high water mark is entitled to just compensation).